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# **ESEA FLEXIBILITY REQUEST**

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**Minnesota** Department of  
**Education**

February 7, 2012

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## COVER SHEET FOR ESEA FLEXIBILITY REQUEST

Legal Name of Requester: Minnesota Department of Education	Requester's Mailing Address: 1500 West Highway 36 Roseville, MN 54113
State Contact for the ESEA Flexibility Request  Name: Sam Kramer  Position and Office: Federal Education Policy Specialist, No Child Left Behind Programs  Contact's Mailing Address: 1500 West Highway 36 Roseville, MN 54113  Telephone: 651-582-8454  Fax: 651-582-8727  Email address: samuel.kramer@state.mn.us	
Chief State School Officer (Printed Name): Dr. Brenda Cassellius	Telephone: 651-582-8204
Signature of the Chief State School Officer:  X <i>Dr. Brenda Cassellius</i>	Date: 11-14-2011
The State, through its authorized representative, agrees to meet all principles of the ESEA Flexibility.	

**WAIVERS**

By submitting this flexibility request, the SEA requests flexibility through waivers of the ten ESEA requirements listed below and their associated regulatory, administrative, and reporting requirements by checking each of the boxes below. The provisions below represent the general areas of flexibility requested; a chart appended to the document titled *ESEA Flexibility Frequently Asked Questions* enumerates each specific provision of which the SEA requests a waiver, which the SEA incorporates into its request by reference.

- 1. The requirements in ESEA section 1111(b)(2)(E)-(H) that prescribe how an SEA must establish annual measurable objectives (AMOs) for determining adequate yearly progress (AYP) to ensure that all students meet or exceed the State's proficient level of academic achievement on the State's assessments in reading/language arts and mathematics no later than the end of the 2013–2014 school year. The SEA requests this waiver to develop new ambitious but achievable AMOs in reading/language arts and mathematics in order to provide meaningful goals that are used to guide support and improvement efforts for the State, LEAs, schools, and student subgroups.
- 2. The requirements in ESEA section 1116(b) for an LEA to identify for improvement, corrective action, or restructuring, as appropriate, a Title I school that fails, for two consecutive years or more, to make AYP, and for a school so identified and its LEA to take certain improvement actions. The SEA requests this waiver so that an LEA and its Title I schools need not comply with these requirements.
- 3. The requirements in ESEA section 1116(c) for an SEA to identify for improvement or corrective action, as appropriate, an LEA that, for two consecutive years or more, fails to make AYP, and for an LEA so identified and its SEA to take certain improvement actions. The SEA requests this waiver so that it need not comply with these requirements with respect to its LEAs.
- 4. The requirements in ESEA sections 6213(b) and 6224(e) that limit participation in, and use of funds under the Small, Rural School Achievement (SRSA) and Rural and Low-Income School (RLIS) programs based on whether an LEA has made AYP and is complying with the requirements in ESEA section 1116. The SEA requests this waiver so that an LEA that receives SRSA or RLIS funds may use those funds for any authorized purpose regardless of whether the LEA makes AYP.
- 5. The requirement in ESEA section 1114(a)(1) that a school have a poverty percentage of 40 percent or more in order to operate a schoolwide program. The SEA requests this waiver so that an LEA may implement interventions consistent with the turnaround principles or interventions that are based on the needs of the students in the school and designed to enhance the entire educational program in a school in any of its priority and focus schools, as appropriate, even if those schools do not have a poverty percentage of 40 percent or more.

6. The requirement in ESEA section 1003(a) for an SEA to distribute funds reserved under that section only to LEAs with schools identified for improvement, corrective action, or restructuring. The SEA requests this waiver so that it may allocate section 1003(a) funds to its LEAs in order to serve any of the State's priority and focus schools.
7. The provision in ESEA section 1117(c)(2)(A) that authorizes an SEA to reserve Title I, Part A funds to reward a Title I school that (1) significantly closed the achievement gap between subgroups in the school; or (2) has exceeded AYP for two or more consecutive years. The SEA requests this waiver so that it may use funds reserved under ESEA section 1117(c)(2)(A) for any of the State's reward schools.
8. The requirements in ESEA section 2141(a), (b), and (c) for an LEA and SEA to comply with certain requirements for improvement plans regarding highly qualified teachers. The SEA requests this waiver to allow the SEA and its LEAs to focus on developing and implementing more meaningful evaluation and support systems.
9. The limitations in ESEA section 6123 that limit the amount of funds an SEA or LEA may transfer from certain ESEA programs to other ESEA programs. The SEA requests this waiver so that it and its LEAs may transfer up to 100 percent of the funds it receives under the authorized programs among those programs and into Title I, Part A.
10. The requirements in ESEA section 1003(g)(4) and the definition of a Tier I school in Section I.A.3 of the School Improvement Grants (SIG) final requirements. The SEA requests this waiver so that it may award SIG funds to an LEA to implement one of the four SIG models in any of the State's priority schools.

*Optional Flexibility:*

An SEA should check the box below only if it chooses to request a waiver of the following requirements:

- The requirements in ESEA sections 4201(b)(1)(A) and 4204(b)(2)(A) that restrict the activities provided by a community learning center under the Twenty-First Century Community Learning Centers (21st CCLC) program to activities provided only during non-school hours or periods when school is not in session (*i.e.*, before and after school or during summer recess). The SEA requests this waiver so that 21st CCLC funds may be used to support expanded learning time during the school day in addition to activities during non-school hours or periods when school is not in session.

**ASSURANCES**

By submitting this application, the SEA assures that:

- 1. It requests waivers of the above-referenced requirements based on its agreement to meet Principles 1 through 4 of the flexibility, as described throughout the remainder of this request.
- 2. It will adopt English language proficiency (ELP) standards that correspond to the State's college- and career-ready standards, consistent with the requirement in ESEA section 3113(b)(2), and that reflect the academic language skills necessary to access and meet the new college- and career-ready standards, no later than the 2013–2014 school year. (Principle 1)
- 3. It will develop and administer no later than the 2014–2015 school year alternate assessments based on grade-level academic achievement standards or alternate assessments based on alternate academic achievement standards for students with the most significant cognitive disabilities that are consistent with 34 C.F.R. § 200.6(a)(2) and are aligned with the State's college- and career-ready standards. (Principle 1)
- 4. It will develop and administer ELP assessments aligned with the State's ELP standards, consistent with the requirements in ESEA sections 1111(b)(7), 3113(b)(2), and 3122(a)(3)(A)(ii). (Principle 1)
- 5. It will report annually to the public on college-going and college credit-accumulation rates for all students and subgroups of students in each LEA and each public high school in the State. (Principle 1)
- 6. If the SEA includes student achievement on assessments in addition to reading/language arts and mathematics in its differentiated recognition, accountability, and support system and uses achievement on those assessments to identify priority and focus schools, it has technical documentation, which can be made available to the Department upon request, demonstrating that the assessments are administered statewide; include all students, including by providing appropriate accommodations for English Learners and students with disabilities, as well as alternate assessments based on grade-level academic achievement standards or alternate assessments based on alternate academic achievement standards for students with the most significant cognitive disabilities, consistent with 34 C.F.R. § 200.6(a)(2); and are valid and reliable for use in the SEA's differentiated recognition, accountability, and support system. (Principle 2)
- 7. It will report to the public its lists of reward schools, priority schools, and focus schools at the time the SEA is approved to implement the flexibility, and annually thereafter, it will publicly recognize its reward schools. (Principle 2)

8. Prior to submitting this request, it provided student growth data on their current students and the students they taught in the previous year to, at a minimum, teachers of reading/language arts and mathematics in grades in which the State administers assessments in those subjects in a manner that is timely and informs instructional programs, or it will do so no later the deadline required under the State Fiscal Stabilization Fund. (Principle 3)
9. It will evaluate and, based on that evaluation, revise its own administrative requirements to reduce duplication and unnecessary burden on LEAs and schools. (Principle 4)
10. It has consulted with its Committee of Practitioners regarding the information set forth in its request.
11. Prior to submitting this request, it provided all LEAs with notice and a reasonable opportunity to comment on the request and has attached a copy of that notice (Attachment 1) as well as copies of any comments it received from LEAs (Attachment 2).
12. Prior to submitting this request, it provided notice and information regarding the request to the public in the manner in which the State customarily provides such notice and information to the public (*e.g.*, by publishing a notice in the newspaper; by posting information on its website) and has attached a copy of, or link to, that notice (Attachment 3).
13. It will provide to the Department, in a timely manner, all required reports, data, and evidence regarding its progress in implementing the plans contained throughout this request.

**If the SEA selects Option A or B in section 3.A of its request, indicating that it has not yet developed and adopted all guidelines for teacher and principal evaluation and support systems, it must also assure that:**

14. It will submit to the Department for peer review and approval a copy of the guidelines that it will adopt by the end of the 2011–2012 school year. (Principle 3)

## INTRODUCTION

On August 16, 2011, due in part to unique conditions and delayed reporting created by the state's government shutdown, Minnesota applied for a limited and conditional waiver from certain provisions of No Child Left Behind. Shortly after, President Obama authorized Secretary Duncan to offer every state the opportunity to apply for waivers from the current No Child Left Behind law. As a result of the larger waiver opportunity and resulting guidance from the U.S. Department of Education, the Administration did not take action on Minnesota's temporary waiver request.

Due to the careful thought and consideration put into the initial waiver request, Minnesota was primed and ready to take on the challenge of implementing a better approach to school accountability. The waiver request we submit today presents a bold and creative accountability plan that we believe is better and more appropriate for the needs of Minnesota.

It is no secret that Minnesota ranks at the top of states in overall student achievement on many indicators, including our NAEP and ACT performance. However, we also know those results are not reflective of the academic performance of all Minnesota children. Our state ranks among the worst in the nation for our large achievement gaps. This is untenable and unacceptable. It is notable that among other measures, our new accountability plan measures progress on narrowing achievement gaps as one very important indicator of school performance.

When Secretary Duncan visited Minnesota in January of 2011, he remarked on Minnesota's seeming lack of urgency to aggressively tackle this most pressing issue. That lack of urgency is no more. It has been replaced by a deep and compelling urgency, and a commitment to lead the nation on the important work of replacing outdated accountability measures with a plan that provides a true picture of school performance and sets high expectations for every student in our state. It is a plan that makes sense for our teachers, our schools, our stakeholders, and most importantly, for our children.

This ESEA Flexibility Request is just one part of this larger plan for Minnesota's education system. The Request represents the next step forward in a year that

has been full of them. In early 2011, newly-elected Governor Dayton announced a Seven-Point Plan for education built around:

1. Funding for the Future
2. Better Early Childhood Education
3. Raise the Bar-Close the Gap
4. Reading Well by 3<sup>rd</sup> Grade
5. Support Teaching for Better Schools
6. Better Testing, Better Results
7. A Department that Provides Educational Leadership and Support

Since the Seven-Point Plan was announced, we have made great strides in almost every area. We increased per pupil funding for K12 education. A new Literacy Incentive Aid Fund of \$50 million was created to promote early literacy. We were awarded a Race to the Top Early Learning Grant to build on our innovative system of early childhood education, and were awarded a major Promise Neighborhood Grant in North Minneapolis. The legislature passed a law that adopted WIDA Standards for English Learners. We launched a statewide literacy campaign and set accountability targets to ensure all students are reading by 3<sup>rd</sup> Grade. We passed legislation to allow for alternative pathways to teaching, and adopted principal and teacher evaluation systems. We contracted with a new testing vendor that allows us to use online formative assessments that can inform classroom instruction. MDE restructured to create a more collaborative and supportive SEA for districts and schools.

These positive steps have put us on a path toward a dramatically reformed education system that is more responsive to the needs of students in the 21<sup>st</sup> Century. This ESEA Flexibility Request is the next step toward that goal. Our proposal gives schools and districts more funding flexibility to better target resources to their needs. It frees up more Title I funding for early childhood programming. For the first time ever in Minnesota, it sets growth targets aligned with proficiency, and with closing the achievement gap. It provides parents with more data to use in assessing the successes and needs of their child's school. It

empowers a statewide system of support that can provide better professional development and content knowledge to teachers. It better utilizes our assessment system by meaningfully measuring growth. It allows MDE to be more responsive to the schools that are in the greatest need of support.

We believe that for all these reasons and more, this proposal will lead to better student outcomes. This proposal is the right one for Minnesota because it is the next step in our efforts to build excellent schools with excellent leaders and teachers getting excellent results for students.



## CONSULTATION

**An SEA must meaningfully engage and solicit input from diverse stakeholders and communities in the development of its request. To demonstrate that an SEA has done so, the SEA must provide an assurance that it has consulted with the State’s Committee of Practitioners regarding the information set forth in the request and provide the following:**

- 1. A description of how the SEA meaningfully engaged and solicited input on its request from teachers and their representatives.*
- 2. A description of how the SEA meaningfully engaged and solicited input on its request from other diverse communities, such as students, parents, community-based organizations, civil rights organizations, organizations representing students with disabilities and English Learners, business organizations, and Indian tribes.*

The Minnesota Department of Education (MDE) engaged stakeholders through a formal process in order to solicit input on its request. These stakeholders referred to as the ESEA Flexibility Work Group represented a wide array of interest groups. Representatives of the following groups were invited to participate:

- Teachers (representatives from the statewide teachers’ union and the Minneapolis teachers’ union)
- Business
- Superintendents
- Higher Education
- Charter Schools
- School Boards
- Legislators
- Parents
- Minority Groups (Asian, Hispanic, African-American, American Indian)
- Principals
- Rural School Districts
- Title I Practitioners
- Assessment Directors
- Special Education
- English Learners

A list of the Work Group members who regularly attended meetings and their affiliations can be found in Attachment 20.

The Work Group met weekly for one month to discuss all aspects of Minnesota's request. These all day meetings allowed for stakeholder input on the various components of the request. Meetings were open to the public and were well-attended by both Work Group members and other interested parties. The Work Group was presented with different options particularly as they related to element two in the request form and was given an opportunity to express their preferences. This included having the opportunity to look at different scenarios for how to measure schools for differentiated recognition, support, and accountability.

For the entire period during which the Work Group met, MDE maintained a website where handouts from meetings were available to members and the public. Work Group members were encouraged to contact MDE staff with questions and feedback during the week leading up to each meeting, and this feedback was incorporated and discussed during meetings. The Work Group also received periodic electronic communications providing clarification on points that were unresolved during previous meetings.

Throughout the process, Minnesota's ESEA Flexibility Request proposal was adjusted to reflect feedback given by the Work Group. One of the most significant contributions was the suggestion from teachers, principals and superintendents to abandon a proposed "gap group," which would have measured the performance of all lower-performing subgroups together instead of individually. This proposal was rejected by the Work Group, and MDE adjusted the measurements accordingly. Additionally, MDE was dissuaded by the Work Group from assigning schools to Priority, Focus and Reward School categories proportionally based using school type. Such a proposal would have ensured that a proportional number of charter schools were included in each of the three categories. The Work Group insisted that assignment to these three categories should be based on performance alone, not on the type of school being measured. Finally, the Work Group provided vocal support for the idea of identifying the best practices of Reward Schools and creating an online clearinghouse of best practices that could be accessed by other schools. The

Work Group's support for this proposal led to MDE making it a more prominent part of its proposal for providing support to Priority and Focus Schools.

Prior to the Work Group's final meeting, members of the Work Group were sent a decisions form that summarized every policy proposal MDE planned to include in its final Request. Members were encouraged to review the form and submit comments and questions electronically or during the final Work Group meeting. During that meeting, Work Group members and public observers had an opportunity to ask questions about every aspect of MDE's proposal and provide input. Based on this input, MDE made final adjustments to its proposal to reflect the preferences of the Work Group. Following the initial feedback from the US Department of Education on the original ESEA Flexibility Request, MDE again consulted the Work Group to get feedback on adjustments being made to the request.

MDE's stakeholder engagement went beyond the Work Group. In the weeks leading up to Minnesota's official request submission, the Commissioner of Education and MDE staff took advantage of several opportunities to present aspects of the proposal to stakeholders from a variety of groups. These included (but were not limited to) minority groups, LEAs, representatives from rural schools, principals, and regional education groups. The Commissioner of Education and MDE staff members also engaged legislators of both the Senate and House K12 Education Committees on Oct. 17, 2011 whereby the legislators were provided time to give feedback and assess the need for any legislative action. More formally, the Commissioner and staff testified to the content of the proposal in a public hearing in the Minnesota House of Representatives on Nov. 2, 2011. Testimony was posted to the MDE website, Facebook and Twitter accounts and was widely covered by the media. Additionally, information on the Request was shared with all superintendents in the state by email each week. Furthermore, the Commissioner presented on the waiver at the Minnesota Rural Education Association annual conference on Nov. 3, 2011, and MDE staff presented information to the Association of Metropolitan School Districts on Nov. 4, 2011. This was filmed and put on YouTube, posted to all MDE social media, and sent directly to superintendents and our education associations.

The Title I Committee of Practitioners (COP) was also consulted during this process. A representative of the COP served on the Work Group to ensure that

the COP had the opportunity to provide input in crafting Minnesota's proposal. All members of the COP were also sent information and materials on the various options. Once a final proposal was in place, the COP was consulted through a conference call that allowed for participation of all COP members around the state. Prior to the conference call, COP members were provided with an outline of Minnesota's proposal. During the conference call, members of the COP were given opportunity to ask questions and provide input. Members were supportive of the Request and asked to be involved in the implementation of changes related to the Request.

MDE will continue its stakeholder engagement subsequent to its official ESEA Flexibility Request. MDE will tour the state to educate schools and members of the public on changes being made to the state's accountability system. MDE will also produce online tutorials and videos to explain aspects of the Request. This effort will be aimed at teachers, principals, parents and members of the public with the goal of ensuring the legitimacy of the state's plan.

## EVALUATION

The Department encourages an SEA that receives approval to implement the flexibility to collaborate with the Department to evaluate at least one program, practice, or strategy the SEA or its LEAs implement under principle 1, 2, or 3. Upon receipt of approval of the flexibility, an interested SEA will need to nominate for evaluation a program, practice, or strategy the SEA or its LEAs will implement under principles 1, 2, or 3. The Department will work with the SEA to determine the feasibility and design of the evaluation and, if it is determined to be feasible and appropriate, will fund and conduct the evaluation in partnership with the SEA, ensuring that the implementation of the chosen program, practice, or strategy is consistent with the evaluation design.

Check here if you are interested in collaborating with the Department in this evaluation, if your request for the flexibility is approved.

**Provide an overview (about 500 words) of the SEA's request for the flexibility that:**

- 1. explains the SEA's comprehensive approach to implement the waivers and principles and describes the SEA's strategy to ensure this approach is coherent within and across the principles; and*
- 2. describes how the implementation of the waivers and principles will enhance the SEA's and its LEAs' ability to increase the quality of instruction for students and improve student achievement.*

Since the last reauthorization of the ESEA, Minnesota has raised academic standards, developed tools for holding schools accountable for improving the academic performance of students, and provided schools with support to improve the quality of instruction. The waivers and principles included in this Flexibility Request proposal will allow Minnesota to utilize these carefully developed tools for improving student learning and increasing the quality of instruction.

Minnesota's academic standards are the core of our accountability system. Schools are accountable for all students meeting statewide college- and career-ready academic standards. All accountability efforts are, therefore, directed at increasing the likelihood that students will achieve proficiency on the assessments aligned to the state standards.

ESEA Flexibility will allow us to take advantage of a wider variety of data to better identify schools that truly need support. With legislative support, Minnesota has developed a growth model to measure students' academic performance from year-to-year. If approved, Minnesota will use growth metrics, along with proficiency status and graduation rates to identify schools for Priority, Focus and Reward. The addition of growth data to the accountability system will give the public a more complete picture of how schools are performing.

Minnesota's experience with No Child Left Behind has shown it that it is not enough to just measure schools for accountability. Schools need to put the right school improvement plans in place, and have the necessary support from the state, and other education partners. School improvement requires teams of dedicated working together. With the help of such teams, Priority and Focus Schools will implement plans based on Turnaround Principles to change the

trajectory of the school. ESEA Flexibility will allow schools, LEAs and MDE to exercise financial and programmatic flexibility to implement essential activities at those schools that are most in need of support.

Because both high-quality leadership and instruction are critical to the continuous improvement of all schools, Minnesota has moved beyond No Child Left Behind's high-quality teacher requirements to implement a system of meaningful principal and teacher evaluation. These changes have legislative approval and will be in place within the timelines required for ESEA Flexibility.

Finally, ESEA Flexibility will allow Minnesota to reduce the administrative burdens of LEAs. The less time LEAs must spend on unnecessary requirements, the more time they have for ensuring that schools are continuously improving.

We are not looking for a pass on accountability. We are looking for the flexibility to use the systems and tools we have created to increase the quality of schools and to improve student achievement.

**1.A Adopt College- and Career-Ready Standards**

Select the option that pertains to the SEA and provide evidence corresponding to the option selected.

<b>Option A</b>	<b>Option B</b>
<p><input checked="" type="checkbox"/> The State has adopted college- and career-ready standards in at least reading/language arts and mathematics that are common to a significant number of States, consistent with part (1) of the definition of college- and career-ready standards.</p> <p>i. Attach evidence that the State has adopted the standards, consistent with the State's standards adoption process. (Attachment 4)</p>	<p><input checked="" type="checkbox"/> The State has adopted college- and career-ready standards in at least reading/language arts and mathematics that have been approved and certified by a State network of institutions of higher education (IHEs), consistent with part (2) of the definition of college- and career-ready standards.</p> <p>i. Attach evidence that the State has adopted the standards, consistent with the State's standards adoption process. (Attachment 4)</p> <p>ii. Attach a copy of the memorandum of understanding or letter from a State network of IHEs certifying that students who meet these standards will not need remedial coursework at the postsecondary level. (Attachment 5)</p>



## 1.B Transition to College- and Career-Ready Standards

- 1. B Provide the SEA’s plan to transition to and implement no later than the 2013–2014 school year college- and career-ready standards statewide in at least reading/language arts and mathematics for all students and schools and include an explanation of how this transition plan is likely to lead to all students, including English Learners, students with disabilities, and low-achieving students, gaining access to and learning content aligned with such standards. The Department encourages an SEA to include in its plan activities related to each of the italicized questions in the corresponding section of the document titled ESEA Flexibility Review Guidance, or to explain why one or more of those activities is not necessary to its plan.**

Minnesota law (Minn. Stat. 120B.023, Subd.2), establishes requirements for revising state academic standards in each subject to include an increased level of rigor that prepares students with the knowledge and skills needed for success in college and the skilled workplace.

This statute also sets forth a revision and implementation schedule. Minnesota’s current state academic standards in reading/language arts were aligned to college- and career-ready standards in 2010. Full LEA implementation for these standards is required by 2012-2013.

The University of Minnesota and the Minnesota State Colleges and Universities System have certified the mathematics academic standards declaring that students who meet these standards will not need remedial coursework at the post-secondary level (See Attachment 5). This reflects the involvement of Minnesota’s Institutes of Higher Education in the standard-development process and includes students with disabilities and English language learners.

In addition to reading/language arts and mathematics Minnesota will have a required series of college- and career-readiness standards to be implemented in LEAs by 2013-2014 as evidenced by the statutorily defined revision timeline below.

<b>Minnesota Academic Standards Revision Timeline</b> (Minn. Stat. § 120B.023, Subd. 2)			
<b>Subject Area</b>	<b>Revision Year</b>	<b>Implementation Year</b>	<b>Next Revision</b>
Mathematics	2006-2007	2010-2011	2015-2016
Arts	2007-2008	2010-2011	2016-2017
Science	2008-2009	2011-2012	2017-2018
Reading/Language Arts	2009-2010	2012-2013	2018-2019
Physical Education	2009-2010	2012-2013	2018-2019
Social Studies	2010-2011	2013-2014	2019-2020

- *1.B.1 Does the SEA intend to analyze the extent of alignment between the State's current content standards and the college-and career-ready standards to determine the similarities and differences between those two sets of standards? If so will the results be used to inform the transition to college- and career-ready standards?*

Minnesota has formally analyzed the alignment of the state academic standards to college- and career-ready standards through several initiatives. Our system of standards-based education has been influenced by Achieve, P-16 Education Partnership and Common Core State Standards. This work has informed the 2007 revision of the mathematics state standards leading to IHE certification and the 2010 revision of the reading/language state arts standards, which included Common Core State Standards among other state requirements. These initiatives are summarized below.

### Achieve

In 2006, Minnesota joined the American Diploma Project (ADP) sponsored by Achieve. A chief goal was to ensure college- and career-readiness for all students through a system of standards and assessments aligned with the knowledge and skills required for success after high school. To this end, the state sent a team of K-12 educators, postsecondary educators, curriculum directors, MDE standards and assessment staff, and business representatives to a series of three ADP Alignment Institutes. Minnesota participants learned to design a process resulting in the development of rigorous K-12 standards in reading/language arts and mathematics that garners the trust of educators and the public. They researched the knowledge and skills needed for success in college and careers, and

developed a plan for revising the state's 2003 reading/language arts and mathematics standards.

### P-16 Education Partnership

Following the involvement in the ADP Alignment Institutes, the Minnesota P-16 Education Partnership convened the College and Work Readiness Working Group to craft college- and work-readiness standards in reading/language arts and math. The group was comprised of K-12 and postsecondary instructors in each discipline and included members of the state's ADP team. The college- and career-ready standards for reading/language arts and mathematics, known formally as the *Minnesota College and Work Readiness Expectations*, were endorsed by Achieve and were included in the reading/language arts mathematics standards revisions in 2007 and 2010, respectively.

Minnesota's emphasis on creating and requiring standards that prepare all students to be college- and career-ready is evidenced by Minn. Stat. 120B.023, subd. 1(a). This statute sets forth a mandate that all students satisfactorily complete College- and Career-Ready (CCR) academic standards.

### Common Core State Standards

Minnesota's scheduled revision of the reading/language arts standards coincided with the Common Core State Standards Initiative. Led by the National Governors Association and the Council of Chief State School Officers, the Common Core initiative promised to create K-12 standards that were:

- Research and evidence based
- Aligned with college and work expectations
- Rigorous
- Internationally benchmarked

Minnesota actively participated in the development of the Common Core State Standards for English Language Arts and Mathematics. Beginning with the draft College and Career Readiness (CCR) Standards in the summer of 2009, the Minnesota Department of Education convened a series of educator focus groups. The groups provided detailed feedback on the CCR standards and each successive draft of the grade specific K-12 Standards until they were completed in June 2010. Many of the suggestions provided by Minnesota educators were incorporated

into the Common Core State Standards. There is a close alignment between the Common Core State Standards and the *Minnesota College and Work Readiness Expectations*.

- *1. B.2 Does the SEA intend to analyze the linguistic demands of the State's college- and career-ready standards to inform the development of ELP standards corresponding to the college- and career-ready standards and to ensure that English Learners will have the opportunity to achieve the college- and career-ready standards? If so, will the results be used to inform revision of the ELP standards and support English Learners in accessing the college- and career-ready standards on the same schedule as all students?*

To ensure high quality support for English Learners and their teachers, Minnesota has joined the World-Class Instructional Design and Assessment (WIDA) consortium. Our participation in WIDA was codified legislatively during the 2011 legislative session (Minn. Laws SS 2011, Art. 1, Sec. 46). MDE conducted an alignment study between the WIDA English language proficiency standards and the Minnesota content standards in math and science in November 2011 in order to gather information about the extent to which Minnesota's English language proficiency standards prepare English Learners to access content knowledge with minimal language support. MDE plans to use the results of the study to support English Learners in accessing the college- and career-ready standards on the same schedule as all students. Information from this alignment study will inform the next revision cycle of mathematics academic standards scheduled for 2015-2016.

There have been two alignment studies done for WIDA implementation in Minnesota. One between WIDA and Common Core standards and the other between WIDA Standards and the ACCESS for English Learners.

The WIDA English language development standards are aligned with the national TESOL standards and address specific language development in core content areas. These are aligned to common core standards. Our 2011 reading/language arts standards are aligned to the common core standards. These common core, aligned, reading/language arts standards, in conjunction with the preK-12 WIDA ELD standards, provide a framework for teachers to scaffold instruction for English learners.

As a member of WIDA, Minnesota districts have access to the WIDA-ACCESS Placement Test (W-APT™), which may also be used as a screener for identification purposes. Additionally, ACCESS for ELLs® will be administered annually, replacing Minnesota developed English Learners assessments. These tools will provide better measures for assessing how well English Learners are learning content needed to fully access the Minnesota academic standards, which are aligned to college- and career-ready standards.

- *1.B.3 Does the SEA intend to analyze the learning and accommodation factors necessary to ensure that students with disabilities will have the opportunity to achieve to the college- and career-readiness standards? If so, will the results be used to support students with disabilities in accessing college- and career-ready standards on the same schedule as all students?*

A review of standards with a lens of access for students with disabilities is important to clarify the essence of each standard and to be explicit about where there is flexibility in instruction and assessment and where there is not. In past iterations of Minnesota academic content standards, there have been areas of mismatch between implied flexibility in instruction and the limitations felt by item writers and developers of statewide assessments based on a literal interpretation of the standards as written.

Universal Design for Learning (UDL) principles and frameworks have been used to guide the development of both the 2007 mathematics state standards and the 2010 reading/language arts state standards.

UDL principles provide for:

- Multiple and flexible methods of presentation to give students with diverse learning styles various ways of acquiring information and knowledge;
- Multiple and flexible means of expression and representation provide diverse students with alternatives for demonstrating what they have learned;

- Multiple and flexible means of engagement to tap into diverse learners' interests, challenge them appropriately, and motivate them to learn.

Addressing UDL principles in the development of standards creates more consistent access in instruction and assessment for students with disabilities and increases their opportunities to demonstrate what they know. Current versions of Minnesota academic standards were written to reduce barriers for special needs students in representation, expression and engagement. Acceptable demonstration of standards mastery is compatible with a variety of learning styles and modes of receptive and expressive communication. The following examples illustrate UDL principles applied to the 2010 reading/language arts standards.

- Demonstrate understanding of text using vocabulary...
- Produce and expand complete sentences in response to questions and prompts.
- Sort words into categories (e.g., colors, clothing).

Some traditional standard language needed adjustments to apply UDL principles. The following are examples from reading/language arts:

*Original:* Explain how the author of the text uses to structure information...

*Alternate:* Demonstrate an understanding...

*Original:* Speak audibly and clearly.

*Alternate:* Communicate clearly...

Examples of Math Standards:

*Original:* Use facts about angles to write and solve simple equations...

*Alternate:* Use facts about angles to develop and solve...

*Original:* Say the number word sequence to 100.

*Alternate:* Demonstrate understanding of...

Minnesota has data on the use of specific accommodations on statewide assessments and will continue to review and analyze this information annually.

Assessment data is entered and recorded as a part of each student testing record. This data can be pulled to review statewide usage trend data.

Minnesota's Accommodations Committee meets annually to address new accommodations requests that are not covered in assessment procedures manuals. The committee reviews and updates policies on accommodations annually as technology continues to develop and improve.

A comprehensive list of accommodations and codes for reporting their use is included annually in Chapter 5 of the Procedures Manual for Minnesota Assessments.

### *Standards Revision Lens for Students with Disabilities*

MDE has developed a review process for standards revisions in which the Special Education Policy Division coordinates a review of the drafts to improve the accessibility of the standards for students with disabilities. This process was done for the 2007 Mathematics standards and the 2010 Common Core English Language Arts standards. Common themes across domain areas and previous revisions have helped improve the extent to which principles of Universal Design are incorporated into the standards. Comments from the last review process are included in Attachment 12.

- *1. B.4 Does the SEA intend to conduct outreach and dissemination of the college- and career-ready standards? If so, does the SEA's plan reach the appropriate stakeholders including educators, administrators, families and IHE's? Is it likely that the plan will result in all stakeholders increasing their awareness of the state's college- and career-ready standards?*

The Minnesota Department of Education content specialists work with many of our state professional and research organizations to provide a wide variety of outreach and professional development opportunities related to dissemination of the Minnesota K-12 Academic Standards, including the standards associated with college- and career-readiness.

### Stakeholders

Dissemination of the standards is provided through a variety of organizations including:

- Education Minnesota (Minnesota’s teachers’ union).
- Minnesota Academy of Reading
- Minnesota Administrators of Special Education
- Minnesota Assessment Group
- Minnesota Association of Administrators of State and Federal Education Programs
- Minnesota Association of Alternative Programs
- Minnesota Association of Colleges of Teacher Education
- Minnesota Association of Curriculum and Staff Development
- Minnesota Association of School Administrators
- Minnesota Association of Secondary School Principals
- Minnesota Center for Reading Research
- Minnesota Council of Teachers of English
- Minnesota Council of Teachers of Mathematics
- Minnesota Curriculum Leaders, the Metro Area Curriculum Leaders
- Minnesota Elementary School Principal Association
- Minnesota Mathematical Association of Two Year Colleges
- Minnesota PTA/PTO
- Minnesota Reading Association
- Minnesota Rural Education Association
- Minnesota School Boards Association
- Minnesota State Colleges and Universities
- Minnesota Writing Project
- State-Approved Alternative Programs

MDE also partners with the Target Corporation, United Way, and the McKnight Foundation as part of the *Blueprint for Literacy* implementation plan to reach a wider range of stakeholders and to coordinate efforts between institutes of higher education, our state agency, local school districts, and philanthropic organizations to share information on college- and career-ready standards and rigorous academic expectations for all students with the goal of closing the achievement gap.



The *Electronic Library for Minnesota* offers resources to help educators and the general public understand the Academic Standards.

The *Minnesota Parents Know* website offers families with children of all ages resources and information about the standards and academic success that will lead to college- and career-ready skills and knowledge.

MDE content specialists also work with our regional Education Service Cooperative Units (ECSUs) to provide a State-wide System of Support in a train the trainer format. They provide professional development and technical assistance to ECSUs. These organizations then provide professional development and technical assistance aimed at assisting schools and districts in making Adequate Yearly Progress. These centers are located in Minnesota. The ECSUs host sessions provided by MDE and also provide follow-up training and support to districts in their service areas.

#### Increasing Awareness of College- and Career -Ready Standards

Trainings provided by MDE staff range from sessions on the overview of the standards, to deep discussions and development of tools such as curriculum maps, gap analyses, and planning aids for reviewing instructional materials. These trainings allow the MDE content specialists to learn along with schools and districts as they strive to interpret and communicate the Academic Standards, particularly the more rigorous standards associated with college- and career-readiness. Often, this information is useful to other LEAs and becomes a valued resource created by peers for peers.

- *1. B.5 Does the SEA intend to provide professional development and other supports to prepare teachers to teach all students including English Language Learners, students with disabilities and low-achieving students to the new standards? If so, will the planned professional development and supports prepare teachers to teach to the new standards, use instructional materials aligned with those standards, and use data on multiple measures of student performance (e.g. data from formative, benchmark and summative assessments) to inform instruction.*

MDE regularly provides professional development for general education teachers

as well as special education and EL teachers to understand and implement standards enabling them to teach all students and to assess student learning related to the academic standards. Educators learn instructional practices to support the learning of all students. Professional development is also provided in teaching literacy in the content areas as it relates to the ELA Common Core State Standards for all groups of students.

### Data Decision-Making

MDE supports schools and districts in aligning staff development plans and activities with educational outcomes. The professional development emphasizes best practices such as professional learning communities, coaching and mentoring and using data for instructional decisions to improve teaching practice over time. Schools receive training to:

- Examine statewide assessment data (e.g., MCA, MCA-modified, and MTAS data) to identify under-achieving subgroups.
- Examine MCA participation data to better understand the population of students who are not taking the MCA and their related participation issues.
- Examine alternate assessment data for students with disabilities to better understand issues related to those who are meeting expectations on those assessments and those who do not currently meet expectations.
- Use other kinds of formative and performance assessment data to further identify the needs of the subgroups.
- Use other kinds of assessment data (e.g., English language proficiency data provided on the ACCESS test, including common assessments used in special education) to identify the instructional needs of individuals
- Utilize data and other kinds of information that identify the non-instructional factors that impact academic performance. (e.g., which school policies or practices are limiting the amount of instructional time available for students? Do policies that suspend students from school prevent them from accessing the college- and career-ready curriculum? What is the academic achievement of students who have been removed from instruction?)
- Use research or evidence-based strategies to address individual student

needs.

### Implementation

The theory of action driving professional development in Minnesota from the state level is to operationalize systemic change from within and intentionally connect the science of implementation to our standards work. This enables us build the capacity of districts, schools and early learning providers to meet the needs of all learners.

Implementation is synonymous with coordinated change at the system, organization, program and practice levels. This is done by examining and understanding educational practices (the “what”) and developing the capacity (the “how”) to support those practices system-wide (Fixsen, Blase, Horner & Sugai, 2009). The implementation plan for supporting teachers with standards-based instructional practices is highlighted below:

<b>Minnesota’s Plan for Supporting Implementation of Academic Standards</b>		
<b>Year 1</b>	<b>Stage 1</b>	<ul style="list-style-type: none"> <li>• Schedule regional information sessions to disseminate information on the standards and considerations for implementation</li> <li>• Provide web-based information sessions to disseminate information on the standards with viewing guides</li> <li>• Host face-to-face and virtual conversations with district leaders on considerations for implementation</li> <li>• Post a Frequently Asked Questions document</li> <li>• Compose the Statement of Needs and Reasonableness for the Rulemaking Process</li> <li>• Partner with professional organizations to provide information on standards and resources applicable to the content areas related to the standards</li> <li>• Work cross-agency to communicate information on standards and align common initiatives related to standards-based instruction</li> <li>• Determine resources and other tools needed for schools and districts to fully implement standards</li> <li>• Provide targeted professional development as needed</li> </ul>

<b>Year 2</b>	<b>Stage 2</b>	<ul style="list-style-type: none"> <li>• Schedule regional information sessions to support implementation of the standards</li> <li>• Provide web-based information sessions on standards implementation with viewing guides</li> <li>• Create resources on technical aspects of the standards to support schools and districts with implementation</li> <li>• Partner with professional organizations to provide content specific information on standards implementation and alignment to best practices</li> <li>• Work cross-agency to align common initiatives related to standards-based instruction and deliver consistent message to stakeholders</li> <li>• Determine resources and other tools needed for schools and districts to fully implement standards</li> <li>• Provide targeted professional development as needed, specific to school data, student populations, and special concerns</li> </ul>
<b>Year 3-4-5</b>	<b>Stage 3</b>	<ul style="list-style-type: none"> <li>• Provide on-going information as needed for full implementation of standards regionally and virtually</li> <li>• Continue to provide resources on technical aspects of the standards to support schools and districts with on-going implementation considerations</li> <li>• Partner with professional organizations to provide content specific information on standards implementation and alignment to best practices</li> <li>• Work cross-agency to align common initiatives related to standards-based instruction and deliver consistent message to stakeholders</li> <li>• Determine resources and other tools needed for schools and districts to fully implement standards</li> <li>• Provide targeted professional development as needed, specific to school data, student populations, and special concerns</li> </ul>

### Professional Development Provided by Organizations and Institutions

MDE is currently in discussions with local public television (PBS) networks and Clear Channel Communications concerning a proposal to provide virtual professional development, free of charge, to all teachers in Minnesota. Teacher Domain, available through PBS, is aligned to the Common Core Standards and provides on-demand training modules. The modules include instructional materials to meet the needs of all learners, including support for students with disabilities and students who are English learners.

Other organizations that support professional development for teachers aligned with college- and career-ready academic standards: This list is adapted from the list on pages 23 and 24.

- Education Minnesota (Minnesota’s teachers’ union).
- Minnesota Academy of Reading
- Minnesota Administrators of Special Education
- Minnesota Association of Administrators of State and Federal Education Programs
- Minnesota Association of Alternative Programs
- Minnesota Association of Colleges of Teacher Education
- Minnesota Association of Curriculum and Staff Development
- Minnesota Association of School Administrators
- Minnesota Association of Secondary School Principals
- Minnesota Center for Reading Research
- Minnesota Council of Teachers of English
- Minnesota Council of Teachers of Mathematics
- Minnesota Curriculum Leaders, the Metro Area Curriculum Leaders
- Minnesota Elementary School Principal Association
- Minnesota Mathematical Association of Two Year Colleges
- Minnesota Reading Association
- Minnesota Rural Education Association
- Minnesota School Boards Association
- Minnesota State Colleges and Universities
- Minnesota Writing Project

- Special Education Directors Forum
- State-Approved Alternative Programs

MDE content specialists also work with our regional Education Service Cooperative Units (ECSUs) to provide a State-wide System of Support in a train the trainer format. They provide professional development and technical assistance to ECSUs. These organizations then provide professional development and technical assistance aimed at assisting schools and districts in making Adequate Yearly Progress. These centers are located in Minnesota. The ECSUs host sessions provided by MDE and also provide follow-up training and support to districts in their service areas.

#### Professional Development Provided by SEA

Trainings by the MDE content specialists on academic standards are also provided through the Minnesota Association of Alternative Programs, State-Approved Alternative Programs, Minnesota Association of Administrators of State and Federal Education Programs, the Superintendent's Conference, MDE's Assessment Conference, Minnesota American Indian Educators Conference, Minnesota ESL, Bilingual and Migrant Education Conference, and content area professional organizations. This training supports all educators who teach a wide variety of students in a wide variety of settings.

MDE is partnering with MN ASCD to offer a summer professional development, called "Standards Camp." The goal of the Camp is to assist schools in their efforts to implement Minnesota academic standards in all content areas. Schools will send a cross discipline leadership team. Together the leadership teams will learn current best practices in teaching and learning in their content area. The teams will hone their leadership skills and leave the camp with an action plan for school wide implementation and assessment of standards. Together the MDE and Minnesota ASCD will provide continued support to the team's efforts at their home site. This will be provided through on-site and regional support.

MDE is planning to institute regional content-specific coaching networks. Professional development opportunities will be provided for coaches. The coaches will, in turn, implement them in their classrooms or support other teachers with implementation. The goal is that the network will extend beyond school boundaries to attend to the needs of schools in the region.

Training opportunities on the standards that are supported by other agency initiatives include coordinated efforts with our Q Comp teacher development/teacher compensation program, AYP support, Minnesota Office of Indian Education, Turnaround Schools, alternative programs, alternative delivery systems of instructional support, service learning, research and assessment, special education policy, integrating technology, Minnesota Common Course Catalog, No Child Left Behind, online learning, and charter schools and non-public schools programs.

### Differentiated Support for All Students

MDE offers on-going training specifically to support and prepare teachers to teach all students, including English Learners (ELs), students with disabilities, and low-achieving students to prepare teachers for full implementation of reading/language arts standards no later than the 2013-14 school year.

### *Professional Development for Teachers of English Learners*

As the Secretary noted on in a speech on November 3, 2011 “The future of the country rests on these students (ELs) doing really well”. ELs are the fastest growing population in MN. Meeting their learning needs is critical to meeting college- and career-readiness goals in the state.

As a member of the WIDA consortium, Minnesota has access to high quality professional development supports for teachers of ELs. In the spring of 2007, EL Program Directors from districts with 500 or more ELs met to discuss the status of Minnesota's ELD standards. A subcommittee analyzed three sets of ELD standards and recommended the 2006 TESOL/WIDA standards for adoption in Minnesota. Additionally, more than 1,000 principals, teachers, and teacher trainers were surveyed and approximately 40 participated in focus groups regarding ELD standards and standards implementation.

Data from survey responses revealed strong support for working with ELD standards to bring more specificity, clarity and applicability to standards implementation models so that educators can be more successful in working with ELs.

The Minnesota Department of Education English Learner Education Specialists

work with many of our state professional and research organizations to provide a wide variety of outreach and professional development opportunities related to dissemination of the preK-12 WIDA English Language Development Standards.

Trainings provided by MDE staff range from sessions on the overview of the standards, to deep discussions and development of tools such as transformations of model performance indicators, and planning tools for reviewing instructional materials. These trainings allow the MDE English Learner Education Specialists to learn along with schools and districts as they strive to interpret and communicate the WIDA English Language Development Standards. Often times this information is useful to other LEAs and becomes a valued resource created by peers for peers.

Trainings by the MDE English Learner Education Specialists are provided on academic standards through the Minnesota Association of Administrators of State and Federal Education Programs, the Superintendent's Conference, and MDE's Assessment Conference, and ESL, Bilingual and Migrant Education Conference.

Other training opportunities connected to the standards and supported within other agency initiatives include coordinated efforts within MDE's AYP support, Turnaround Schools, Alternative Programs, Alternative Delivery Systems of Instructional Support, Service Learning, Research and Assessment, Special Education Policy, Consolidated Federal Programs, Charter Schools and Non-public schools.

### Minnesota's Plan for Supporting Implementation of WIDA ELD Standards

Year 1  
2011-12  
Stage 1

- Schedule regional information sessions to disseminate information on the standards and considerations for implementation
- Provide monthly webinars to disseminate information on the standards with viewing guides
- Host face-to-face and virtual conversations with district leaders on considerations for implementation
- Form an English Learner Stakeholder Input Group to formulate an implementation framework
- Compose the Rulemaking Process



Year 2  
2012-13  
Stage 2

- Partner with professional organizations to provide information on standards and resources applicable to the content areas related to the standards
- Work cross-agency to communicate information on standards and align common initiatives related to standards-based instruction
- Determine resources and other tools needed for schools and districts to fully implement standards
- Provide targeted professional development as needed

- Schedule regional information sessions to support implementation of the standards
- Provide monthly webinars to disseminate information on the standards with viewing guides
- Create resources on technical aspects of the standards to support schools and districts with implementation
- Partner with professional organizations to provide content specific information and alignment to best practices
- Work cross-agency to align common initiatives related to standards-based instruction and deliver consistent messages to stakeholders
- Determine resources and other tools needed for schools and districts to fully implement standards
- Provide targeted professional development as needed

Years  
3-4-5  
Stage 3

- Provide on-going information as needed for full implementation of standards regionally and virtually
- Continue to provide resources on technical aspects of the standards to support schools and districts with on-going implementation considerations
- Partner with professional organizations to provide content specific information on standards implementation and alignment to best practices
- Work cross-agency to align common initiatives related to standards-based instruction and deliver consistent message to stakeholders
- Determine resources and other tools needed for schools and

## districts to fully implement standards

In order to address the professional development of all educators in providing appropriate linguistic modification and scaffolding to content lessons in math, language arts, science and social studies, MDE plans to identify the linguistic demands of the Minnesota content standards. MDE plans to utilize the taxonomy developed by Dr. Edynn Sato at WestEd in order to analysis language progressions of the content standards. MDE will use the linguistic analysis to help inform instructional planning and practice in order to be intentional and appropriate in supporting students' cognitive and linguistic progress toward proficiency and achievement. Additionally, MDE plans to develop instructional support materials for content teachers that will allow for more supportive instruction for students who are acquiring English.

### *Meeting the Needs of Students with Disabilities*

MDE is working with Dr. Margaret Heritage to provide guidance and support for general education teachers and special educators on creating more effective reading standards-based IEPs. Through information and training provided by content specialists and special education policy staff, educators will better understand grade level academic standards and how to scaffold learning opportunities so that all students have access to appropriate outcomes. Opportunities are being explored to extend this work to other content areas.

Additionally, the Minnesota *Blueprint for Literacy* provides a model plan for schools and districts to consult as they design a comprehensive literacy education system focused on academic success for all learners. The *Blueprint* links the Early Childhood Indicators of Success (for ages 3-5) to the Minnesota K-12 Academic Standards in reading, mathematics, and science. The purpose of this linkage is to highlight the importance of providing quality instruction throughout a child's academic experiences so that we can close achievement gaps and ensure that all students are ready for college and careers.

### Teacher Licensure Standards for Special Education Teachers

The Board of Teaching is in the final stages of public rulemaking to revise and update the required knowledge and skill competencies for special education teachers. These standards are the basis for Institutions of Higher Education to design their teacher preparation programs and to receive program approval. A

public hearing was held in September and the final decision regarding the need and reasonableness of the proposed rules is due from the Administrative Law Judge by the end of November, 2011.

One significant area of revision in the proposed rules relates to knowledge and skills that special education teachers are expected to know regarding state academic content standards, particularly as they relate to instruction and a source of data to inform student progress. Examples of the proposed standards include:

- All special education teachers must be able to demonstrate knowledge of the relationship of special education to other components of the education system, including access to grade-level content standards, prevention efforts and early intervening services, Title 1, bilingual education, the education of English language learners, Section 504 accommodations, and gifted education (Minn. Rule 8710.5000, Subp. 2, A, (2));
- All special education teachers must be able to integrate multiple sources of student data relative to progress toward grade-level content standards from prior prevention and alternate instruction efforts into the referral process (Minn. Rule 8710.5000, Subp. 2, B (4));
- All special education teachers must be able to
  - adapt and modify curriculum and deliver evidence-based instruction, including scientific research-based interventions when available, aligned with state and local grade-level content standards to meet individual learner needs;
  - lead individual education plan teams through statewide assessment options and make appropriate decisions for a learner's participation within the statewide assessment system; and
  - apply evidence-based methods, strategies, universal design for learning, and accommodations including assistive technologies to meet individual student needs and provide access to grade-level content standards (Minn. Rule 8710.5000, Subp. 2, C (1-3));

#### General Education and Special Education Teachers of Low Achieving Students

Teachers seeking to improve the achievement of struggling students have at least two important kinds of support: 1) the *Minnesota Rtl Community of Practice*, and 2) *Minnesota's Model Plan for Adolescent Reading Intervention and Development*.

The *Minnesota RtI Community of Practice* is an active community of RtI implementers and stakeholders who collaborate to build effective and sustained implementation of the RtI (Response to Intervention) framework at the local, district, regional, and state level. The Community focuses its attention on the complexities and challenges of implementing and sustaining RtI over time. The functions of the Community are to:

- Develop a shared repertoire of resources, experiences, stories, tools, and ways of addressing implementation challenges.
- Apply collective knowledge to improve practice, inform policy decisions, and develop technical guidance that community members can use, scale-up and integrate with other evidence-based practices and systems of support.
- Provide positive examples at earlier stages of implementation for districts to observe.

RtI Community members come together as learners to share insight from lessons learned as well as solve burning issues of the day. The broader community of practice is made up of smaller work groups focused on resolving specific problems and implementation challenges. As the facilitator of the Minnesota RtI Community of Practice, MDE is often called upon to help bridge gaps in expertise by linking participants with specialists in particular fields. For example, in collaboration with the North Central Comprehensive Center (NCCC), MDE convened experts to help the community address critical issues surrounding struggling learners, many of which relate to classroom instructional practices.

A second kind of support that is especially helpful to educators with struggling students is the *Model Plan for Adolescent Reading Intervention and Development*. The plan is designed to meet the cognitive needs of adolescent students whose reading performance ranges from those significantly below expectations through those reading at or above grade level so that they can independently and proficiently read complex and rigorous texts in every content area.

In this model, core instruction is considered to be the standards-based instruction and curriculum all students receive in general education, academic classroom settings. All students participate in core instruction, whereas interventions are in

addition to, and aligned with, this basic component of a comprehensive instructional framework.

Even though core instruction is designed to provide all students with rigorous and relevant curriculum, it may not sufficiently meet the needs of every learner. Some students will require intervention, additional support and instruction.

A systematic framework, such as this Model Plan, outlines how data can be used to determine those students who need additional support. Intervention then is based on the screening, diagnostic, formative, and summative data collected on students at risk, and instruction is provided with evidence- and research-based practices that are specific to the needs of an adolescent, struggling reader.

#### Professional Development Targeted to Implementation of Mathematics Standards

Following the 2007 revision of the state mathematics standards, a task force was formed to provide recommendations for structures to provide state-wide professional development for implementation of the new rigorous standards. Funds were appropriated and the *Minnesota Mathematics and Science Teacher Academy* was formed. The Academy consists of nine regional teacher centers located throughout the state. The teacher centers are not necessarily physical locations but rather partnerships between education organizations and higher education institutions to provide year-long professional development for teachers in mathematics and science.

The professional development is focused on content knowledge and pedagogy, including a job-embedded emphasis, particularly for professional learning communities. The goal of the program is to improve academic achievement of elementary and secondary students in mathematics and science by increasing instructional quality. Though each center began with an emphasis on algebra in grades 6-8 as this was the highest need with the new standards, currently each center provides an emphasis that is specific to the needs of that region.

#### Teacher Evaluation

Starting with a pilot during the 2013-14 school year, all Minnesota schools will implement teacher evaluation systems. These systems are intended to provide information about the quality of instruction in schools not only to local educational authorities but to the local community as well. The system is also

intended to provide information for teachers regarding their performance. A portion of teacher evaluations must be based on assessment results, which are aligned to Minnesota's academic standards. Therefore, the teacher evaluation system will be another tool for improving teacher performance in teaching Minnesota's academic standards. Further information on Minnesota's teacher evaluation system can be found in Principle 3 of the ESEA Flexibility request.

- *1. B.6 Does the SEA intend to provide professional development and supports to prepare principals to provide strong, supportive instructional leadership based on the new standards? If so, will this plan prepare principals to do so?*

The Minnesota Department of Education offers professional development to prepare principals to provide strong supportive leadership based on the new standards through the National Institute for School Leadership (NISL) training. This training is also supported through several statewide professional organizations including:

- Minnesota Elementary School Principal Association
- Minnesota Association of Secondary School Principals
- Minnesota Curriculum Leaders
- Metro Area Curriculum Leaders
- Minnesota Association of Administrators of State and Federal Education Programs
- Minnesota Administrators of Special Education
- Minnesota Association of School Boards
- Minnesota Association of School Administrators

#### Instructional Leadership Support

Minnesota law (Minn. Stat. 120B.12) requires all Minnesota districts to write local literacy plans to ensure all students are reading well by third grade. MDE offers a series of trainings and materials for principals, superintendents, and other instructional leaders aligned to the reading/language arts academic standards through in-person, virtual, and regional means.

MDE also partners with the Minnesota Association of School Administrators to

provide training and information on a regular basis to support strong instructional leadership. Training supports include analysis tools to evaluate current alignment of curriculum, instruction, and assessment, the Minnesota Blueprint for Literacy, and on-site technical assistance for principals to better identify quality instructional practices aligned to academic standards, and aligning intervention programs to core instruction for students not at grade level.

In addition, Minnesota Law (Minn. Stat. 122A.60) defines Minnesota's Staff Development Program and district expectations for aligning staff development outcomes, plans and activities with education outcomes determined by the local school board. The legislation emphasizes establishing best practices such as professional learning communities, coaching and mentoring and using data for instructional decisions to improve teaching practice over time. Districts and schools are required to annually report their staff development goals, activities and results. Analysis of these reports demonstrates a growing trend in districts' use of job-embedded professional development activities with the adoption of professional learning communities, peer coaching and mentoring and ongoing use of student data to inform instruction.

### Principal Evaluation

Starting with a pilot during the 2013-14 school year, all Minnesota schools will implement principal evaluation systems. These systems are intended to provide information to local educational authorities and local community about the quality of instructional leadership in schools. The system is also intended to provide information for principals regarding their performance. A portion of principal evaluations must be based on assessment results, which are aligned to Minnesota's academic standards. Therefore, the principal evaluation system will be another tool for improving principal performance in providing leadership in teaching Minnesota's academic standards. Further information on Minnesota's principal evaluation system can be found in Principle 3 of the ESEA Flexibility request.

- *1. B.7 Does the SEA propose to develop and disseminate high-quality instructional materials aligned to with the new standards? If so, are the instructional materials designed (or will they be designed) to support the teaching and learning of all students, including English learners, students with*



*disabilities, and low achieving students.*

MDE works in collaboration with Minnesota content-specific organizations such as the Minnesota Reading Association, the Minnesota Council of Teachers of English, the Minnesota Council of Teachers of Mathematics, the Minnesota Center for Reading Research, the Minnesota Writing Project, the Minnesota Humanities Commission, the Minnesota History Center, and classroom teachers to design and share lessons that align with college- and career-ready standards, making those materials available to schools and teachers throughout the state. Many of the professional organizations listed above post examples of instructional materials on their websites, share materials at conferences that are designed to support teaching and learning of all students, and give information on how to meet the needs of all learners in their newsletters and publications.

Minnesota LEAs have the authority to determine which instructional materials best meet the needs of their students. The role of MDE is to provide guidance on current best practices and pedagogy and alignment of instructional materials rather than restrict instructional material selection. MDE's efforts focus on the systematic approach to implementation and alignment of standards so that programs and practices are available to meet the needs of all learners, at every level in every content area. Some examples of what we offer in terms of support and guidance include:

#### Reading/English Language Arts Standards Instructional Materials Dissemination

MDE provides a number of instructional support materials specific to the Minnesota Reading/English Language Arts Academic Standards.

- A Model Plan for Adolescent Reading Intervention based on the principles of Response to Intervention (RtI) that provides guidance to districts and schools as they develop or revise reading intervention for students in grades 4-12 aligned to the 2010 Reading/English Academic Language Arts Standards.
- Balanced Literacy Instruction Examples offered on the MDE webpage illustrate the reading components of balanced literacy and the research that supports this framework for reading instruction, assessment and



intervention.

- Resources consistent with Minn. Stat. 122A.06 identifying scientifically-based reading instruction (SBRI) is offered on the MDE reading webpage and training is planned for Winter 2012 on connecting SBRI to the Reading/English Language Arts Academic Standards

The *Minnesota Comprehensive Birth through Grade 12 Literacy Plan Implementation Guide* is a comprehensive tool for schools and early learning providers that outlines the five essential elements of creating and maintaining a developmentally appropriate framework for all learners to reach their fullest potential. These elements are complemented by four foundational principles synonymous with coordinated change at the systems, organizational, programmatic and practice levels. This is done by examining and understanding educational practices and developing the capacity to support those practices system wide. The model provides a structure for schools to use to align curriculum, instruction, and assessments from the MN Indicators of Progress for Infants and Toddlers to the 2010 Minnesota K-12 Reading/English Language Arts Academic Standards and WIDA standards in order to prepare all students for the rigorous coursework. It also includes multi-tiered systems of support for students in tiered instruction from early learning through high school to support all learners in rigorous and relevant learning environments. The plan explains how partnering with families, communities and faith-based organizations can provide literacy opportunities for parents of youth during the school day and beyond to extend learning and create a culture of literacy. An emphasis on leadership and professional development at all levels creates and maintains an environment that supports powerful learning and high expectations for all learners. Data Driven Decision Making, Culturally- Relevant Pedagogy, Technology and Innovation, and Evidence-based Literacy Practices are the guiding principles for all programmatic choices based in this plan. These principles are imperative for creating a comprehensive literacy plan to meet the needs of all learners from birth to grade 12 and beyond.

#### Math and Science Standards Instructional Materials Dissemination

MDE provides a number of instructional support materials specific to the state's math and science standards. A recently launched initiative is an innovative online resource called the *Minnesota Mathematics and Science Frameworks*. This

website is designed to support professional development, curriculum planning and instruction for the revised standards. It provides supporting materials for both the mathematics and science standards, including an overview of each standard, student misconceptions, and vignette of classroom instruction with linked resources, sample assessment items and support for differentiation. The Frameworks are easily accessed in a searchable, web-based format that will continue to evolve as feedback is provided, materials are added, and connections are made to new resources.

### English Language Development Instructional Materials Dissemination

MDE provides a number of instructional support materials specific to the preK-12 WIDA English Language Development Standards. The MinneTESOL organization provided multiple training opportunities for 135 educators to transform model performance indicators of the WIDA standards and align them to materials used at school and district levels. The training focused on scaffolding rigorous content instruction across five levels of language proficiency and keeping cognitive engagement high regardless of levels of language proficiency in all four domains of language development. The teachers also learned how to design instructional frameworks to teach academic language and linguistic discourse for math, science, social studies, and language arts.

### Special Education Instructional Materials Dissemination

Historically, special education teachers have had limited and inconsistent access to roll-out activities when new academic standards are put into place. To improve outcomes for all students, including those with disabilities, we need to approach roll-out training and professional development in standards with the focus on all teachers who share responsibility for core instruction and targeted interventions in academic content areas. Without this focus, professional development and service delivery to students with disabilities will continue to be inconsistent and fragmented.

There are a number of current, cross-agency partnerships underway that will help improve the support for teaching and learning of students with disabilities, including:

- *Standards-Based IEPs*  
MDE has developed a number of web-based professional development

modules to support the implementation of standards-based IEPs, including promoting understanding of the grade-level content standards. MDE is currently field testing these materials and supplementing them with field-generated case studies. In addition, this content is being integrated into other special education professional development initiatives. Discussions are currently underway on how this process and these materials would be adapted to benefit teachers of students with the most significant cognitive disabilities.

- *Learning Progressions*

MDE has been working with a number of field practitioners, representatives from across MDE Divisions and Dr. Heritage from UCLA to articulate the essential understandings necessary to achieve proficiency in grade level standards. The outcome is that all teachers of students with disabilities will be able to map an instructional pathway, using learning progressions, from a student's present levels of performance to the enrolled grade level standard. This content, once pilot tested, will be embedded within the standards-based IEP training. In addition to this, plans are underway to develop training materials on formative assessment of the learning progressions.

- *Mitigating the Effects of the Disability on Achieving Grade-Level Standards*

Technical assistance is provided to special education teachers on how to use multiple sources of data to define the gap between a student's current performance level and grade level content standards. This content is foundational to training that is being provided on psychological processes that impact attainment of grade level standards. Following training, teachers will use this knowledge to target accommodations, modifications, and research-based strategies to mitigate the effects of the disability and allow student to make progress in the general curriculum.

- *Universal Design for Learning (UDL)*

District teams have been trained to support local implementation of UDL principles in instruction across environments and student groups to further make grade level content standards accessible to all students,

including students with disabilities.

- *Revision of Special Education Teacher Licenses*

These efforts have strengthened the knowledge and skill competencies of special education teachers relative to instruction and coordinating intervention with grade level content. These new competencies will improved pre-service teaching coursework and provide a more consistent language for instructional collaboration between general educators and special educators.

- *1. B.8 Does the SEA plan to expand access to college-level courses or their prerequisites, dual enrollment courses, or accelerated learning opportunities? If so, will this plan lead to more students having access to courses that prepare them for college and a career?*

Minnesota high school students have broad and varied access to college-level courses through a variety of low- or no-cost options through local, state, and national programs. These programs provide an opportunity for high school students to be better prepared for college and to earn college credit and/or advanced standing, thus saving students and their parents' time and money during postsecondary education.

#### Dual Credit Options

Minnesota supports dual credit options in partnership with postsecondary institutions through the Postsecondary Enrollment Options (PSEO) programs both on high school and college campuses. PSEO which served over 25,000 students in 2008. Career and technical education programs also offer dual credit opportunities for students throughout the state. Minnesota also supports STEM opportunities, and online course offerings are embedded in all of our dual credit opportunities.

Over the next five years, we will develop a comprehensive data system for all dual credit programs. This system will identify gaps and areas of need, creating better access for students of color and low-income students as well as increasing student success in these programs. As part of the commitment to preparing all Minnesota students to be ready for postsecondary training and education, the development

of a shared data system between K-12 and postsecondary institutions across the state will create a more seamless transition for students and encourage more rigorous and relevant educational opportunities at both the K-12 and higher education level.

### Advanced Placement and International Baccalaureate

We have high participation and success levels in Advanced Placement (AP) and International Baccalaureate (IB) programs. Support is provided to school districts for teacher training and exam cost subsidies. State statute supports training to develop instructor competence in using AP and IB research-based strategies to reach all students.

AP exams are open to all students, not just those who have taken an AP course, and most, if not all of the cost of these exams, as well as those taken through and IB, are covered through the legislative appropriation (Minn. Stat. 120B.13). The AP Course Credit Manual, available online, offer students and parents lists of AP courses accepted for college credit at in-state colleges and universities.

- In 2010, 256 public schools in Minnesota offered AP courses
- In May, 2011, 31,484 students took 50,605 exams with 64% earning a score of 3 or above on a scale of 1-5. (The US average is 56%)
- The five-year increase in the number of students earning a score of 3 or above:
  - White 41%
  - Black 49%
  - Hispanic 69%
  - Asian 57%

Students who score a 3 or higher on AP exams typically experience greater academic success in college and have higher graduation rates than comparable non-AP students.

The Advanced Placement Incentive Program (APIP) grant, a collaborative effort partnering MDE with Minneapolis and St. Paul Public Schools, aims to increase the

number of underrepresented and low-income students enrolling, testing, and scoring at proficient levels on Advanced Placement (AP) and International Baccalaureate (IB) exams. The *Ready/Set/Go* Access and Equity website currently under development through an Advanced Placement Incentive Program (APIP) federal grant is designed to provide information and support for students, parents and teachers to increase enrollment and proficiency in rigorous coursework. The site will be field tested by Minnesota students this winter and is scheduled to launch in June 2012.

International Baccalaureate numbers also reflect an increase of total students in the Diploma Program from 1,220 in 2004 to 2,196 in 2009. The total exams increased from 2,734 in 2004, then to 4,970 in 2010 and to 5,414 in 2011. The number of students of color participating increased from 273 in 2005 to 668 in 2009. Low-income student exam numbers increased from 243 to 498 in the same time period. In 2010 IB programs were in place in fifty schools, delivering the rigorous and challenging International Baccalaureate curriculum. Participants included nineteen high schools at the Diploma Program (DP) level, sixteen schools (both middle and high schools), and fifteen primary schools (PYP) at the elementary level. The high schools offering the Diploma Program enrolled 2,330 students.

Most of Minnesota's public and private colleges and universities have credit awarding policies for AP and IB course credits for exams taken by students.

Teacher training is a critical component to student success in AP and IB programs. MDE has worked closely with Augsburg College and Carleton College Summer Programs as well as the College Board to facilitate in-depth training for AP teachers. MDE has also worked with IB International to support training for IB teachers. Scholarships are available for public and nonpublic teacher training to initiate or improve AP and/or IB courses. In 2010 over 733 AP teachers attended in-depth training while 1,018 IB teachers participated in state-supported professional development.

#### Postsecondary Enrollment Options

Minnesota's the Postsecondary Enrollment Options Act (Minn. Stat. 124D.09) allows high school students to enroll in college courses on a high school or college campus to earn credit for high school and college simultaneously. Each college

and/or university that offers PSEO sets its own requirements for enrollment into the program. Students may take PSEO courses on a full- or part-time basis. Full-time PSEO students who begin in their junior year may graduate from high school with enough college credits for an Associate's Degree. Minnesota was the first state, beginning in 1985, to offer this postsecondary opportunity to high school students. Enrollment in PSEO on the college campus has risen from 6,086 in 2005, to over 7,500 students across the state in 2009.

Concurrent Enrollment courses are taught during the regular school day and are offered through a partnership between a high school and a college or university. Qualified high school instructors or college faculty teach the courses. The same assessment methods and content are used as the equivalent sections taught on the college campus. Students can earn high school and college credit upon successful completion of the course or courses. In 2009, 17,581 concurrent enrollment students took 42,120 college level courses on their high school campuses.

These programs provide students with a greater variety of class offerings and the opportunity to pursue more challenging coursework than may be available at the high school. The tuition, fees and required textbooks are at no cost to students to increase access and equity.

The Minnesota Concurrent Enrollment Partnership (MNCEP) is working with MDE and the Minnesota State College and University System to plan a statewide professional development training plan for high school teachers and college faculty to increase student access.

### On Ramp Models

Statewide, on-ramp models, such as Advancement Via Individual Determination (AVID) and Admission Possible, provide students with the opportunity to develop college-readiness skills and knowledge. AVID is a college-readiness program targeting under-represented students. It is designed to prepare them to succeed in rigorous high school courses and enroll in four-year colleges. It provides a comprehensive approach that can be adapted for students in grades 8-12, integrating school-centered and student-centered strategies. The key component is an elective AVID class in which students focus on specific strategies and behaviors leading toward academic success.



The AVID model is grounded in the belief that all students can achieve in rigorous classes if they are given social and academic supports. As of September 2009, approximately 35 schools from 11 districts were implementing AVID. MDE is collaborating with the East Metro Integration District and AVID to provide enhanced training opportunities for current AVID sites as well as support and planning opportunities for potential new sites.

### Early Graduation Scholarship

During the 2010-2011 legislative sessions, Minnesota passed the Early Graduation Scholarship Initiative. These are financial awards provided by the state to eligible students. Students who graduate early during the 2011-2012 school year are eligible to apply. Students who graduate one semester (two quarters) or two trimesters early are eligible for \$2,500, students who graduate two semesters (four quarters) or three trimesters early are eligible for \$5,000, and students who graduate three or more semesters (at least six quarters) or five or more trimesters early are eligible for \$7,500. The Achievement Scholarship must be used for postsecondary instruction.

### EXPLORE and PLAN College Readiness Assessments

The Educational Planning and Assessment System (EPAS), one of the components of the state *Get Ready, Get Credit* program, guides Minnesota students toward postsecondary success. School districts and charter schools voluntarily participate in the EPAS program funded by the state. EPAS provides a longitudinal, systematic approach to educational and career planning, assessment, instructional support and evaluation. It is an achievement assessment that includes components in language arts, reading, mathematics, science, and on course- and career-planning.

These assessments are linked to the ACT assessment used for college admission and allow students, teachers, schools, and parents to determine college readiness earlier than the junior or senior year in high school. Funding provided through a federal College Access Challenge Grant supports training provided by the Center for Postsecondary Success for middle and high school counselors and teams to analyze data from EPAS assessments. A grant extension will allow for enhanced technical assistance in 2011-2012.

- 90,522 Minnesota students participated in these assessments in 2010,



an increase from approximately 85,000 in 2008

- Counselors from over 200 Minnesota districts have participated in training
- 70% of Minnesota graduates took the ACT in 2010
- Minnesota's ACT average composite score of 22.9 increased by 0.2 in 2010. The national average composite score is 21.0
- Since the state began supporting EXPLORE and PLAN testing in 2005, the average composite ACT score has moved from 22.3 to 22.9
- In 2010, 346 more underrepresented students took the ACT than in 2009

### Middle School Supports

The *Your Choice, Your Future* campaign for eighth graders, initiated during 2010-2011, involved 58 middle schools around the state in an effort to address the opportunity gap by making students aware of the benefits of taking more rigorous courses in high school. The campaign targets students in middle school, especially students of underrepresented groups, encouraging them to take a rigorous, "college-prep" curriculum in high school. MDE hosted several college- and career-readiness forums for eighth grade students, provided workshops and distributed materials.

### Minnesota P-20 Education Partnership Task Force

Minnesota's P-20 Education Partnership has charged a task force to develop a statewide plan by December 2011 to ensure that all middle school and high school students take rigorous courses that prepare them for college and careers.

The plan must:

- Analyze the number, type and quality of courses that secondary students currently take and how this relates to achievement patterns of student subgroups and students overall.
- Suggest strategies for ensuring that the following occur :
  - Educators, policy makers, business leaders and families understand the role of high expectations and support the achievement of all students;

- All students are enrolled in and successfully complete rigorous courses;
- Minority students and those from low-income families have access to a rigorous college-prep curriculum, including but not limited to content typically taught in Algebra II;
- All students have opportunities to build the skills necessary for success in rigorous coursework throughout their K-12 experience (e.g. Springboard, AVID, etc.); and
- The content suggested by course titles is sufficiently challenging and not watered-down (e.g., the content in Algebra II is not advanced arithmetic).

### Minnesota Common Course Catalogue

The Minnesota Common Course Catalogue (MCCC) currently lists classifications for all the courses that could be offered in high schools across Minnesota. MDE is implementing the MCCC in response to federal and state legislation, including:

- Federal HR 2272 America COMPETES Act of 2007 SEC. 6401. Required Elements of a Statewide Longitudinal Data System
- Minn. Statute 120B.35 Student Academic Achievement Growth,
- Minnesota Sessions Law 2009, Chapter 96, Article 2, Section 60– Implementing Rigorous Coursework Measures Related to Student Performance.

The MCCC is also an essential component in updating and modernizing MDE’s data collection systems. The MCCC data collections will track rigorous and dual credit courses students complete.

- *1.B.9 Does the SEA intend to work with the State’s IHEs and other teacher and principal preparation programs to better prepare: Incoming teachers to teach all students, including English language learners, students with disabilities, and low-achieving students to the new college- and career-ready*

*standards; and Incoming principals to provide strong, supportive instructional leadership; on teaching the new standards? If so, will the implementation of the plan likely improve the preparation of incoming teachers and principals?*

### Incoming Teachers

The Board of Teaching's pedagogical standards are required for all teacher candidates as part of their initial preparation as part of a mandated system under which all pre-service teacher preparation institutions are held accountable. Current standards are based on the 1992 INTASC standards. In particular, those standards require a teacher candidate to "understand Minnesota's graduation standards and how to implement them" (MN Rule 8710.2000, Subp. 5, A), as well as "be able to assess student performance toward achievement of the Minnesota graduation standards..." (MN Rule 8710.2000, Subp. 9, A), thus ensuring pre-service teachers are being prepared to teach new standards. Accountability in meeting these requirements is assured through the process of initial and ongoing program approval for teacher preparation institutions as part of the Board's process outlined in the manual for "Institutional and Teacher Education Program Evaluation," 2011 (e.g., p. 41). Furthermore, content standards for pre-service teachers outlined in MN Rule 8710.2000 mandates that teacher candidates "understand the role and alignment of district, school, and department mission and goals in program planning;" i.e., that all pre-service teachers must understand the state system of student standards and their implementation in the classroom.

We will revise standards to align with the new INTASC standards which are "a set of model core teaching standards outlining what teachers should know and be able to do to help all students reach the goal of being college- and career-ready in today's world." The new INTASC standards also strongly and directly address the needs of English learners and students with disabilities.

Additionally, the Board of Teaching adopted new literacy standards for Elementary and Early Childhood Education teacher candidates as well as teacher candidates in 16 content-specific fields. These literacy standards also address the needs of all students and will strengthen the preparation of teachers to serve all students.

### Incoming principals

The current system that determines preparation of new principals through oversight of the Minnesota Board of School Administrators requires principal preparation programs to do so according to a set of mandatory and systematic standards outlined in MN Administrative Rule. The Board also ensures those standards are being met as part of its administrative process of initial and ongoing approval of programs. The rules state that principals “shall demonstrate competence in... developing, adjusting, and implementing policy to meet local, state, and federal requirements and constitutional provisions, standards, and regulatory applications” (MN Rule 3512.0510, Subp. 1, D). Sections H and I of the Rule outline in detail principal standards for curriculum planning and instructional management to ensure principals act as effective instructional leaders in delivery of student standards for all students: e.g., “(4) demonstrating the ability to design appropriate assessment strategies for measuring learner outcomes; (5) demonstrating the ability to implement alternative instructional designs, curriculum, behavior management, and assessment accommodations and modifications.”

As part of an effort to support continuous improvement of principal preparation standards, the Minnesota Board of School Administrators initiated a study to review the licensing standards for principals. The study began in November 2010 and is funded by the Saint Paul Foundation and the Minnesota Community Foundation. It includes the following:

- Recruitment of Potential School Leadership.
  - Review and advise on targeted recruitment of leadership.
  - Design or identify models for leadership recruitment.
  - Design or identify “aptitude” and “attitude” pre-assessment tools to be used in part as an administrative license program screening devise.
  
- Pre-service Preparation Programs.
  - Design or identify pre-administrative training internship or practicum experience to assist identifying promising principal program candidates.
  - Review existing policies and procedures related to licensure training programs.

- Recommend alteration and streamlining of administrative competencies.
  - Design or identify specific principal competencies that will equip principals to lead instruction and create a school environment that will close the race and economic achievement gap for pre-kindergarten through grade 12 students.
  - Advise the Minnesota Board of School Administrators on use of the National Board Principal Certification as an alternative to Minnesota Licensing for those who meet that standard.
  - Research and determine the feasibility of a principal-internship or residency program with a focus on the “real life” principal experience.
  - Design or identify a pilot, mandatory Performance Assessment for Initial Licensure for all School Principals.
  - Advise the Minnesota Board of School Administrators on possible modifications in the approval, regulation and oversight of higher education administrative licensure training programs.
- Licensing and Certification
    - Design or identify model policy language for Tiered Administrative Licensure
    - Design or identify model policy language for Alternative Principal Licensure. Authority exists under Minnesota Statute 122A.27.
  - Continuing Professional Development
    - Design or identify model policy language for ongoing professional development linked with proposed Tiered Administrative Licensure
    - Design or identify model for “state of the art” professional development with a focus on closing the academic achievement gap.

### Teacher Preparation

Revised literacy standards and subsequent preparation will directly and significantly impact teacher preparation in Minnesota. A revision of our broad pedagogical standards to align with the new INTASC standards will also strengthen our preparation system. We do not yet have target dates for initiating and completing this work, but will soon be engaging in preliminary discussions to establish potential timelines and work plans.

### Principal Preparation

The results of the Minnesota Board of School Administrators study will be presented no later than May 2012. The Board will then determine which of the studies' recommendations will become recommendations for Minnesota Administrative Rule, the governing standard for training Minnesota Principals. The Minnesota Administrative Rule changes are to be in effect no later than July 1, 2013. The thirteen Minnesota Higher Education Institutions currently licensing new principals will be required to modify their curricular offerings based on the changes in the Minnesota Administrative Rule, thus improving the preparation of Minnesota principals.

- *1.B.10 Does the SEA plan to evaluate its current assessments and increase the rigor of those assessments and the alignment to the State's college- and career-readiness standards, in order to better prepare students and teachers for the new assessments through one or more of the following strategies:*
  - *Raising the State's academic achievement standards on its current assessments to ensure that they reflect a level of post-secondary readiness, or are being increased over time to that level of rigor? (E.g., the SEA might compare current achievement standards to a measure of post-secondary readiness by back-mapping from college entrance requirements or remediation rates, analyzing the relationship between proficient score on the State assessments and the ACT or SAT scores accepted by most of the state's 4 year public IHE;s or conducting NAEP mapping studies.)*
  - *Augmenting or revising current State assessments by adding questions, removing questions or varying formats in order to better align with the state's college- and career-ready standards?*

- *Implementing another strategy to increase the rigor of current assessments, such as using the “advanced” performance level on state assessments instead of “proficient” performance level as the goal for individual student performance or using college-preparatory assessments or other advanced tests on which IHE’s grant course credits to entering college students to determine whether their students are prepared for post-secondary success?*

*If so, is this activity likely to result in an increase in the State’s current assessments and their alignment with college- and career-ready standards?*

Minnesota revises and updates its assessment program on a cycle that follows the standards revision timeline set forth in section 1.B.1 of this section. The new MCA III assessments are aligned to college- and career-ready standards as certified by a letter from the University of Minnesota and the Minnesota State Colleges.

Minnesota chose to raise the level of its achievement standards through the standard-setting process. The Achievement Level Descriptors (ALDs) as described on page 8 of Attachment 13 reflect the efforts of Minnesota to increase rigor of the assessment and the alignment with college- and career-ready standards. This same ALD process will be used for all MCA III series assessments.

### Mathematics

Grades three through eight MCA III mathematics assessments are aligned to the 2007 academic standards. These standards are certified as meeting college- and career-readiness requirements by Minnesota IHEs (Attachment 5).

The standard setting activity for these assessments was conducted in June 2011. The Mathematics MCA-III, MCA-Modified, and MTAS in grades 3-8 have been peer reviewed.

### Reading/Language Arts

Minnesota’s recently revised 2010 academic standards in reading/language arts are aligned to the common core state standards. These assessments will be operational for spring 2013 administration. From 2013 and beyond these assessments will be aligned to college- and career-readiness standards.

The Scope of Work for the 2011-12 assessment contract with AIR found in section 2 of Attachment 14 provides further evidence for Minnesota's commitment to implement assessments aligned to college-and career-ready standards.

To facilitate an operational assessment in Reading MCA-III, Minnesota is conducting an online field test administration in February 2012. This field test includes item development consistent with the 2010 Minnesota Academic Standards in Language Arts, specifically increased Lexile readability, text sets, and technology-enhanced items to assess more cognitively complex concepts.

- 1. B.11 Does the SEA propose other activities in its transition plan? If so, is it likely that these activities will support the transition to and implementation of the State's college- and career-ready standards?

MDE is developing several initiatives and tools that will support the implementation of college- and career-ready standards. First we are developing an implementation plan for aligning and fully implementing the *Early Childhood Indicators of Progress: Minnesota's Early Learning Standards*, the *Minnesota Academic Standards* as well as the *World-Class Instructional Design and Assessment (WIDA)* standards.

We are also using the innovative *Stages of Standards-Based Education* alignment tool. This rubric defines the stages of implementation for a system of standards-based education. It is based on the science of implementation and will guide the agency and school districts in the planning and implementation of systemic, standards-based education. Some of the areas addressed by the *Stages of Standards-Based Education* alignment tool are the following:

- Leadership
  - Decision makers / Who
  - Vision
  - School culture
  
- Policies/ Structures
  - Common focus/Structure
  - Beliefs about time and resources



- Evaluation (program)
- Grading (student)
- Teacher support and evaluation
  
- Professional development
  - Purpose
  - Characteristics of delivery
  - Evidence of effectiveness
  
- Curriculum, Instruction and Assessment
  - Curriculum development/mapping
  - Instruction
  - Assessment (formative, summative, diagnostic, other data as evidence of student learning)
  -

MDE will also continue to support districts in the implementation of the *Blueprint for Literacy* Plan that builds upon the college- and career-ready literacy expectations for 21<sup>st</sup> century learners and is designed to ensure a seamless delivery system for B-12 literacy instruction. This state literacy plan addresses the value of clear academic standards that ensure equity of opportunity and academic achievement for all learners, guidance and support on evidenced-based literacy instruction, and an expectation that schools and districts use multiple data points to assess whether learners have achieved the knowledge and skills necessary to be successful readers and writers. In addition through its network of *Math and Science Teacher Centers*, the newly launched *Minnesota Math and Science Frameworks*, and extensive menu of other supports, Minnesota will continue to build district capacity in mathematics and science.

Minnesota has a long history of adopting, implementing, and supporting college- and career-ready standards. The purpose of Minnesota's system of standards-based education is to equip all students with the knowledge and skills for success in postsecondary education as well as advanced work and civic participation. Minnesota law requires that the standards identify the K-12 educational expectations for the achievement of all students across the state, including college- and career- readiness skills. While academic standards are determined at

the state level, local school districts have flexibility to determine the curriculum, instructional methods, assessment tools and learning environments that will best help their students achieve the standards. MDE will continue to plan and implement systems of professional development and supports to ensure each school's success with its students.

## 1.C Develop and Administer Annual, Statewide, Aligned, High-Quality Assessments that Measure Student Growth

### Option C:

**If the SEA has developed and begun annually administering high-quality assessments in all LEAs and has set academic achievement standards, did the SEA attach evidence that the SEA has submitted these assessments and academic achievement standards to the Department for peer review (Attachment 7), or a timeline showing when the SEA will submit the assessments to the Department for peer review (Attachment 7)?**

MDE is administering high quality assessments that have been peer reviewed. Proficiency, growth and growth gap reduction methodologies all use results from Minnesota's high quality assessments.

- Math grades 3-8 was submitted for initial Peer Review in June 2011. We are currently preparing follow-up documentation requested for submission in January 2012.
- Reading/language arts grades 3-8 will be submitted for peer review in August 2013 after the initial administration.
- Math grade will be submitted for peer review in August 2014 after the initial administration.

Documentation of the peer review process currently taking place for Minnesota's math assessments can be found in Attachment 7.

Minnesota currently utilizes a modified assessment for some students with disabilities. Following direction from the US Department of Education, MDE will work with stakeholders to create a plan for future use of the MCA-Modified assessment. In order to comply with the guidance from the US Department of Education, MDE will work to limit the use of the assessment to the appropriate student population while moving toward a phase out in 2014-15. This scheduled phase out will be in compliance with the timelines outlined in the US Department of Education's written Guidance for this request.

## **2. A Develop and Implement a State-Based System of Differentiated, Recognition, Accountability, and Support**

**2.A.i Provide a description of the SEA’s differentiated recognition, accountability, and support system that includes all the components listed in Principle 2, the SEA’s plan for implementation of the differentiated recognition, accountability, and support system no later than the 2012-2013 school year, and an explanation of how the SEA’s Differentiated recognition, accountability, and support system is designed to improve student achievement, school performance, close achievement gaps and increase the quality of instruction for students.**

Minnesota’s proposed system of recognition, accountability and support has three goals:

1. Fairly and accurately measure the performance of all schools
2. Identify those Title I schools that need the most support
3. Give schools the data and tools they need to assess their needs and achieve meaningful school improvement.

At the core of this effort is the use of multiple measurements. Educators around the state have been asking to be judged not only by student proficiency rates but also by their ability to achieve high individual student growth, particularly with students from lower-performing subgroups. Minnesota’s proposed system does that in a way that extends the information currently provided in Adequate Yearly Progress (AYP) system to provide a more complete picture of school performance.

- a) Does the SEA’s accountability system provide differentiated recognition, accountability and support for all LEAs in the state and for all Title I schools in those LEA’s based on(1) student achievement in reading/language arts and mathematics, and other subjects at the State’s discretion for all students and all subgroups of students identifies in ESEA section 1111(b)(2)(C)(v)(II);, (2) graduation rates for all students and all subgroups; and (3) school performance and**

**progress over time, including performance and progress of all subgroups.**

Fair Measurements of Adequate Yearly Progress

Minnesota will continue to use its federally approved Adequate Yearly Progress Measures (AYP) measurements to provide Annual Measurable Objectives (AMOs) for all LEAs and schools in the state. Our current AMOs model includes participation on statewide assessments, an index rating for determining proficiency on statewide assessments in reading/language arts and mathematics, and attendance or four-year on-time graduation for the other indicator. Using the same AMOs also allows for continuity between the current and future accountability systems. Targets will be adjusted according to the requirements outlined in Option A. A full discussion of this can be found in section 2.B. of this document.

*Annual Measurable Objectives*-Progress on each AMOs status component is published annually on the School Report Cards. A link to the Functional Requirements for the 2011 No Child Left Behind Adequate Yearly Progress Calculations, providing a full technical description of these computations, is included as Attachment 15.

Even though the current AMOs system provides disaggregated information in each domain (participation, proficiency, attendance and graduation) for all eight required subgroups the underlying measurements do not include growth or credit for closing the achievement gap. A more complete picture is needed.

*Multiple Measurements of School Performance* - If approved, Minnesota will add an additional component to the statewide accountability system. A new Multiple Measurements Rating (MMR) will be calculated for each school in the state. The MMR combines four achievement measures to arrive at an overall rating:

- Proficiency
- Individual student growth
- Growth gap reduction
- Graduation rates

A school's performance on these measures is determined by student performance on Minnesota's statewide assessments in math and reading and the four-year on-time cohort graduation rate. This new rating is centered on what stakeholders deem to be the four most important factors in a school's success. If approved Minnesota's school accountability profile for the 2011-2012 school year will add the MMR to the accountability data it currently provides on an annual basis. A district's accountability profile will continue to show only the AMOs.

The MMR is based on state assessment data and graduation rate computations. It provides textured information to support school improvement activities and focus attention on closing the achievement gap by combining performance and progress measures.

- *Proficiency*

This domain uses the approved AYP index model which allows for a continued emphasis on the goal of promoting maximum levels of proficiency among students. For the MMR, two adjustments have been made to the approved index model with the goal of creating a stronger status achievement model that addresses the concern that the MMR does not have a strong enough emphasis on status achievement. First, schools and subgroups will not be able to make AYP through the state's approved AYP growth model. With a greater emphasis on growth in other domains, it is important to maintain a high value on the status achievement measurement in AYP. Second, to further strengthen the expectation of student proficiency, schools and subgroups will not be able to make AYP through Safe Harbor for the purposes of the MMR. While Safe Harbor has value in showing year-to-year improvement in the AYP measurement, the emphasis on growth in other domains makes this adjustment less relevant to the calculation. With these two adjustments to the AYP index model, schools will earn points in the proficiency domain only through reaching the AYP targets set by the Annual Measurable Objectives (AMOs). This places a greater emphasis on the importance of promoting proficiency as one of the primary goals in our accountability system. Schools earn points based on the percentage of measured subgroups that make AYP, with subgroups

weighted according to their size. MDE will continue to use multi-year averaging to account for small schools with dramatic statistical variations. A more detailed discussion of this calculation can be found in Attachment 15.

A weighted percentage of the number of groups making AYP is calculated to determine each school's overall achievement measure and their Focus achievement measure. The square root of the number of students in each group is used to weight the percentages. Weighting by the square root of the number of students gives greater relative weight to smaller/minority groups than larger/majority groups, which reinforces Minnesota's goal of closing achievement gaps. For example, if a school has 49 students eligible for free or reduced price lunch and 400 ineligible/affluent students, then their weights are 7 and 20, respectively. The lower-performing group comprises 11 percent ( $49/449$ ) of the students in this example, but they account for 26 percent ( $7/27$ ) of the weighted measure. In addition to reinforcing Minnesota's goal of closing achievement gaps, weighting by the square root of the number of students in each group helps ensure that the overall achievement measure and the Focus achievement measure are more precise than simply averaging percentages across groups.

For the MMR that will be calculated in early 2012 for the purposes of identifying the initial Priority, Focus and Reward Schools, Minnesota will use the first year targets of the proposed AMO model discussed in Section 2B. In effect, schools will be measured on whether their subgroups performed relative to the statewide averages of each subgroup in 2011. Schools that make AYP in a subgroup performed above the state average of that subgroup in 2011. Similarly, schools make AYP in the "all students" group if their percentage of proficient students was above the state average from 2011. This will allow MDE to identify Priority and Focus Schools that performed below the state average, and Reward Schools that performed above the state average.

- *Growth*

Parents, teachers, administrators, and policy makers have valid questions about the relative progress of students over time (Smith and Yen 2006). In accordance with NCLB, the Minnesota Assessment System develops and administers criterion-referenced tests aligned to grade-level academic standards. The tests are primarily designed to enable a determination of each student's proficiency level within their grade. Additionally, Minnesota's tests can provide information about students' relative achievement growth over time. Growth modeling represents a cost-effective way to maximize the return on Minnesota's investment in criterion-referenced testing by providing growth information.

*Purpose and validity*

The purpose of the Minnesota Growth calculation is to compute a standardized growth score for each student who took the same test in two consecutive administrations (e.g., students who took the reading MCA in grades 3 and 4). The Minnesota Growth methodology qualifies as a "grade-to-grade" growth model. (Smith and Yen 2006) Grade-to-grade growth models possess some of the same features that make vertical scaling, student growth percentiles, and value-added modeling useful, but grade-to-grade growth models are simpler and more defensible. In particular, by basing growth scores on two years' of matched data and using nonparametric smoothing, the Minnesota Growth model largely rules out the following validity threats:

1. falsely assuming unidimensionality across grades
2. confounding the influence of two or more schools on a student's most recent growth score
3. mis-specifying functional forms
4. making conclusions biased by student attrition and/or exclusion of students with special needs.

Minnesota's Technical Advisory Committee (TAC) has reviewed the Minnesota Growth methodology and found it appropriate. Even though Minnesota has developed a vertical scale for reporting purposes, it does



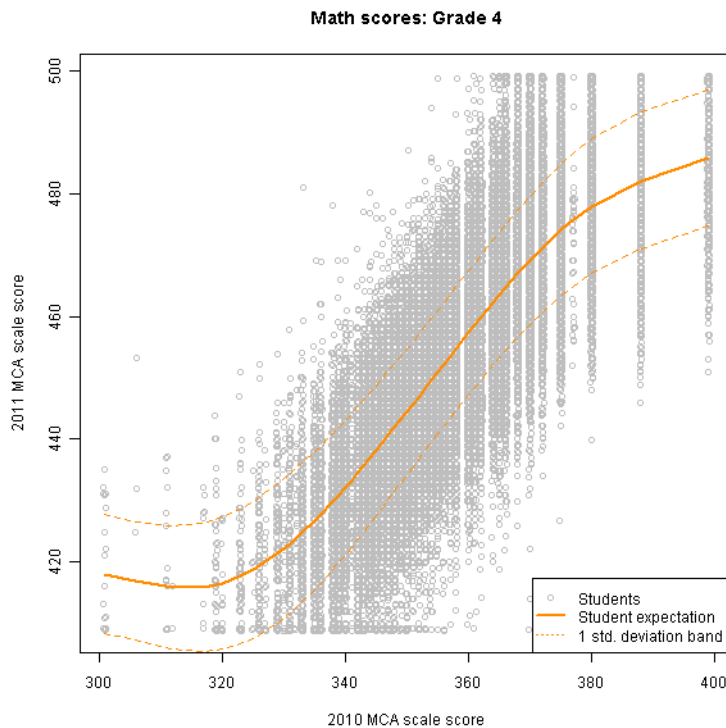
not include students with special needs who took the Minnesota Test of Academic Skills (alternate assessment); nor does it accommodate standard setting changes. Members of the TAC agreed that updated Minnesota Growth Model methodology is inclusive and flexible. Additionally, they felt that Minnesota's growth methodology would yield results that are comparable to those from the student growth percentile and value-added methodologies implemented in other states. The local TAC member participated fully in the stakeholder advisory meetings that helped shape Minnesota's ESEA Flexibility request.

### *Calculating student growth for state and federal accountability*

Growth is based on each student's current test score and their score from the prior administration (see the figure below). Statewide means are calculated for each prior score and subtracted from each student's current score to determine the degree to which each student exceeded expected/predicted growth. First, statewide means and standard deviations of students' current-year scale scores are calculated for each prior scale score. Second, nonparametric, kernel density methods are used to smooth and interpolate the conditional means and standard deviations across the prior scale score range. When possible, two cohorts of student test scores are used to calculate conditional means and standard deviations for better accuracy and precision. Third, at each prior scale score, the conditional mean is subtracted from each student's current score, yielding an unstandardized conditional growth score. Lastly, the conditional growth scores are standardized (i.e., converted to z-scores) by dividing by the conditional standard deviation. The formula for calculating student growth

z-scores is  $z_i = \frac{x_{ij} - \bar{x}_j}{\sigma_j}$ , where  $x_{ij}$  is student i's current-year scale score indexed by their prior scale score j on the test aligned to grade- and subject-specific standards,  $\bar{x}_j$  is the smoothed mean of current-year scores of all students statewide with prior score j, and  $\sigma_j$  is the smoothed standard deviation of current-year scores of all students statewide with prior score j. Note that after standardizing, each student's growth z-score is no longer specific to the prior score on the grade-level test.

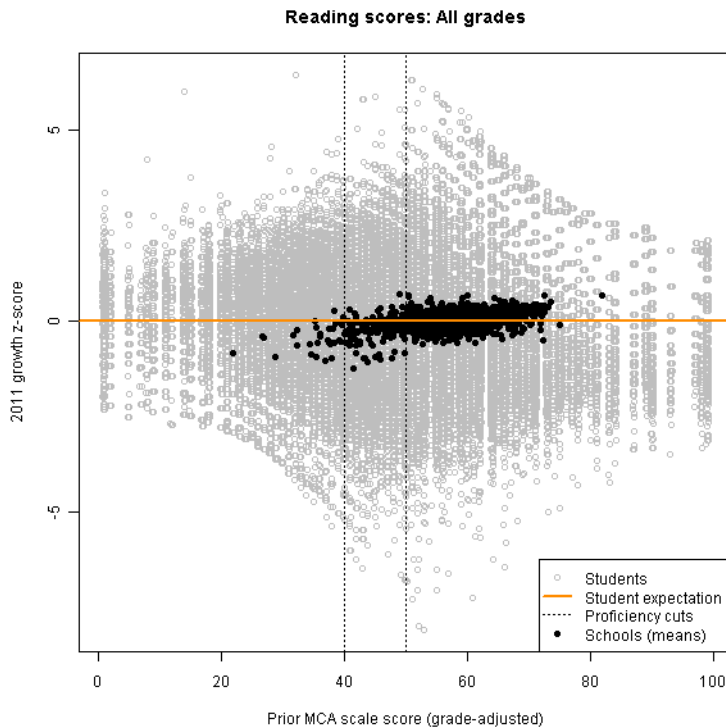
## Illustration of student growth calculation: Smoothed conditional means and standard deviations



### *Aggregating student growth at the school level*

A major advantage of student growth z-scores is that they can be averaged across tests and grades to achieve reliable measures of school-level growth. The Minnesota Assessment System develops criterion-referenced tests aligned to the state's grade-specific academic standards. As such, scores from different grades and tests do not share a common scale. In order to appropriately aggregate scores across tests and grades, scores must be standardized (i.e., converted to z-scores). The figure below illustrates how student growth z-scores are averaged across tests and grades within schools. Each school's mean z-score represents the degree to which students in that school grew faster (or slower) than expected. School means of student growth z-scores exhibit good overall reliability (0.86 for math and 0.74 for reading).

Illustration of averaging student growth across grades within schools to identify high- and low-growth schools.



Note: Plot limited to MCA takers only for illustration purposes.

### *Growth to proficiency*

Until now, Minnesota has not directly tied the Minnesota Growth Model to its academic standards that lead to college and career readiness. State statute (Minn. Stat. 120B.299) defines low growth as one-half standard deviation (SD) below expectation (i.e., a growth z-score below -0.5), medium growth as between -0.5 and 0.5 SD, and high growth as 0.5 SD and above. Those targets, while well-meaning, were not based on statistical evidence of the levels of growth necessary for students to achieve proficiency. Minnesota took the peer reviewers' recommendation to communicate an expectation of growth to standard seriously and conducted a predictive validity study to establish new growth targets that lead to college- and career-readiness.

The new growth-to-proficiency targets are based on a predictive validity study using historical data. If overall student achievement increases over time as intended, then the targets will be updated so they remain relevant

and rigorous. The study's main research question was, "To what degree do students at each score/achievement level need to grow in order to reach proficiency in four years or by graduation?" The data included students' 2011 proficiency levels (the outcome variable), their 2008 growth z-scores, and their 2007 scale scores for math and reading. Proficiency levels were logistically regressed on growth z-scores interacted with prior scale scores. The regression prediction equation was then used to classify students as either "on track" or "not on track" to proficiency. The equation was also used to determine the growth targets that best predict growth to proficiency.

The results indicate that adequate growth depends highly on a student's starting point (i.e., their prior achievement). Students who "do not meet" standards need to exhibit exceptional growth in order to reach proficiency. Students who "partially meet" standards have a good chance of achieving proficiency if they exhibit very high growth. The growth needed to reach proficiency declines as achievement approaches the "meets" and "exceeds" cut scores. And students who already exceed proficiency are highly likely to maintain proficiency. In terms of accountability, the results indicate that it is important to hold schools accountable for student growth because proficiency is within reach of students who are not yet proficient and students who are proficient but exhibit below-average growth are at risk for falling behind.

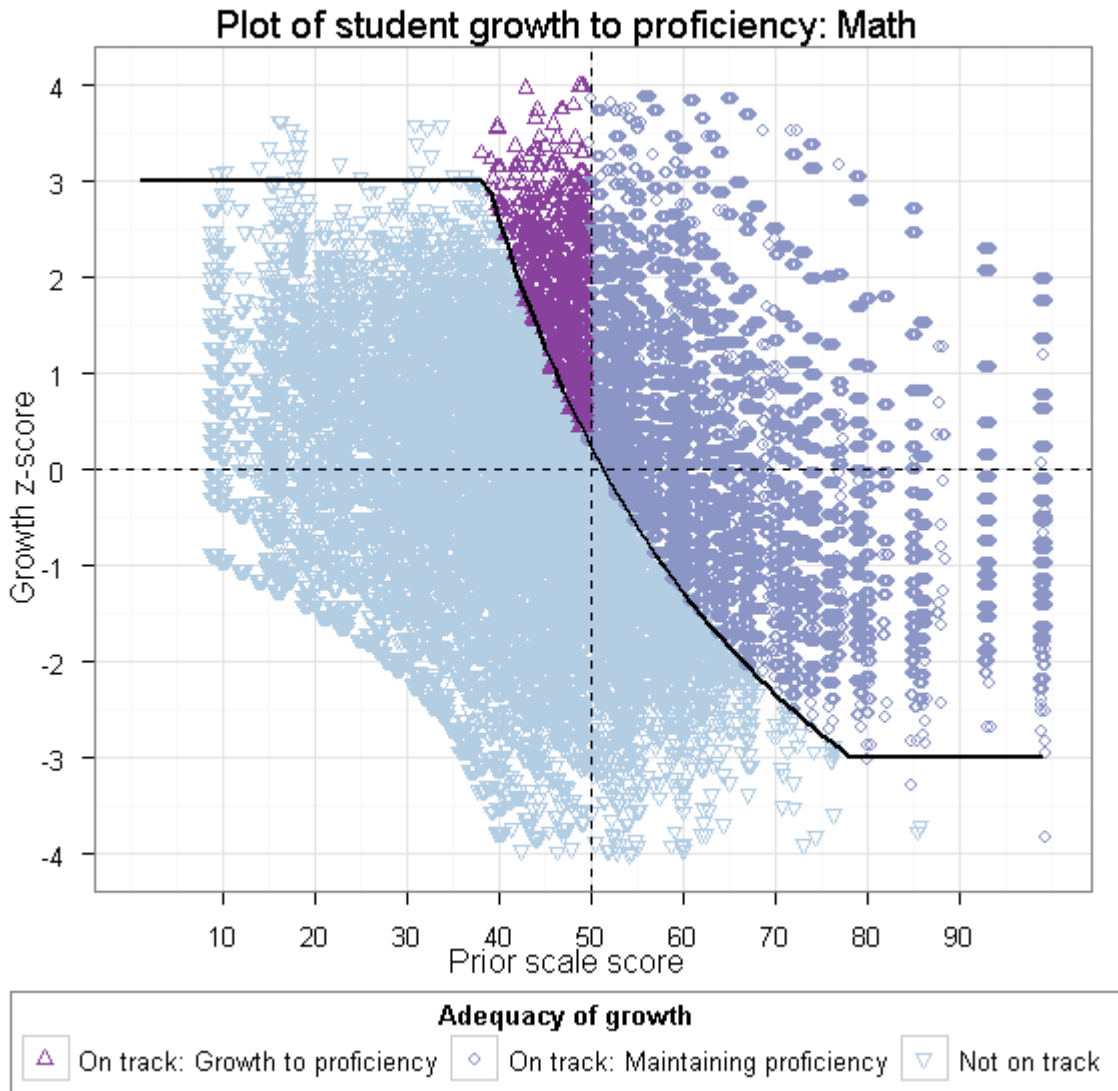
For both math and reading, the new growth targets correctly predict eventual proficiency a very high percent of the time (about 80 percent). As shown in the tables below, the new targets result in much higher accuracy than the statutorily defined "high growth" target. They also result in better accuracy than simply using a student's prior proficiency level to predict later proficiency. Given that the new targets- established in response to panelists' concerns- are valid predictors of proficiency, Minnesota will use them to communicate and strengthen expectations that growth should lead to college and career readiness for all students.

*Growth to proficiency prediction accuracy and targets: Math*

Prediction accuracy rates			
<b>Current proficiency level</b>	<b>Prior proficiency level</b>	<b>High growth (statutorily defined)</b>	<b>On track growth (new targets)</b>
Not proficient	0.703	0.784	0.798
Proficient	0.859	0.359	0.822
All students	0.786	0.559	0.810

Prior scale score (grade adjusted)	Growth z-score	Growth targets	
		Achievement level	Mean growth z-score within achievement level
1-38	3.00	Does not meet	2.99
39	2.89	Does not meet	2.99
40	2.58	Partially meets	1.39
41	2.29	Partially meets	1.39
42	2.02	Partially meets	1.39
43	1.75	Partially meets	1.39
44	1.51	Partially meets	1.39
45	1.27	Partially meets	1.39
46	1.04	Partially meets	1.39
47	0.83	Partially meets	1.39
48	0.62	Partially meets	1.39
49	0.43	Partially meets	1.39
50	0.24	Meets	-0.47
51	0.06	Meets	-0.47
52	-0.12	Meets	-0.47
53	-0.28	Meets	-0.47
54	-0.44	Meets	-0.47
55	-0.59	Meets	-0.47
56	-0.74	Meets	-0.47
57	-0.88	Meets	-0.47
58	-1.02	Meets	-0.47
59	-1.15	Meets	-0.47
60	-1.28	Exceeds	-2.16
61	-1.40	Exceeds	-2.16
62	-1.52	Exceeds	-2.16
63	-1.63	Exceeds	-2.16
64	-1.75	Exceeds	-2.16
65	-1.85	Exceeds	-2.16
66	-1.96	Exceeds	-2.16
67	-2.06	Exceeds	-2.16
68	-2.15	Exceeds	-2.16
69	-2.25	Exceeds	-2.16
70	-2.34	Exceeds	-2.16
71	-2.43	Exceeds	-2.16
72	-2.51	Exceeds	-2.16
73	-2.60	Exceeds	-2.16
74	-2.68	Exceeds	-2.16

75	-2.76	Exceeds	-2.16
76	-2.83	Exceeds	-2.16
77	-2.91	Exceeds	-2.16
78	-2.98	Exceeds	-2.16
79-99	-3.00	Exceeds	-2.16

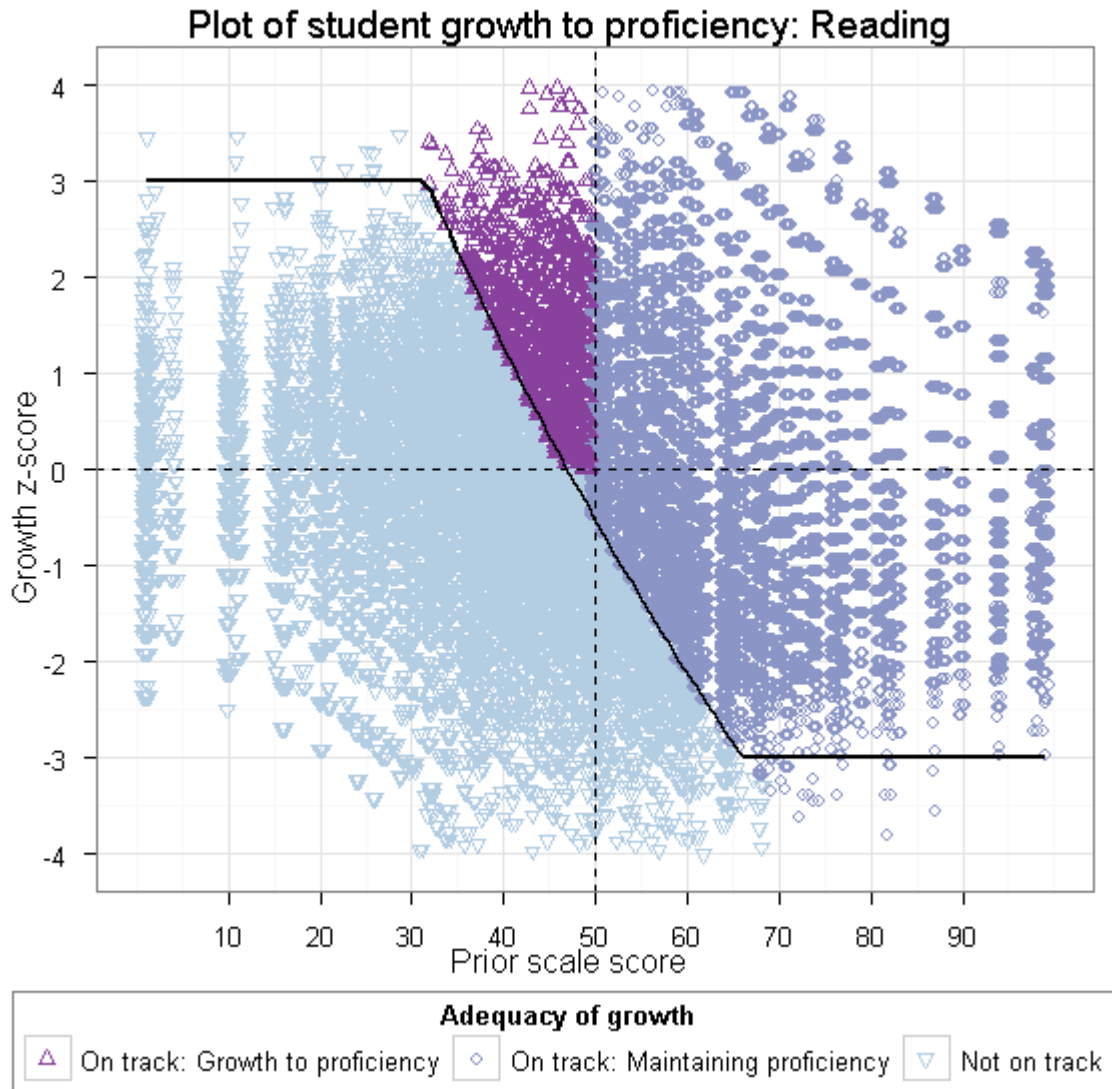


***Growth to proficiency prediction accuracy and targets: Reading***

Prediction accuracy rates			
<b>Current proficiency level</b>	<b>Prior proficiency level</b>	<b>High growth (statutorily defined)</b>	<b>On track growth (new targets)</b>
Not proficient	0.610	0.809	0.594
Proficient	0.894	0.328	0.926
All students	0.816	0.460	0.834



Prior scale score (grade adjusted)	Growth targets		
	Growth z-score	Achievement level	Mean growth z-score within achievement level
1-31	3.00	Does not meet	2.55
32	2.90	Does not meet	2.55
33	2.69	Does not meet	2.55
34	2.48	Does not meet	2.55
35	2.27	Does not meet	2.55
36	2.07	Does not meet	2.55
37	1.87	Does not meet	2.55
38	1.67	Does not meet	2.55
39	1.47	Does not meet	2.55
40	1.28	Partially meets	0.42
41	1.09	Partially meets	0.42
42	0.90	Partially meets	0.42
43	0.71	Partially meets	0.42
44	0.53	Partially meets	0.42
45	0.35	Partially meets	0.42
46	0.17	Partially meets	0.42
47	-0.01	Partially meets	0.42
48	-0.18	Partially meets	0.42
49	-0.35	Partially meets	0.42
50	-0.52	Meets	-1.23
51	-0.69	Meets	-1.23
52	-0.86	Meets	-1.23
53	-1.02	Meets	-1.23
54	-1.18	Meets	-1.23
55	-1.34	Meets	-1.23
56	-1.50	Meets	-1.23
57	-1.66	Meets	-1.23
58	-1.81	Meets	-1.23
59	-1.97	Meets	-1.23
60	-2.12	Exceeds	-2.79
61	-2.27	Exceeds	-2.79
62	-2.41	Exceeds	-2.79
63	-2.56	Exceeds	-2.79
64	-2.70	Exceeds	-2.79
65	-2.84	Exceeds	-2.79
66	-2.98	Exceeds	-2.79
67-99	-3.00	Exceeds	-2.79



The functional specifications of the Minnesota Growth computation can be found in Attachment 16. Adjustments will be made to this document to reflect changes associated with the approval of this Request.

- *Growth gap reduction*

Growth gap reduction is focused on students in black, Asian, Hispanic, American Indian, special education, English learners and students qualifying for free or reduced price lunch subgroups.

Schools receive a score based on the average of individual student growth Z-scores in these seven subgroups compared to the statewide average individual student growth in higher-performing subgroups.

Growth gaps are a school-level measure of the degree to which higher-performing student groups at the state level are growing faster than lower-performing students in the school. Within each school, student growth score means are calculated for each of seven, lower-performing subgroups: students eligible for free or reduced price lunch, English learners, special education students, and students identifying as American Indian, Asian, Black, or Hispanic. The growth of each of these groups is compared to the fixed statewide average growth of their higher-performing counterparts. The Free/Reduced Price Lunch subgroup is compared to students who do not qualify for free or reduced price lunch. The Limited English Proficient subgroup is compared to students who are not Limited English Proficient. The Special Education subgroup is compared to students who are not in Special Education. The four racial and ethnic minority groups are compared to the White subgroup.

By subtracting the statewide mean growth of each higher-performing group from the school's mean growth exhibited by the corresponding lower-performing group the result is a standardized effect size measure of the degree to which a given school closed the achievement gap. Negative values indicate the gap is closing and positive values indicate a widening gap. A student-weighted average of growth gap effect sizes is calculated to determine each school's overall growth gap effect size. Each school is then given a percentile ranking based on its contribution to growth gap reduction (i.e., their weighted average of growth gap effect sizes).

Some of the peer reviewers expressed concern that the achievement gap reduction measure could allow a school to get credit for closing achievement gaps even if their within-school gaps stagnate or widen. We have adopted their suggestion and revised the way in which growth gap targets are fixed. ESEA Flexibility requires that we rank and recognize schools according to their performance relative to other schools, but we intend to fix the growth gap targets so they do not automatically fluctuate with changes in the performance of other schools. That is, a school should

not get credit for reducing achievement gaps if the achievement of a higher-performing subgroup declines. That risk is minimized by empirically setting the growth targets to the statewide mean growth of higher performing groups rather than to each school's mean. Individual schools cannot influence the statewide mean growth of students as they could the average growth of their own students, and the statewide means will remain more stable over time. (Note that the growth gap targets are hard-wired into the growth gap measurement by subtracting school means from the targets.) After setting the targets in the first year, they will be fixed at those values to prevent normative fluctuations. The statewide means will be re-calculated every year, but the targets will only be updated if the average growth of higher-performing group increases substantially. The empirically-based targets will be fixed in order to track progress towards closing achievement gaps over time in terms of the achievement gap measurement, and the targets will only be updated to make them more rigorous and relevant. As the final list of Reward, Focus, and Priority schools shows, nearly every reward school contributed to a statewide reduction in achievement gaps. This confirms that hard-wiring the empirically fixed growth gap targets into the ranking measure is rigorous and appropriate for identifying schools for recognition, accountability and support.

#### *Calculating growth gaps for state and federal accountability*

Coinciding with ESEA Flexibility, Minnesota has begun using growth scores to focus attention on closing achievement gaps. According to the National Assessment of Educational Progress (NAEP), Minnesota students exhibit high levels of achievement compared to other states, but our achievement gaps are among the worst in the nation. For example, students eligible for free or reduced price lunch had a mean score of 43.87 on the math MCA (grade-adjusted), which corresponds to "partially meets" proficiency. Their more affluent peers "met" proficiency at 54.38 on average. What is more, students in poverty did not grow positively (-0.14), but their more affluent peers grew positively (0.9) for a growth gap of 0.24 standard deviation statewide.

Because students who have economic and other educational advantages exhibit higher achievement and higher growth than their less advantaged peers, closing achievement gaps will require disadvantaged groups to grow at a faster rate than their advantaged peers. Minnesota's growth gap measure is consistent with that theory of action. It focuses attention on the need to accelerate the growth of disadvantaged subgroups in order to close achievement gaps. Were all schools to reverse this growth gap so students in lower-performing subgroups were growing at a higher rate than their currently higher-performing peers, the achievement gap would be eliminated over time. The table below lists Minnesota's achievement and growth gaps.

*Achievement gaps and growth gaps: Statewide by subject\**

	Students	Mean prior score (grade adjusted)	Mean current score (grade adjusted)	Mean growth z-score (fixed targets highlighted)	Growth gap
<b>Math</b>					
<b>Eligible for free or reduced price lunch</b>					
No	219316	59.64	54.38	<b>0.1</b>	
Yes	120747	50.01	43.87	-0.14	0.24
<b>English learner</b>					
No	318158	57.05	51.45	<b>0.02</b>	
Yes	21905	44.48	39.44	-0.11	0.13
<b>Special education</b>					
No	297102	57.68	52.24	<b>0.05</b>	
Yes	42961	45.17	38.6	-0.24	0.29
<b>Race/ethnicity</b>					
American Indian	6938	48.63	41.42	-0.29	0.34
Asian	21572	55.32	50.69	0.13	-0.08
Hispanic	21469	48.2	42.02	-0.17	0.22
Black	30431	45.91	39.72	-0.2	0.25
White	259653	58.38	52.9	<b>0.05</b>	
<b>Reading</b>					
<b>Eligible for free or reduced price lunch</b>					
No	218632	62.01	61.12	<b>0.09</b>	
Yes	121944	51.43	51.41	-0.12	0.21
<b>English learner</b>					
No	318707	59.31	58.55	<b>0.02</b>	
Yes	21869	42.77	44.84	-0.11	0.13
<b>Special education</b>					
No	297948	59.85	59.19	<b>0.05</b>	
Yes	42628	45.76	45.72	-0.26	0.31
<b>Race/ethnicity</b>					
American Indian	7067	50.45	49.96	-0.2	0.24
Asian	21416	54.61	55.14	0.04	0
Hispanic	21599	49.42	50.01	-0.1	0.14
Black	30647	48.69	49.57	-0.1	0.14
White	259847	60.6	59.66	<b>0.04</b>	

\* The mean scale score columns in the table are limited to MCA scores to incompatibility with the MTAS scale. MTAS takers are included in the counts and z-scores.

For each school, the statewide mean growth of each higher-performing group (i.e., the fixed growth gap target) is subtracted from the school's mean growth exhibited by the corresponding lower-performing group. This yields a standardized effect size measure of the degree to which a given school closed the achievement gap, with negative values indicating closure and positive values indicating a widening gap. Growth gap sizes of -0.3 standard deviation represent a small achievement gap reduction, -0.5 medium, and -0.8 large. (Cohen 2003) A weighted average of growth gap effect sizes is calculated to determine each school's overall growth gap z-score. The square root of the number of students in each group is used to weight the average. Weighting by the square root of the number of students gives greater relative weight to smaller/minority groups than larger/majority groups, which reinforces Minnesota's goal of closing achievement gaps. For example, if a school has 49 students eligible for free or reduced price lunch and 400 ineligible/affluent students, then their weights are 7 and 20, respectively. The lower-performing group comprises 11 percent (49/449) of the students in this example, but they account for 26 percent (7/27) of the weighted measure. In addition to reinforcing Minnesota's goal of closing achievement gaps, weighting by the square root of the number of students in each group helps ensure that the growth gap measure is more precise than a simple average across groups.

*Illustration of the school-level economic growth gap calculation*

School	Statewide mean of advantaged students' growth z-scores	School mean of disadvantaged students' growth z-scores	Gap (statewide advantaged z-score minus school's disadvantaged z-score)	Gap interpretation
1	0.09	0.21	-0.12	Favors disadvantaged group (closing achievement gap)
2	0.09	-0.20	0.29	Favors advantaged group (increasing achievement gap)

The functional specifications of the growth gap calculation can be found in Attachment 16. Adjustments will be made to this document to reflect changes associated with the approval of this Request.

- *Graduation*

The graduation rate domain measures schools by their ability to meet statewide targets for graduation rates. Using the same methodology as the proficiency domain, we will assign points to schools based on the number

of subgroups that made AYP in the graduation rate indicator. This provides continuity not only with the proficiency domain, but with the expectations for graduation rates that have been set in the current AYP model. This methodology differs from the current AYP model, which only uses subgroup graduation rates to determine eligibility for Safe Harbor. Schools will earn points based on not just their overall graduation rate, but also on the graduation rates of their subgroups. This sets a clear expectation that all subgroups must meet graduation rate targets. In this way, the proposed model places greater emphasis on the importance of subgroup performance. The inclusion of subgroup accountability for graduation rates addresses concerns raised by peer reviewers.

For the MMR that will be calculated in early 2012 for the purposes of identifying the initial Priority, Focus and Reward Schools, Minnesota's current AYP graduation rate calculation and targets will be used. The graduation rate calculation that is currently used for AYP looks at the number of students that graduated in 2010 and the number of students in grades 9 through 12 that dropped out of school. The target for making AYP is 85 percent. The minimum cell size for subgroup measurement is 40 students. While this methodology differs from the cohort-adjusted graduation rates that all states must use beginning with the 2011-12 school year, it is the methodology that was known to schools during the year for which they will be measured (2010). In fairness to schools, Minnesota will maintain this methodology and its associated targets for the 2010-11 school year MMR, but will then transition to cohort-adjusted graduation rates in 2011-12 as mandated by federal regulation. Minnesota is already reporting cohort-adjusted graduation rates in compliance with regulation, but its cohort-adjusted graduation rate model has not yet been approved by the US Department of Education, and AMOs for graduation rate have not yet been assigned. Upon approval, and the establishment of targets in 2012, the new methodology and targets will be used in the graduation rate domain of the MMR. A more detailed discussion of this cohort-adjusted calculation can be found in Attachment 17.



The graduation rate domain will not count subgroups or schools that make AYP through progress. In the current AYP model, schools can make AYP by improving their graduation rates by two percent or more, even if they are below the 85 percent target. For the purposes of the MMR, only schools and subgroups that meet or exceed the target will be considered to have made AYP. This makes the graduation rate domain a stronger status achievement indicator.

A weighted percentage of the number of groups meeting graduation rate targets is calculated to determine each school's overall graduation rate measure. The square root of the number of students in each group is used to weight the percentage. Weighting by the square root of the number of students gives greater relative weight to smaller/minority groups than larger/majority groups, which reinforces Minnesota's goal of closing achievement gaps. For example, if a school has 49 students eligible for free or reduced price lunch and 400 ineligible/affluent students, then their weights are 7 and 20, respectively. The lower-performing group comprises 11 percent (49/449) of the students in this example, but they account for 26 percent (7/27) of the weighted measure. In addition to reinforcing Minnesota's goal of closing achievement gaps, weighting by the square root of the number of students in each group helps ensure that the overall graduation rate measure is more precise than simply averaging percentages across groups.

The nature of high school graduation in Minnesota also makes graduation rate a strong status achievement indicator. In order to graduate, students are assessed in three subjects with college- and career-ready standards, and must take courses aligned with college- and career-ready expectations. Therefore, graduation in Minnesota is aligned with college- and career-ready expectations, and graduation rates are a reflection of students meeting college- and career-ready standards.

### Multiple Measurements Rating (MMR)

Each of the four domains described above is computed individually and is based on two years' worth of data to ensure statistical validity and minimize the effects of small group sizes.

Schools receive a total number of points based on all four of the domains described above. Schools that do not generate data in any of the four domains (e.g. schools without a graduation rate) have a reduced number of possible points. The following steps are used to combine the four measures into a total rating. First, schools are separated into four categories by grade ranges: elementary, middle/junior high, high school, and other. Schools that do not qualify as one of the three main groups are labeled "other". This includes schools such as care and treatment programs or schools without traditional grade range structures. Second, each school receives a percentile for each of the four measurements based on their performance relative to other schools within their grade ranges. Third, percentiles are multiplied by 25 (i.e., the number of possible points for each measurement) to generate points earned in each domain. Lastly, each school's total earned points are divided by their total possible points to arrive at a percentage of possible points earned. This percentage is a school's MMR.

Peer reviewers concluded that Minnesota's proposed system of differentiated recognition, accountability, and support meets the technical requirements. The panel noted that a strength of Minnesota proposed system is its focus on college- and career-readiness, including student achievement, growth, and graduation. However, the panel recommended strengthening expectations for raising achievement and closing gaps communicated through the MMR. In this submission, Minnesota has taken concrete steps to address the panel's concern and strengthen expectations by:

- placing more weight on status achievement by removing both safe harbor and value-table growth from the MMR Proficiency domain;
- revising the MMR graduation rate measurement so that schools receive points for each student subgroup meeting rigorous graduation rate targets;
- establishing new, more rigorous growth targets that clearly communicate the levels of growth necessary for students to achieve proficiency in four years or by graduation.

Some peer reviewers expressed concern that MMR points are calculated relative to the performance of other schools. We have revised our measurement so that each one is now tied to defined performance targets that are fixed in time so they do not automatically fluctuate with changes in the performance of other schools. For example, a school cannot earn points for reducing achievement gaps if the achievement of an advantaged subgroup of students declines. Because ESEA Flexibility requires us identify the top 15% and bottom 5% of schools we must rank schools relative to other schools. The MMR reinforces the expectation that schools make Adequate Yearly Progress because the Annual Measurable Objectives and the MMR both require schools to keep pace with each other as overall student achievement increases. We also have two strategic reasons for awarding points based on a simple ranking of four meaningful domains with one measure per domain:

- a simple ranking avoids distracting and burdening schools with a new "point system" in favor of focusing schools' attention on just four measures tied to the college- and career-readiness of all students;
- a simple ranking reduces the incentive for schools to seek out ways to "game the system" by choosing one particular measure or target over others because it is easier for them to meet and gain points.

The MMR method for identifying schools for recognition, accountability and support uses a proper balance of status achievements and growth. In three of the four domains, status achievement targets are utilized to determine the number of points a school earns. The proficiency domain sets hard targets for proficiency based on the state's AMOs. The achievement gap reduction domain sets hard targets for the growth of students in lower-performing subgroups that are aligned to the goal of closing the achievement gap. Finally, the graduation rate domain sets hard targets for graduation rates based on the state's AYP model. Since graduation in Minnesota is aligned to career- and college-ready expectations, graduation rates are a measure of success in meeting these expectations. Only the growth measurement lacks status achievement targets, but the lack of targets reflects a desire to avoid incentivizing an over-focus on the small group of students right above or below the proficiency line. Even in the this domain, which lacks hard targets, there are clearly communicated growth goals that set expectations for schools that are aligned with college- and career-readiness. In

the growth domain, results will be published alongside soft growth targets that communicate the expectation of growth to standards for those students who are not proficient.

The impact data for the MMR clearly exhibits that the methodology rewards schools with high achievement, and identifies problems at schools with low achievement. Evidence of this can be found in the Demonstration that Minnesota's List of Schools Meets the US Department of Education's Definition of Priority, Focus and Reward Schools. (Attachment 23)

A Multiple Measurements Chart will be posted in the school accountability profiles on the MDE website for every school in the state. The chart will show the school's performance on all four domains and its total percentage of points earned out of their possible points. Using the interactive data center on the MDE website, interested members of the public can compare school performance on all four of the domains and on the overall percentage of points earned. An example of the Multiple Measurements Chart can be found below:

DISTRICT: Sampleville SCHOOL: Sampleville Secondary TITLE I: Yes ACCOUNTABILITY STATUS: Reward School		
<b>MEASUREMENT</b>	<b>POINTS EARNED/POINTS POSSIBLE</b>	<b>PERCENTAGE</b>
Proficiency	25/25	100%
Student Growth	23.7/25	94.8%
Achievement Gap Reduction	22.9/25	91.6%
Graduation Rate	24.8/25	99.2%
<b>Total</b>	<b>96.4/100</b>	<b>96.4%</b>
<b>Statewide Average</b>		50.1%

2.A.ii Select the option that pertains to the SEA and provide the corresponding information, if any.

<p><b>Option A</b></p> <p>X The SEA only includes student achievement on reading/language arts and mathematics assessments in its differentiated recognition, accountability, and support system and to identify reward, priority, and focus schools.</p>	<p><b>Option B</b></p> <p>If the SEA includes student achievement on assessments in addition to reading/language arts and mathematics in its differentiated recognition, accountability, and support system and to identify reward, priority, and focus schools, it must:</p> <ul style="list-style-type: none"> <li>a. provide the percentage of students in the “all students” group that performed at the proficient level on the State’s most recent administration of each assessment for all grades assessed; and</li> <li>b. include an explanation of how the included assessments will be weighted in a manner that will result in holding schools accountable for ensuring all students achieve college- and career-ready standards.</li> </ul>
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## 2. B Set Ambitious But Achievable Annual Measurable Objectives

### Option A:

**Did the SEA set its AMO's so they increase in annual increments toward a goal of reducing by half the percentage of students in the "all students" group and in each subgroup who are not proficient?**

- i. **Did the SEA provide the new AMO's and the method used to set these AMO's?**

Minnesota has chosen to reset Annual Measurable Objectives (AMOs) using Option A. We selected this option because it is both ambitious and achievable. Setting different targets for different subgroups reflects the current conditions in classrooms and shines a light on Minnesota's biggest educational crisis: the achievement gap.

By drawing more attention to the current situation and setting an ambitious six-year goal, the hope is that the state as a whole will rally around this goal and continue to make closing the achievement gap a major priority in education. AMOs are used to award points in the proficiency category of the MMR, which gives greater importance to the AMOs and the underlying goal of closing the achievement gap. The new AYP targets can be found in Attachment 19.

*Methodology-* We used the process in our approved workbook for the approved index system for computing proficiency but revised the index targets. Revised statewide targets were set by using the current proficiency rates based on our approved AYP index model for each grade and subgroup from the 2011 results (See Attachment 8). These values were incremented in equal steps so that there would be a 50% reduction in non-proficient students by 2017.

50% reduction

$$((1 - [\text{starting index}]) * 0.5) + [\text{starting index}]$$

If .58 was the starting index, they would need to be at .79 by 2017

$$1.00 - .58 = .42$$

$$.42 * .5 = .21$$

$$.58 + .21 = .79$$

The Functional Requirements for the 2011 No Child Left Behind Adequate Yearly Progress Calculations” can be found in Attachment 15.

**ii. Did the SEA use current proficiency rates from the 2010-2011 school year as the base year?**

To generate the new AMOs, Minnesota used the current proficiency rates on the assessments taken during the 2010-2011 school year for every subgroup at every grade level as the starting points for every subgroup and projected a 50 percent decrease in non-proficiency over the course of six years using equal annual increments. The statewide averages can be found in Attachment 8.

**iii. If the SEA set AMOs that differ by LEA, school, or subgroup do the AMOs require LEAs, schools and subgroups to make greater rates of annual progress?**

The effect of this method is that subgroups that currently have a lower rate of proficiency start with lower targets but are expected to make greater rates of annual progress during the six-year period. Within six years, the gap between the lower-performing subgroups and the higher-performing subgroups is cut in half.



## 2. C Reward Schools

### 2.C.i Describe the methodology for identifying highest-performing and high-progress schools as reward schools?

#### Philosophy of Reward School Identification

To understand how Reward Schools are identified, it is important to first understand the purpose that is served by identifying Reward Schools: Incentivizing high performance and progress among Title I schools, and highlighting best practices to be shared with all schools, particularly Priority and Focus Schools. To those ends, the methodology used to identify Reward Schools must identify schools that are performing well in all measurements that are valued by the state and identify school types proportionally.

*Methodology*- Reward Schools will be identified using the Multiple Measurements Rating (MMR) described in detail in section 2.A.i of this document. Using the top 15 percent of Title I schools will be identified as Reward Schools. These schools will represent the highest-performing elementary schools, middle schools and high schools in the state based on their ability to achieve high rates of proficiency, high levels of growth, growth gap reduction and high graduation rates.

Within the four school classifications of elementary school, middle school, high school, and others, the Title I schools with percentages that fall within the top 15 percent are identified as Reward Schools. The final group of Reward Schools will not be differentiated between highest-progress and highest-performing schools because the MMR captures both performance status using proficiency, and student progress using student growth. Reward Schools will exhibit both high levels of performance and high levels of progress.

This methodology achieves the two goals of identifying Reward Schools by incentivizing schools to perform well on the four measurements that are most valued by the state and creating a group of high-performing schools that is representative of the schools around the state. Using this methodology, the state can incentivize high proficiency and growth while highlighting the best practices from schools around the state.

*Recognition*- Each year, the Governor and Commissioner of Education will publicly recognize the achievement of the top 15 percent of Title I schools based on their MMR. Public recognition will continue to be the primary reward for these schools. Minnesota is also pursuing funds from the state or private sources to financially support Reward Schools that are willing to partner with low-performing schools to share best practices.

**2.C.ii Did the SEA’s request identify both highest-performing and high-progress schools as part of its first set of identified reward schools?  
(Table 2)**

We have included a table to identify preliminary Reward Schools (Attachment 9). This list does not disclose the identity of individual schools as the computation is based on preliminary impact data runs. Upon approval of the methodology by USDOE, Minnesota will begin the standard production process to create new annual statewide accountability statistics. The IT development team will use SQL programming to pull data from production warehouse sources creating full functional documentation. Quality assurance routines will be run to verify and validate the computational results. This is the standard methodological process for releasing any statewide high stakes education statistics to ensure validity and reliability of data.

The attached table (Attachment 9) identifies 125 Reward Schools. This number of schools represents 15 percent of the state’s Title I schools. In 2010-11, Minnesota had 842 Title I schools. Some of the attached documentation reflects a lower number of Title I schools in 2011-12, which reflects Title I applications that are still being processed by the state. Historically, Minnesota has had between 835 and 845 Title I schools.

Reward Schools, like Priority and Focus Schools, were identified on a proportional basis using grade classification. This is why the table reflects a far greater number of elementary schools than any other grade classification. This decision was made to accurately reflect the universe of schools participating in Title I, and to create

natural partnerships among Reward Schools and Priority and Focus Schools in order to share best practices.

Please note that in order to avoid unnecessary disruption in schools, identifying information about schools has been redacted from Attachment 9. Upon approval of Minnesota's ESEA Flexibility Request, MDE will perform quality assurance on the MMR computation to ensure that the lists are completely accurate. Minnesota will also perform outreach to identified schools in order to ease the transition to Priority and Focus status once the results are made public. MDE anticipates that this process of finalizing the lists and releasing them publicly will take approximately eight weeks.

The Reward Schools listed in Attachment 9 meet the Department's definition of Highest Achieving and Highest Progress. Evidence of this can be found in the Demonstration that Minnesota's List of Schools Meets the US Department of Education's Definition of Priority, Focus and Reward Schools. (Attachment 23)

**2.C.iii Did the SEA Describe how the SEA will publically recognize and, if possible, reward the highest and high-progress schools?**

- *Has the SEA provided a reasonable explanation of why its proposed recognition and where applicable rewards are likely to be considered meaningful by schools? For example has the SEA consulted with LEA's and schools in designing its recognition, and where applicable, rewards?*

Minnesota believes the opportunity to identify Reward Schools is one of the most critical elements of its proposed system of recognition, accountability and support. The current AYP system is based mostly on sticks and lacks the carrots necessary to motivate schools to improve and set ambitious goals that go beyond the AMOs. Reward Schools are the carrot that an effective accountability system must have to motivate high achievement and identify the best practices of schools around the state.

The primary reward for schools will be public recognition. In consulting with stakeholders from schools and LEAs, MDE has gleaned that the most meaningful

incentive for schools is the opportunity to have their good work recognized. The SEA will work with LEAs to determine the best methods for publicly recognizing Reward Schools.

*Proposed Recognition-* At a minimum, Minnesota plans to hold an annual press conference to announce the list of Reward Schools, publish a list of Reward Schools on MDE's website, have the Governor or Commissioner of Education visit Reward Schools to congratulate the students and staff and present plaques or certificates to Reward Schools. LEAs have said that such steps would make the Reward School designation meaningful and motivate schools to set ambitious goals to reach Reward School status.

*Stakeholder Input* -A lack of state resources at the present time limits MDE's ability to provide additional rewards to Reward Schools, but over time MDE hopes to develop ways to provide financial and other incentives to Reward Schools. One way the MDE hopes to provide financial rewards is by securing a funding source, either through private donations or repurposing of state funds, to provide financial incentives to Reward Schools that are willing to partner with Priority or Focus Schools to share best practices.

Stakeholders from around the state have expressed support for this idea and principals and superintendents have expressed a willingness to participate in such partnerships if financial restitution was available for those Reward Schools willing to have personnel take time to work with Priority and Focus Schools. Experience has shown that collaboration between educators is one of the most effective ways to improve performance and create a better academic environment for students, so finding a way to provide financial incentives to help Reward Schools that are willing to share their best practices with other schools holds great promise for improving the academic achievement of schools statewide.

Another preference expressed by stakeholders and LEAs that will not require additional resources is to have Reward Schools audited so MDE can share with leaders and instructors at Reward Schools which of their practices are most effective. This audit would be provided at no cost to the Reward School or its LEA and could be used by the school to assess what it is doing well and how it could continue to improve. The results of the audit would also increase the capacity of MDE to assist other schools by highlighting practices that work best in promoting

high academic achievement. MDE would use the results of such audits to create an online clearinghouse of information on best practices that schools around the state could access.

## 2.D Priority Schools

### 2.D.i Did the SEA describe its methodology for identifying a number of lowest-performing schools equal to at least five percent of the State's Title I schools as Priority Schools ?

#### Philosophy of Priority School Identification

To understand how Priority Schools are identified, it is important to first understand the identification of Priority Schools serves the purpose of identifying the lowest-performing schools so they can implement turnaround principles to fundamentally change the way they operate. It is critical that the methodology for identifying schools is comprehensive and has the necessary legitimacy to justify the severe sanctions they will be required to implement.

Every three years Minnesota will identify 5 percent of Title I schools with the lowest performance. Two groups will be included: those with the lowest MMRs and Tier I School Improvement Grant (SIG) schools that are implementing one of the four turnaround models.

They will take their designation seriously and make the necessary improvements to change the trajectory of the school. Furthermore, the measurements that are used to identify Priority Schools must provide those schools with data they can use to assess their own needs and set improvement goals. Finally, it is also important to ensure that the methodology for identifying the lowest-performing schools is consistent with the methodology for identifying the highest-performing schools so there is continuity within the accountability system.

#### Methodology

Minnesota plans to achieve these goals by identifying Priority Schools with the MMR. All schools in the state will be measured with this rating and every three years the bottom five percent of Title I schools will be identified as Priority Schools. The inaugural class of Priority Schools will be generated using graduation data from the 2009-10 school year and results from the statewide 2010-11 math and reading assessments.

This methodology achieves the goals of the state by accurately identifying those schools that are not only exhibiting low levels of proficiency, but are also failing to

achieve adequate levels of student growth, are contributing to the state's achievement gap by failing to improve the performance of lower performing subgroups, and are graduating a low percentage of students within four years.

Educators around Minnesota have been asking MDE to use growth for school accountability purposes. A methodology for identifying Priority Schools that includes student growth gives the system greater legitimacy and will create more buy-in for schools that are identified as Priority Schools. This is critical to the success of the system of recognition, accountability, and support because for any turnaround principles to be effective they must be implemented with fidelity. The methodology for identifying Priority Schools ensures that no school identified in this category can make the claim that they do not deserve to be in the Priority School category.

#### **2.D.ii Does the SEA's request include a list of its Priority Schools? (Table 2)**

We have included a table identifying Priority Schools (Attachment 9). This list does not disclose the identity of individual schools as the computation is based on preliminary impact data runs. Upon approval of the methodology by USDOE, Minnesota will begin the standard production process to create new annual statewide accountability statistics. The IT development team will use SQL programming to pull data from production warehouse sources creating full functional documentation. Quality assurance routines will be run to verify and validate the computational results. This is the standard methodological process for releasing any statewide high stakes education statistics to ensure validity and reliability of data.

- a. Did the SEA identify a number of Priority Schools equal to at least five percent of its Title I schools?*

The attached table (Attachment 9) identifies 48 Priority Schools. This number of schools represents approximately 5 percent of the state's Title I schools. In 2010-11, Minnesota had 842 Title I schools. Some of the attached documentation reflects a lower number of Title I schools in 2011-12, which reflects Title I applications that are still being processed by the state. Historically, Minnesota has had between 835 and 845 Title I schools. The number of Priority Schools we have

identified is greater than 5 percent because in generating the list, it was necessary to utilize a rounding technique that captured a greater number of schools than 5 percent.

Please note that in order to avoid unnecessary disruption in schools, identifying information about schools has been redacted from Attachment 9. Upon approval of Minnesota's ESEA Flexibility Request, MDE will perform quality assurance on the MMR computation to ensure that the lists are completely accurate.

Minnesota will also perform outreach to identified schools in order to ease the transition to Priority and Focus status once the results are made public. MDE anticipates that this process of finalizing the lists and releasing them publicly will take approximately eight weeks.

Priority Schools, like Reward and Focus Schools, were identified on a proportional basis using grade classification. This is why the table reflects a far greater number of elementary schools than any other grade classification. This decision was made to accurately reflect the universe of schools participating in Title I, and to create natural partnerships among Reward Schools and Priority and Focus Schools in order to share best practices.

The Priority Schools listed in Attachment 9 meet the Department's definition of Most Persistently Low-Performing. Evidence of this can be found in the Demonstration that Minnesota's List of Schools Meets the US Department of Education's Definition of Priority, Focus and Reward Schools. (Attachment 23)

**2.D.iii Are the interventions that the SEA described aligned with the turnaround principles and are they likely to result in dramatic, systemic change in Priority Schools?**

Priority Schools will implement turnaround plans based on the turnaround principles outlined in the ESEA Flexibility guidance. MDE will create diagnostic value-added profiles for Priority School to help identify the root causes of their performance, assess their academic needs, and monitor student improvement. Priority Schools will also have the opportunity to partner with Reward Schools to share best practices and collaborate on school improvement activities. To achieve turnaround, Priority Schools will be required to set aside 20 percent of their Title I



funds for state-approved school improvement activities. These funds must be earmarked in a Priority School's turnaround plan to ensure that resources are being directed to the specific aspects of a school's plan. The approval of a Priority School's Title I application will be dependent on the approval of their turnaround plan, and the earmarked funds within that plan. Only activities such as those outlined in this section that are tied to turnaround principles will be approved as uses of the 20 percent set-aside. The turnaround efforts of Priority Schools will be supported by MDE and the state's newly-reformed Statewide System of Support (SSOS).

These efforts will build on the improvements Minnesota has already made to its system of supports for school improvement. Striving to meet the NCLB requirements, MDE's historical role of support to AYP schools has expanded into a more proactive model of technical assistance and support at the district and school level. Historically focused on promulgating regulations, setting and developing policy, disseminating funds and collecting data, MDE is now being held to a different standard for supporting schools in the current "age of accountability." The capacity of SEAs to manage and provide compliance oversight to all schools in need of improvement has been hampered by an archaic model of oversight that has proven to be ineffective in increasing student achievement, makes incorporating change cumbersome, and has become fiscally impossible to sustain with the ever-decreasing fiscal resources at the SEA level.

The proposed system (Minnesota School Improvement and Support Model) will feature a tiered system of support to identified schools, complete with a differentiated coaching model to address specific strategies that schools should undertake to improve. Under the high-stakes accountability systems that are prevalent in education, the state's role increasingly includes direct support and technical assistance to districts and individual schools to assist them in building capacity for meaningful change that will lead to improved academic outcomes. This level of support has been evident in the School Improvement Grant (SIG) program where MDE not only disseminates funds to the eligible schools but also provides oversight, monitoring and direct technical assistance to schools to implement one of the program models. With minimal resources at the agency level, MDE staff will leverage Title I resources to create regional support centers around the state that will provide the basic components of the school improvement process: a comprehensive needs assessment, data analysis to

determine root causes of the school's problem, alignment of the operational curriculum with state standards, and identification of specific evidence-based instructional strategies that are learned in professional learning teams and subsequently implemented in the classroom with ongoing formative assessment to determine the extent of student learning and/or subsequent re-teaching. This is all supported with instructional leadership that is sensitive to and learned in the specific needs of the students in their school.

This is a shift in Minnesota's SSOS from the traditional organization built around categorical funding streams, content areas, monitoring and compliance, to one that is organized around school improvement and educational leadership. The SSOS is at the core of Minnesota's ESEA Flexibility proposal, and will be the driver of change in Priority Schools.

### School Improvement Plans

It is the expectation that ALL schools in the state should develop an actionable school improvement plan that is based on the most recent data and implemented with fidelity under the auspices of the LEA.

In our proposed system, all Priority Schools will develop a detailed action plan on how they will address the specific root causes of the school's identification, whether it is based on a lack of student growth, an achievement gap with a specific subgroup, overall student proficiency, low graduation rates, or all of these issues. These plans will be submitted to MDE through the SSOS and reviewed for fidelity with an established set of action standards (see Attachment 22) and will be the basis of the technical support and improvement efforts at the building level. The regional staff in the SSOS will provide assistance in any and all aspects of the school improvement planning process described above.

The regional staff will then work with a cross-agency MDE team comprised of MDE staff members from content standards, EL, Special Ed, school improvement specialists, implementation science, Title I accountability programs, and any other necessary programmatic focuses to determine the most appropriate and impactful course of action for each and every Priority School. The regional staff

will then collaborate with the LEAs to implement the plan and provide support, and resources for the work.

MDE will work with Priority Schools and their data teams to identify goals that are differentiated to their specific student needs ( “contextualized goals”) identified by the student data and needs assessment. These measurements will be monitored by the Priority School’s LEA through the use of implementation rubrics based on the best practices in implementation sciences.

Building principals will be the leaders of the turnaround efforts within Priority Schools. In order to improve school capacity to implement turnaround plans, principals of Priority Schools will be given tools and training to monitor the progress of the work including monthly instructional leader checklists that ensure fidelity. The SSOS will work with Priority School principals on best practices for turnaround schools and LEAs will support them with resources and opportunities for growth. Another example of principal support provided by the SSOS is a professional growth rubric for principals of turnaround schools. (See Attachment 21)

The proposed support model will be implemented consistently across all Priority Schools to ensure that there are not discrepancies in the type or duration of interventions that schools are incorporating at any given time. Each Priority School will go through data analysis, goal-setting, development and implementation of professional learning teams, incorporation of an effective educator evaluation system, curriculum alignment, instructional time audit, and fidelity of plan implementation.

District leadership involvement in the building leadership teams is paramount, and the action plans should speak specifically to how the LEA will oversee plan implementation. The LEAs for Priority Schools must complete an LEA-wide needs assessment to provide direction and context for the Priority School’s school improvement plan. The LEA must also use the results of the needs assessment to create a plan to address any weaknesses in the district’s ability to implement improvement plans within Priority Schools. These plans could include the identification of a need for a staff member dedicated to data analysis, or the designation of an LEA-level liaison between the LEA, MDE, the SSOS and the Priority School. The nature of an LEA’s plan will vary depending on their existing

capacity to lead turnaround efforts and the number of Priority and Focus Schools in the LEA. Minnesota statute requires all LEAs to have Educational Improvement Plans, which will serve as the foundation for the process of LEA assessment and improvement planning. LEAs will be required to update their Educational Improvement Plans based on the results of the needs assessment with the goal of improving their capacity to turn their Priority Schools around. Title I funds will be deferred from LEAs that fail to comply with the school improvement requirements at Priority Schools until they have taken positive steps such as submitting a turnaround plan, completing a Title I budget that reflects the priorities in the turnaround plan, or begun implementing activities included in the turnaround plan. Mandatory set-asides for state-approved district improvement activities may be put in place if LEAs with Priority Schools persistently fail to improve student achievement. These set-asides would be linked to an LEA improvement plan that could include the identification of a need for a staff member dedicated to data analysis, or the designation of an LEA-level liaison between the LEA, MDE, the SSOS and the Priority School. The nature of an LEA's plan will vary depending on their existing capacity to lead turnaround efforts and the number of Priority and Focus Schools in the LEA.

**a. Do the SEA's interventions include all of the following?**

*(i) providing strong leadership by: (1) reviewing the performance of the current principal; (2) either replacing the principal if such a change is necessary to ensure strong and effective leadership, or demonstrating to the SEA that the current principal has a track record in improving achievement and has the ability to lead the turnaround effort; and (3) providing the principal with operational flexibility in the areas of scheduling, staff, curriculum, and budget;*

*Performance Reviews to Establish Track Record* - MDE will work with each Priority School's LEA to determine if the current principal is an effective leader and has proven to be effective in improving student achievement in a turnaround effort. MDE will require all Priority Schools to adopt an MDE-approved principal evaluation tool that will be utilized to review the performance of the current principal and serve as the basis to replace the principal if the performance measures are not met.

MDE will provide support to Priority School principals by incorporating a turnaround leadership component into the technical assistance provided to the LEA to ensure ongoing measurement of the principal's growth as a turnaround leader. This support will be initiated by MDE staff and a contracted vendor with a track record of providing support to turnaround principals.

*Operational Flexibility-* Priority School principals will be required to provide regular formative data reports on student achievement to the LEA and MDE to monitor student achievement over time. MDE will work with LEA leadership to increase the operational flexibility for the principal as needed to meet the building's identified needs.

*(ii) ensuring that teachers are effective and able to improve instruction by: (1) reviewing the quality of all staff and retaining only those who are determined to be effective and have the ability to be successful in the turnaround effort; (2) preventing ineffective teachers from transferring to these schools; and (3) providing job-embedded, ongoing professional development informed by the teacher evaluation and support systems and tied to teacher and student needs;*

All Priority Schools will be required to implement a standards-based teacher evaluation system for all teachers in alignment with the recently adopted teacher evaluation legislation. The system should require three formal observations for all teachers with pre- and post-conferences to provide ongoing coaching and performance review.

The principal in each building will also be required to implement other strategies to monitor and measure teacher effectiveness such as goal-based walk through, teacher sharing of student work portfolios, and other measures of teacher growth. Based on the results of the evaluations, building leaders will make relevant staffing decisions to ensure that teachers are as effective as possible given the needs of turnaround schools.

Each Priority School will develop a School Improvement Plan based on a comprehensive needs assessment and, within the plan, include a detailed professional development program. This program should be grounded in the

practice of professional learning communities (PLCs) providing 90 minutes of job-embedded professional development each week to promote teacher learning of need-based instructional strategies and collaboration around student work and achievement.

*Professional Learning Communities* - PLCs are to be led by identified teacher leaders trained in PLC facilitation and implementation. Principals are an integral component of the PLCs and teacher learning which will be monitored through the teacher evaluations and ongoing observations.

*(iii) redesigning the school day, week, or year to include additional time for student learning and teacher collaboration;*

Improvement plans will incorporate structures within the PLCs to allow for teacher collaboration time. This will require the school to revisit the weekly schedule and teacher contract to ensure this time is provided.

Increased and extended learning time for students will be encouraged contingent on the completion of a time audit to measure the amount of instructional time that is currently in place for the core subjects and explore possibilities to increase the length of instructional time for all students.

Extended learning opportunities for high-need students should be explored to find researched-based models that can be implemented. Extended learning opportunities should be based on an extension of the core curriculum and instruction and include a system of ongoing measurement of student achievement to determine the effectiveness of the model.

*(iv) strengthening the school's instructional program based on student needs and ensuring that the instructional program is research-based, rigorous, and aligned with State academic content standards;*

MDE will work with the LEAs to ensure that the core curriculum of the school is closely aligned with the Minnesota State Academic Content Standards through a review process of each building's operational curriculum. Curriculum audits,

mapping and alignment strategies will be part of the technical assistance delivered through the statewide system of support (SSOS). As part of the technical support provided to the district, the professional development that is identified as part of the school's standards-alignment will be provided by MDE staff or resource staff directed by MDE content staff.

Priority Schools' LEAs will also be required to audit any Pre-Kindergarten programming provided by the LEA to ensure that the instruction is high-quality and aligned with K-12 academic standards. If the LEA does not provide Pre-Kindergarten programming, it may choose to use a portion of its school improvement set-aside in order to do so. If Pre-Kindergarten programming is a strategy that fits within a Priority School's turnaround model, it would be considered an approved activity and could be funded with the funds earmarked for implementing turnaround principles.

*(v) using data to inform instruction and for continuous improvement, including by providing time for collaboration on the use of data;*

The technical assistance provided through the SSOS will include the use of the state student data repository to mine, disaggregate and analyze the summative student data for the respective buildings. This data will be used to diagnose the areas of student achievement that need to be addressed as part of the needs assessment process and to set goals for student learning. Priority Schools will also be provided with value-added diagnostic tools to identify student needs, plan appropriate instruction and measure progress.

Improvement plans must identify staff who will work directly on data analysis to provide the principal and instructors with data to guide decisions on curriculum, resources and staffing. Technical assistance and training will be provided to ensure that designated staff who are working with data have the knowledge and technical capability to provide high-quality data analysis.

In addition, the PLCs will focus their work around formative data collection at the classroom level (See a. ii above). Student work will be analyzed and compared in on a regular basis to monitor individual student progress toward becoming proficient in the Minnesota State Academic Content Standards. This process of



formative assessment will be standardized through the technical assistance model of the SSOS and monitored on a regular basis by MDE and the LEA.

*(vi) establishing a school environment that improves school safety and discipline and addressing other non-academic factors that impact student achievement, such as students' social, emotional, and health needs; and*

As part of the school's needs assessment, factors impacting school safety and discipline will be analyzed to determine if the school has the structural components in place to maintain a learning environment that will encourage learning, embrace diversity and provide a nurturing environment for all students. As a result of the needs assessment, MDE will provide guidance to the LEA about what structures and/or personnel would need to be implemented in order for students to have an appropriate learning environment.

In addition to assessing the school environment, Priority Schools will also be provided with an audit of learning time missed as a result of disciplinary actions. MDE analysis has shown that low-performing schools often have higher rates of days missed as a result of student suspension. LEAs in Minnesota that have explored alternatives to suspension have seen observed gains both in academic performance and school environment indicators. Priority Schools will need to explore the viability of such options.

*(vii) Providing ongoing mechanisms for family and community engagement?*

These schools must go beyond the term, "family involvement." They will need to explore and implement true engagement activities for parents and the community. Parents should be involved in the curriculum review processes, provide insight and feedback into what makes a safe school environment for their children, and assist in the classroom and at school events to become part of the school community. Schools that have difficulty engaging parents will need to develop strategies to reach out to families and meet them "on their turf" and address topics from their perspective. The Statewide System of Support (SSOS)



will provide resources and strategies to enhance the school's parent and community engagement practices.

Schools need to reach out to the greater community to engage members in school events such as inviting service clubs and businesses into the school to assist with parent nights, student sports or music and theater performances. These "points of engagement" for community members are critical. Schools with significant minority populations will need to work directly with representatives of those populations to ensure parent and community engagement. Finally, each school will be provided guidance in creating service opportunities for students within the greater community to provide relevant service and build strong bonds to community members and entities.

**b. Has the SEA identified practices to be implemented that meet the turnaround principles and are likely to —**

*(i) increase the quality of instruction in Priority Schools ;*

At the foundation of Priority Schools' instructional programming will be CORE instruction for all students – aligned to standards and taught in a culturally responsive manner. Drawing on the expertise of the SSOS and MDE content specialists, Priority Schools will strengthen the instructional core for all teachers for equitable access. Through needs assessment and data analysis, teachers will identify exactly which standards students are having difficulty in meeting. This will be done through ongoing classroom formative assessment and subsequent analysis in the job-embedded professional learning teams where strategies are explored and subsequently implemented in the classroom and measured again for student success.

Educators need to learn to build their understanding of content knowledge, standards, and pedagogy as well as the capacity to apply evidence-based instructional practices demonstrated to be effective in increasing student achievement and functional performance for ALL students. Regional staff will work to enhance instructional leaders' capacity to support, promote, lead and sustain professional learning that improves both teaching practices and learning outcomes for ALL students with disabilities.

*(ii) improve the effectiveness of the leadership and the teaching in these schools; and*

This system will be rooted in strong leadership and effective teachers as well as appropriate use of data and improved instruction and student support. The system will link classroom instruction to a cohesive support network, resulting in detectable instructional changes in every classroom and measureable teacher and student achievement growth. The plan will include:

1. Strong Leadership supported by:

- Effective strategies to recruit, replace and/or retain skilled staff
  - Turnaround leader selection processes
  - Turnaround leader competencies
- Rigorous evaluation system
- Effective evaluation/observation
- Operational flexibility
  - Provide criteria to recruit, screen, select and evaluate external providers
- Effective governance structure
  - Leadership team development

2. Effective Teachers supported by:

- Effective strategies to recruit, replace and/or retain skilled staff
  - Turnaround teacher selection processes
  - Turnaround teacher competencies
- Rigorous evaluation system
  - Effective evaluation/observation

3. Appropriate Data Use supported by:

- Continuous use of student data to improve instruction
  - Systemic needs assessment support
  - Root/cause analysis

- Setting effective SMART goals
- Focused intervention planning
- Classroom formative assessment support (provide feedback to students and teachers and increase student involvement in learning)
- Benchmark assessment support (measure student growth of the standards-based instructional program)

4. Improved Instruction supported by:

- Increased learning time
  - Maximize the effectiveness of current instructional time  
Link increased time to core content
  - Extended-day learning opportunities
- Research-based, vertically-aligned MN standards-aligned instructional program
  - Standards alignment supported with rigorous instruction
  - Formative instruction support
- Professional learning communities
  - Protocols
  - Time and resources

5. Student Supports Strengthened by:

- Providing social-emotional and community-oriented services/supports
- Engaging parents and community to support student achievement

*(iii) Improve student achievement and, where applicable, graduation rates for all students, including English Learners, students with disabilities, and the lowest-achieving students?*

Priority Schools will be expected to address the needs of specific subgroups, including ELs and students with disabilities, in their improvement plans. The SSOS will work with schools to disaggregate data with the goal of identifying subgroups that need intensive academic supports.

Once particular subgroups are identified, the SSOS will assist the school and LEA in identifying strategies that have a record of success in improving the academic achievement of students in those subgroups. Schools can draw on the best practices identified at Reward Schools with similar demographics. Schools will also be expected to work with the community to identify culturally-relevant academic programming to address the needs of lower-performing subgroups. Schools with low-performing ELs and students with disabilities will review the curriculum and programming used for these students to identify flaws and steps that can be taken to address them.

#### ELs and Students with Disabilities

SSOS staff will work with MDE staff to tailor the technical assistance needed for teachers of ELs and students with disabilities in order to access and learn the core curriculum through the use of strategic instructional strategies introduced by MDE EL and Special education staff, and identified experts in the field of instructional strategies for classroom teachers.

These strategies could include (but are not limited to):

- Oral Language development – utilizing explicit teacher talk, dramatizing, books on tape, etc.
- Read-Alouds – carefully selecting books in a variety of genres, modeling phrasing, etc.
- Shared reading – demonstrating key concepts, following up with books made by students, etc.
- Small group reading instruction – assessing authentically and frequently, etc.
- Think-Alouds – modeling differentiated reading and writing strategies, modeling problem solving, etc.
- Shared writing – teaching explicit writing strategies, demonstrating revision, editing, and conventions,

- Process writing (Writer’s Workshop) – conferencing with students individually, allowing self- selection of topics, etc.
- Independent writing,
- Phonemic awareness – providing opportunities throughout literacy practice, studying high-frequency words.

Technical assistance and support in Special Education and EL supports educators in the basic foundation of instruction by building educators’ capacity in evidence-based instructional practices and leadership to meet the needs of ALL diverse learners. These students need not only access, but also attainment of the content information as delineated by state standards.

Technical assistance to support quality instruction of ELs involves providing support to educators to build capacity in evidence-based practices to meet the needs of English language learners in literacy, mathematics and other content areas. Professional learning outcomes that apply to teachers and leaders include the following:

- Apply deep understanding of Minnesota English Language arts standards including the descriptors for each of the five levels of language acquisition, and the relationship of the ELA standards to other instructional standards.
- Understand and apply effective instructional practices for ELs by gaining awareness of the difference between strategies that are effective for all learners and those differentially beneficial to ELs.
- Build support structures among teachers and leaders that enable continuous implementation of effective program models and instructional strategies for ELs.

For students with disabilities, schools need to develop standards-based IEPs for special education students. The SSOS will provide teachers with support that will focus on specific strategies to address the student needs. The strategies listed above for EL students may be applicable to the needs of special education students as well, depending on their specific disability.

**c. Has the SEA indicated that it will ensure that each of its Priority Schools implements the selected intervention for at least three years?**

MDE will develop an ongoing system of accountability for the Priority Schools that will measure fidelity of implementation of the interventions based on the Minnesota Common Principles of Effective Practice (CPEP). In addition, MDE will engage in ongoing monitoring of the schools PLCs, the teacher observation system and the formative data gathering by the building to measure student achievement. These elements have all been incorporated into the SSOS described above.

Priority Schools will be identified for three-year periods. The period of identification is based on Minnesota's experience with turnaround models in SIG Schools. In those schools, experience and data has shown that turnaround is not a one-year process, and it is rarely a two-year process. It typically takes three years before meaningful improvements can be measured. We anticipate that the same will be true at Priority Schools. However, we have created exit criteria that would allow Priority Schools to exit their status after two years if they move out of the bottom 25 percent of schools for two consecutive years. This would represent a substantial improvement in performance, and would be indicative of a rare case in which two years was the appropriate time period for the turnaround model to be implemented.

Upon exiting Priority Status through the exit criteria, a school will continue to be monitored for the duration of the three-year period to ensure that it does not revert to lower performance. Priority Schools that have exited their status prior to the end of the three-year period will be expected to draft and submit a school improvement plan. The SSOS will provide technical assistance and support with this improvement plan, which will need to identify interventions that could further alter the school's trajectory toward greater success. The SSOS will continue to provide technical assistance in implementing these plans, and will monitor the school for fidelity. In the event that a school regresses, the SSOS and MDE will work with the school to identify areas where improvement is needed.

Because the expectation for Priority Schools is to improve their performance within three years, those schools that are unable to do so will face stronger sanctions. In the event that a Priority School finishes its three-year period of identification only to be re-identified as a Priority School by finishing in the bottom five percent of schools, the school will be subject to restructuring. Restructuring options will be similar to those currently in place under NCLB.

**2.D.iv Is the SEA’s proposed timeline for ensuring that LEAs that have one or more Priority Schools implement meaningful interventions aligned with the turnaround principles in each priority school no later than the 2014-2015 school year reasonable and likely to result in implementation of the interventions in these schools?**

- *Does the SEA’s proposed timeline distribute Priority Schools’ implementation of meaningful interventions aligned with the turnaround principles in a balanced way, such that there is not a concentration of these schools in the later years of the timeline?*

MDE’s support model described above will be implemented consistently across all Priority Schools to ensure that there are not discrepancies in the type and duration of interventions that schools are incorporating at any given time. Each school will go through the data analysis, goal-setting, PLCs and teacher observation system implementation, curriculum alignment, instructional time audit and determination of professional development goals and focus for each year in a systematic manner with oversight by SSOS facilitators.

By applying for the NCLB waiver in November of 2011, MDE will have ample time to lay out the expectation and processes for Priority Schools so that when the waiver is approved, the identified schools can be contacted in the spring of 2012 and planning can commence to ensure an effective and efficient implementation of the intervention in the fall of 2012. All Priority Schools will implement all of the turnaround principles by no later than the start of the 2014-15 school year.

## **2.D.v Did the SEA provide criteria to determine when a school that is making significant progress in improving student achievement exits priority status?**

### **a- Do the SEA's criteria ensure that schools that exit priority status have made significant progress in improving student achievement?**

Any exit criteria for Priority Schools have to be meaningful enough to ensure that a school that exits Priority status has permanently altered its trajectory. With that standard in mind, Minnesota will only allow Priority Schools that finish outside of the bottom quartile of Title I schools statewide for two consecutive years, using performance on the MMR as the criteria.

#### Sufficient Time

Minnesota's experiences in working with schools in the School Improvement Grant (SIG) program have shown that meaningful turnaround takes at least two years. Therefore, a school identified as one of the most-persistently low-performing in the state must work with MDE for at least two years to permanently change direction and achieve genuine success in turning around.

It is clear from the preliminary impact data that MDE has examined that the difference between the bottom five percent of performers on the MMR and those above of the bottom quartile is such that two consecutive years above the bottom quartile will be evidence of genuine improvement for a Priority School. Because the MMR is a comprehensive and robust measurement tool, in order to move up in the statewide rankings enough to move from the bottom five percent to above the bottom quartile will be an indicator that the school has made systemic improvements.

#### Consistency

Using this methodology provides consistency across the accountability system. The selection process for Priority Schools is normative, so it is only appropriate that the exit process should be normative as well. Schools are identified as Priority Schools based on their performance relative to other Title I schools. Similarly, Priority Schools should be exited from their status if their performance relative to other Title I schools improves substantially over the course of two years. Also, with the 25 percentile being used as an indicator for continuous



improvement, using this line as the cutoff for exiting Priority Status provide clear benchmarks for all schools.

### Resources

The logic behind selecting a small group of Priority Schools is that with limited state and federal resources, the most focused attention should be paid to those schools that are truly at the bottom of the state in terms of academic performance. By allowing Priority Schools that move out of the bottom quartile of Title I schools to direct their own improvement efforts, MDE can maintain a focus on those schools that are truly most in need of support.

### Meaningful

The difference between the bottom five percent of MMR performers those outside of the bottom quartile is such that two consecutive years outside the bottom quartile will be evidence of genuine improvement for a Priority School. Attachment 24 demonstrates what will be required of Priority Schools to exit their status.

### Two Exceptions

Two exceptions will be made for the exit criteria. The first is directed at Priority Schools identified because of their status as SIG schools. Minnesota currently has 19 schools implementing one of the four SIG turnaround models. These schools are automatically identified as Priority Schools. However, because these schools will have been implementing the turnaround models for at least three years after the first year under the waiver, they will have the opportunity to exit Priority status if their performance on the MMR during their final year of SIG status puts them above the bottom 25 percent of Title I schools. This will allow MDE to focus resources on those schools that are most in need of support rather than to spread resources more thinly to include SIG schools that have already made real strides in changing direction.

The second exception applies to all Priority Schools. Any Priority School that attains Reward School status can immediately exit Priority status. Because the criteria for the Priority and Reward Schools is the same, moving from the bottom five percent of Title I schools to the top 15 percent would be an indication of remarkable progress. Any school that could achieve this type of progress will have

clearly made the necessary changes to alter the trajectory of the school in a way that ensures sustained improvement.

## 2.E Focus Schools

### **2.E.i Did the SEA describe its methodology for identifying a number of low-performing schools equal to at least 10 percent of the State's Title I schools as Focus Schools?**

#### Philosophy of Focus School Identification

The identification of Focus Schools is meant to shine a bright light on the achievement gap while identifying Title I schools that are most in need of support in improving the academic performance of low-performing subgroups. Some of these schools will have wide within-school achievement gaps, a subgroup or subgroups that are falling behind students around the state or both.

By identifying Focus Schools based on schools' contributions to the statewide achievement gap, the state can incentivize schools to thoughtfully and aggressively address the academic performance of subgroups that have typically performed poorly on the statewide math and reading assessments. For those schools that are unable to promote higher achievement by these subgroups, the identification as a Focus School is an opportunity for the state to intervene and put practices into place that can assist the school in addressing their specific problems.

#### Methodology – Modified Proficiency and Growth Gap

Focus Schools are those with specific achievement gap issues. They will be identified once every three years using a modified version of the MMR called the Focus Rating centered exclusively on lower-performing subgroups. The rating will measure growth and proficiency for the following sub-groups:

- Black
- Hispanic
- Asian,
- American Indian,
- English learners
- Free/Reduced Price Lunch
- Special Education

### Focus Rating- Proficiency Status

To identify Focus Schools, proficiency is calculated using the approved AYP Proficiency index model. However, unlike the proficiency index model, the focus rating will only allow schools to earn points based on the percentage of just the seven groups noted above that make AYP. This percentage is weighted based on the number of students in of each group. A more detailed discussion of this calculation can be found in Attachment 15 or in section 2.A.1.a.

### Focus Rating – Growth Gap Reduction

The growth gap measure used in the Focus rating measures achievement gap reduction measurement used in the Focus Rating is the same as the achievement gap reduction domain in the MMR. A description of the methodology for calculating this domain can be found in 2.A.i.a.

Points for proficiency and growth gap reduction are summed and divided by the total possible points to generate a combined percentage of points for each school. The bottom 10 percent of Title I schools on these combined measurements that have not already been identified as Priority Schools are designated as Focus Schools. Once the list is complete, Title I schools identified as Focus Schools for graduation rate purposes are added in and an equal number of schools from the original Focus School list are removed so the resulting number of Focus Schools is equal to 10 percent of Title I schools. Based on the number of Title I schools in 2011 the attached list includes 86 Focus Schools.

### Title I schools with Graduation Rates Under 60 Percent.

In addition to schools contributing to the achievement gap, Title I high schools with graduation rates of less than 60 percent will also be identified as Focus Schools. Schools that are not graduating at least 60 percent of their students need to identify the root causes of the problem and address them in ways that work for their student population. Identifying those schools with graduation rates of less than 60 percent as Focus Schools incentivizes schools with low graduation rates to address the problem and allows the state to identify schools most in need of support.

For the purposes of identifying Focus Schools due to graduation rates of 60 percent or less, Minnesota will use a six-year adjusted cohort rate methodology,

pending final federal approval of this methodology. Minnesota is currently in the process of earning final approval for this methodology from the US Department of Education. In early January 2012, Minnesota submitted revised graduation rate calculation specifications to meet the requirements of the US Department of Education. MDE anticipates approval of this latest submission in the near future. The attached list reflects the six-year adjusted cohort rate but would be altered to reflect the four-year rate if the state's six-year methodology has not been approved before the ESEA Flexibility Request is granted.

The six-year adjusted cohort rate would be used in order to generate a list of schools that are truly failing to graduate a high enough percentage of students. Minnesota is fortunate to have a number of charter schools that operate in a manner similar to Alternative Learning Programs. The charter schools work exclusively with students who at risk for dropping out. While their four-year graduation rates may not exceed 60 percent because they are working with students who are often multiple grades behind their cohort, this is not necessarily an accurate reflection of the school's success in graduating students. Using the six-year rate allows the state to avoid misidentifying schools that have unique situations.

The state also looks at three years' worth of data in determining graduation rates for the purpose of identifying Focus Schools. Only those schools with a three-year average of less than 60 percent on the six-year adjusted cohort graduation rate are identified as Focus Schools. This protects against misidentifying small schools with wide statistical variations in graduation rate from year-to-year.

This methodology for identifying Focus Schools achieves the goals of closing the achievement gap, identifying schools that are contributing to the state's achievement gap so they can work with the statewide system of supports (SSOS) to address their situation, and identifying so-called dropout factories so they can implement plans to improve their graduation rates. Using this methodology, the state can accurately diagnose problems within schools and incentivize improvement

**2.E.ii Did the SEA include a list of its Focus Schools? (Table 2)**

We have included a table identifying preliminary Focus Schools (Attachment 9). This list does not disclose the identity of individual schools as the computation is based on preliminary impact data runs. Upon approval of the methodology by USDOE, Minnesota will begin the standard production process to create new annual statewide accountability statistics. The IT development team will use SQL programming to pull data from production warehouse sources creating full functional documentation. Quality assurance routines will be run to verify and validate the computational results. This is the standard methodological process for releasing any statewide high stakes education statistics to ensure validity and reliability of data.

**a. Did the SEA identify a number of Focus Schools equal to at least 10 percent of the State's Title I schools?**

The attached table (Attachment 9) identifies 86 Focus Schools. This number of schools represents approximately 10 percent of the state's Title I schools. In 2010-11, Minnesota had 842 Title I schools. Some of the attached documentation reflects a lower number of Title I schools in 2011-12, which reflects Title I applications that are still being processed by the state. Historically, Minnesota has had between 835 and 845 Title I schools.

Focus Schools, like Reward and Priority Schools, were identified on a proportional basis using grade classification. This is why the table reflects a far greater number of elementary schools than any other grade classification. This decision was made to accurately reflect the universe of schools participating in Title I, and to create natural partnerships among Reward Schools and Priority and Focus Schools in order to share best practices.

*Graduation Rates-* Of the 85 Focus Schools, 3 schools are identified based solely on their graduation rate being below 60 percent. As stated in 2.E.i., Title I schools were identified for graduation rates below 60 percent if the three-year average of their six-year graduation rate was below 60 percent. There were 8 such schools in Minnesota with enough students included in their six-year cohorts (at least 20) to be statistically significant, 3 of which were not identified as Priority or Focus Schools based on the other criteria. The other five schools with graduation rates

below 60 percent were identified as Priority Schools. Three of these schools were identified due to their status as SIG schools, while two were identified based on their MMR.

**b. In identifying Focus Schools, was the SEA’s methodology based on the achievement and lack of progress over a number of years of one or more subgroups of students identified under ESEA section 1111(b)(2)(C)(v)(II) in terms of proficiency on the statewide assessments that are part of the SEA’s differentiated recognition, accountability, and support system or, at the high school level, graduation rates for one or more subgroups?**

As described above, the Focus Ranking and Focus graduation rate both use student data from multiple years, including proficiency on the statewide assessments. Please see Attachment 9 for a graphical summary of measures that were used to identify Focus Schools. Additionally, please see Attachment 16 for a summary of the functional requirements of calculating achievement and growth gaps. Adjustments will be made to this document to reflect changes associated with the approval of this Request.

Please note that in order to avoid unnecessary disruption in schools, identifying information about schools has been redacted from Attachment 9. Upon approval of Minnesota’s ESEA Flexibility Request, MDE will perform quality assurance on the MMR computation to ensure that the lists are completely accurate. Minnesota will also perform outreach to identified schools in order to ease the transition to Priority and Focus status once the results are made public. MDE anticipates that this process of finalizing the lists and releasing them publicly will take approximately eight weeks.

The Focus Schools listed in Attachment 9 meet the Department’s definition of Focus Schools as those that contribute the most to the state’s achievement gap, as well as Title I high schools with graduation rates of less than 60 percent. Evidence of this can be found in the Demonstration that Minnesota’s List of Schools Meets the US Department of Education’s Definition of Priority, Focus and Reward Schools. (Attachment 23)

**2.E.iii Did the SEA describe the process and timeline it will use to ensure that each LEA identifies the needs of its Focus Schools and their students and provide examples of and justifications for the interventions the SEA will require its Focus Schools to implement to improve the performance of students who are furthest behind?**

The SSOS as described in the previous section (2.D.iii) will also have the responsibility of providing the technical assistance and support to the identified Focus Schools. The SSOS facilitators will work with Focus Schools and their LEAs to identify the needs of the school based on the issue that caused the school to be identified. This will involve interventions tailored to the needs of subgroups failing to meet proficiency and growth expectations, and interventions aimed at improving graduation rates. MDE will work with advocacy organizations around the state to ensure that the SSOS incorporates culturally-relevant and targeted practices. Interventions will take into consideration the cultural, social and emotional levels of the students served. To close achievement gaps and improve graduation rates, Focus Schools will be required to set aside 20 percent of their Title I funds for state-approved school improvement activities. These funds must be earmarked in a Focus School's school improvement plan to ensure that resources are being directed to the specific aspects of a school's plan. The approval of a Focus School's Title I application will be dependent on the approval of their improvement plan, and the earmarked funds within that plan. Only activities such as those outlined in this section that are tied to interventions for the subgroups for which Focus Schools were identified will be approved as uses of the 20 percent set-aside.

Because Focus Schools are identified based on the performance of subgroups, the interventions that would be incorporated would be differentiated to address the specific subgroup for which they were identified. The specific need will be identified through the comprehensive needs assessment of the school (and district) followed by an in-depth analysis of student data linked to the state standards to correctly diagnose the learning areas of concern that will then be addressed through technical assistance and professional development. This process is part of the tiered coaching model that the SSOS has in place to address the specific needs of buildings (and students) of the Focus Schools.

At the basic level of tiered assistance is a focus on the core instruction of the building. This includes a review of curriculum alignment with state standards to



endure that ALL students have access to the state standards. In addition, instructional methods are assessed and identified for intervention to the second tier if necessary. This may include technical assistance to address instructional strategies that are developmentally and culturally relevant to the identified subgroup of students to ensure that students are being taught in the appropriate methodology.

Finally, for support to teachers of unique student groups (newcomer ELs, very low-functioning special education students), support is provided to teachers in a very targeted fashion by a specialist with extensive knowledge, skills, and experience with such student groups.

As student progress is measured through formative means, the level of coaching for the building may move from more or less intensive, again, depending on the ongoing monitoring, diagnosing and assessing of the selected instructional interventions (See examples of specific strategies in previous sections).

Regional SSOS staff will work to enhance instructional leaders' capacity to support, promote, lead and sustain professional learning that improves both teaching practices and learning outcomes for ALL students.

Utilizing the data-driven decision-making model that is embedded within the SSOS, the first activity that the school will engage in is the disaggregation and analysis of the achievement data that were used as identifiers. Once causes of the achievement gap or low graduation rate are determined subsequent goals will be set. The SSOS will use the following supports to promote effective data use:

- Continuous use of student data to improve instruction
- Systemic needs assessment support
- Root/cause analysis
- Setting effective SMART goals based on the subgroup's specific needs
- Focused intervention planning by the LEA and SEA, employing resource staff versed in culture, language and environmentally specific interventions
- Classroom formative assessment support (provide feedback to students and teachers and increase student involvement in learning)

- Benchmark assessment support (measure student growth of the standards-based instructional program)

Utilizing best practices that have been identified through research and MDE's experience working with SIG Schools, the SSOS will assist Focus Schools in developing interventions that address the unique needs of the subgroup or subgroups for which they were identified. For example, experience in working with schools that have significant American Indian populations has shown that implementing culturally-specific curriculum built around the traditions of the community can yield positive results for those students.

The SSOS will assist Focus Schools that are identified due to the performance of ELs or students with disabilities in addressing the needs of those students. For ELs, the SSOS will train EL instructors on the new WIDA standards and how to use data from WIDA assessments to tailor instruction to student needs. For Focus Schools identified for the performance of students with disabilities, the SSOS will work with the school to identify the types of special education services that these students need to improve their academic performance.

Regardless of which subgroup is identified, it will be critical that the Focus School engage the parents and community members of the subgroup as it crafts a plan to improve student achievement. Interventions should reflect the expressed preferences of the parents and community so that the school has the support of these key stakeholders. If there are community-based groups that have a proven record of success in working with specific populations of students to improve academic achievement, the LEA should consider contracting with them to provide student services that complement the academic programming at the school.

For all Focus Schools, the SSOS will take advantage of the best practices identified in Priority and Celebration Schools. MDE will analyze the enrollment data from Reward and Celebration Schools (See section 2.F) to identify those schools that are having success with lower-performing subgroups. Audits of these schools will identify best practices that can then be applied at Focus Schools with similar student populations.

Priority Schools will implement turnaround plans based on the turnaround principles outlined in the ESEA Flexibility guidance. MDE will create diagnostic value-added profiles for Priority School to help identify the root causes of their performance, assess their academic needs, and monitor student improvement. Priority Schools will also have the opportunity to partner with Reward Schools to share best practices and collaborate on school improvement activities. To achieve turnaround, Priority Schools will be required to set aside 20 percent of their Title I funds for state-approved school improvement activities. The school improvement efforts of Focus Schools will be supported by MDE and the state's newly-reformed Statewide System of Support (SSOS).

These efforts will build on the improvements Minnesota has already made to its system of supports for school improvement. Striving to meet the NCLB requirements, MDE's historical role of support to AYP schools has expanded into a more proactive model of technical assistance and support at the district and school level. Historically focused on promulgating regulations, setting and developing policy, disseminating funds and collecting data, MDE is now being held to a different standard for supporting schools in the current "age of accountability." The capacity of SEAs to manage and provide compliance oversight to all schools in need of improvement has been hampered by an archaic model of oversight that has proven to be ineffective in increasing student achievement, makes incorporating change cumbersome, and has become fiscally impossible to sustain with the ever-decreasing fiscal resources at the SEA level.

The proposed system (Minnesota School Improvement and Support Model) will feature a tiered system of support to identified schools, complete with a differentiated coaching model to address specific strategies that schools should undertake to improve. Under the high-stakes accountability systems that are prevalent in education, the state's role increasingly includes direct support and technical assistance to districts and individual schools to assist them in building capacity for meaningful change that will lead to improved academic outcomes. This level of support has been evident in the School Improvement Grant (SIG) program where MDE not only disseminates funds to the eligible schools but also provides oversight, monitoring and direct technical assistance to schools to implement one of the program models. With minimal resources at the agency level, MDE staff will leverage Title I resources to create regional support centers around the state that will provide the strategically targeted components of the

school improvement process for Focus Schools: a comprehensive needs assessment, data analysis to determine root causes of the school's problem, alignment of the operational curriculum with state standards, and identification of specific evidence-based instructional strategies that are learned in professional learning teams and subsequently implemented in the classroom with ongoing formative assessment to determine the extent of student learning and/or subsequent re-teaching. This is all supported with instructional leadership that is sensitive to and learned in the specific needs of the students in their school.

This is a shift in Minnesota's SSOS from the traditional organization built around categorical funding streams, content areas, monitoring and compliance, to one that is organized around school improvement and educational leadership. The SSOS is at the core of Minnesota's ESEA Flexibility proposal, and will be the driver of change in Focus Schools.

#### School Improvement Plans

It is the expectation that ALL schools in the state should develop an actionable school improvement plan that is based on the most recent data and implemented with fidelity under the auspices of the LEA.

In our proposed system, all Focus Schools will develop a detailed action plan for addressing the specific root causes of the school's identification, whether it is based on subgroups with low levels of proficiency, subgroups with low levels of growth, low graduation rates, or all of these issues. These plans will be submitted to MDE through the SSOS and reviewed for fidelity with an established set of action standards (see Attachment 22). Improvement plans will be the basis of the technical support and improvement efforts at the building level. The regional staff in the SSOS will provide assistance in any and all aspects of the school improvement planning process described above.

The regional staff will then work with a cross-agency MDE team comprised of MDE staff members from content standards, EL, Special Education, school improvement specialists, implementation science, Title I accountability programs, and any other necessary programmatic focuses to determine the most appropriate and impactful course of action for every Focus School that will be targeted specifically at the subgroup(s) that are of greatest need. The regional

staff will then collaborate with the LEAs to implement the plan and provide support, and resources for the work.

MDE will work with Focus Schools and their data teams to identify goals that are differentiated to their specific student needs (“contextualized goals”) identified by the student data and needs assessment. These measurements will be monitored by the Focus School’s LEA through the use of implementation rubrics based on the best practices in implementation sciences.

Building principals will be the leaders of the improvement efforts within Focus Schools. In order to improve school capacity to implement improvement plans, principals of Focus Schools will be given tools and training to monitor the progress of the work including monthly instructional leader checklists that ensure fidelity. The SSOS will work with Focus School principals on best practices for instructional strategies that have proven to be successful with targeted subgroups. LEAs will support them with resources and opportunities for growth. Another example of principal support provided by the SSOS is a professional growth rubric for principals of turnaround schools that can be referenced to target specific educational settings. (See Attachment 21)

The proposed support model will be implemented consistently across all Focus Schools to ensure that there are not discrepancies in the type or duration of interventions that schools are incorporating at any given time. Each Focus School will go through data analysis, goal-setting, development and implementation of professional learning teams, a professional development plan that is targeted to the educators working directly with the specific subgroups, (EL, Special Education, etc.), curriculum alignment of the operational curriculum, and fidelity of plan implementation.

District leadership involvement in the building leadership team planning is critical, and the action plans should speak specifically to how the LEA will oversee plan implementation. The LEAs for Focus Schools must complete an LEA-wide needs assessment to provide direction and context for the Focus School’s improvement plan. The LEA must also use the results of the needs assessment to create a plan to address any weaknesses in the district’s ability to implement improvement plans within Focus Schools. Minnesota statute requires all LEAs to have Educational Improvement Plans, which will serve as the foundation for the

process of LEA assessment and improvement planning. LEAs will be required to update their Educational Improvement Plans based on the results of the needs assessment with the goal of improving their capacity to facilitate targeted support for the Focus Schools. Title I funds will be deferred from LEAs that fail to comply with the school improvement requirements at Focus Schools until they have taken positive steps such as submitting an improvement plan, completing a Title I budget that reflects the priorities in the improvement plan, or begun implementing activities included in the improvement plan. Mandatory set-asides for state-approved district improvement activities may be put in place if LEAs with Focus Schools persistently fail to improve student achievement. These set-asides would be linked to an LEA improvement plan that could include the identification of a need for a staff member dedicated to data analysis, or the designation of an LEA-level liaison between the LEA, MDE, the SSOS and the Priority School. The nature of an LEA's plan will vary depending on their existing capacity to lead turnaround efforts and the number of Priority and Focus Schools in the LEA.

#### English Learners and Students with Disabilities

In Focus Schools identified for persistently low-performing ELs or Special Education students, SSOS staff will work with MDE staff to tailor the technical assistance needed for teachers of these students in order to access and learn the core curriculum through the use of strategic instructional strategies introduced by MDE EL and Special education staff, and identified experts in the field of instructional strategies for classroom teachers.

Technical assistance and support to educators is the basic foundation of instruction by building educators' capacity in evidence-based instructional practices and leadership to meet the needs of ALL diverse learners. These students need not only access, but also attainment of the content information as delineated by state standards.

Technical assistance to support quality instruction of specific groups of students involves providing support to educators to build capacity in evidence-based practices to meet the needs of all learners in literacy, mathematics and other content areas.

Educators need to learn to build their understanding of content knowledge, standards, and pedagogy as well as the capacity to apply evidence-based

instructional practices demonstrated to be effective in increasing student achievement and functional performance for ALL students. Regional staff will work to enhance instructional leaders' capacity to support, promote, lead and sustain professional learning that improves both teaching practices and learning outcomes for ALL students with disabilities.

- *Has the SEA demonstrated that the interventions it has identified are effective at increasing student achievement in schools with similar characteristics, needs, and challenges as the schools the SEA has identified as Focus Schools?*

Based on the support provided to the current SIG Schools as well as the experiences in schools that have been re-structured under NCLB that have similar achievement challenges at the subgroup level, MDE has developed a cadre of interventions that can be employed to address the specific needs of the Focus Schools. In addition to the standard resources employed by MDE, additional resources will be leveraged to assist schools in addressing subgroup achievement gaps and/or graduation rates.

### Partnerships

MDE will be creating partnerships with ethnic and racial advocacy organizations, private corporations and other entities to partner in the efforts to address cultural, family and racial elements that may be contributing to the achievement gap. MDE is currently in the process of working with advocacy organizations around the state to ensure that the SSOS incorporate culturally-relevant and -specific practices. The partnerships being formed in this process will prove invaluable as MDE works with Focus Schools to address low subgroup performance.

### Math and Reading Specialists

The SSOS will employ the services of math and reading specialists that will be available to work with teaching staff to implement culturally-responsive teaching strategies that will have a significantly positive impact on the instructional processes in the classroom. In addition, MDE will offer the opportunity for Focus Schools to partner with Reward Schools that have reached high levels of student achievement with similar characteristics, needs, and challenges in order to learn from their successful programs.



- *Has the SEA identified interventions that are appropriate for different levels of schools (elementary, middle, high) and that address different types of school needs (e.g., all-students, targeted at the lowest-achieving students)?*

Interventions will be determined through precise data analysis to determine root causes and subsequent interventions that address the students at their current level of learning and accelerate them to grade-level proficiency. The SSOS does will continue to provide differentiated technical support not only to schools with diverse student populations and needs but also at the appropriate grade configurations. The interventions will be not only appropriate for skill level but will also take into consideration the cultural, social and emotional level of the students served.

An example of an intervention for secondary schools will be to implement a set of diagnostics to determine the level of college- and career-readiness of students through the use of data and reports from the EXPLORE, PLAN, and ACT assessments to provide feedback and guidance for students and their parents in preparation for graduation and the work force. By creating opportunities for students to explore their interests and skills at an earlier age and by offering scaffolded curriculum and learning experiences to help them reach their goals, a culture of self-worth, success, and hope for their future can be fostered in middle and high school students.

The SSOS will also provide technical assistance specific to high schools with graduation rates of 60 percent or less. In recent years MDE has developed tools to improve graduation rates. One lesson that will be applied to Focus Schools is the need for early identification. Through Minnesota's Early Indicator and Response System (MEIRS), schools can identify students at-risk for dropping out and develop student-specific strategies for keeping all students on track to graduate. All Focus Schools identified for low graduation rates will be expected to utilize MEIRS.

#### ELs and Students with Disabilities

In Focus Schools identified for persistently low-performing ELs or Special Education students, SSOS staff will work with MDE staff to tailor the technical assistance needed for teachers of these students in order to access and learn the core curriculum through the use of strategic instructional strategies introduced by



MDE EL and Special education staff, and identified experts in the field of instructional strategies for classroom teachers.

These strategies could include (but are not limited to):

- Oral Language development – utilizing explicit teacher talk, dramatizing, books on tape, etc.
- Read-Alouds – carefully selecting books in a variety of genres, modeling phrasing, etc.
- Shared reading – demonstrating key concepts, following up with books made by students, etc.
- Small group reading instruction – assessing authentically and frequently, etc.
- Think-Alouds – modeling differentiated reading and writing strategies, modeling problem solving, etc.
- Shared writing – teaching explicit writing strategies, demonstrating revision, editing, and conventions,
- Process writing (Writer’s Workshop) – conferencing with students individually, allowing self- selection of topics, etc.
- Independent writing,
- Phonemic awareness – providing opportunities throughout literacy practice, studying high-frequency words.

Technical assistance and support in Special Education and EL supports educators in the basic foundation of instruction by building educators’ capacity in evidence-based instructional practices and leadership to meet the needs of ALL diverse learners. These students need not only access, but also attainment of the content information as delineated by state standards.

Technical assistance to support quality instruction of ELs involves providing support to educators to build capacity in evidence-based practices to meet the needs of English language learners in literacy, mathematics and other content areas. Professional learning outcomes that apply to teachers and leaders include the following:

- Apply deep understanding of Minnesota English Language arts standards including the descriptors for each of the five levels of language acquisition, and the relationship of the ELA standards to other instructional standards.
- Understand and apply effective instructional practices for ELs by gaining awareness of the difference between strategies that are effective for all learners and those differentially beneficial to ELs.
- Build support structures among teachers and leaders that enable continuous implementation of effective program models and instructional strategies for ELs.

For students with disabilities, schools need to develop standards-based IEPs for special education students. The SSOS will provide teachers with support that will focus on specific strategies to address the student needs. The strategies listed above for EL students may be applicable to the needs of special education students as well, depending on their specific disability.

Educators need to learn to build their understanding of content knowledge, standards, and pedagogy as well as the capacity to apply evidence-based instructional practices demonstrated to be effective in increasing student achievement and functional performance for ALL students. Regional staff will work to enhance instructional leaders' capacity to support, promote, lead and sustain professional learning that improves both teaching practices and learning outcomes for ALL students with disabilities.

**2.E.iv Did the SEA provide criteria to determine when a school that is making significant progress in improving student achievement and narrowing achievement gaps exits focus status?**

- a. Do the SEA's criteria ensure that schools that exit focus status have made significant progress in improving student achievement and narrowing achievement gaps?**

Any exit criteria for Focus Schools has to be meaningful enough to ensure that a school that exits Focus status has permanently altered its trajectory and is on track to close, rather than expand, the achievement gap. With that standard in mind, Minnesota will only allow Focus Schools that finish above the bottom quartile of Title I schools statewide for two consecutive years, using performance on the Focus Rating as the criterion.

Focus Schools are identified based on their performance on the growth gap reduction measurement and the proficiency of their students in lower-performing subgroups, which is combined to create a Focus Rating. To exit this status, the expectation is that a school will make enough progress to finish above of the bottom quartile of Title I schools on the Focus Rating. In order to achieve this, Focus Schools will have to make significant improvement in both the proficiency and growth of their lower-performing subgroups.

#### Ambitious Goals for Low Achieving Students

Schools that are in the bottom ten percent of Title I schools on the Focus Rating are exhibiting extremely low levels of proficiency and student growth among their disadvantaged subgroups. To move from the bottom ten percent on the Focus Rating to outside of the bottom quartile for two consecutive years will be evidence that real progress has been made, and the trajectory of the schools has improved to the extent that they no longer need the level of support provided to Focus Schools. Schools that are able to achieve this goal will have made the kind of progress the Focus School designation is designed to prompt. Attachment 24 demonstrates what will be required of Focus Schools to exit their status.

#### Achievable Goals

In many schools that will be identified as Focus Schools, the group of students whose academic performance is causing the designation is small enough that smart, focused interventions can have an immediate impact on the school's performance on the Focus Rating. By setting an achievable goal, Minnesota can achieve the kind of buy-in it will need from identified Focus Schools to achieve meaningful progress in closing the achievement gap.

#### Resources

This standard is consistent with the logic behind identifying a manageable-sized group of Priority Schools for the SEA to support. By limiting the size of the Focus

School group to ten percent of Title I schools, MDE can efficiently direct its resources to those schools making the biggest contribution to the achievement gap. Similarly, by allowing those Focus Schools that have made major strides in closing the achievement gap to direct their own improvement activities, MDE will be able to focus resources on those Focus Schools that are most in need of support.

### Graduation Rates

Some Focus Schools are identified because of their graduation rates rather than their performance on the growth gap reduction measurement. For those schools to exit Focus status, they must have a graduation rate of greater than 60 percent for two consecutive years and show at least a five percentage point improvement in graduation rate in each of those years. By setting these criteria, Minnesota ensures that schools are not only achieving a graduation rate above the level used for identification as a Focus School but also that they have an improved trajectory that will ultimately allow them to achieve a graduation well above 60 percent.

### Focus School Improvement Activities Following Exit

Focus Schools will be identified for three-year periods. The period of identification is based on Minnesota's experience with SIG Schools. In those schools, experience and data has shown that dramatically improving the performance of low-performing subgroups is not a one-year process, and it is rarely a two-year process. It typically takes three years before meaningful improvements can be measured. We anticipate that the same will be true at Focus Schools. However, we have created exit criteria that would allow Focus Schools to exit their status after two years if they move out of the bottom 25 percent of schools on the Focus Rating for two consecutive years. This would represent a substantial improvement in performance, and would be indicative of a rare case in which two years was the appropriate time period for the identified improvement activities to be implemented.

Upon exiting Focus Status through the exit criteria, a school will continue to be monitored for the duration of the three-year period to ensure that it does not revert to lower performance. Focus Schools that have exited their status prior to the end of the three-year period will be expected to draft and submit a school improvement plan. The SSOS will provide technical assistance and support with this improvement plan, which will need to identify interventions that could further alter the school's trajectory toward greater success. The SSOS will

continue to provide technical assistance in implementing these plans, and will monitor the school for fidelity. Particular attention will be paid to the subgroup for which a Focus School was identified to ensure that exiting Focus Status does not lead to backsliding by the subgroup. In the event that a school regresses, the SSOS and MDE will work with the school to identify areas where improvement is needed.

## 2.F Provide Incentives and Support for Other Title I Schools

**2.F Does the SEA’s differentiated recognition, accountability, and support system provide incentives and supports for other Title I schools that, based on the SEA’s new AMOs and other measures, are not making progress in improving student achievement and narrowing achievement gaps? Are those incentives and supports likely to improve student achievement, close achievement gaps, and increase the quality of instruction for students?**

### Differentiated Recognition Accountability and Support for Title I Schools

Minnesota will use the MMR to further differentiate recognition and accountability for Title I schools. In addition to Reward, Priority and Focus schools Minnesota will identify some additional Title I schools for *Celebration* and *Continuous Improvement*.

### Celebration Schools

In order to create further incentives for high-performing Title I schools, Minnesota will solicit applications from the 25 percent of schools immediately outside the top 15 percent based on the annual MMR to apply for Celebration School status. Each year, these schools may submit applications outlining the reasons they should be considered Celebration Schools.

The primary criteria for awarding Celebration School status will be performance on statewide assessment and graduation rates but schools may also reference more qualitative data such as rigorous course-taking data, college placement statistics and participation on the ACT, PLAN or EXPLORE tests. The SEA will review applications and interview applicants to identify an additional 10 percent of Title I schools to be identified as Celebration Schools. The application and interview process will allow applicants to examine their best practices and identify areas where they can make improvements to move into Celebration or Reward status in the future if their applications are unsuccessful.

### Continuous Improvement Schools

Each year, all Title I schools with MMRs in the bottom 25 percent will be identified as Continuous Improvement School. Title I schools falling into this category that are not already Priority or Focus Schools will be expected to work with their LEA

to perform a needs assessment or self-evaluation and complete a school improvement plan. It will be the responsibility of the LEA to provide oversight, monitoring, support and resources to implement these plans. Every year, the SEA will choose a random sample of the plans from these schools to complete and audit and site visit to provide oversight of the plan implementation. Schools that are found to not be implementing with fidelity will be identified for targeted technical assistance to successfully implement the plan. LEAs that fail to effectively implement school improvement plans in Continuous Improvement Schools could be subject to deferral of Title I funds until positive actions are taken, or in cases where the LEA is persistently low-achieving, be required to implement mandatory set-asides for state-approved LEA improvement activities. These set-asides would be linked to an LEA improvement plan that could include the identification of a need for a staff member dedicated to data analysis, or the designation of an LEA-level liaison between the LEA, MDE, the SSOS and the Priority School. The nature of an LEA's plan will vary depending on their existing capacity to lead turnaround efforts and the number of Priority and Focus Schools in the LEA.

Note: In accordance with state law (Minn. Stat. 120B.35, Subd. 2), all Title I schools that fail to make AYP for two consecutive years must write a school improvement plan. These schools will also continue to have access to support and technical assistance from the SEA. The SEA will audit a random 10% of improvement plans created by schools in the Continuous Improvement category and Title I schools failing to make AYP for two consecutive years to ensure fidelity with requirements. In this way, the supports, interventions, and incentives for Title I schools that don't fall into one of the identified categories are directly linked to the new AMOs. Since these AMOs are linked to the goal of reducing the achievement gap by half within six years, there is great promise for this incentive to have a positive effect on the performance of lower-performing subgroups.

### School Report Cards

MDE will incentivize continuous improvement at all schools, including Title I schools, by improving both the quality and quantity of data provided on annual school report cards. The school report card of every school in the state will display the Multiple Measurements Chart to indicate performance in each of the four domains and an overall percentage of points earned. This will supplement the

current AYP data, which will continue to be posted as part of the school report card.

The experience of No Child Left Behind has shown that even schools that have no sanctions attached to their status (namely, non-Title I schools) are just as concerned with their AYP status as those at risk of being sanctioned for their performance. We therefore believe that continuing to publish AYP results, and supplementing it with the MMR will be a strong incentive for schools to continue to improve their performance. Furthermore, by providing more data to parents and the community, we expect that these actors will play an important role in holding schools accountable. This has been the experience with non-Title I schools, and we anticipate that the MMR will make it easier for parents at all schools to identify areas of need and demand improvement from their schools.

MDE is also in the process of collecting and reporting new data as part of its longitudinal data system. MDE will soon begin reporting data on rigorous course-taking and postsecondary enrollment. This qualitative data will supplement quantitative data provided through the MMR and AMOs.

All of this data will be easily accessible through MDE's new website data center. This data center will launch in December 2011, and will allow users to compare the data sets of multiple schools. The data center is divided for easy use by three user types: parents, educators and power data users. The data center will be a crucial tool for holding schools accountable through robust reporting of student achievement data.



**2.G Build SEA, LEA, and School Capacity to Improve Student Learning**

**2.G Is the SEA’s process for building SEA, LEA, and school capacity to improve student learning in all schools and, in particular, in low-performing schools and schools with the largest achievement gaps, likely to succeed in improving such capacity?**

- a. Is the SEA’s process for ensuring timely and comprehensive monitoring of, and technical assistance for, LEA implementation of interventions in priority and Focus Schools likely to result in successful implementation of these interventions and in progress on leading indicators and student outcomes in these schools?**

Please refer to the explanation of the SEA’s Statewide System of Support (SSOS) in the above section (section 2.D.iii.b). Minnesota’s SSOS will be guided by the goal of closing the persistent achievement gap students of color and their white peers, and economically disadvantaged students and their more affluent peers. The SSOS will provide effective teacher assistance, providing a platform for disseminating and reinforcing the use of effective, research-based instructional strategies and evidence-based practices. In addition, MDE must ensure that in Priority Schools and their districts, the SSOS is supporting job-embedded professional development that increases teachers’ knowledge of academic subjects they teach, provide in-depth training in math and reading (including pre-K-3 literacy) support the use of effective, research-based instructional strategies with a diverse range of students, including English Learners and students with disabilities.

Timely and Comprehensive Monitoring

Monitoring and technical assistance will be built around school improvement plans, which are required for Priority, Focus and Continuous Improvement Schools. The plans will delineate specific performance indicators in each area of improvement, including interim measures of growth throughout the school year. These measures will be the foundation for ongoing technical assistance and support conversations between MDE staff, SSOS staff in regional centers, the LEA leadership team and the building leadership team. They will be formative in nature and provide the school with timely feedback on the effectiveness of implemented strategies.

The MDE Implementation team will be comprised of staff that are content specialists in reading and math, EL specialists, program staff from special education as well as school improvement specialists that have worked with the AYP and SIG grant programs. These staff members will be responsible for providing direction and support to the regional SSOS staff in the area of identifying and measuring leading indicators for each school in their respective area of need. Indicators will be monitored by SSOS and SEA staff to ensure fidelity of implementation/compliance with waiver expectations.

Minnesota' SSOS will provide direct and effective technical assistance, thus creating a platform for disseminating and reinforcing the use of effective, research-based instructional strategies and evidence-based practices. In addition, MDE and the SSOS must ensure that these schools and districts provide job-embedded professional development that increases teachers' knowledge of the academic subjects they teach, provide in-depth training in math and reading, (including an emphasis on PreK-3 literacy), support the use of effective, scientifically-based instructional strategies with a diverse range of students, and train teachers to analyze classroom and school-level data to inform their instruction.

- *Did the SEA describe a process for the rigorous review and approval of any external providers used by the SEA and its LEAs to support the implementation of interventions in priority and Focus Schools that is likely to result in the identification of high-quality partners with experience and expertise applicable to the needs of the school, including specific subgroup needs?*

Minnesota recognizes the need to improve achievement for all students and accelerate gains for those who lag behind. In reorganizing the technical assistance for Priority and Focus Schools to address this priority, MDE has established a tiered Statewide System of Support by providing services through partners such as higher education institutions, education districts, service cooperatives or other established providers of school improvement services in Regional Centers of Excellence supported by cross-agency implementation teams from MDE. These partners and any vendors utilized to deliver services will be vetted by the SEA program staff through application review and personal interviews. External

providers will need to meet high standards of past experience and success with turnaround schools as well as demonstrate their capacity to provide such services. All grant and contract decisions for services and facilitation of programming will be made by SEA program staff. The aims for this partnership for delivery of services will include:

- Build the capacity of instructional leadership teams in schools to successfully guide the process of continuous improvement
- Implement scientifically-based strategies that will help build sustainable capacity for dramatically improving teaching and learning in Title I schools and districts
- Provide collaborative support for Title I schools and districts to develop a framework for analyzing data, identifying underlying root causes and scaling up best instructional practices to ensure the academic achievement of all students

This tiered system of support will provide regional support to Priority and Focus Schools on an ongoing basis, delivering technical assistance through a network of content specialists, implementation facilitators and professional development providers supported by cross-agency implementation teams. The facilitators in each of the regional centers will have regular contact with the principals and LEAs leaders of the identified schools to monitor the progress towards established school goals. The SEA will utilize an online system for monitoring the progress that schools are making in the areas of educator and student performance

- b. Is the SEA's process for ensuring sufficient support for implementation in Priority Schools of meaningful interventions aligned with the turnaround principles (including through leveraging funds the LEA was previously required to reserve under ESEA section 1116(b)(10), SIG funds, and other Federal funds, as permitted, along with State and local resources) likely to result in successful implementation of such interventions and improved student achievement?**

### Funding Options

Funding for the SSOS would utilize the small percentage of Title I funding set aside for the purpose of implementing a statewide system of support. This amount would be allocated to the regional centers of support in a formula basis based on the number of Focus and Priority schools in the region to develop a team of regional specialist in the area of math, reading, EL instruction, special education programming, and data coaching. The administrative funds from this source of funding would continue to fund two positions at MDE to facilitate the cross-agency implementation teams that will direct to the work of the regional centers. A shortage of state funds will require the SEA to reassess current staffing levels to develop cross-agency terms to integrate the talents, skills and knowledge of the SEA staff to leverage the greatest impact in their work with the regional SSOS. MDE will also continue to look for ways to better coordinate between Title I funds to support reform efforts through cross-division teams. Additionally, MDE will leverage Title III funds for improvement activities such as professional development for general education classroom teachers of ELs.

MDE will strive to leverage additional funding from federal and private sources. This may include re-purposing state Title II funds for professional development activities at the regional level, a redirecting of future SIG funds to Priority schools to incorporate professional learning teams, increased learning time opportunities for students, and professional growth opportunities for teachers in the areas of EL and special education instructional strategies, standards alignment, and data analysis.

Donations from education foundations and other private sources are being leveraged by MDE to provide benefits for the Reward Schools and incentives for other schools to initiate systemic reform efforts. A significant collaborative partner in supporting early learners is the Minnesota Reading Corps. This is a vital partnership as the Minnesota Reading Corps looks to scale up their efforts in Minnesota. The Minnesota Reading Corps is one of the largest AmeriCorps programs in the country. The program places AmeriCorps members in various sites around the state to support a research-based early-literacy effort for preschool through grade 3 students. The Minnesota Reading Corps program was established in 2003 as part of the ServeMinnesota Innovation Act (MS 124D.36), a program established to provide funding for creating public service opportunities to serve students. The program utilizes a data-based problem-solving model of

literacy instruction in helping to train local Head Start program providers, other prekindergarten program providers, and staff in schools with students in kindergarten through 3<sup>rd</sup> grade to evaluate and teach early literacy skills, including comprehensive, scientifically-based reading instruction to children age 3 to grade 3. Through this legislation Minnesota Reading Corps will receive \$8.25 million over the next two years to scale-up implementation statewide in partnership with MDE. Currently, Reading Corps has 785 members serving 300+ schools in over 90 districts and supports over 20,000 students in the state. It is anticipated that by the fall of 2013 they will have well over 1,000 members in schools serving Minnesota students. This collaboration provides coherence and alignment to our state goal of “Reading Proficiently No Later Than the End of Grade 3” which seeks to have every child reading at or above grade level no later than the end of third grade and ensures teachers provide comprehensive, scientifically based reading instruction consistent with section 122A.06, subdivision 4.

Within the Minnesota Reading Corps program, members receive professional development on several research-based reading strategies and master coaches support members with ongoing data collection to monitor student progress. This is a key component to a response to intervention structure implemented by MDE and MN Reading Corps. This partnership will be utilized in promoting school improvement in Priority and Focus Schools, as well as other schools around the state.

All schools will have increased flexibility under this request due to the elimination of mandatory AYP set-asides. They will also have increased flexibility in transferring funds between certain Title funding allocations. This increased flexibility will allow schools and LEAs to better leverage their federal funds and direct them toward activities aligned with their unique school improvement needs. Priority and Focus Schools will be required to reassess the use of their Title I, II and III funds to address the specific components of their school improvement plan.

- c. Is the SEA’s process for holding LEAs accountable for improving school and student performance, particularly for turning around**

### **their Priority Schools, likely to improve LEA capacity to support school improvement?**

LEAs will be held responsible for the implementation of the improvement plans in Priority, Focus and Continuous Improvement Schools through regular involvement of LEA leaders, required reporting of student progress and program fidelity measurements as evidenced through progress made towards both leading and eventually, lagging indicators. The SSOs will assume the role of monitoring the student progress reporting and program fidelity measurements, partnering each LEA with staff from the Regional Centers established within the SSOS. The SSOS will also provide direct assistance to LEAs in the school improvement plan development process which is current practice, however, the SSOS will also provide training for LEA leadership to build capacity for directing improvement or turnaround activities, and supporting and monitoring improvement and turnaround efforts at each building. As described in the explanation of the SSOS, with the assistance from the SSOS LEAs will have completed their own needs assessment to provide a systemic perspective to student achievement LEA-wide. LEA representation on not only the district leadership team but the individual building leadership teams is critical to the success of the planning and implementation processes. It will be suggested that each LEA with an identified school have an LEA representative assigned as a liaison to MDE and the SSOS to ensure consistent and clear communication linkages. The liaison, or other district representation is required to attend all meetings and trainings that are conducted to support the schools in the district. This is critical to an effective systemic approach to school improvement and turnaround. MDE will expect LEA representation in all aspects of the building improvement process including district personnel and school board support for the process. In the event that the school is not making progress towards their indicators, the LEA will be expected to intensify their role to intervene in the school to ensure identified strategies and interventions are adhered to.

#### Public Reporting

LEAs will be held accountable for their performance in much the same way that schools falling outside of the accountability categories are held accountable: through public reporting of data. LEAs will still have their AYP performance reported along with schools on an annual basis. In this way, LEAs will be held accountable for the performance of all students in the LEA. The data center on MDE's website will also allow users to sort school performance on the MMR by

district. This will allow users to identify trends in low- or high-performance within a district. The expectation is that in the case of LEAs without Priority, Focus or Continuous Improvement Schools, parents and community members will take the greatest amount of responsibility for holding LEAs accountable for their performance and demanding improvement activities. They will be able to do so using the wider array of data that will be provided under the proposed system.

#### Persistently Low-Performing LEAs

Departing from the current AYP system, LEAs will not be evaluated or sanctioned in the same way as schools. While LEAs will still have AYP results reported, they will not be given an MMR, and will not be subject to any sanctions based on their performance. However, in LEAs with Priority, Focus or Continuous Improvement Schools, MDE and the SSOS will monitor the performance of all the LEA's schools on the MMR, as well as the LEA's AYP results. In cases where the LEA is persistently low-achieving and is failing to affect positive change in their identified schools due to failure to develop or implement the required School Improvement Plan, the LEA might be subject to deferral of Title I funds until positive actions are taken. This is currently the practice that MDE follows with LEAs and schools that refuse to develop or implement AYP plans, although the occurrence of this has been extremely isolated. Given the new responsibility that is being given to the LEAs of Priority, Focus, and Continuous Improvement Schools, MDE will have a lower threshold for deciding whether to defer Title I funds under this proposal. The other possible consequence, as outlined in this request, is to create set-asides tied to specific LEA improvement activities for the LEAs who do not comply with the expectations of MDE in the development and implementation of school improvement plans. Minnesota is a local-control state, so MDE is limited in its authority to force activities upon LEAs, but we will use the data we have to identify LEAs that are failing to improve student performance and leverage federal funding to incentivize improvement. The leverage that will be used will include deferring Title I funds from low-performing, non-compliant LEAs, or mandatory set-asides for district improvement activities. These set-asides would be linked to an LEA improvement plan that could include the identification of a need for a staff member dedicated to data analysis, or the designation of an LEA-level liaison between the LEA, MDE, the SSOS and the Priority School. The nature of an LEA's plan will vary depending on their existing capacity to lead turnaround efforts and the number of Priority and Focus Schools in the LEA.



**Principle 3: Supporting Effective Instruction and Leadership****3.A Develop and Adopt Guidelines for Local Teacher and Principal Evaluation and Support Systems****3.A.i Has the SEA developed and adopted guidelines consistent with Principle 3 through one of the three options below?**

Option A: If the SEA has not already developed any guidelines consistent with Principle 3, provide:

- i. The SEA's plan to develop and adopt guidelines for local teacher and principal evaluation and support systems by the end of the 2011-12 school year;

During the 2011 Minnesota Legislative Session laws were enacted that provided specific parameters and guidelines for the adoption of teacher and principal evaluation systems (Minn. Laws 2011 SS Chap. 11). This statute directs MDE, in consultation with stakeholders, to create and publish new teacher and principal evaluation processes and further requires LEAs to implement both. Stakeholder workgroups have been established to further define evaluation guidelines, implementation processes and LEA expectations for adopting the state model or developing a locally-developed model that meets state requirements for principal and teacher evaluation and support systems.

Five statutes are guiding the development of teacher and principal evaluation systems. MS 122A.60 defines the role of the staff development (SD) committee, and lists requirements for plans, outcomes focused on continuous improvement, and effective SD activities. MS 122A.40 and MS 122A.41 define requirements for the annual teacher evaluation and peer review process for all teachers and use of the evaluation for personnel decisions. MS 123B.147 defines requirements for the annual performance-based principal evaluation system. MS 123B.143 defines the responsibility of the superintendent to annually evaluate each school principal. Attachment 10 includes these five statutes.



- ii. A description of the process the SEA will use to involve teachers and principals in the development of these guidelines; and

### Development of Teacher Evaluation Guidelines

The Teacher Evaluation Workgroup which convened in the fall of 2011 includes a broad base representation of Minnesota stakeholders: parents, teachers and administrators appointed by their respective representative organizations, including the Board of Teaching, the Minnesota Association of School Administrators, the Minnesota School Boards Association, the Minnesota Elementary and Secondary Principals Associations, Education Minnesota, and representatives of the Minnesota Assessment Group, the Minnesota Business Partnership, the Minnesota Chamber of Commerce, and Minnesota postsecondary institutions with research expertise in teacher evaluation.

The workgroups will develop an evaluation model and support system designed to improve student learning and success. Both will be based on the 2011 Minnesota teacher evaluation legislation, ESEA waiver expectations and recommendations from the New Teacher Project, 2009. Together they will provide tools that:

- Occur frequently
- focus on teaching and learning
- differentiate by years of teaching and area of teaching
- provide a foundation for teacher development and improvement
- play an important role in employment decisions

As stipulated in Minnesota statute, LEAs will be required to implement either the state model or a locally-developed evaluation model and support system that meets state criteria.

### Development of Principal Evaluation Guidelines

During the 2011 Minnesota adopted legislation also provided specific parameters and guidelines regarding principal evaluation. MDE, in consultation with stakeholders, is required to create and publish a principal evaluation process.

LEAs are required to either implement the state-developed model or a locally-developed model that meets state criteria.

The Principal Evaluation Workgroup was convened in October 2011. A list of required stakeholder membership, meeting schedule and agenda items can be found in Attachment 18. Workgroup members include the Minnesota Association of Secondary School Principals, and the Minnesota Association of Elementary School Principals. Additionally a group of recognized and qualified experts and interested stakeholders, including principals, superintendents, teachers, school board members, and parents, among other stakeholders have been appointed.

Their charge is to develop an evaluation model that will improve teaching and learning by supporting the principal in shaping the school's professional environment and developing teacher quality, performance, and effectiveness.

- iii. An assurance that the SEA will submit to the Department a copy of the guidelines that it will adopt by the end of the 2011-12 school year. (see Assurance 15).

Minnesota will submit to the Department for peer review and approval a copy of the guidelines developed by the workgroup to be adopted by the end of the 2011-2012 school year.

### 3.B Ensure LEAs Implement Teacher and Principal Evaluation and Support Systems

**3.B Is the SEA’s process for ensuring that each LEA develops, adopts, pilots, and implements, with the involvement of teachers and principals, evaluation and support systems consistent with the SEA’s adopted guidelines likely to lead to high-quality local teacher and principal evaluation and support systems?**

Minnesota has been a leader in teacher effectiveness over the past decade. Five important statewide initiatives lay the groundwork for the development of a statewide Minnesota teacher evaluation and support model.

1. *Q Comp* – This program is aimed at improving teaching and learning through job-embedded professional development. It connects the dots between teacher observation, professional growth, professional development and student achievement.
2. *School Improvement Planning* - Minnesota’s School Improvement Grant Schools are required to implement rigorous, transparent, and equitable evaluations systems for teachers that take into account student growth and are aligned to professional development.
3. *Teacher Support Partnership (TSP)*- Through this effort new teacher induction guidelines have been developed to assist LEAs in implementing comprehensive new teacher programs focused on standards-based observations, mentoring, coaching, professional development and teacher growth.
4. *Teacher Performance Assessment* - Minnesota’s teacher preparation institutions have piloted and are now implementing the Teacher Performance Assessment which measures pre-service teachers' ability to support and advance student achievement.
5. *Professional Development Plans*- MS 122A.41 requires LEAs to create and implement plans for professional development that support stable and productive professional communities through ongoing and school-wide progress and growth in teacher practice. Plans must emphasize coaching, professional learning communities, classroom action research, and other job-embedded models. They must maintain a strong subject matter focus premised on students' learning goals. Plans must ensure specialized

preparation and learning issues related to teaching students with special needs and limited English proficiency and English Learners and reinforce national and state standards of effective teaching practices.

### Transition to a Formal Teacher Evaluation Model

Minnesota is beginning the work of extending the lessons learned from current practices and initiatives into a widely-accepted, effective teacher evaluation model. A carefully articulated implementation timeline has been established that outlines activities over a five-year period and includes a phased approach is attached as set forth in MS 122A.41. The five phases are summarized below:

1. *2011-2012 Model Development*

Develop core competencies, training requirements

2. *2012-2013 Model Refinement*

*Design evaluator training, enhance state data systems and determine SEA approval process of LEA models*

3. *2013-2014 Pilot Year*

Select schools will participate in the new evaluation process including evaluator training, model revision based on pilot feedback, monitor initial fidelity of implementation

4. *2014-2015 Full Implementation*

All LEAs statewide will implement

5. *2015-2016 Implementation Refinement*

Adjustments will be made to the model and implementation strategies based on lessons learned

### Evaluation Model Components

Based on preliminary workgroup recommendations the final teacher evaluation model will differentiate between new and experienced teachers, contain common elements for all teachers and have the option for alternative measures for teacher performance.

Probationary teachers are defined as those in their first three years of teaching and do not have a continuing contract. Their model will:

- require at least three formal observations periodically throughout each school year with the first evaluation occurring within the first 90 days of teaching service
- promote continuous improvement and collaboration with professional colleagues by having trained peer observers serve as mentors or coaches, and by encouraging participation in professional learning communities to develop, improve, and support effective teaching practices

Tenured or continuing contract teachers are defined as teachers having successfully completed their three-year probationary period. Their model will require:

- a three-year professional review cycle for each teacher that includes a peer-review process
- at least one summative evaluation performed by a qualified and trained evaluator
- peer review in the years when a tenured teacher is not evaluated by a qualified and trained evaluator

The Workgroup will provide guidance in specifying the frequency of formative observations and various forms of feedback (e.g., coaching, self-assessments, formal/informal walkthroughs, and parent and student surveys) that occur throughout the three-year professional review cycle.

Models for both probationary and continuing teachers will be based on Minnesota's professional teaching standards as established in rule (Minn. Administrative Rule 8710.2000). Only qualified, trained evaluators will perform summative evaluations. Thirty-five percent of the evaluation will include results of a teacher value-added assessment. Longitudinal data on student engagement and connection and other student outcome measures, explicitly aligned with the elements of curriculum for which teachers are responsible, will be included as well.

Both models will include an option for teachers present a portfolio demonstrating evidence of reflection and professional growth, including the

teachers' own performance assessment based on student work samples and examples of teachers' work. It may also include video among other activities for the summative evaluation.

Measures of teacher performance via portfolio captures the many facets of effective teaching beyond evidence collected during a teacher observation process (National Comprehensive Center for Teacher Quality Research to Practice Brief, 2011).

All model development will be research-based. Guidance will be provided from experts within the workgroup as well external technical assistance from New Teachers and New Leaders to develop valid and reliable evaluation measures and ensure consistent application across LEAs. Our key sources are noted below:

- A Practical Guide to Designing Comprehensive Teacher Evaluation Systems (National Comprehensive Center for Teacher Quality, available at: <http://www.tqsource.org/publications/practicalGuideEvalSystems.pdf>).
- Great Teachers and Leaders: State Considerations on Building Systems of Educator Effectiveness (Reform Support Network, available at: <http://www2.ed.gov/programs/racetothetop/great-teachers.doc>).
- Guide to Teacher Evaluation Products (National Comprehensive Center for Teacher Quality, available at: <http://www3.learningpt.org/tqsource/GEP>).
- Getting It Right: A Comprehensive Guide to Developing and Sustaining Teacher Evaluation and Support Systems (National Board for Professional Teaching Standards, available at: [http://www.nbpts.org/userfiles/file/NBPTS\\_Getting-It-Right.pdf](http://www.nbpts.org/userfiles/file/NBPTS_Getting-It-Right.pdf)).

#### Inclusive and Equitable Teacher Evaluation Model

Workgroup membership includes teachers of English learners and teachers of students with disabilities. As their teaching situations are often qualitatively different from their full time general education colleagues it is critical to ensure their unique perspectives are taken into consideration. They frequently teach general education students part of the time and specialized groups part of the time or in combination, teach multiple classes, or serve as resource teachers. Evaluation rubrics and corresponding evaluator training processes will explicitly address the education of English Learners and students with disabilities.

During the pilot year, data will be collected to include information and feedback from teachers who teach students with disabilities and English Learners and used to refine or modify the state model to best meet all teaching contexts.

Special attention was given to ensure workgroup membership included representatives of non-tested grades and subject areas to ensure their unique perspectives are taken under considerations in the development of the state model. The workgroup will address equitable methods to tie student performance to teachers in tested and non-tested grades and subject areas. The evaluation rubric and corresponding evaluator training to be developed will address non-tested grades and subject areas.

The following research will be used to guide workgroup tasks related to the development of a state teacher evaluation model:

- Measuring Student Growth for Teachers in Non-Tested Grades and Subjects: A Primer (Reform Support Network, available at: [http://www.swcompcenter.org/educator\\_effectiveness2/NTS\\_\\_PRIMER\\_FINAL.pdf](http://www.swcompcenter.org/educator_effectiveness2/NTS__PRIMER_FINAL.pdf)).
- Alternative Measures of Teacher Performance (National Comprehensive Center for Teacher Quality, available at: [http://www.tqsource.org/pdfs/TQ\\_Policy-to-PracticeBriefAlternativeMeasures.pdf](http://www.tqsource.org/pdfs/TQ_Policy-to-PracticeBriefAlternativeMeasures.pdf)).
- Measuring Teachers Contributions to Student Learning Growth for Non-tested Grades and Subjects (National Comprehensive Center for Teacher Quality, available at: <http://www.tqsource.org/publications/MeasuringTeachersContributions.pdf>).

### Principal Evaluation Models

As with teacher evaluations, Minnesota has a decade of history leading the effort to establish principal evaluations. Currently there are three important principal effectiveness initiatives occurring statewide that will inform the development of a statewide LEA principal evaluation and support model.

1. *The Minnesota Principal Academy*- This group was established in collaboration with the National Institute of School Leadership. The academy's purpose is to ensure school leaders have the knowledge, skills

and tools to offer direction to teachers and design an efficient organization, which helps improve student achievement in low-performing schools or lead good schools to great performance.

2. *SIG Principal Evaluations*- Minnesota's School Improvement Grant (SIG) schools are implementing rigorous, transparent, and equitable principal evaluation systems that take into account student growth and are aligned to professional development.
3. *K-12 Principal Competency Evaluations*- Four Minnesota professional organizations collaboratively developed a principal evaluation process that emphasized accountability and was framed around continuous improvement and aligned to Minnesota's K-12 Principal Competencies.

### Transition to a Formal Principal Evaluation Model

Minnesota is beginning the work of extending the lessons learned from current practices and initiatives into a widely-accepted, effective principal evaluation model. A carefully-articulated implementation timeline has been established that outlines activities over a five-year period and includes a phased approach is attached as set forth in MS 122A.41. The five phases are summarized below:

1. *2011-2012 Model Development*

Develop core competencies, evaluator training requirements, enhance data systems and determine SEA approval process of LEA models

2. *2012-2013 Pilot Year*

Select schools will participate in the new evaluation process including evaluator training, model revision based on pilot feedback, monitor initial fidelity of implementation

3. *2013-2014 Full Implementation*

All LEAs statewide will implement

4. *2014-2015 Implementation Refinement*

Continue monitoring evaluation system for continuous improvement, provide ongoing professional development

5. *2015-2016 Monitor for Fidelity of Implementation*



Continue monitoring evaluation system for continuous improvement,  
provide ongoing professional development

### Principal Evaluation Model

The Principal Evaluation Workgroup will collaborate with MDE to create and publish a principal evaluation model that complies with guidelines established in statute. The law requires MDE to:

- develop a performance-based system model for annually evaluating school principals
- consider how principals develop and maintain high standards for student performance, rigorous curriculum, quality instruction, a culture of learning and professional behavior, connections to external communities, systemic performance accountability, and leadership behaviors that create effective schools and improve school performance
- consider whether to establish a multi-tiered evaluation system that supports newly-licensed principals in becoming highly-skilled school leaders and provide opportunities for advanced learning for experienced school leaders

The Vanderbilt Assessment of Leadership in Education (VAL-ED) is one of the most widely-used and respected measures in school leadership performance assessment. It informed the creation of Minnesota's principal evaluation legislation. "This assessment empowers administrators to effectively evaluate staff, diagnose strengths and weaknesses, and recommend pertinent professional development" (Benbow, 2008). As highly-regarded as VAL-ED is, the principal evaluation workgroup also recognizes it has limitations such as the lack of inclusion of actual student-learning gains or graduation rates in their evaluation of principals, and will address these limitations in their recommendations.

The final evaluation model will include an annual evaluation to support and improve a principal's instructional leadership, organizational management, and professional development. The model is intended to strengthen the principal's capacity in the areas of instruction, supervision, evaluation, and teacher development through formative and summative evaluations. The model will be consistent with a principal's job description, a district's long-

term plans and goals and the principal's own professional multi-year growth plans and goals.

The model is intended to support the principal's leadership behaviors and practices, rigorous curriculum, school performance, and high-quality instruction. On-the-job observations and previous evaluations will be included as will surveys to help identify a principal's effectiveness, leadership skills and processes, and strengths and weaknesses in exercising leadership in pursuit of school success.

The Evaluation Task Force may also consider whether to establish a multi-tiered evaluation system that supports newly licensed principals in becoming highly skilled school leaders and provides opportunities for advanced learning for more experienced school leaders.

#### Additional Outside Support and Technical Assistance

MDE has secured philanthropic external support for the technical assistance needed to develop and implement teacher and principal evaluation systems.

- *The Bush Foundation*- The Bush Foundation recently awarded MDE \$311,000 to support the development and implementation of the principal and teacher evaluation systems. These funds will be used in three primary areas: 1) statewide educator collaboration and feedback, 2) technical assistance from national experts and 3) additional internal staff positions at MDE.
- *Vision Idea Voice Action Project (VIVA)* - Vision Idea Voice Action Project (VIVA) will lead moderated discussions via social media with teachers across the state on the emerging competencies, evaluation tools, and elements of the new evaluation systems. The feedback gathered from VIVA will be used to develop recommendations to the workgroups, the legislature, and the Commissioner. This process will continue into the 2012-13 school year and be used to provide ongoing feedback about the implementation of the new evaluation system, its effectiveness and its impact on their success as teachers.

- *Joyce Foundation New Teacher Project* - We are currently awaiting final approval from the Joyce Foundation to partner with the New Teacher Project (NTP) on teacher and principal evaluation efforts. They have an open contract with TNTP and will dedicate external assistance from the NTP to Minnesota. Joyce Foundation will support phases two and three of the Viva Project.
- *Minnesota Philanthropy Partners* - The Minnesota Philanthropy Partners are currently funding additional support from the New Leaders New Schools group to help MDE with the development of the principal evaluation model. This external technical support is helping us craft better core competencies and measures for principal evaluation based on national research and expertise.

College- and Career-Ready Standards

The workgroup will be required to incorporate within the evaluation model strong links to Minnesota’s college- and career-ready standards and classroom applications to standards-aligned curriculum, research-based and rigorous instruction, formative and summative assessments, use of technology, etc. In addition, the model will incorporate multiple measurements related to increasing student academic achievement and school performance ensuring that every teacher is highly effective in helping students achieve at high levels.

Implementation Timeline for Teacher and Principal Evaluation Models

Phase I	Teacher Evaluation	Principal Evaluation
2011-12	<p><i>Teacher Evaluation Model Development</i></p> <ul style="list-style-type: none"> <li>• Complete core competencies w/ indicators through stakeholder input</li> <li>• Present recommendations to legislature</li> </ul>	<p><i>Principal Evaluation Model Development</i></p> <ul style="list-style-type: none"> <li>• Complete core competencies w/ indicators through stakeholder input</li> <li>• Present recommendations to legislature</li> <li>• Select/adapt/develop state model instruments (tasks continue into 2012-</li> </ul>

	<ul style="list-style-type: none"> <li>• Select/adapt/develop state model instruments (tasks continue into 2012-13)             <ul style="list-style-type: none"> <li>○ Rubrics</li> <li>○ student and/or parent surveys</li> <li>○ Observation tools</li> <li>○ Professional growth plan forms</li> </ul> </li> <li>• Allocate funds for state-level training and set requirements for local training (tasks continue into 2012-13) to include             <ul style="list-style-type: none"> <li>○ Use of instruments, how to set student outcome targets, how to interpret examples of evidence, how to give effective feedback and how to align supports based on evaluation outcomes</li> <li>○ Activities to ensure inter-rater reliability in evaluator’s use of evaluation instruments</li> <li>○ Technical assistance will be provided through MDE’s new regional model for Statewide System of Support</li> <li>○ Delivery options include face-to-face, distance learning, web-based and networking opportunities</li> </ul> </li> </ul>	<p>13)</p> <ul style="list-style-type: none"> <li>○ Rubrics</li> <li>○ Staff/community surveys</li> <li>○ School visit/observation tools</li> <li>○ Professional growth plan forms</li> <li>• Allocate funds for state-level training and set requirements for local training (tasks continue into 2012-13) to include             <ul style="list-style-type: none"> <li>○ Use of instruments, how to set student outcome targets, how to interpret examples of evidence, how to give effective feedback and how to align supports based on evaluation outcomes</li> <li>○ Activities to ensure inter-rater reliability in evaluator’s use of evaluation instruments</li> <li>○ Technical assistance will be provided through MDE’s new regional model for Statewide System of Support</li> <li>○ Delivery options include face-to-face, distance learning, web-based and networking opportunities</li> </ul> </li> <li>• Design evaluator training based on state model (Spring 2012) to support launch of pilots in 2012-13;</li> <li>• Enhance current state’s data systems to share state-level student outcome information with LEAs (continued into 2012-13)</li> <li>• Determine a SEA approval process for LEAs seeking to implement their own model. Assurances need to include             <ul style="list-style-type: none"> <li>○ High standards for instruction design</li> <li>○ Training of key personnel n use of locally-developed tools</li> <li>○ Review of correlations between practice ratings and student outcomes</li> </ul> </li> </ul>
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<p><b>Phase 2 2012-13</b></p>	<p style="text-align: center;"><b><i>Teacher Evaluation Model Refinement</i></b></p> <ul style="list-style-type: none"> <li>• Select/adapt/develop state model instruments (tasks continues from 2011-12) <ul style="list-style-type: none"> <li>○ Rubrics</li> <li>○ Student and/or parent surveys</li> <li>○ Observation tools</li> <li>○ Professional growth plan forms</li> </ul> </li> <li>• Design evaluator training based on state model to support launch of pilots in 2013-14; include use of instruments, how to set student outcome targets, how to interpret examples of evidence, how to give effective feedback and how to align supports based on evaluation outcomes</li> <li>• Enhance current state’s data systems to share state-level student outcome information with LEAs</li> <li>• Determine a SEA approval process for LEAs seeking to implement their own model. Assurances need to include <ul style="list-style-type: none"> <li>○ High standards for instruction design</li> <li>○ Training of key personnel n use of locally-developed tools</li> </ul> </li> </ul>	<p style="text-align: center;"><b><i>Principal Evaluation Pilot Year</i></b></p> <ul style="list-style-type: none"> <li>• LEAs design or select instruments and seek approval for use in their pilots</li> <li>• Implement a statewide pilot <ul style="list-style-type: none"> <li>○ Pending further legislative action, to include student outcome measures</li> <li>○ SIG schools will be required to participate in the pilot using either local or state model</li> </ul> </li> <li>• Select a small number of LEAs to pilot all state instruments (rubrics, surveys, site visits and/or observations, growth measurement tools) <ul style="list-style-type: none"> <li>○ SIG schools will be required to participate in the pilot using either local or state model</li> </ul> </li> <li>• Implement evaluator training based on piloting of state model (Summer 2012 to support launch of pilots in 2012-13)</li> <li>• Revise all state model instruments in Spring 2013 based on pilot information</li> <li>• Revise training based on lessons learned</li> <li>• Prepare for full implementation in 2013-14</li> <li>• Design a process to monitor fidelity of implementation may include <ul style="list-style-type: none"> <li>○ Implementation checklist and/or rubric</li> <li>○ Random audits of selected districts</li> </ul> </li> </ul>
<p><b>Phase 3 2013-14</b></p>	<p style="text-align: center;"><b><i>Teacher Evaluation Pilot Year</i></b></p> <ul style="list-style-type: none"> <li>• LEAs design or select instruments and seek approval for use in their pilots</li> <li>• Implement a statewide pilot <ul style="list-style-type: none"> <li>○ to include student outcome measures</li> <li>○ SIG schools will be required to participate in the pilot using either local or state model</li> </ul> </li> </ul>	<p style="text-align: center;"><b><i>Principal Evaluation Full implementation</i></b></p> <ul style="list-style-type: none"> <li>• SEAs monitor evaluation system as a basis for continuous improvement <ul style="list-style-type: none"> <li>○ LEAs report on evaluation model and process to monitor fidelity of implementation</li> <li>○ Auditing selected LEAs in Focus and Priority Schools</li> <li>○ Creating opportunities (conferences, webinars, etc.) for LEAs to share promising</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• Select a small number of LEAs to pilot all state instruments (rubrics, surveys, site visits and/or observations, growth measurement tools)             <ul style="list-style-type: none"> <li>○ SIG schools will be required to participate in the pilot using either local or state model</li> </ul> </li> <li>• Implement evaluator training based on piloting of state model</li> <li>• Revise all state model instruments in Spring 2014 based on pilot information</li> <li>• Revise training based on lessons learned</li> <li>• Prepare for full implementation in 2014-15</li> <li>• Design a process to monitor fidelity of implementation may include             <ul style="list-style-type: none"> <li>○ Implementation checklist and/or rubric</li> <li>○ Random audits of selected districts</li> </ul> </li> </ul>	<p>practices and implementation challenges</p> <ul style="list-style-type: none"> <li>• SEAs provide ongoing professional development and resources             <ul style="list-style-type: none"> <li>○ Norming activities</li> <li>○ Designing robust examples of evidence</li> <li>○ Providing guidance and skills on student outcomes goal setting</li> </ul> </li> <li>• Ongoing training on the state model and implementation</li> </ul>
<p><b>Phase 4 2014-15</b></p>	<p style="text-align: center;"><b><i>Teacher Evaluation Full implementation</i></b></p> <ul style="list-style-type: none"> <li>• SEAs monitor evaluation system as a basis for continuous improvement             <ul style="list-style-type: none"> <li>○ LEAs report on evaluation model and process to monitor fidelity of implementation</li> <li>○ Auditing selected LEAs in Focus and Priority Schools</li> <li>○ Creating opportunities (conferences, webinars, etc.) for LEAs to share promising practices and implementation challenges</li> </ul> </li> <li>• SEAs provide ongoing professional development and resources             <ul style="list-style-type: none"> <li>○ Norming activities</li> <li>○ Designing robust</li> </ul> </li> </ul>	<p style="text-align: center;"><b><i>Principal Evaluation Implementation Refinement</i></b></p> <ul style="list-style-type: none"> <li>• Review, refine and revise the evaluation model based on implementation lessons learned from the field, as well as local and national research</li> <li>• SEAs continue monitoring evaluation system as a basis for continuous improvement             <ul style="list-style-type: none"> <li>○ LEAs report on evaluation model and process so that fidelity of implementation and can be monitored</li> <li>○ Auditing selected LEAs in Focus and Priority Schools</li> <li>○ Creating opportunities (conferences, webinars, etc.) for LEAs to share promising practices and implementation challenges</li> </ul> </li> <li>• SEAs provide ongoing professional</li> </ul>

	<ul style="list-style-type: none"> <li>○ examples of evidence                             <ul style="list-style-type: none"> <li>○ Providing guidance and skills on student outcomes goal setting</li> </ul> </li> <li>● Ongoing training on the state model and implementation</li> </ul>	<ul style="list-style-type: none"> <li>development and resources                             <ul style="list-style-type: none"> <li>○ Norming activities</li> <li>○ Designing robust examples of evidence</li> <li>○ Providing guidance and skills on student outcomes goal setting</li> </ul> </li> <li>● Ongoing training on the state model and implementation</li> </ul>
<p><b>Phase 5</b> <b>2015-16</b></p>	<p style="text-align: center;"><b><i>Teacher Evaluation Implementation Refinement</i></b></p> <ul style="list-style-type: none"> <li>● Review, refine and revise the evaluation model based on implementation lessons learned from the field, as well as local and national research</li> <li>● SEAs continue monitoring evaluation system as a basis for continuous improvement                             <ul style="list-style-type: none"> <li>○ LEAs report on evaluation model and process so that fidelity of implementation and can be monitored</li> <li>○ Auditing selected LEAs in Focus and Priority Schools</li> <li>○ Creating opportunities (conferences, webinars, etc.) for LEAs to share promising practices and implementation challenges</li> </ul> </li> <li>● SEAs provide ongoing professional development and resources                             <ul style="list-style-type: none"> <li>○ Norming activities</li> <li>○ Designing robust examples of evidence</li> <li>○ Providing guidance and skills on student outcomes goal setting</li> </ul> </li> <li>● Ongoing training on the state model and implementation</li> </ul>	<p style="text-align: center;"><b><i>Principal Evaluation Monitoring Fidelity of Implementation</i></b></p> <ul style="list-style-type: none"> <li>● Ongoing monitoring of fidelity of implementation</li> <li>● Ongoing professional development and support activities</li> </ul>

\*Adapted from Driving Alignment and Implementation: The Role of the Principalship in ESEA Flexibility (New Leaders, 2011).

- *Does the SEA have a process for reviewing and approving an LEA's teacher and principal evaluation and support systems to ensure that they are consistent with the SEA's guidelines and will result in the successful implementation of such systems?*

#### Approving Locally-developed Evaluation Models

An SEA review/approval process will be established for LEA's teacher and principal evaluation and support systems to ensure that they are consistent with MDE guidelines and result in the successful implementation. The exact process will be determined through workgroup recommendations to MDE. This review and approval process will be first used with pilot schools prior to the pilot and full implementation phases for each model. Each workgroup will define evaluation criteria and develop a rubric for LEA and MDE use to determine if their locally-developed plans meet state guidelines.

#### Continually Reviewing and Refining State Evaluation Models.

MDE will update the models regularly to reflect new knowledge from the field—both nationally and statewide. The process and frequency of review of MDE's models will be based on recommendations from the workgroups.

Implementation timelines for both the teacher and principal evaluation include specific phases and activities intended to refine the existing models and monitor the fidelity of implementation.

- *Does the SEA have a process for ensuring that an LEA develops, adopts, pilots, and implements its teacher and principal evaluation and support systems with the involvement of teachers and principals?*

Evaluation models must have capacity for individual input and personal decisions to fully garner support of teachers and principals. Minnesota has taken on the task of developing evaluation guidelines and models that involve collective bargaining organizations, incorporate professional growth and alignment with personal decision making of individuals being evaluated.



### Role of Collective Bargaining

During the 2011 Minnesota Special Legislative Session, a major shift occurred regarding teacher and principal evaluation requirements (see Attachment 10). The new laws require all districts to be held to the same standard of annual evaluations for teachers and principals. The teacher evaluation model requires districts to develop a teacher evaluation process through joint agreement (collective bargaining). If the district does not develop a teacher evaluation model by the 2014-15 school, then the district must adopt the state model. Statutes pertaining to district requirements for principal evaluation are not linked to collective bargaining. Recommendations will be made to legislature to require principal evaluation through a joint agreement process (collective bargaining).

### Teacher Evaluation Aligned with Professional Growth and Personal Decisions

The Teacher Evaluation Workgroup will provide guidance on how LEAs must coordinate the results of teacher evaluations with LEA and school professional development plans and use individual professional development plans for professional growth and improvement that are driven by student achievement data.

The workgroup will recommend how teacher quality and current tenure practices should be linked with teacher evaluation, retention and dismissal decisions (Center for American Progress, 2010). Tenured teachers not meeting professional teaching standards will be provided support to improve through a teacher improvement process that includes established goals and timelines. Teachers not making adequate progress in the teacher improvement process will follow disciplinary steps that may include a last chance warning, termination, discharge, nonrenewal, transfer to a different position, a leave of absence, or other discipline a school administrator determines is appropriate. A probationary teacher's contract may be terminated at any time by mutual consent of the board and the teacher. The workgroup will be asked to provide guidance to define "making adequate progress" to inform personnel decisions.

- Probationary Teachers: During the three-year probationary period, any annual contract with any teacher may or may not be renewed as the school board shall see fit. (MN Statute 122A.40/122A. 41)

- Probationary and Continuing Contract Teachers. Personnel decisions include last chance warning, termination, discharge, nonrenewal, transfer to a different position, a leave of absence, or other discipline a school administrator determines is appropriate. (MN Statute 122A.40/122A.41)

### Student Achievement Measures used in Evaluation

The Principal Evaluation Workgroup is considering how to incorporate student achievement measurements in the model. The Workgroup is currently considering the use of longitudinal data and school-wide student academic growth data as an evaluation component. District achievement goals and targets will also be incorporated into the evaluation process. The recommendations of the Workgroup will determine the degree to which student achievement measurements will be a part of the statewide principal evaluation model.

Priority Schools will be required to implement a rigorous and comprehensive teacher evaluation system to ensure that teachers are effective and able to improve instruction by:

- Reviewing the quality of all staff and retaining only those who are determined to be effective and have the ability to be successful in the turnaround effort
- Preventing ineffective teachers from transferring to these schools
- Providing job-embedded, ongoing professional development informed by the teacher evaluation and support systems and tied to teacher and student needs

Priority Schools will receive additional targeted support in implementing teacher evaluation systems through Minnesota's Statewide System of Support.

### Principal Evaluation Aligned with Professional Growth

Principal evaluations will include timely feedback linked to professional development plans that emphasize improved teaching and learning, improvements in curriculum and instructional methodologies, and a collaborative professional culture. The model will require implementation of this plan for the purpose of improving the principal's performance specifying

the procedures and consequences if performance is not improved. The workgroup will recommend additional guidance regarding principal professional development as it relates to the principal evaluation process.

### College- and Career-Ready Standards

As the instructional leader, the principal must ensure the teaching occurring in the school is:

- linked to Minnesota's college and career ready standards;
- using standards-aligned curriculum;
- research-based and rigorous;
- utilizing regular formative and summative assessments; and
- encouraging 21<sup>st</sup> Century learning.

Principals will be using a teacher evaluation model that will address areas noted above and use multiple measurements of student academic achievement and school performance to ensure that every teacher is highly effective. The workgroup will be required to incorporate these key features within the evaluation model.

Priority Schools will be expected to implement rigorous and comprehensive principal evaluation models. The results of principal evaluations at Priority Schools will guide the LEAs decision to dismiss or retain the principal. The results of principal evaluations at Priority Schools will also be used to develop effective supports for leadership within Priority Schools that align with the turnaround principles.

### Principal Evaluation Model Used for Personnel Decisions

As part of the design of the evaluation model, performance levels and/or evaluation rubrics are currently being refined by the principal evaluation work group members. A combination of evaluation by supervisor, school performance measures and other measures that include feedback from stakeholders will be used to develop a principal's rating. A professional growth plan will be developed from the summary report consistent with the performance rating assigned and be determined by both parties. Ratings include:

4 Distinguished (Exemplary):

- A self-directed growth plan.
  - Eligible for additional leadership roles and responsibilities.
  - Encouraged to assume role of mentor or coach.
- 3 Accomplished (Proficient): Consistently meets standards of performance
- A Self-directed growth plan.
- 2 Proficient (Basic): Demonstrates basic competence on standards of performance
- One-year jointly designed growth plan.
- 1 Unsatisfactory: Does not meet acceptable standards of performance
- One-year directed improvement plan stemming from unsatisfactory or concerning performance items; generated by the supervisor and specifically identifying areas for improvement.

Developing: The designation of “developing” may be added to one of the above ratings where a limited number of performance items are targeted and where one of the following conditions exist:

- 1) Principal is a probationary principal,
- 2) Principal assumed a new assignment,
- 3) A significant change has occurred in district goals, curricula, leadership, or strategic vision during the year.

Failure to remedy or improve a performance designation of “Unsatisfactory” shall result in disciplinary action per MS 123B. 147 or local district policy.

- Personnel decisions include last chance warning, termination, discharge, nonrenewal, transfer to a different position, a leave of absence, or other discipline a school administrator determines is appropriate. (MN Statute 122A.40/122A.41).

- Specifically, for both principals and teachers, MN Statute 122A.40, Subdivision 9, was amended during the 2010 Legislative session to read: Subd. 9. Grounds for termination. A continuing contract may be

terminated, effective at the close of the school year, upon any of the following grounds:

- (1) inefficiency in teaching or in the management of a school, consistent with subdivision 8, paragraph (b);
- (2) neglect of duty, or persistent violation of school laws, rules, regulations, or directives;
- (3) conduct unbecoming a teacher which materially impairs the teacher's educational effectiveness; or
- (4) other good and sufficient grounds rendering the teacher unfit to perform the teacher's duties.

The workgroup is the process of making final recommendations to the Minnesota Legislature by February 1, 2012 to the Minnesota State Model for Principal Evaluation and will clarify specific procedures and consequences for principals not meeting standards of professional practice or other criteria to inform personnel decisions.

- *Did the SEA describe the process it will use to ensure that all measures used in an LEA's evaluation and support systems are valid, meaning measures that are clearly related to increasing student academic achievement and school performance, and are implemented in a consistent and high-quality manner across schools within an LEA?*

#### A Teacher Evaluation Model that Includes Multiple Measurement

The Teacher Evaluation Workgroup will define a process for ensuring that all measures that are included in determining performance levels are valid and meaningful measures that are clearly related to increasing student academic achievement and school performance, and are implemented in a consistent and high-quality manner across schools within an LEA. Statute requires three measures in the teacher evaluation model:

- Observations based on professional teaching standards
- Value-added performance measures
- Longitudinal data on student engagement and connection

Historically, most states and LEAs have used classroom observations as the primary tool to assess teacher performance (Brandt, Thomas, & Burke, 2008;

Weisberg, Sexton, Mulhern, & Keeling, 2009). Although classroom observations – in combination with student growth measurements – provide multiple data points on teacher performance, additional alternative measures such as graduation rates should also be considered to ensure a rigorous teacher evaluation system will capture the multiple facets of effective teaching. New research and studies provide insights into how student achievement data can be incorporated into a credible evaluation system. Research has shown that the involvement of teachers in deciding how to account for student learning and other relevant outcomes in evaluation using a combination of measures so teachers feel they are being evaluated comprehensively and fairly is essential (NEA Teacher Evaluation Systems: The Window for Opportunity and Reform, 2009).

MDE will incorporate student growth into its performance-level definitions with sufficient weighting to ensure that performance levels will differentiate among teachers who have made significantly different contributions to student growth or closing achievement gaps. Statute requires that 35 percent of the teacher’s evaluation will include results of a teacher’s value-added assessment. The model will use longitudinal data on student engagement and connection and other student outcome measurements aligned with elements of curriculum for which the teacher is responsible.

When developing the value-added assessment component of the model, workgroups will lean upon other state teacher evaluation models and research that includes value-added assessment components for use with all teachers, particularly those subjects or grade levels where state assessments are not in place.

### Student Growth

As outlined in Principle 2, student growth will play a larger role in Minnesota’s new accountability system. The teacher evaluation model will lean on the growth score used in the Multiple Measurements Rating (MMR). This score is based on the average individual student growth achieved by students in each school. Students who test with the main assessments as well as alternate assessments are included in the MMR. Student growth is measured on a normative basis by predicting second-year student scores based on the first-year scores and measuring a student’s growth based on their actual performance relative to that prediction. Predicted student growth is established by finding the mean scores of

students at each score point using two cohorts of students. In the MMR, student growth is used to measure schools' ability to achieve high student growth. The same principle can be applied to teacher evaluation systems that measure a teacher's ability to achieve high student growth.

- *Is the SEA's plan likely to be successful in ensuring that LEAs meet the timeline requirements by either (1) piloting evaluation and support systems no later than the 2013-2014 school year and implementing evaluation and support systems consistent with the requirements described above no later than the 2014-2015 school year; or (2) implementing these systems no later than the 2013-2014 school year?*

MDE has established a schedule for development and implementation which is outlined below.

Type of Evaluation	2010-11	2011-12	2012-13	2013-14	2014-15
Principal	Legislation enacted	Workgroup convenes; model completed	Pilot year	Full implementation at LEA level	
Teacher	Legislation enacted	Workgroup convenes; model under development	Model completed	Pilot year	Full implementation at LEA level

#### Pilot Sites, Feedback and Model Refinement

The piloting process will be broad enough to gain sufficient feedback from a variety of educators, schools, and classroom settings to inform full implementation of the LEA's evaluation and support systems. Pilot sites will include:

- LEA with Priority Schools and those receiving federal school redesign grants. These sites are required to use evaluation systems that "differentiate performance by at least three levels" and "use student growth as a significant factor in evaluation."
- Other sites to ensure a representative sample across the state.

MDE's Division of School Support will work with key stakeholders from LEA pilots to refine the evaluation models before full implementation occurs statewide.

- *Do timelines reflect a clear understanding of what steps will be necessary and reflect a logical sequencing and spacing of the key steps necessary to implement evaluation and support systems consistent with the required timelines?*

The Principal Evaluation Workgroup has a rigorous meeting schedule intended to result in a formal report to be reviewed and adopted in January 2012. The workgroup is addressing critical issues such as review of information at the Federal level and information from other national and state sources. They are presenting to key stakeholder groups including the Minnesota Principals Academy. By early December they will have a draft that includes core indicators, descriptors, and required evidence. See the current schedule below:

Monday, October 24	1:00 – 4:00	TIES Building	<ul style="list-style-type: none"> <li>• Introductions</li> <li>• Charge to the group</li> <li>• Review of legislation</li> <li>• Presentations by BOSA and MESPA &amp; MASSP of work completed</li> <li>• Next Steps</li> <li>• Set calendar and adjust agendas for upcoming meetings</li> </ul>
Monday, November 7	1:00 – 4:00	TIES Building	<ul style="list-style-type: none"> <li>• Review of information at federal level-NCLB Waiver Principles</li> <li>• Review of models from state and national sources (NC, IL, IA &amp; Other)</li> <li>• Compare and contrast models</li> <li>• Set calendar and adjust agendas for upcoming meetings</li> </ul>
Monday, November 14	1:00 – 4:00	TIES Building	<ul style="list-style-type: none"> <li>• Presentation: MN Principals Academy</li> <li>• Presentation: New Leaders for New Schools</li> <li>• Terminology &amp; structure of model</li> <li>• Begin development of model, recommendations &amp; report</li> <li>• Issues: <b>Proficiency categories &amp; Core Competencies</b></li> <li>• Set calendar and agendas for upcoming meetings</li> </ul>
Monday, December 5	1:00 – 4:00	TIES Building	<ul style="list-style-type: none"> <li>• Presentation by Val-Ed</li> <li>• Legal Implications</li> <li>• Continue development of model, recommendations &amp; report</li> <li>• Issues: <b>Indicators/Descriptors; Evidences</b></li> <li>• Set calendar and agendas for upcoming meetings</li> </ul>
Monday, December 12	1:00 – 4:00	TIES Building	<ul style="list-style-type: none"> <li>• Prepare &amp; discuss questions for January meeting on assessment &amp; longitudinal data</li> <li>• Continue development of model, recommendations &amp; report</li> <li>• Issues: <b>Timelines, process, forms &amp; developmental expectations</b></li> <li>• Set calendar and adjust agendas for upcoming meetings</li> </ul>
Thursday			<ul style="list-style-type: none"> <li>• Joint meeting with teacher evaluation working group on issues related to testing, assessments and longitudinal data</li> <li>• Review outline of draft report; discussion and revisions</li> </ul>



January 19	1:00 – 4:00	MDE	
Monday, January 23	1:00 – 4:00	TIES Building	<ul style="list-style-type: none"> <li>Review and Adopt Final Report</li> </ul>

➤ The Teacher Evaluation Workgroup has a similar work schedule with monthly meetings scheduled through August of 2012:

Date	Time	Location	Agenda
<b>December 13</b>	4:00 – 6:30 PM	Room	<ul style="list-style-type: none"> <li>Introductions</li> <li>Charge to the group</li> <li>Review of legislation</li> <li>Review of information at federal level (NCLB—Federal Legislation)</li> <li>Other teacher evaluation processes in law—Q Comp, SIG</li> <li>Set calendar and adjust agendas for upcoming meetings</li> </ul>
<b>January 19</b>	1:00 – 4:30 PM	Room	<ul style="list-style-type: none"> <li>Review of Board of Teaching professional teaching standards established in rule</li> <li>Identification of terms that need agreement</li> <li>Prepare questions for January meeting on assessment/growth, longitudinal data, etc.</li> <li>Legal implications</li> <li>Set calendar and adjust agendas for upcoming meetings</li> </ul>
<b>February 23</b>	1:00 – 4:00 PM	Room CC 15 & 16	<ul style="list-style-type: none"> <li>Joint meeting with Principal Evaluation Working group for presentation from MDE on what assessment, value-added, longitudinal data is available.</li> <li>Discussion of information from presentation</li> <li>Set calendar and adjust agendas for upcoming meetings</li> </ul>
<b>March 21</b>	4:00 – 6:30 PM	Room	<ul style="list-style-type: none"> <li>Definition of terms and agreement of terminology</li> <li>Requirements and role of “trained evaluators”</li> <li>Review of models from local, state and national sources</li> <li>Compare and contrast models</li> <li>Set calendar and adjust agendas for upcoming meetings</li> </ul>
<b>April</b>	4:00 – 6:30 PM	Room	<ul style="list-style-type: none"> <li>Begin development of model</li> <li>Issues:</li> </ul>
<b>May</b>	4:00 – 6:30 PM	Room	<ul style="list-style-type: none"> <li>Development of model</li> <li>Issues:</li> </ul>
<b>June</b>	4:00 – 6:30 PM	Room	<ul style="list-style-type: none"> <li>Development of model</li> <li>Issues:</li> </ul>
<b>July</b>			<ul style="list-style-type: none"> <li>Development of model</li> <li>Issues:</li> </ul>
<b>August</b>			<ul style="list-style-type: none"> <li>Development of model</li> <li>Issues:</li> </ul>
TBD			<ul style="list-style-type: none"> <li>Review outline of draft process; discussion and revisions</li> </ul>
TBD			<ul style="list-style-type: none"> <li>Review and Adopt Final Work Product to present to Commissioner</li> </ul>

- *Is the SEA plan for providing adequate guidance and other technical assistance to LEAs in developing and implementing teacher and principal evaluation and support systems likely to lead to successful implementation?*

### Consistent High-Quality Implementation

The Teacher and Principal Evaluation Workgroups and national experts will provide recommendations for processes to monitor the implementation of state- and locally-developed evaluation models. Final plans for monitoring for fidelity and rigor of LEA implementation for both teacher and principal evaluation models will be developed by MDE based on this input. The plans will include:

- Timelines for districts determining their evaluation model.
- Required use of an MDE-developed implementation rubric for LEA use including the types of evaluation tools (surveys, observation tools, student growth models, professional growth plans, etc), requirements ensure inter-rater reliability training for evaluators and training of educators in the evaluation model including timelines and processes.
- LEA assurances that all evaluators are adequately trained to demonstrate the ability to make accurate judgments.
- LEA assurances that their evaluation model is implemented with fidelity by reviewing the accuracy and utility of the data produced and reviewing the decisions made for fairness and consistency.
- Notification of periodic audits of LEA evaluation process of selected districts, using either the state model or locally developed models, to ensure evaluations are fair and accurate and adhere to the MDE standards.

### Evaluator Training and Support

During implementation, each evaluator will be required to complete a series of training sessions focused on the specifics of the evaluation system and ensure inter-rater reliability. Evaluator training activities will include:

- Orientation to the evaluation model, controlling for bias, understanding the observation instrument, applying the rubrics to observation and document review, scoring practice, exemplars, etc.
- Training sessions focused on the specifics of the evaluation system, including sessions on student learning, professional growth plans, observations and feedback, and conferencing.
- Training venues provided by MDE and conducted regionally as well as web-based. Beyond initial orientation to the state model, evaluators will receive more targeted follow-up training.
- Feedback loops to regularly evaluate quality and effectiveness of training as well as keeping all stakeholders informed about the process.
- Communication tools for administrators to share directly with teachers and/or administrators in their districts to ensure educators receive information about the model.

### Implementation plans, resources and technical assistance

The Principal and Teacher Evaluation Workgroups will develop an implementation plan for LEAs that reflects a clear understanding of what steps will be necessary and a logical sequencing and spacing of the key steps necessary to implement evaluation and support systems consistent with the required timelines.

The design of the implementation plan will be informed by the National Center for State Implementation and Scaling-up of Evidence-based Practices (SISEP). In developing a plan needed attention will be given to:

- Understanding educational practices and developing the capacity to support those practices system-wide (Fixsen, Blase, Horner & Sugai, 2009).

- Awareness that implementation occurs in stages underscores an understanding that change is a process (not an event). By attending to each of the stages of implementation, we will increase the likelihood of sustained implementation of the evaluation model.
- Training in core implementation components for improving and ensuring competence and confidence of individuals (e.g., teachers, coaches, administrators) and for aligning and improving organizational and systems support (e.g., school, district, state policies, regulations, funding).
- Use of Competency drivers to systematically attend to professional development to build competence and confidence and include: staff selection, training, consultation and coaching, and evaluation of staff related to implementation of the educational practice to ensure fidelity.
- Use of Organization drivers to promote hospitable environments for evidence-based educational programs and innovations and include: data-based decision-making, which includes collecting and using reliable and valid process data (fidelity) and outcome data (student academic and behavioral outcomes) to make decisions; facilitative administration to create policies and procedures at the school and district level that promote high-fidelity implementation; systems intervention processes to create a hospitable state education system (e.g. policies, procedures, and funding streams) designed to support, improve and sustain the literacy programs and practices.

MDE will be taking full advantage of our partnership with SISEP for the next two years as we continue to build knowledge and work to develop a thoughtful plan for implementation of the teacher and principal evaluation models.

Implementation resources will be required to promote successful use of meaningful evaluation systems. Features of the state models may include:

- Contract language describing process, timelines and collection of evidence
- Rubric for standards, indicator and/or competencies that describe performance vividly and clearly for at least three levels of performance

- Templates for self-assessments and growth plans
- Guidelines for developing and using measures of student learning and growth
- Examples of ways to collect and use student, staff and parent feedback

MDE will use recommendations from the workgroup in providing statewide training for teacher and principal evaluation processes such as:

- Understanding the components of the state evaluation models. These components may include guideline components, processes, rubrics, growth plans and templates
- Training evaluators in the evaluation process for consistent and effective application with all educators (WestED, 2011)

Support to LEAs can be provided through regional networks and accessed through webinars or e-learning opportunities. Future MDE support and technical assistance will be driven by feedback from pilot sites and from all LEAs during the first year of implementation.

#### Technical assistance for implementation of Teacher Evaluation Models

Once the teacher evaluation model for Minnesota is established, the teacher evaluation workgroup will design an implementation framework for ensuring all districts are implementing an effective teacher evaluation process with their teachers. The framework will include:

- Attention and to staff training
- Coaching
- Evaluation
- System intervention
- Leadership at all levels
- Coherent alignment of policies and practices

Support to LEAs implementing a comprehensive teacher evaluation process will be delivered through the statewide system of support's regional model of assistance.

Technical Assistance for Implementation of Principal Evaluation Models

Once the principal evaluation model for Minnesota is determined, the principal evaluation workgroup will design an implementation framework to ensure that all LEAs are implementing a successful evaluation process for their principals. Included in the framework will be stage-based implementation, attention to staff training, coaching, evaluation, system intervention, leadership at all levels and coherent alignment of policies and practices. Support to LEAs implementing a comprehensive principal evaluation process will be delivered through the statewide system of support's regional assistance model.

## Notice of Intent to Apply

As you may have heard, the U.S. Department of Education recently created an application process for states wishing to have certain aspects of No Child Left Behind waived and replaced by a state-developed accountability system. Information on this process can be found at [this website](#). The Minnesota Department of Education (MDE) is in the process of applying for such a waiver and will submit an official request on November 14, the first application deadline. Minnesota's application will be peer reviewed and the state will learn whether its request has been approved in early 2012.

Approval of Minnesota's application would have a major impact on schools around the state. Many notable features of No Child Left would be waived if Minnesota's application is approved, including:

- The 2014 goal of 100 percent proficiency for all schools and districts
- Identifying Title I schools as in need of improvement, corrective action or restructuring
- Identifying Title I districts as in need of improvement or corrective action
- Set-asides for school choice, supplemental educational services and professional development
- Interventions tied to not making AYP

In order to receive this flexibility, states must meet four principles:

- College- and career-ready expectations for all students
- State-developed differentiated recognition, accountability, and support
- Supporting effective instruction and leadership
- Reducing duplication and unnecessary burden

Minnesota is already well-positioned in principles 1, 3 and 4. The state's application will explain what Minnesota is already doing in these areas and how it fits into the requirements of the waiver. Principle 2 will require Minnesota to make changes to its accountability system and describe how those changes will promote better outcomes for students. MDE has worked with a stakeholders group over the last month to develop a plan for differentiated recognition, accountability, and support. Information about this workgroup, including meeting summaries and all the documents they reviewed during meetings can be found at [this website](#).

Using this group's feedback, MDE has crafted a proposal. You will find an attachment to this email that outlines the proposed accountability system. If Minnesota's waiver request is approved, the system described in the attachment would go into place for the 2012-13 school year. Please feel free to provide feedback on the proposal. Send your comments to Sam Kramer at [samuel.kramer@state.mn.us](mailto:samuel.kramer@state.mn.us)

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## No Child Left Behind (NCLB) Waiver Workgroup



- Accommodations Advisory Review Panel
- Advisory Committee on Financial Management
- Assessment Advisory Committee
- Blind/Visually Impaired Advisory Council
- Deaf/Hard of Hearing Advisory Council
- Early Learning Council
- Education Finance Working Group
- English Learner Assessment Advisory Committee
- English Learner Stakeholder Input Group (ELSIG)
- Environmental and Outdoor Education Advisory Committee
- Gifted and Talented Advisory Council
- Integration Revenue Replacement Task Force
- Interagency Coordinating Council (ICC)
- Local Assessment and Accountability Advisory Committee (LAAAC)
- Minnesota Braille and Talking Book Library Advisory Committee
- Minnesota Education Technology Task Force (METT)
- Minnesota State Interagency Committee (MnSIC)
- Minnesota Technical Advisory Committee (TAC)

The Minnesota Department of Education developed a waiver request that was submitted to the U.S. Department of Education to provide relief from some of the most troublesome provisions of the federal No Child Left Behind law (NCLB).

We believe it takes far more than a single test to evaluate how well our students and schools are doing. What matters more is how students are growing and learning, not just over the course of the school year, but over the course of their academic career.

Commissioner Brenda Cassellius and department staff have embarked on a statewide tour to present information about Minnesota's waiver request and plans for a new accountability system that will more accurately and fairly measure schools progress. Public meetings took place in Rochester and St. Cloud in December. [Read more.](#)

### Additional Public meetings are scheduled:

January 17, 3:30 p.m. – Marshall, Marshall High School Theatre (Schwan Center for the Arts)

### Document Download:

- [Minnesota's Waiver Request - Explained](#)
- [Minnesota's ESEA Flexibility Request](#)
- [Minnesota's ESEA Flexibility Request Summary](#)

### Meeting Documents

#### Document Download:

- [Annual Measurable Achievement Objectives \(AMAO\) Impact Data](#)
- [Annual Measurable Achievement Objectives \(AMAO\) Option A](#)
- [Annual Measurable Achievement Objectives \(AMAO\) - Option B](#)
- November 4: Meeting Summary
- November 4: Subject Areas Decision Form
- November 4: Accountability At-A-Glance
- November 4: Ratings and Measures Defined
- October 28: Meeting Summary
- October 28: Meeting Agenda
- October 28: System of Continuous Improvement
- October 28: Multiple Measures Chart
- October 28: Questions and Definitions
- October 28: Group Table Notes
- October 21: Group Table Notes
- October 21: Meeting Summary



Minnesota's No Child Left Behind Waiver Request Process

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Related offsite resources:



1.1 **Department of Education**

1.2 **Adopted Permanent Rules Relating to Academic Standards for Mathematics**

1.3 The rules proposed by notice published at State Register, Volume 32, Number 51, pages  
1.4 2206-2208, June 16, 2008 (32 SR 2206), are adopted as follows:

1.5 **3501.0700 KINDERGARTEN STANDARDS.**

1.6 Subpart 1. **Number and operation.**

1.7 A. The student will understand the relationship between quantities and whole  
1.8 numbers up to 31.

1.9 B. The student will use objects and pictures to represent situations involving  
1.10 combining and separating.

1.11 Subp. 2. **Algebra.** The student will recognize, create, complete, and extend patterns.

1.12 Subp. 3. **Geometry and measurement.**

1.13 A. The student will recognize and sort basic two- and three-dimensional shapes  
1.14 and use them to model real-world objects.

1.15 B. The student will compare and order objects according to location and  
1.16 measurable attributes.

1.17 **3501.0705 GRADE 1 STANDARDS.**

1.18 Subpart 1. **Number and operation.**

1.19 A. The student will count, compare, and represent whole numbers up to 120,  
1.20 with an emphasis on groups of tens and ones.

1.21 B. The student will use a variety of models and strategies to solve addition and  
1.22 subtraction problems in real-world and mathematical contexts.

1.23 Subp. 2. **Algebra.**

2.1 A. The student will recognize and create patterns and use rules to describe  
2.2 patterns.

2.3 B. The student will use number sentences involving addition and subtraction  
2.4 basic facts to represent and solve real-world and mathematical problems. The student will  
2.5 create real-world situations corresponding to number sentences.

2.6 **Subp. 3. Geometry and measurement.**

2.7 A. The student will describe characteristics of basic shapes. The student will use  
2.8 basic shapes to compose and decompose other objects in various contexts.

2.9 B. The student will use basic concepts of measurement in real-world and  
2.10 mathematical situations involving length, time, and money.

2.11 **3501.0710 GRADE 2 STANDARDS.**

2.12 **Subpart 1. Number and operation.**

2.13 A. The student will compare and represent whole numbers up to 1,000 with  
2.14 an emphasis on place value and equality.

2.15 B. The student will demonstrate mastery of addition and subtraction basic  
2.16 facts. The student will add and subtract one- and two-digit numbers in real-world and  
2.17 mathematical problems.

2.18 **Subp. 2. Algebra.**

2.19 A. The student will recognize, create, describe, and use patterns and rules to  
2.20 solve real-world and mathematical problems.

2.21 B. The student will use number sentences involving addition, subtraction, and  
2.22 unknowns to represent and solve real-world and mathematical problems. The student will  
2.23 create real-world situations corresponding to number sentences.

2.24 **Subp. 3. Geometry and measurement.**

3.1 A. The student will identify, describe, and compare basic shapes according to  
3.2 their geometric attributes.

3.3 B. The student will understand length as a measurable attribute. The student  
3.4 will use tools to measure length.

3.5 C. The student will use time and money in real-world and mathematical  
3.6 situations.

3.7 **3501.0715 GRADE 3 STANDARDS.**

3.8 **Subpart 1. Number and operation.**

3.9 A. The student will compare and represent whole numbers up to 100,000 with  
3.10 an emphasis on place value and equality.

3.11 B. The student will add and subtract multidigit whole numbers. The student will  
3.12 represent multiplication and division in various ways. The student will solve real-world  
3.13 and mathematical problems using arithmetic.

3.14 C. The student will understand meanings and uses of fractions in real-world and  
3.15 mathematical situations.

3.16 **Subp. 2. Algebra.**

3.17 A. The student will use single-operation input-output rules to represent patterns  
3.18 and relationships, and to solve real-world and mathematical problems.

3.19 B. The student will use number sentences involving multiplication and division  
3.20 basic facts and unknowns to represent and solve real-world and mathematical problems.  
3.21 The student will create real-world situations corresponding to number sentences.

3.22 **Subp. 3. Geometry and measurement.**

3.23 A. The student will use geometric attributes to describe and create shapes in  
3.24 various contexts.

4.1 B. The student will understand perimeter as a measurable attribute of real-world  
4.2 and mathematical objects. The student will use various tools to measure distances.

4.3 C. The student will use time, money, and temperature to solve real-world and  
4.4 mathematical problems.

4.5 Subp. 4. **Data analysis.** The student will collect, organize, display, and interpret  
4.6 data. The student will use labels and a variety of scales and units in displays.

4.7 **3501.0720 GRADE 4 STANDARDS.**

4.8 Subpart 1. **Number and operation.**

4.9 A. The student will demonstrate mastery of multiplication and division basic  
4.10 facts. The student will multiply multidigit numbers and solve real-world and mathematical  
4.11 problems using arithmetic.

4.12 B. The student will represent and compare fractions and decimals in real-world  
4.13 and mathematical situations. The student will use place value to understand how decimals  
4.14 represent quantities.

4.15 Subp. 2. **Algebra.**

4.16 A. The student will use input-output rules, tables, and charts to represent patterns  
4.17 and relationships and to solve real-world and mathematical problems.

4.18 B. The student will use number sentences involving multiplication, division, and  
4.19 unknowns to represent and solve real-world and mathematical problems. The student will  
4.20 create real-world situations corresponding to number sentences.

4.21 Subp. 3. **Geometry and measurement.**

4.22 A. The student will name, describe, classify, and sketch polygons.

5.1 B. The student will understand angle and area as measurable attributes of  
5.2 real-world and mathematical objects. The student will use various tools to measure angles  
5.3 and areas.

5.4 C. The student will use translations, reflections, and rotations to establish  
5.5 congruency and understand symmetries.

5.6 Subp. 4. **Data analysis.** The student will collect, organize, display, and interpret  
5.7 data, including data collected over a period of time and data represented by fractions  
5.8 and decimals.

5.9 **3501.0725 GRADE 5 STANDARDS.**

5.10 Subpart 1. **Number and operation.**

5.11 A. The student will divide multidigit numbers. The student will solve real-world  
5.12 and mathematical problems using arithmetic.

5.13 B. The student will read, write, represent, and compare fractions and decimals.  
5.14 The student will recognize and write equivalent fractions, and convert between fractions  
5.15 and decimals. The student will use fractions and decimals in real-world and mathematical  
5.16 situations.

5.17 C. The student will add and subtract fractions, mixed numbers, and decimals to  
5.18 solve real-world and mathematical problems.

5.19 Subp. 2. **Algebra.**

5.20 A. The student will recognize and represent patterns of change. The student will  
5.21 use patterns, tables, graphs, and rules to solve real-world and mathematical problems.

5.22 B. The student will use properties of arithmetic to generate equivalent numerical  
5.23 expressions and evaluate expressions involving whole numbers.

6.1 C. The student will understand and interpret equations and inequalities involving  
6.2 variables and whole numbers, and use them to represent and solve real-world and  
6.3 mathematical problems.

6.4 Subp. 3. **Geometry and measurement.**

6.5 A. The student will describe, classify, and draw representations of  
6.6 three-dimensional figures.

6.7 B. The student will determine the area of triangles and quadrilaterals. The  
6.8 student will determine the surface area and volume of rectangular prisms in various  
6.9 contexts.

6.10 Subp. 4. **Data analysis.** The student will display and interpret data. The student  
6.11 will determine mean, median, and range.

6.12 **3501.0730 GRADE 6 STANDARDS.**

6.13 Subpart 1. **Number and operation.**

6.14 A. The student will read, write, represent, and compare positive rational  
6.15 numbers expressed as fractions, decimals, percents, and ratios. The student will write  
6.16 positive integers as products of factors. The student will use these representations in  
6.17 real-world and mathematical situations.

6.18 B. The student will understand the concept of ratio and its relationship to  
6.19 fractions and to the multiplication and division of whole numbers. The student will use  
6.20 ratios to solve real-world and mathematical problems.

6.21 C. The student will multiply and divide decimals, fractions, and mixed numbers.  
6.22 The student will solve real-world and mathematical problems using arithmetic with  
6.23 positive rational numbers.

6.24 Subp. 2. **Algebra.**

7.1 A. The student will recognize and represent relationships between varying  
7.2 quantities. The student will translate from one representation to another. The student will  
7.3 use patterns, tables, graphs, and rules to solve real-world and mathematical problems.

7.4 B. The student will use properties of arithmetic to generate equivalent numerical  
7.5 expressions and evaluate expressions involving positive rational numbers.

7.6 C. The student will understand and interpret equations and inequalities involving  
7.7 variables and positive rational numbers. The student will use equations and inequalities  
7.8 to represent real-world and mathematical problems. The student will use the idea of  
7.9 maintaining equality to solve equations. The student will interpret solutions in the original  
7.10 context.

7.11 **Subp. 3. Geometry and measurement.**

7.12 A. The student will calculate perimeter, area, surface area, and volume of two-  
7.13 and three-dimensional figures to solve real-world and mathematical problems.

7.14 B. The student will understand and use relationships between angles in  
7.15 geometric figures.

7.16 C. The student will choose appropriate units of measurement and use ratios to  
7.17 convert within measurement systems to solve real-world and mathematical problems.

7.18 **Subp. 4. Data analysis and probability.** The student will use probabilities to solve  
7.19 real-world and mathematical problems. The student will represent probabilities using  
7.20 fractions, decimals, and percents.

7.21 **3501.0735 GRADE 7 STANDARDS.**

7.22 **Subpart 1. Number and operation.**

7.23 A. The student will apply, read, write, represent, and compare positive and  
7.24 negative rational numbers, expressed as integers, fractions, and decimals.

8.1 B. The student will calculate with positive and negative rational numbers, and  
8.2 rational numbers with whole number exponents, to solve real-world and mathematical  
8.3 problems.

8.4 **Subp. 2. Algebra.**

8.5 A. The student will understand the concept of proportionality in real-world and  
8.6 mathematical situations, and distinguish between proportional and other relationships.

8.7 B. The student will recognize proportional relationships in real-world and  
8.8 mathematical situations. The student will represent these and other relationships with  
8.9 tables, verbal descriptions, symbols, and graphs. The student will solve problems  
8.10 involving proportional relationships and explain results in the original context.

8.11 C. The student will apply understanding of order of operations and algebraic  
8.12 properties to generate equivalent numerical and algebraic expressions containing positive  
8.13 and negative rational numbers and grouping symbols. The student will evaluate such  
8.14 expressions.

8.15 D. The student will represent real-world and mathematical situations using  
8.16 equations with variables. The student will solve equations symbolically, using the  
8.17 properties of equality. The student will also solve equations graphically and numerically.  
8.18 The student will interpret solutions in the original context.

8.19 **Subp. 3. Geometry and measurement.**

8.20 A. The student will use reasoning with proportions and ratios to determine  
8.21 measurements, justify formulas, and solve real-world and mathematical problems  
8.22 involving circles and related geometric figures.

8.23 B. The student will analyze the effect of change of scale, translations, and  
8.24 reflections on the attributes of two-dimensional figures.

8.25 **Subp. 4. Data analysis and probability.**



9.1 A. The student will use mean, median, and range to draw conclusions about  
9.2 data and make predictions.

9.3 B. The student will display and interpret data in a variety of ways, including  
9.4 circle graphs and histograms.

9.5 C. The student will calculate probabilities and reason about probabilities using  
9.6 proportions to solve real-world and mathematical problems.

9.7 **3501.0740 GRADE 8 STANDARDS.**

9.8 Subpart 1. **Number and operation.** The student will read, write, compare, classify,  
9.9 and represent real numbers, and use them to solve problems in various contexts.

9.10 Subp. 2. **Algebra.**

9.11 A. The student will understand the concept of function in real-world and  
9.12 mathematical situations, and distinguish between linear and nonlinear functions.

9.13 B. The student will recognize linear functions in real-world and mathematical  
9.14 situations. The student will represent linear functions and other functions with tables,  
9.15 verbal descriptions, symbols, and graphs. The student will solve problems involving these  
9.16 functions and explain results in the original context.

9.17 C. The student will generate equivalent numerical and algebraic expressions and  
9.18 use algebraic properties to evaluate expressions.

9.19 D. The student will represent real-world and mathematical situations using  
9.20 equations and inequalities involving linear expressions. The student will solve equations  
9.21 and inequalities symbolically and graphically. The student will interpret solutions in  
9.22 the original context.

9.23 Subp. 3. **Geometry and measurement.**

10.1 A. The student will solve problems involving right triangles using the  
10.2 Pythagorean Theorem and its converse.

10.3 B. The student will solve problems involving parallel and perpendicular lines  
10.4 on a coordinate system.

10.5 Subp. 4. **Data analysis and probability.** The student will interpret data using  
10.6 scatterplots and approximate lines of best fit. The student will use lines of best fit to draw  
10.7 conclusions about data.

10.8 **3501.0745 GRADES 9 THROUGH 11 STANDARDS.**

10.9 Subpart 1. **Algebra.**

10.10 A. The student will understand the concept of function, and identify important  
10.11 features of functions and other relations using symbolic and graphical methods where  
10.12 appropriate.

10.13 B. The student will recognize linear, quadratic, exponential, and other common  
10.14 functions in real-world and mathematical situations. The student will represent these  
10.15 functions with tables, verbal descriptions, symbols, and graphs. The student will solve  
10.16 problems involving these functions, and explain results in the original context.

10.17 C. The student will generate equivalent algebraic expressions involving  
10.18 polynomials and radicals. The student will use algebraic properties to evaluate expressions.

10.19 D. The student will represent real-world and mathematical situations using  
10.20 equations and inequalities involving linear, quadratic, exponential, and  $n^{\text{th}}$  root functions.  
10.21 The student will solve equations and inequalities symbolically and graphically. The  
10.22 student will interpret solutions in the original context.

10.23 Subp. 2. **Geometry and measurement.**

11.1 A. The student will calculate measurements of plane and solid geometric figures.  
11.2 The student will know that physical measurements depend on the choice of a unit and that  
11.3 they are approximations.

11.4 B. The student will construct logical arguments based on axioms, definitions,  
11.5 and theorems in order to prove theorems and other results in geometry.

11.6 C. The student will know and apply properties of geometric figures to solve  
11.7 real-world and mathematical problems and to logically justify results in geometry.

11.8 D. The student will solve real-world and mathematical geometric problems  
11.9 using algebraic methods.

11.10 **Subp. 3. Data analysis and probability.**

11.11 A. The student will display and analyze data. The student will use various  
11.12 measures associated with data to draw conclusions, identify trends, and describe  
11.13 relationships.

11.14 B. The student will explain the uses of data and statistical thinking to draw  
11.15 inferences, make predictions, and justify conclusions.

11.16 C. The student will calculate probabilities and apply probability concepts to  
11.17 solve real-world and mathematical problems.

11.18 **REPEALER.** Minnesota Rules, parts 3501.0560; 3501.0565; 3501.0570; 3501.0575;  
11.19 3501.0580; 3501.0585; 3501.0590; 3501.0595; 3501.0600; 3501.0605; and 3501.0610,  
11.20 are repealed.

1.1 **Department of Education**

1.2 **Adopted Permanent Rules Governing English Language Arts Academic Standards**

1.3 The rules proposed and published at State Register, Volume 36, Number 5, pages 153-157,

1.4 August 22, 2011 (36 SR 153), are adopted as proposed.



November 8, 2011

The Honorable Arne Duncan  
U.S. Secretary of Education  
The United States Department of Education  
400 Maryland Ave, SW  
Washington, DC 20202

Dear Secretary Duncan:

As the leaders of Minnesota's two public systems of higher education, we are pleased to confirm that our state's K-12 academic standards in mathematics are well aligned with the knowledge and skills that students need to succeed in credit-bearing coursework at the postsecondary institutions of the Minnesota State Colleges and Universities (MnSCU) system and the University of Minnesota. We are confident that a student who masters those standards will not need to take remedial coursework in mathematics at our institutions.

In part, our confidence in the content and quality of Minnesota's math standards is based upon the fact that leading faculty from our systems helped to develop them. The committee that revised our state's mathematics standards in 2007 was co-chaired by Dr. Larry Gray, who at the time was also chair of the Department of Mathematics in the College of Science and Engineering at the University of Minnesota. Other key members of the committee included Dr. Sandra Johnson, professor of mathematics at St. Cloud State University, and Valerie Kafka, mathematics instructor at Rochester Community and Technical College. Altogether, eight of the twenty-six members of the committee had experience teaching mathematics at the postsecondary level.

The committee's charge was defined in statute as developing academic standards that align "with the knowledge and skills that students need for college readiness and advanced work" (Minn. Stat. §120B.023, subd. 2(a)). Minnesota statute also stipulates that all students must "satisfactorily complete" the standards.

The 2007 revision of Minnesota's mathematics standards was informed by the state's active participation in the American Diploma Project (ADP) coordinated by Achieve, Inc. As you know, that effort seeks to improve postsecondary preparation in participating states by aligning academic standards, assessments and graduation requirements with a national definition of college and career readiness. A quality review of Minnesota's mathematics standards was conducted as part of the state's participation in the ADP. The primary purpose of that review was to ensure that the state's academic standards align with the knowledge and skills identified in the American Diploma Project benchmarks, which define what students should know and be able to do by the end of high school. A secondary purpose of the quality review was to ensure that the Minnesota standards meet a set of general criteria for high-quality academic standards, such as rigor, focus, coherence, specificity, clarity, and measurability.

The quality review conducted by national experts through the American Diploma Project confirmed that Minnesota's math standards are aligned with the ADP benchmarks and meet the criteria for high-quality academic standards. Achieve President Michael Cohen summarized the findings of the review in a letter to the Minnesota Commissioner of Education on June 22, 2007, as follows:

The Minnesota K-12 Academic Standards in Mathematics (April 14, 2007 Revision) present student learning expectations that are intellectually demanding and well aligned with the ADP Benchmarks, with minor exceptions. If Minnesota students master the state standards, they will likely be well prepared for both workplace and college success.

Minnesota's participation in the development of national standards that are aligned with the knowledge and skills for postsecondary success has not been limited to its participation in the American Diploma Project. Educators from the Minnesota Department of Education and from schools and colleges across our state also participated on the writing and review teams for the Common Core State Standards (CCSS) in mathematics. In fact, the development of the Common Core in mathematics began with an extensive review of Minnesota's mathematics standards, along with those of three other states.

For a number of reasons that are not relevant to the subject of this letter, Minnesota ultimately elected not to adopt the Common Core State Standards in mathematics (though our state did take that step in reading). Despite Minnesota's decision not to adopt the Common Core in math, however, it is important to note that Minnesota's math standards and the Common Core math standards have a great deal in common. In fact, differences between the two sets of standards are primarily ones of format and organization, rather than of academic content or level of rigor.

For example, while the Common Core standards identify the points in a student's educational career at which he or she should *study* a particular concept or skill, the Minnesota state standards identify the point at which the student is expected to *master* that concept or skill. Because concepts and skills in mathematics are often introduced in one grade or course but mastered in another, this is a meaningful difference in the structure of the standards, but not in their alignment with the knowledge and skills for college and career readiness.

A second important structural difference between Minnesota's state math standards and the Common Core in math is Minnesota's integration of standards focused on mathematical processes into the standards focused on related mathematical concepts. Minnesota took this approach because the design team concluded it would encourage teachers to provide instruction that helps students master processes and concepts in an integrated fashion, which reflects the way that students will need to use both procedural and conceptual knowledge and skills to solve the complex problems that are the hallmark of college-level mathematics. In contrast, the Common Core State Standards in math largely separate mathematical processes from mathematical content, but do so as a different means to the same ultimate end.

A third structural difference between Minnesota's mathematics standards and the Common Core is simply the number and complexity of the standards. Wherever possible, Minnesota's mathematics standards emphasize mastery and seek to avoid the "mile wide, inch deep" approach that has often characterized academic standards in the United States. Partly as a result, there are considerably more clusters and standards in the CCSS than in

the Minnesota state standards. At the high school level, for instance, the Common Core math standards include forty-seven clusters and one hundred and twenty-seven standards, compared to Minnesota's eleven standards and seventy-one benchmarks.

Because the Minnesota mathematics standards developed in 2007 have only recently gone into effect, we do not yet have empirical evidence that students who master those standards do not require remediation in higher education. We note, however, that the same is true of the new Common Core State Standards in both math and reading. We are committed to pursue such empirical validation of the alignment of Minnesota's K-12 mathematics standards with the knowledge and skills for college success in the years ahead. In the meantime, we hope you will accept our individual and institutional confidence in that alignment as you consider Minnesota's application for a waiver from elements of No Child Left Behind.

Sincerely,



Eric Kaler, PhD  
President  
University of Minnesota



Steven Rosenstone, PhD  
Chancellor  
Minnesota State Colleges and Universities

# Minnesota Final Peer Review Notes

Mathematics MCA-III grades 3-8 (General Ed), Mathematics and Reading MCA –

Modified, and Mathematics MTAS (alternate)

**EVIDENCE REQUIRED FOR PEER REVIEWS**

**OF ASSESSMENT SYSTEMS**

**UNDER TITLE I OF THE**

**ELEMENTARY AND SECONDARY EDUCATION ACT**



**United States Department of Education**

**NCLB Assessment System Review**



July 27, 2011

**OVERVIEW OF THE STATEWIDE ASSESSMENT SYSTEM**

**Critical Element 3.1.** In the chart below indicate your State’s current assessment system in reading /language arts and mathematics in grades 3 through 8 and for the 10-12 grade range using the abbreviations to show what type of assessments the State’s assessment system is composed of: (a) criterion-referenced assessments (**CRT**); or (b) augmented norm-referenced assessments (**ANRT**) (augmented as necessary to measure accurately the depth and breadth of the State’s academic content standards and yield criterion-referenced scores); or (c) a combination of both across grade levels and/or content areas. Also indicate your current assessment system in science<sup>1</sup> that is aligned with the State’s challenging academic content and achievement standards at least once in each of the grade spans 3-5, 6-9, and 10-12. A State may have assessments in reading or language arts depending on the alignment to the State’s content standards; both are not required. Please indicate, using the abbreviations shown, the grades and subject areas with availability of native language assessment (**NLA**) or various alternate assessments (**AA-GLAS** for an alternate assessment for students with disabilities based on grade-level standards; **AA-LEP** for an alternate assessment for students with limited English proficiency based on grade-level standards, **AA-MAS** for an alternate assessment for eligible students with disabilities based on modified academic achievement standards; and/or **AA-AAS** for an alternate assessment for students with the most significant cognitive disabilities based on alternate achievement standards).

**This Review is based on the following assessments charted:**

**Chart of State Assessment System Aligned to Content Standards for school year 2010\_\_\_\_\_ by Subject, Grade, and Type of Assessment**

<b>Grades</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>Math</b>	CRT	CRT	CRT	CRT	CRT	CRT				
<b>Alternate</b>	AA-AAS	AA-AAS	AA-AAS; AA-MAS	AA-AAS; AA-MAS	AA-AAS; AA-MAS	AA-AAS; AA-MAS			AA-MAS	
<b>Native Lang.</b>										
<b>Reading</b>			AA-MAS	AA-MAS	AA-MAS	AA-MAS		AA-MAS		
<b>Alternate</b>										
<b>Native Lang.</b>										
<b>Language arts</b>										
<b>Alternate</b>										
<b>Native Lang.</b>										
<b>Science</b>										
<b>Alternate</b>										
<b>Native Lang.</b>										

<sup>1</sup> Science assessments were not due until the 2007-08 school year.  
Peer Reviewer Notes – Revised January 12, 2009  
NCLB Assessment System Review

**SECTION 1: CONTENT STANDARDS**

Critical Element	Description of State policy and practice (Record document and page # for future reference)	Comments/Questions Regarding State Materials
<p><b>1.1</b></p> <p>(a) Has the State formally approved/adopted, by May 2003, challenging academic content standards in reading/language arts and mathematics that –</p> <ul style="list-style-type: none"> <li>• cover each of grades 3-8 and the 10-12 grade range, <i>or</i></li> <li>• if the academic content standards relate to grade ranges, include specific content expectations for each grade level?</li> </ul> <p>AND</p>	<p><u>Mathematics MCA-III Grades 3-8, Mathematics MCA Modified, and Mathematics MTAS (alternate):</u></p> <p>(a) MN provided the statutes relating to requirements to adopt in rule statewide academic standards (Document 1.1a.1) and revise mathematics academic standards in 2006-07 to be implemented by 2010-2011 (Document 1.1a.2). The revised standards for mathematics are included which were posted in December 2009 with statutory authority (Document 1.1b.1).</p> <p>The Mathematics Standards are provided on the web site:  <a href="http://education.state.mn.us/MDE/Academic_Excellence/Academic_Standards/Mathematics/index.html">http://education.state.mn.us/MDE/Academic_Excellence/Academic_Standards/Mathematics/index.html</a> and note that they were adopted on September 22, 2008.</p> <p>Document 1.3.4, Page 6, Proposed Permanent Rules relating to academic standards indicates that the Commissioner has the authority to approve rules for the development and implementation of the standards. Page 30 is a sign off page to be completed by the commissioner. However, there is no signature.</p> <p>MN indicated that the Reading Standards have not changed since 2003.</p>	<p>(a) MN must submit signed approval of the Commissioner.</p>

<p>(b) Are these academic content standards applied to <i>all</i> public schools and students in the State?</p>	<p>(b) MN Statute 120B.021 includes the requirement that the academic standards in mathematics apply to all public school students except for the very few students with extreme cognitive or physical impairments for whom an individualized education plan has determined that the required academic standards are inappropriate (Document 1.1b.2).</p>	<p>(b) This documentation (1.1b.2) appears to exclude certain students from the academic content standards. This conflicts with ESEA regulations.</p>
<p><b>1.2</b> Has the State formally approved/adopted, academic content standards in science for elementary (grades 3-5), middle (grades 6-9), and high school (grades 10-12)? This must be completed by school year 2005-2006.</p>		<p>N/A for this review.</p>
<p><b>1.3</b> Are these academic content standards challenging? Do they contain coherent and rigorous content and encourage the teaching of advanced skills?</p>	<p>MN provided documentation to show their revision process to develop mathematics academic standards to reflect an increased level of rigor (Document 1.3.4). MN provided the summary of the external review by Achieve, Inc. Other documentation submitted: Document 1.3.2-Mathematics Standards 2007 Revision Process; Document 1.3.3-Guide to Math Standards Revision Process; Document 1.3.4-Mathematics SONAR Justification of Rulemaking including standards revision process.</p>	<p>MN submitted documentation to meet this requirement.</p>
<p><b>1.4</b> Did the State involve education stakeholders in the development of its academic content standards?</p>	<p>MN involved education stakeholders in the development of the mathematics academic standards (Document 1.3.4- Mathematics SONAR Justification for Rulemaking) includes information on committee memberships and involvement of the</p>	<p>MN submitted documentation to meet this requirement.</p>

	public.	
<b>SECTION 1: CONTENT STANDARDS</b>		
<b>Summary statement</b>		
<p>Minnesota must submit the following:</p> <ul style="list-style-type: none"> <li>• Documentation of formal approval by the Commissioner of the revised mathematics standards.</li> <li>• Evidence that academic content standards are applied to <i>all</i> public schools and students in the State.</li> </ul>		

**SECTION 2: ACADEMIC ACHIEVEMENT STANDARDS**

<b>Critical Element</b>	<b>Description of State policy and practice (Record document and page # for future reference)</b>	<b>Comments/Questions Regarding State Materials</b>
<p><b>2.1</b> Has the State formally approved/adopted challenging academic achievement standards in reading/language arts and mathematics for each of grades 3 through 8 and for the 10-12 grade range? These standards were to be completed by school year 2005-2006.</p> <p>Has the State, through a documented and validated standards-setting process, approved/adopted <u>modified</u> academic achievement standards for eligible students with disabilities? If so, in what subjects and for which grades?</p> <p>Has the State approved/adopted <u>alternate</u> academic achievement standards for students with the most significant cognitive disabilities? If so, in what subjects and for which grades?</p> <p>Note: If alternate or modified academic achievement standards in reading/language arts or mathematics have not been develop/adopted and approved, then the alternate assessments for all students with disabilities must be held to grade-level academic achievement standards.</p>	<p><u>Mathematics MCA-III Grades 3-8, Mathematics MCA Modified-Grades 5-8 and 10, Reading MCA Modified-Grades 5-8 and 11, and Mathematics MTAS Grades 3-8 (alternate):</u></p> <p>MN indicated that they are in the process of adopting new academic achievement standards for the above listed assessments. Standard setting panels are to be conducted in June and the Commissioner’s review and approval is planned for July 2011.</p>	<p>MN must submit documentation of their formal adoption of academic achievement standards for the Mathematics MCA-III Grades 3-8, Mathematics MCA Modified-Grades 5-8 and 10, Reading MCA Modified-Grades 5-8 and 11, and Mathematics MTAS Grades 3-8 (alternate).</p>

<p><b>2.2</b> Has the State formally approved/adopted academic achievement descriptors in science for each of the grade spans 3-5, 6-9, and 10-12 as required by school year 2005-06?</p> <p>Has the State formally approved/adopted academic achievement cut scores in science for each of the grade spans 3-5, 6-9, and 10-12 as required by school year 2007-08?</p> <p>Has the State formally approved/adopted modified academic achievement standards in science? If so, for which grades?</p> <p>Has the State formally approved/adopted alternate academic achievement standards for students with the most significant cognitive disabilities in science? If so, for which grades?</p> <p>Note: If alternate or modified academic achievement standards in science have not been adopted and approved, then all students with disabilities must be held to grade-level academic achievement standards.</p>		N/A for this review.
<p><b>2.3</b> 1. Do these academic achievement standards (including modified and alternate academic achievement standards, if applicable) include for each content area – (a) at least three levels of achievement, including two levels of high achievement (proficient and advanced) that determine how well students are mastering a State’s academic content standards and a third level of achievement (basic) to provide information about the progress of lower-achieving students toward mastering the proficient and advanced levels of achievement; <u>and</u></p>	<p><b>Academic achievement standards? <u>Mathematics MCA-III</u></b> (1.a) Levels of Achievement Grade span 3-5    Grade span 6-9    Grade span 10-12 <input checked="" type="checkbox"/>_Yes    <input type="checkbox"/>_No    <input checked="" type="checkbox"/>_Yes    <input type="checkbox"/>_No    <input type="checkbox"/>_Yes    <input checked="" type="checkbox"/>_No</p> <p>(1.b) Descriptors Grade span 3-5    Grade span 6-9    Grade span 10-12 <input checked="" type="checkbox"/>_Yes    <input type="checkbox"/>_No    <input checked="" type="checkbox"/>_Yes    <input type="checkbox"/>_No    <input type="checkbox"/>_Yes    <input checked="" type="checkbox"/>_No</p> <p>(1.c) Cut Scores</p>	2.3.1-MN must submit documentation of the cut scores and final performance level descriptors for the Mathematics MCA-III, Grades 3-8; Math and Reading MCA –Modified-Grades 5-8 and High School; and Mathematics MTAS Alternate-Grades 3-8.

<p>(b) descriptions of the competencies associated with each achievement level; <i>and</i></p> <p>(c) assessment scores (“cut scores”) that differentiate among the achievement levels and a rationale and procedure used to determine each achievement level?</p>	<p>Grade span 3-5    Grade span 6-9    Grade span 10-12  <input type="checkbox"/> <b>Yes</b>   <input checked="" type="checkbox"/> <b>No</b>    <input type="checkbox"/> <b>Yes</b>   <input checked="" type="checkbox"/> <b>No</b>    <input type="checkbox"/> <b>Yes</b>   <input checked="" type="checkbox"/> <b>No</b></p> <p>(2) Approved by Board or Other Authority  Grade span 3-5    Grade span 6-9    Grade span 10-12  <input type="checkbox"/> <b>Yes</b>   <input checked="" type="checkbox"/> <b>No</b>    <input type="checkbox"/> <b>Yes</b>   <input checked="" type="checkbox"/> <b>No</b>    <input type="checkbox"/> <b>Yes</b>   <input checked="" type="checkbox"/> <b>No</b></p> <p>Cite evidence:  Document 2.3.1ab.1-Mathematics MCA-III  Achievement Level Descriptors, Grades 3-8, four levels of achievement included.</p> <p><b>Modified academic achievement standards?</b>  <u><b>Math and Reading MCA –Modified-Grades 5-8 and High School</b></u></p> <p>(1.a) Levels of Achievement  Grade span 3-5    Grade span 6-9    Grade span 10-12  <input checked="" type="checkbox"/> <b>Yes</b>   <input type="checkbox"/> <b>No</b>    <input checked="" type="checkbox"/> <b>Yes</b>   <input type="checkbox"/> <b>No</b>    <input checked="" type="checkbox"/> <b>Yes</b>   <input type="checkbox"/> <b>No</b></p> <p>(1.b) Descriptors  Grade span 3-5    Grade span 6-9    Grade span 10-12  <input checked="" type="checkbox"/> <b>Yes</b>   <input type="checkbox"/> <b>No</b>    <input checked="" type="checkbox"/> <b>Yes</b>   <input type="checkbox"/> <b>No</b>    <input checked="" type="checkbox"/> <b>Yes</b>   <input type="checkbox"/> <b>No</b></p> <p>(1.c) Cut Scores  Grade span 3-5    Grade span 6-9    Grade span 10-12  <input type="checkbox"/> <b>Yes</b>   <input checked="" type="checkbox"/> <b>No</b>    <input type="checkbox"/> <b>Yes</b>   <input checked="" type="checkbox"/> <b>No</b>    <input type="checkbox"/> <b>Yes</b>   <input checked="" type="checkbox"/> <b>No</b></p> <p>(2) Approved by Board or Other Authority  Grade span 3-5    Grade span 6-9    Grade span 10-12  <input type="checkbox"/> <b>Yes</b>   <input checked="" type="checkbox"/> <b>No</b>    <input type="checkbox"/> <b>Yes</b>   <input checked="" type="checkbox"/> <b>No</b>    <input type="checkbox"/> <b>Yes</b>   <input checked="" type="checkbox"/> <b>No</b></p> <p>Cite evidence:  Document 2.3.1ab.2-Math MCA-Modified  Achievement Level Descriptors; Document</p>	
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<p>2. If the State has adopted either modified or alternate achievement standards, has it developed guidelines for IEP teams to use in deciding when an individual student should be assessed on the basis of modified academic achievement standards in one or more subject areas, or assessed on the basis of alternate achievement standards?</p>	<p>2.3.1ab.3-Reading Achievement Level Descriptors. Four levels of achievement included.</p> <p><b>Alternate academic achievement standards?</b>  <b><u>Math MTAS Alternate-Grades 3-8</u></b>  (1.a) Levels of Achievement  Grade span 3-5      Grade span 6-9      Grade span 10-12  <input checked="" type="checkbox"/> <b>Yes</b>   <input type="checkbox"/> <b>No</b>    <input checked="" type="checkbox"/> <b>Yes</b>   <input type="checkbox"/> <b>No</b>    <input type="checkbox"/> <b>Yes</b>   <input checked="" type="checkbox"/> <b>No</b></p> <p>(1.b) Descriptors  Grade span 3-5      Grade span 6-9      Grade span 10-12  <input checked="" type="checkbox"/> <b>Yes</b>   <input type="checkbox"/> <b>No</b>    <input checked="" type="checkbox"/> <b>Yes</b>   <input type="checkbox"/> <b>No</b>    <input type="checkbox"/> <b>Yes</b>   <input checked="" type="checkbox"/> <b>No</b></p> <p>(1.c) Cut Scores  Grade span 3-5      Grade span 6-9      Grade span 10-12  <input type="checkbox"/> <b>Yes</b>   <input checked="" type="checkbox"/> <b>No</b>    <input type="checkbox"/> <b>Yes</b>   <input checked="" type="checkbox"/> <b>No</b>    <input type="checkbox"/> <b>Yes</b>   <input checked="" type="checkbox"/> <b>No</b></p> <p>(2) Approved by Board or Other Authority  Grade span 3-5      Grade span 6-9      Grade span 10-12  <input type="checkbox"/> <b>Yes</b>   <input checked="" type="checkbox"/> <b>No</b>    <input type="checkbox"/> <b>Yes</b>   <input checked="" type="checkbox"/> <b>No</b>    <input type="checkbox"/> <b>Yes</b>   <input checked="" type="checkbox"/> <b>No</b></p> <p>Cite evidence:  Document 2.3.1ab.4-Math MTAS Achievement Level Descriptors. Four levels of achievement included.</p> <p>2. MN provided the guidelines for IEP teams to use in deciding which assessment is to be administered. Evidence: Document 2.3.2.1-Alternate Assessment Eligibility Requirements (Including MCA-Modified and MTAS alternate); Document 2.3.2.2-Alternate Assessment Eligibility Training for IEP Teams.</p>	<p>2. MN provided documentation to meet this requirement.</p>
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<p><b>2.4</b> With the exception of students with disabilities to whom modified or alternate academic achievement standards apply, are the grade-level academic achievement standards applied to <i>all</i> public elementary and secondary schools and <i>all</i> public school students in the State?*</p> <p>[**OSEP guidance and NCLB requirements indicate that a student placed in a private school by a public agency for the purpose of receiving special education services must be included in the State assessment and their results attributed to the public school or LEA responsible for the placement.]</p>	<p>MN requires that the tests be aligned to the academic content standards and be administered annually to all students. Evidence: Document 2.4.1-Minnesota Statute 120B.30-Statewide Testing and Reporting System</p>	<p>MN provided documentation to meet this requirement.</p>
<p><b>2.5</b> How has the State ensured alignment between challenging academic content standards and the academic achievement standards?</p> <p>If the State has adopted modified academic achievement standards, how has the State ensured alignment between its grade-level academic content standards and the modified academic achievement standards?</p> <p>If the State has adopted alternate academic achievement standards, how has the State ensured alignment between its academic content standards and the alternate academic achievement standards?</p>	<p>MN provided achievement level descriptors for each of the assessments Mathematics MCA-III Grades 3-8, Mathematics MCA Modified-Grades 5-8 and 10, Reading MCA Modified-Grades 5-8 and 11, and Mathematics MTAS Grades 3-8 (alternate). These descriptors reflect alignment between the academic content standards and the achievement standards. Evidence: Document 2.3.1ab.1-MCA III Achievement Level Descriptors; Document 2.3.1ab.2 and 2.3.1ab.3-MCA-Modified Achievement Level Descriptors; Document 2.3.1ab.4-MTAS Achievement Level Descriptors.</p> <p>MN provided the Test Specification for each of the assessments Mathematics MCA-III Grades 3-8, Mathematics MCA Modified-Grades 5-8 and 10, Reading MCA Modified-Grades 5-8 and 11, and Mathematics MTAS Grades 3-8 (alternate). The general assessment, the modified assessment, and the alternate assessment are based on the same</p>	<p>MN provided documentation to meet this requirement.</p>



	<p>standards. Evidence: Documents 2.5.1; 2.5.2; 2.5.3-Test Specifications</p>	
<p><b>2.6</b> For each assessment, including alternate assessments, provide documentation of the standard setting process. Describe the selection of panelists, methodology employed, and final results.</p> <p>How did the State document involvement of diverse stakeholders in the development of its academic achievement standards and its modified and/or alternate achievement standards, if any?</p> <p>If the State has adopted alternate or modified academic achievement standards, did the State's standards-setting process include persons knowledgeable about the State's academic content standards and special educators who are knowledgeable about students with disabilities?</p>	<p><u>Mathematics MCA-III Grades 3-8, Mathematics MCA Modified-Grades 5-8 and 10, Reading MCA Modified-Grades 5-8 and 11, and Mathematics MTAS Grades 3-8 (alternate):</u></p> <p>MN indicated that they are in the process of adopting new academic achievement standards for the above listed assessments. Standard setting panels are to be conducted in June and the Commissioner's review and approval is planned for July 2011.</p> <p>MN provided a copy of their Standard Setting Plan for the Mathematics MCA-III Grades 3-8, Mathematics MCA Modified-Grades 5-8 and 10, Reading MCA Modified-Grades 5-8 and 11, and Mathematics MTAS Grades 3-8 (alternate). The plan includes conducting the standard setting with the Bookmark Method for the MCA III and MCA Modified. The Modified Angoff with some components of Reasoned Judgment is to be used for the MTAS. Evidence: Document 2.6.2-Standard Setting Plan for Minnesota Assessments, June 2011.</p> <p>MN submitted Document 2.6.1-Process for 2011 Standard Setting and Alignment Recruitment. This document includes plans for recruitment and involvement of diverse stakeholders and those with</p>	<p>MN must provide documentation of the standard setting process that includes the selection of final panelists, methodology employed, and final results for the Mathematics MCA-III Grades 3-8, Mathematics MCA Modified-Grades 5-8 and 10, Reading MCA Modified-Grades 5-8 and 11, and Mathematics MTAS Grades 3-8 (alternate).</p>

	expertise with ELLs and Students with Disabilities.	
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**SECTION 2: ACADEMIC ACHIEVEMENT STANDARDS**  
**Summary statement**

MN must submit the following:

- Documentation of the formal adoption of academic achievement standards including cut scores and final performance level descriptors in Mathematics MCA-III Grades 3-8, Mathematics MCA Modified-Grades 5-8 and 10, Reading MCA Modified-Grades 5-8 and 11, and Mathematics MTAS Grades 3-8 (alternate).
- Documentation of the standard setting process that includes the selection of final panelists, methodology employed, and final results for the Mathematics MCA-III Grades 3-8, Mathematics MCA Modified-Grades 5-8 and 10, Reading MCA Modified-Grades 5-8 and 11, and Mathematics MTAS Grades 3-8 (alternate).

**SECTION 3: STATEWIDE ASSESSMENT SYSTEM**

Critical Element	Description of State policy and practice (Record document and page # for future reference)	Comments/Questions Regarding State Materials
<p><b>3.2</b>            If the State’s assessment system includes assessments developed or adopted at both the local and State level, how has the State ensured that these local assessments meet the same technical requirements as the statewide assessments?            (a) How has the State ensured that all local assessments are aligned with the State’s academic content and achievement standards?            (b) How has the State ensured that all local assessments are equivalent to one another in terms of content coverage, difficulty, and quality?            (c) How has the State ensured that all local assessments yield comparable results for all subgroups?            (d) How has the State ensured that all local assessments yield results that can be aggregated with those from other local assessments and with any statewide assessments?</p>	<p><b>NOTE: This item applies only to a state that employs local assessments. This includes alternate assessments.</b></p> <p>State’s assessment system includes local assessments in science?            ___ Yes ___x_No</p> <p><b>If NO, skip to 3.3. If YES, cite evidence:</b></p>	

<p>(e) How has the State ensured that all local assessments provide unbiased, rational, and consistent determinations of the annual progress of schools and LEAs within the State?</p>		
<p><b>3.3</b> If the State’s assessment system employs a matrix design—that is, multiple forms within a content area and grade level-- how has the State ensured that:</p> <p>(a) All forms are aligned with the State’s academic content and achievement standards and yield comparable results?</p>	<p><b>NOTE: This item applies only to a state system that employs multiple test forms.</b></p> <p>State system employs multiple test forms?  <input checked="" type="checkbox"/> Yes   <input type="checkbox"/> No</p> <p><b>If NO, skip to 3.5. If YES, cite evidence:</b>  MN noted that the Mathematics MCA-III administered in spring 2011 had 20 online forms and one paper form per grade in grades 3-8. All other tests administered a single operational form. (MN Peer Review Summary of Evidence, Page 9)</p> <p>(a) The assessments use the test specifications which show alignment to the academic content and achievement standards. (Test Specifications for each of the assessments Mathematics MCA-III Grades 3-8, Mathematics MCA Modified-Grades 5-8 and 10, Reading MCA Modified-Grades 5-8 and 11, and Mathematics MTAS Grades 3-8 (alternate). (Documents 2.5.1; 2.5.2; 2.5.3)</p> <p>The forms were first administered in 2011. Standard setting and results have yet to be completed to determine if the forms yield comparable results.</p> <p>(b) MN provided their Spring 2011 Psychometric Plan (Document 3.3.1) which included a discussion</p>	<p>MN does not employ a matrix design.</p>

<p>(b) All forms are equivalent to one another in terms of content coverage, difficulty, and quality?</p> <p>(c) All assessments yield comparable results for all subgroups?</p>	<p>of the calibration of the multiple online forms for the MCA III. This plan was reviewed by the TAC in June 2011 and the minutes from that meeting will be provided at a later date (MN Peer Review Summary of Evidence, Page 10; Document 3.3.2-Agenda for TAC). No information was provided on the equivalency of the online form and the paper form of the MCA-III.</p> <p>(c) The forms were first administered in 2011. Standard setting and results have yet to be completed to determine if the forms yield comparable results for subgroups.</p>	
<p><b>3.4</b> How has the State ensured that its assessment system will provide coherent information for students across grades and subjects?</p> <p>(a) Has it indicated the relative contribution of each assessment to ensure alignment to the content standards and determining adequate yearly progress?</p> <p>(b) Has the State provided a rational and coherent design that identifies all assessments, including those based on alternate achievement standards and modified achievement standards if any, to be used for AYP?</p>	<p>(a) MN provided documentation to show alignment to the content standards in terms of test specifications and achievement level descriptors. (Documents 2.2.1ab.1, 2, 3, and 4; Documents 2.5.1, 2, and 3). MN also provided a copy of the 2011 Alignment Study Plans: Mathematics MCA-III, Mathematics and Reading MCA-Modified, and Mathematics MTAS (Document 3.4.1).</p> <p>(b) MN provided the Procedures Manual for the Minnesota Assessments 2010-2011 (Document 3.4.3) which includes a description of the Minnesota assessments and which are included in</p>	<p>(a) MN provided documentation to meet this requirement.</p> <p>(b) MN provided documentation to meet this requirement.</p>

<p>(c) If the State assessment system includes alternate assessments based on alternate or modified achievement standards, has the State provided IEP Teams with a clear description of the differences between assessments based on grade-level achievement standards, assessments based on modified academic achievement standards and assessments based on alternate achievement standards, if applicable, including any effects of State and local policies on the student's education resulting from taking an alternate assessment based on alternate or modified academic achievement standards?</p>	<p>determining AYP.</p> <p>(c) MN provided the guidelines for IEP teams to use in deciding which assessment is to be administered. Evidence: Document 2.3.2.1- Alternate Assessment Eligibility Requirements (Including MCA-Modified and MTAS alternate); Document 2.3.2.2-Alternate Assessment Eligibility Training for IEP Teams.</p> <p>MN provided a copy of the FAQ's about the MCAs administered in 2011 (Document 2.1.2, Page 3) This document addresses the impact of the MCA-Modified on the GRAD (graduation required assessment for diploma) and what a student has to do as a result of taking the MCA-modified. MN provided the Procedures Manual for the 2010-2011 school year (Document 3.4.3). Pages 51-59 include information on eligibility for the MTAS and MCA-Modified.</p>	<p>(c) MN provided documentation to meet this requirement.</p>
<p><b>3.5</b> If its assessment system includes various instruments (e.g., the general assessment in English and either a native-language version or simplified English version of the assessment), how does the State demonstrate comparable results and alignment with the academic content and achievement standards?</p>	<p>State employs different versions of the test within grade spans?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p><b>If NO, skip to 3.6. If YES, cite evidence:</b></p>	
<p><b>3.6</b> How does the State's assessment system involve multiple measures, that is, measures that assess higher-order thinking skills and understanding of</p>	<p>MN provided their Test Specifications documents (2.5.1-2.5.3) which include a discussion on cognitive complexity and cognitive level target distribution of items in the MCA and MCA-</p>	<p>MN provided documentation to meet this requirement.</p>

challenging content?	Modified (Page 11-12). MN also provided a copy of the 2011 Alignment Study Plans: Mathematics MCA-III, Mathematics and Reading MCA-Modified, and Mathematics MTAS (Document 3.4.1). The plans include comparing cognitive complexity ratings of the items with the complexity ratings of each of the content standards.	
<b>3.7</b> Has the State included alternate assessment(s) for students whose disabilities do not permit them to participate in the general assessment even with accommodations?	MN's assessment system includes the Mathematics MCA Modified-Grades 5-8 and 10, Reading MCA Modified-Grades 5-8 and 11, and Mathematics MTAS alternate. Documentation 3.71 (3.4.3-Procedures Manual for the Minnesota Assessment)	MN provided documentation to meet this requirement.
<b>SECTION 3: STATEWIDE ASSESSMENT SYSTEM</b> <b>Summary statement</b>		
MN provided documentation to meet the requirements of Section 3: Statewide Assessment System.		

**SECTION 4: TECHNICAL QUALITY**

Critical Element	Description of State policy and practice (Record document and page # for future reference)	Comments/Questions Regarding State Materials
<p><b>4.1</b> For each assessment, including <u>all</u> alternate assessments, has the State documented the issue of <b>validity</b> (in addition to the alignment of the assessment with the content standards), as described in the <i>Standards for Educational and Psychological Testing</i> (AERA/APA/NCME, 1999), with respect to <u>all</u> of the following categories:</p> <p>(a) Has the State specified the purposes of the assessments, delineating the types of uses and decisions most appropriate to each? <u>and</u></p> <p>(b) Has the State ascertained that the assessments, including alternate assessments, are measuring the knowledge and skills described in its academic content standards and not knowledge, skills, or other characteristics that are not specified in the academic content standards or grade-level expectations? <u>And</u></p>	<p><u>Mathematics MCA-III Grades 3-8, Mathematics MCA Modified-Grades 5-8 and 10, Reading MCA Modified-Grades 5-8 and 11, and Mathematics MTAS Grades 3-8 (alternate):</u></p> <p>(a) MN submitted the Minnesota Statute 120B.30 Statewide Testing and Reporting (Document 4.1-2.1) which includes the purposes of the assessments and desired outcomes. Purposes are also included in the Procedures Manual for the Minnesota Assessments (Document 3.4.3), Page 5.</p> <p>(b) MN submitted their Guidelines for Test Construction (Document 4.3.2) which includes the requirement of linkage to the content standards (Page 22) and Item Writer Checklists. Chapter 3 includes the Test Form Construction Process and includes a review by the MDE test development staff and the New Item Review Advisory Panel (Page 42). MN submitted a copy of their Vendor Guide to Advisory Panels which includes detailed information about the types of advisory panels for</p>	<p>MN must submit a completed Technical Manual for the 2010-2011 test administration for Mathematics MCA-III Grades 3-8, Mathematics MCA Modified-Grades 5-8 and 10, Reading MCA Modified-Grades 5-8 and 11, and Mathematics MTAS Grades 3-8 (alternate) to include evidence which addresses 4.1 (b)-(g).</p> <p>(a) MN provided documentation to meet this requirement.</p> <p>(b) MN must provide additional documentation such as confirmation that the operational test meets the blueprint; the results of the alignment study planned: 2011 Alignment Study Plans: Mathematics MCA-III, Mathematics and Reading MCA-Modified, and Mathematics MTAS (Document 3.4.1)</p>

<p>(c) Has the State ascertained that its assessment items are tapping the intended cognitive processes and that the items and tasks are at the appropriate grade level? <u>and</u></p> <p>(d) Has the State ascertained that the scoring and reporting structures are consistent with the sub-domain structures of its academic content standards (i.e., are item interrelationships consistent with the framework from which the test arises)? <u>and</u></p> <p>(e) Has the State ascertained that test and item scores are related to outside variables as intended (e.g., scores are correlated strongly with relevant measures of academic achievement and are weakly correlated, if at all, with irrelevant characteristics, such as demographics)? <u>And</u></p> <p>(f) Has the State ascertained that the decisions based on the results of its assessments are consistent with the purposes for which the</p>	<p>reviews (Document 4.3.3)</p> <p>MN provided a copy of the 2011 Alignment Study Plans: Mathematics MCA-III, Mathematics and Reading MCA-Modified, and Mathematics MTAS (Document 3.4.1).</p> <p>(c) The Guidelines for Test Construction include information to item writers that “when critical thinking is specified in the standard and/or the cognitive level of the test specifications, items should not measure simple recall facts (Page 22). The Technical Manual for 2009-2010 includes information about MN’s item committee reviews including a checklist for review (Pages 47-48).</p> <p>(d) MN noted that they are in the process of conducting statistical analyses on the new assessments and will provide the actual data for the spring 2011 administration when available. (MN Peer Review Summary of Evidence, Page 13)</p> <p>(e) MN noted that they are in the process of conducting statistical analyses on the new assessments and will provide the actual data for the spring 2011 administration when available. (MN Peer Review Summary of Evidence, Page 13)</p>	<p>(c) MN must submit evidence that its assessment items are tapping the intended cognitive processes and that the items and tasks are at the appropriate grade level.</p> <p>(d) MN must submit documentation that they have ascertained that the scoring and reporting structures are consistent with the sub-domain structures of its academic content standards.</p> <p>(e) MN must submit documentation that they have ascertained that test and item scores are related to outside variables as intended.</p> <p>(f) MN must submit documentation that the decisions based on the results of its assessments are consistent with the</p>
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<p>assessments were designed? <u>And</u></p> <p>(g) Has the State ascertained whether the assessment produces intended and unintended consequences?</p>		<p>purposes for which the assessments were designed.</p> <p>(g) MN must submit evidence that they have ascertained whether the assessment produces intended and unintended consequences.</p>
<p><b>4.2</b> For each assessment, including all alternate assessments, has the State considered the issue of <b>reliability</b>, as described in the <i>Standards for Educational and Psychological Testing</i> (AERA/APA/NCME, 1999), with respect to <u>all</u> of the following categories:</p> <p>(a) Has the State determined the reliability of the scores it reports, based on data for its own student population and each reported subpopulation? <u>and</u></p> <p>(b) Has the State quantified and reported within the technical documentation for its assessments the conditional standard error of measurement and student classification that are consistent at each cut score specified in its academic achievement standards? <u>and</u></p> <p>(c) Has the State reported evidence of generalizability for all relevant sources, such as variability of groups, internal consistency of item responses, variability among schools, consistency from form to form of the test, and inter-rater consistency in scoring?</p>	<p><u>Mathematics MCA-III Grades 3-8, Mathematics MCA Modified-Grades 5-8 and 10, Reading MCA Modified-Grades 5-8 and 11, and Mathematics MTAS Grades 3-8 (alternate):</u></p> <p>MN indicated that they are in the process of adopting new academic achievement standards for the above listed assessments. Standard setting panels are to be conducted in June and the Commissioner’s review and approval is planned for July 2011.</p> <p>MN noted that they are in the process of conducting statistical analyses on the new assessments and will provide the actual data for the spring 2011 administration when available. (MN Peer Review Summary of Evidence, Page 13)</p>	<p>MN must submit a completed Technical Manual for the 2010-2011 test administration for Mathematics MCA-III Grades 3-8, Mathematics MCA Modified-Grades 5-8 and 10, Reading MCA Modified-Grades 5-8 and 11, and Mathematics MTAS Grades 3-8 (alternate) to include evidence which addresses 4.2 (a)-(c).</p> <p>Peer reviewers note that the Technical Manual as proposed will address these required elements.</p>
<p><b>4.3</b> Has the State ensured that its assessment system is fair and accessible to all students, including students with disabilities and students with limited English proficiency, with respect to each of the following issues:</p>	<p><u>Mathematics MCA-III Grades 3-8, Mathematics MCA Modified-Grades 5-8 and 10, Reading MCA Modified-Grades 5-8 and 11, and Mathematics MTAS Grades 3-8 (alternate):</u></p>	

<p>(a) Has the State ensured that the assessments provide an appropriate variety of accommodations for students with disabilities? <u>and</u></p> <p>(b) Has the State ensured that the assessments provide an appropriate variety of linguistic accommodations for students with limited English proficiency? <u>And</u></p> <p>(c) Has the State taken steps to ensure fairness in the development of the assessments? <u>And</u></p> <p>(d) Does the use of accommodations and/or alternate assessments yield meaningful scores?</p>	<p>(a) MN provided their Procedures Manual for the Minnesota Assessments 2010-2011 (Document 4.3.1) which includes details on the accommodations for students with disabilities. (See Pages 41-55). Test development requires adherence to the principles of universal design and accessibility. (Document 4.3.2-Guidelines to Test Construction, Pages 145, 222, 248.)</p> <p>(b) MN provided their Procedures Manual for the Minnesota Assessments 2010-2011 (Document 4.3.1) which includes details on the accommodations for English Learners. (See Pages 61-69)</p> <p>(c) MN provided the Vendor Guide to Advisory Panels (Document 4.3.3) which includes requirements for wide representation from stakeholders. Bias Review Panels are included in the test development process (Page 2).</p> <p>(d) MN provided a rationale and research results for the accommodations permitted in 2009-2010, 4.1.2.2-Technical Manual.</p>	<p>(a) MN provided documentation to meet this requirement.</p> <p>The Procedures Manual (3.4.3, Page 83) states that the Grades 5-8 Mathematics MCA Modified assessments are offered online only. Peers question if these assessments are available in a paper and pencil format for students who may benefit from this accommodation.</p> <p>(b) MN provided documentation to meet this requirement.</p> <p>(c) MN must document steps taken to ensure fairness such as DIF analyses.</p> <p>(d) MN must submit evidence of whether the uses of accommodations and/or alternate assessments yield meaningful scores when administered online.</p>
<p><b>4.4</b> When different test forms or formats are used, the State must ensure that the meaning and interpretation of results are consistent.</p>	<p><u>Mathematics MCA-III Grades 3-8, Mathematics MCA Modified-Grades 5-8 and 10, Reading MCA Modified-Grades 5-8 and 11, and Mathematics</u></p>	

<p>(a) Has the State taken steps to ensure consistency of test forms over time?</p> <p>(b) If the State administers both an online and paper and pencil test, has the State documented the comparability of the electronic and paper forms of the test?</p>	<p><u>MTAS Grades 3-8 (alternate):</u></p> <p>(a) The 2010-2011 year is the first year these assessments have been administered. MN noted that they are currently completing scaling and equating on the assessments listed above. MN submitted equating specifications: Document 4.4.1: Mathematics MCA-III 2011 Equating Specifications; Document 4.4.2: MCA-Modified 2011 Equating Specifications; and Document 4.4.3: MTAS 2011 Equating Specifications.</p> <p>(b) MN submitted the Online versus Paper Comparability Study Proposal (Document 4.4.4) which describes their plans for documenting the comparability of the electronic and paper forms of the MCA-III.</p> <p>MN provided their Spring 2011 Psychometric Plan (Document 3.3.1) which included a discussion of the calibration of the multiple online forms for the MCA III. This plan was reviewed by the TAC in June 2011 and the minutes from that meeting will be provided at a later date (MN Peer Review Summary of Evidence, Page 10; Document 3.3.2-Agenda for TAC).</p>	<p>(a) MN provided documentation to meet this requirement.</p> <p>(b) MN must document the comparability of the electronic and paper forms of the MCA-III.</p> <p>Peers note that the issue of impact of technology enhanced items on comparability was raised by the TAC (5.4-5.3, Page 11) and should be addressed in the upcoming comparability study.</p>
<p><b>4.5</b> Has the State established clear criteria for the administration, scoring, analysis, and reporting components of its assessment system, including <u>all</u></p>	<p><u>Mathematics MCA-III Grades 3-8, Mathematics MCA Modified-Grades 5-8 and 10, Reading MCA Modified-Grades 5-8 and 11, and Mathematics</u></p>	<p>MN provided documentation to meet this requirement.</p>

<p>alternate assessments, and does the State have a system for monitoring and improving the on-going quality of its assessment system?</p>	<p><u>MTAS Grades 3-8 (alternate):</u></p> <p>MN provided documentation regarding detailed standards for administration, scoring, analysis and reporting.  Evidence: Document 4.5.1: 2010-11 Scope of Work; Document 4.5.2: Multi-way Check Process 2011; Document 3.4.3: Procedures Manual for the Minnesota Assessment 2010-2011; Document 4.5.4: Agenda for Pretest Workshop 2010-2011; Document 4.5.5: 2010 Annual Assessment Conference Program; 4.1.2.2-Technical Manual for MN Title I and Title III Assessments for 2009-2010.</p>	<p>While it is clear the MN employs a variety of quality assurance strategies in the development and implementation of their assessment system, the Peers recommend the MN take a more systemic approach to improvement of the statewide assessment system. Peers recommend that MN conduct an annual review of the Assessment System as a whole to identify strengths and weaknesses to be addressed in an ongoing action plan.</p>
<p><b>4.6</b>  Has the State evaluated its use of accommodations?  (a) How has the State ensured that appropriate accommodations are available to students with disabilities and students covered by Section 504, and that these accommodations are used in a manner that is consistent with instructional approaches for each student, as determined by a student’s IEP or 504 plan?   (b) How has the State determined that scores for students with disabilities that are based on accommodated administration conditions will allow for valid inferences about these students’ knowledge and skills and can be combined meaningfully with scores from non-accommodated administration conditions?  (c) How has the State ensured that appropriate accommodations are available to limited English proficient students and that these</p>	<p>(a) MN provided documentation on how they monitor the use of accommodations including data audits and selected field audits. In field audits, IEPs are reviewed to verify that accommodations used in the state assessments are documented in the IEP. In addition, provisions of accommodations used during testing are monitored. (Document 4.1-2.2: Technical Manual for 2009-2010, Page 76).</p> <p>(b) Included in the Technical Manual are the available accommodations and the rationale for their use, including research references. (Pages 63-75)</p> <p>(c) Document 4.1-2.2: Technical Manual for 2009-2010, Page 76).</p>	<p>(a) MN provided documentation to meet this requirement.</p> <p>(b) MN provided documentation to meet this requirement.</p> <p>(c) MN provided documentation to meet this requirement.</p>

<p>accommodations are used as necessary to yield accurate and reliable information about what limited English proficient students know and can do?</p> <p>(d) How has the State determined that scores for limited English proficiency students that are based on accommodated administration circumstances will allow for valid inferences about these students' knowledge and skills and can be combined meaningfully with scores from non-accommodated administration circumstances?</p>	<p>(d) Included in the Technical Manual are the available accommodations for English Learners and the rationale for their use, including research references. For example, use of the bilingual word-to-word dictionary includes a research rationale for its use. (Page 64)</p>	<p>(d) MN provided documentation to meet this requirement.</p>
<p><b>SECTION 4: TECHNICAL QUALITY</b>  <b>Summary statement</b></p>		
<p>MN must submit evidence of the following:</p> <ul style="list-style-type: none"> <li>• Technical Manual for the 2010-2011 test administration for Mathematics MCA-III Grades 3-8, Mathematics MCA Modified-Grades 5-8 and 10, Reading MCA Modified-Grades 5-8 and 11, and Mathematics MTAS Grades 3-8 (alternate) to include evidence which addresses 4.1 (b) through (g); 4.2 (a) through (c).</li> <li>• Documentation of steps taken to ensure fairness, such as DIF analyses.</li> <li>• Documentation that the uses of accommodations and/or alternate assessments yield meaningful scores when administered online.</li> <li>• Comparability of the electronic and paper forms of the MCA-III.</li> </ul>		

**SECTION 5: ALIGNMENT**

Critical Element	Description of State policy and practice (Record document and page # for future reference)	Comments/Questions Regarding State Materials
<p><b>5.1</b> Has the State outlined a coherent approach to ensuring alignment between each of its assessments, or combination of assessments, based on grade-level achievement standards, and the academic content standards and academic achievement standards the assessment is designed to measure?</p> <p>Has the State outlined a coherent approach to ensuring alignment between each of its assessments, or combination of assessments, based on modified achievement standards and the academic content standards and academic achievement standards the assessment is designed to measure?</p> <p>Has the State outlined a coherent approach to ensuring alignment between each of its assessments, or combination of assessments, based on alternate achievement standards and the academic content standards and academic achievement standards the assessment is designed to measure?</p>	<p><u>Mathematics MCA-III Grades 3-8, Mathematics MCA Modified-Grades 5-8 and 10, Reading MCA Modified-Grades 5-8 and 11, and Mathematics MTAS Grades 3-8 (alternate):</u></p> <p>MN provided Guidelines for Test Construction (4.3.2) which includes directions for item writers to write items to the academic standards both for content as well as for cognitive level. Reviews are conducted by panels as listed in Vendors Guide to Advisory Panels (Document 5.1.2)</p> <p>MN provided a copy of the 2011 Alignment Study Plans: Mathematics MCA-III, Mathematics and Reading MCA-Modified, and Mathematics MTAS (Document 3.4.1). This study is scheduled for July 2010. The plans were reviewed by the TAC and approved on in June 2011. MDE plans to use the results to define actions necessary to strengthen the alignment of the assessments including review by TAC. (MN Peer Review Summary of Evidence, Page 20)</p>	<p>MN must submit the results of the planned alignment study and any planned response.</p>
<p><b>5.2</b> Are the assessments and the standards aligned <b>comprehensively</b>, meaning that the assessments reflect the full <b>range</b> of the State’s academic content standards? Are the assessments as cognitively challenging as the standards? Are the assessments and standards aligned to measure the depth of the standards? Does the assessment reflect the degree of</p>	<p>The alignment study planned by MN includes application of a modified version of the Webb Alignment Method for review of the MCA-III and MCA-Modified test forms. Indicators will include categorical concurrence, range-of-knowledge, balance-of-representation, and depth-of-knowledge. (Document 3.4.1, Page 5)</p>	<p>MN must submit evidence that the assessments and standards are aligned as designated in 5.2, 5.3, and 5.4.</p>

<p>cognitive complexity and level of difficulty of the concepts and processes described in the standards?</p> <p>If the State has implemented an alternate assessment based on modified academic achievement standards, does the assessment reflect the full range of the State's academic content standards for the grade(s) tested? What changes in cognitive complexity or difficulty, if any, have been made for assessments based on modified academic achievement standards?</p> <p>If the State has implemented an alternate assessment based on alternate academic achievement standards, does the assessment show a clear link to the content standards for the grade in which the students tested are enrolled although the grade-level content may be reduced in depth, breadth or complexity or modified to reflect pre-requisite academic skills?</p>	<p>For the MTAS, procedures will parallel the alignment procedures used for MCA-III and MCA-Modified, but will include additional steps pertinent to the LAL alignment method. (Page 7)</p> <p>Test specifications were submitted for MCA-III, MCA-Modified, and MTAS which include items across all standards. (2.5.1-2.5.3)</p>	
<p><b>5.3</b></p> <p>Are the assessments and the standards aligned in terms of both <b>content</b> (knowledge) and <b>process</b> (how to do it), as necessary, meaning that the assessments measure what the standards state students should both know and be able to do?</p> <p>What changes in test structure or format, if any, have been made for assessments based on modified academic achievement standards?</p>	<p>For the <u>Mathematics MCA Modified-Grades 5-8 and 10</u>, <u>Reading MCA Modified-Grades 5-8 and 11</u>, MN reduced the number of response options, used only multiple choice, provided only on-line options, did not have items from the GRAD, did not have grid or technology enhanced items, and reduced the number of items.</p>	<p>MN must submit evidence that the assessments and standards are aligned as designated in 5.2, 5.3, and 5.4.</p>
<p><b>5.4</b></p> <p>Do the general assessments and alternate assessments based on modified achievement standards if any, reflect the same <b>degree and pattern of emphasis</b> as are reflected in the State's</p>		<p>MN must submit evidence that the assessments and standards are aligned as designated in 5.2, 5.3, and 5.4.</p>

academic content standards?		
<p><b>5.5</b> Do the assessments yield scores that reflect the full range of achievement implied by the State's academic achievement standards?</p>	<p><u>Mathematics MCA-III Grades 3-8, Mathematics MCA Modified-Grades 5-8 and 10, Reading MCA Modified-Grades 5-8 and 11, and MTAS Grades 3-8 (alternate):</u></p> <p>MN provided 2.5.1 Mathematics Test Specifications for MCA-III Grades 3-8 and MA-Modified Grades 5-8; 2.5.2 Reading MCA-Modified Test Specifications Grades 5-8; 2.5.3 MTAS Test Specifications for Mathematics Grades 3-8.</p> <p>MN provided a copy of the 2011 Alignment Study Plans: Mathematics MCA-III, Mathematics and Reading MCA-Modified, and Mathematics MTAS (Document 3.4.1).</p> <p>MN administered the assessments in 2010-2011 and plan standard setting, final approval of standards, and production of data in July 2011.</p>	<p>MN must submit documentation that confirms that the scores reflect the full range of achievement implied by the State's academic achievement standards.</p>
<p><b>5.6</b> Assessment results must be expressed in terms of the achievement standards, not just scale scores or percentiles.</p>	<p>MN provided a copy of the Interpretive Guide for 2009-2010 (5.6.2). The individual student report (Pages 16-17) includes information about the achievement standards and not just scale scores for the MCA.</p>	<p>MN provided a mockup of the student report for the MCA and the 2009-2010 Interpretive Guide, however, MN must submit assessment reports for the 2010-2011 assessments for the MCA Modified-Grades 5-8 and 10, Reading MCA Modified-Grades 5-8 and 11, and Mathematics MA-III</p>



		and MTAS Grades 3-8 (alternate) to show how they are expressed in terms of achievement standards.
<b>5.7</b> What ongoing procedures does the State use to maintain and improve alignment between the assessments and standards over time?	MN indicated that the state plans to use the results of the planned alignment study to improve alignment. (MN Peer Review Summary of Evidence, Page 23)	MN must submit a description of how they will maintain and improve alignment over time.
<b>SECTION 5: ALIGNMENT</b>		
<b>Summary statement</b>		
<p>MN must submit the following:</p> <ul style="list-style-type: none"> <li>• MN must submit the results of the planned alignment study and any planned response.</li> <li>• Evidence that the assessments and standards are aligned as designated in 5.2, 5.3, and 5.4.</li> <li>• Documentation that confirms that the scores reflect the full range of achievement implied by the State’s academic achievement standards.</li> <li>• Assessment reports for the 2010-2011 assessments for the MCA Modified-Grades 5-8 and 10, Reading MCA Modified-Grades 5-8 and 11, and Mathematics MA-III and MTAS Grades 3-8 (alternate) to show how they are expressed in terms of achievement standards.</li> <li>• MN must submit a description of how they will maintain and improve alignment over time.</li> </ul>		

**SECTION 6: INCLUSION**

Critical Element	Description of State policy and practice (Record document and page # for future reference)	Comments/Questions Regarding State Materials
<p><b>6.1</b> 1. Do the State’s participation data indicate that all students in the tested grade levels or grade ranges are included in the assessment system (e.g., students with disabilities, students with limited English proficiency, economically disadvantaged students, race/ethnicity, migrant students, homeless students, etc.)?</p> <p>2. Does the State report separately the number and percent of students with disabilities assessed on the regular assessment without accommodations, on the regular assessment with accommodations, on an alternate assessment against grade-level standards, and, if applicable, on an alternate assessment against alternate achievement standards and/or on an alternate assessment against modified academic achievement standards?</p>	<p>Data not yet available for 2010-2011.</p> <p>1-MN submitted documentation for 2009-2010 showing the types of reports and subgroups and how participation rates are calculated. Enrolled and participating in assessments are included. Evidence: Document 6.1.1-2010 NCLB Functional Specifications; Document 6.1.2-Sample Participation Report; Document 6.1.3-List of AYP Tutorials; Document 6.1.4-District NCLB Data Report.</p> <p>2. MN did not submit any reports that showed the requirements of 6.1.2.</p>	<p>1. MN must submit the participation data for 2010-2011 to show the requirements of 6.1.1.</p> <p>2. MN must submit data for 2010-2011 to show the number and percent of students with disabilities assessed on the regular assessment without accommodations, on the regular assessment with accommodations, on an alternate assessment against alternate achievement standards and on the alternate assessment against modified academic achievement standards.</p>
<p><b>6.2</b> 1. What guidelines does the State have in place for including all students with disabilities in the assessment system? (a) Has the State developed, disseminated information on, and promoted use of</p>	<p>(a)-(b) MN submitted documentation to show that they have extensive guidelines and training related to the use of appropriate accommodation for</p>	<p>1. (a)-(b) MN submitted documentation to meet these requirements.</p>

<p>appropriate accommodations to increase the number of students with disabilities who are tested against academic achievement standards for the grade in which they are enrolled?</p> <p>(b) Has the State ensured that general and special education teachers and other appropriate staff know how to administer assessments, including making use of accommodations, for students with disabilities and students covered under Section 504?</p> <p>2. If the State has approved/adopted modified or alternate academic achievement standards for certain students with disabilities, what guidelines does the State have in place for placing those students in the appropriate assessment?</p> <p>(a) Has the State developed clear guidelines for IEP Teams to apply in determining which students with disabilities are eligible to be assessed based on modified or alternate academic achievement standards?</p> <p>(b) Has the State informed IEP Teams that students eligible to be assessed based on alternate or modified academic achievement standards may be from any of the disability categories listed in the IDEA?</p> <p>(c) Has the State provided IEP Teams with a clear explanation of the differences between assessments based on grade-level academic achievement standards and those based on modified or alternate academic achievement standards, including any effects of State and local policies on the student's education resulting from taking an alternate based on alternate or modified standards?</p>	<p>students with disabilities.</p> <p>Evidence: Document 3.4.3-Procedures Manual 2011; Document 6.2.2a-Minnesota Manual of Accommodations for Students with Disabilities; Document 6.2.2b-Accommodations for Students with Disabilities: Instruction and Assessment (CD); Document 6.2.3-Minnesota Administrative Rule 3501.0090 Students with Individualized Education Plans or Section 504 accommodations Plans; Document 6.2.2a:Minnesota Manual of Accommodations for Students with Disabilities.</p> <p>2. (a) MN provided documentation to show that they have developed guidelines for IEP Teams to apply in determining which students with disabilities are eligible to be assessed based on modified or alternate achievement standards. Evidence: Document 3.4.3-Procedures Manual for MN Assessments 2010-2011, Pages 51-55.</p> <p>(b) MN notes that decisions are not to be based on the student's disability category. (Document 3.4.3-Procedures Manual for MN Assessments 2010-2011, Page 54.</p> <p>(c)MN has guidelines that explain the differences in the assessments. (Document 3.4.3-Procedures Manual for MN Assessments 2010-2011, Page 54)</p>	<p>2. (a) MN submitted documentation to meet this requirement.</p> <p>(b) MN submitted documentation to meet this requirement.</p> <p>(c) MN submitted documentation to meet this requirement.</p>
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<p>(d) Has the State ensured that parents are informed that their child’s achievement will be based on modified or alternate academic achievement standards and of any possible consequences resulting from LEA or State policy (e.g., ineligibility for a regular high school diploma)?</p> <p>3. If the State has adopted modified academic achievement standards, do the guidelines include all required components?</p> <p>(a) Criteria for IEP Teams to use to determine which students with disabilities are eligible to be assessed based on modified academic achievement standards that include, at a minimum, each of the following?</p> <ul style="list-style-type: none"> <li>• The student’s disability has precluded the student from achieving grade-level proficiency as demonstrated by objective evidence of the student’s academic performance; and</li> <li>• The student’s progress to date in response to appropriate instruction, including special education and related services designed to address the student’s individual needs, is such that, even if significant growth occurs, the IEP Team is reasonably certain that the student will not achieve grade-level proficiency within the year covered by the student’s IEP; and</li> <li>• The student’s IEP goals for subjects assessed by the statewide system are based on the academic content standards for the grade in which the student is enrolled.</li> </ul> <p>(b) Has the State informed IEP Teams that a student may be assessed based on modified academic achievement standards in one or more subjects?</p> <p>(c) Has the State established and monitored implementation of clear and appropriate guidelines for developing IEPs that include</p>	<p>(d) No documentation submitted to address this element.</p> <p>3. (a) Evidence: Document 3.4.3-Procedures Manual for MN Assessments 2010-2011, Pages 51-55.</p> <p>(b) Evidence: Document 3.4.3-Procedures Manual for MN Assessments 2010-2011, Page 51.</p> <p>(c) Evidence: Document 3.4.3-Procedures Manual for MN Assessments 2010-2011, Monitoring</p>	<p>(d) MN must provide evidence that parents are informed that their child’s achievement will be based on modified or alternate academic achievement standards and of any possible consequences resulting from LEA or State policy.</p> <p>(a) MN provided documentation to meet this requirement.</p> <p>(b) MN provided documentation to meet this requirement.</p> <p>(c) MN provided documentation to meet this requirement.</p>
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<p>goals based on content standards for the grade in which a student is enrolled?</p> <p>(d) Has the State ensured that students who are assessed based on modified academic achievement standards have access to the curriculum, including instruction, for the grade in which the students are enrolled?</p> <p>(e) Has the State ensured that students who take an alternate assessment based on modified academic achievement standards are not precluded from attempting State diploma requirements?</p> <p>(f) Has the State ensured annual IEP Team review of assessment decisions?</p> <p>4. Has the State documented that students with the most significant cognitive disabilities are, to the extent possible, included in the general curriculum?</p>	<p>Student Selection for the MCA-Modified, Pages 56-57.</p> <p>(d) Evidence: Document 3.4.3-Procedures Manual for MN Assessments 2010-2011, Page 52, 56.</p> <p>(e) Evidence: Document 2.1.2-FAQ about the MCAs Administered 2011, Page 3. This document includes information on the GRAD requirements for students taking the MCA-Modified.</p> <p>(f) Evidence: Document 3.4.3-Procedures Manual for MN Assessments 2010-2011, Monitoring Student Selection for the MCA-Modified, Pages 56-57. Document 2.1.2-FAQ about the MCAs Administered 2011, Page 5.</p> <p>4. Evidence: Document 3.4.3-Procedures Manual for MN Assessments 2010-2011, Page 52. The section notes that the IEP team must ensure that the student has access to the general curriculum.</p>	<p>(d) MN provided documentation from the Procedures Manual that would meet this requirement. However, the language in MN Statutes (6.2.3, A. (3) (a)-(b)) states that students may be exempt from statewide standards which implies that these students will not have access to the general curriculum as required in 6.2(f). Peers have a concern that this may be confusing to staff implementing the assessments.</p> <p>(e) MN provided documentation to meet this requirement.</p> <p>(f) MN provided documentation to meet this requirement.</p> <p>4. MN provided documentation from the Procedures Manual that would meet this requirement. However, the language in MN Statutes (6.2.3, A. (3) (a)-(b)) states that students may be exempt from statewide standards which</p>
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		implies that these students will not have access to the general curriculum.
<p><b>6.3</b> What guidelines does the State have in place for including all students with limited English proficiency in the tested grades in the assessment system?</p> <p>(a) Has the State made available assessments, to the extent practicable, in the language and form most likely to yield accurate and reliable information on what these students know and can do?</p> <p>(b) Does the State require the participation of every limited English proficient student in the assessment system, unless a student has attended schools in the US for less than 12 months, in which case the student may be exempt from one administration of the State's reading/language arts assessment?</p>	<p>(a) MN provided documentation related to accommodations for English Language Learners. Chapter 6 of the Document 3.4.3, Procedures Manual 2011, Pages 61-69, includes language accommodations and language translation for the mathematics tests from the State for Hmong, Spanish, Somali and Vietnamese.</p> <p>(b) MN provided Document 3.4.3, Procedures Manual 2011, Page 62, which includes the requirement that students may be exempt from reading if in country for less than one year, but must take the science and mathematics assessment.</p> <p>MN also provided Document 6.3.3-3501.0100 Testing Considerations for LEP Students.</p>	<p>(a) MN provided documentation to meet this requirement.</p> <p>(b) The Procedures Manual, Page 62, notes that students take the test in science and mathematics and are exempt from reading if in the country less than a year. However, the MN Statute (3501.0100) says that "A student may be temporarily exempted from participation in testing if the student has been enrolled for three or fewer years in a school in which the primary language of instruction is English." This conflicts with ESEA regulations.</p>

(c) Has the State adopted policies requiring limited English proficient students to be assessed in reading/language arts in English if they have been enrolled in US schools for three consecutive years or more?	(c) N/A since MN does not provided translated test forms.	
<b>6.4</b> What policies and practices does the State have in place to ensure the identification and inclusion of migrant and other mobile students in the tested grades in the assessment system?	No documentation provided.	MN must submit documentation on how they ensure the identification and inclusion of migrant and other mobile students in the tested grades in the assessment system.
<b>SECTION 6: INCLUSION</b> <b>Summary statement</b>		
<p>MN must submit the following:</p> <ul style="list-style-type: none"> <li>• Participation data for 2010-2011 to show the requirements of 6.1.1.</li> <li>• Data for 2010-2011 to show the number and percent of students with disabilities assessed on the regular assessment without accommodations, on the regular assessment with accommodations, on an alternate assessment against grade-level standards, and, if applicable, on an alternate assessment against alternate achievement standards and on an alternate assessment against modified academic achievement standard.</li> <li>• Evidence that parents are informed that their child’s achievement will be based on modified or alternate academic achievement standards and of any possible consequences resulting from LEA or State policy.</li> <li>• Documentation that MN ensures the identification and inclusion of migrant and other mobile students in the tested grades in the assessment system.</li> </ul>		

**SECTION 7: ASSESSMENT REPORTS**

<b>Critical Element</b>	<b>Description of State policy and practice (Record document and page # for future reference)</b>	<b>Comments/Questions Regarding State Materials</b>
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<p><b>7.1</b> Does the State’s reporting system facilitate appropriate, credible, and defensible interpretation and use of its assessment data?</p>	<p>MN provided several documents to address this requirement: Document 7.1.1: 2010-2011 Sample MN Individual Student Reports (mock-up samples); Document 5.6.2-2009-2010 Interpretive Guide; Document 7.1.4:Using “Test Results” in Educator Portal; 4.5.5-2010 Annual Assessment Conference including training on use and interpretation of student results.</p>	<p>MN must submit updated interpretive guides for the Mathematics MCA-III, Mathematics MTAS, and Mathematics and Reading for MCA-Modified for the 2010-2011 assessments.</p>
<p><b>7.2</b> Does the State report participation and assessment results for all students and for each of the required subgroups in its reports at the school, LEA, and State levels? In these assessment reports, how has the State ensured that assessment results are not reported for any group or subgroup when these results would reveal personally identifiable information about an individual student?</p>	<p>MN provided information on the Educator Portal on MDE’s website which includes data at the school, district, and state level. (Document 7.2.1-Sample District Summary Report; Document 7.2.3 Guide to Educator’s Portal. MN noted that the School Report Card site will only display data if the cell size is ten or greater. (Document 7.2.3 Guide to Educator’s Portal, Page 4)</p>	<p>MN must provide reports including participation and assessment results for all students and for each of the required subgroups including race/ethnicity, gender, SWDs, ELLs, Migrant, and Economically Disadvantaged in its reports at the school, LEA, and State levels for the 2010-2011 assessments.</p>
<p><b>7.3</b> How has the State provided for the production of individual interpretive, descriptive, and diagnostic reports following each administration of its assessments? (a) Do these individual student reports provide valid and reliable information regarding achievement on the assessments in relation to the State’s academic content and achievement standards? (b) Do these individual student reports provide information for parents, teachers, and principals to help them understand and address a student’s specific academic needs? Is this information displayed in a format and language that is understandable to parents, teachers, and</p>	<p>(a)-(b) MN provided sample student reports (Document 7.1.1) for the MCA-III and sample student reports for the MTAS (Document 7.3.1b). The Interpretive Guide (5.6.2) includes information on the 2009-2010 MCA-III and MTAS. MN provides a website that provides information for parents on interpreting student reports and includes educational activities. (Document 7.3.3-Screenshot of Pearson Perspective)</p>	<p>(a)-(b) MN provided samples for the 2010-2011 year for MCA-III and MTAS. These included the required information.  Actual student reports for 2010-2011 must be submitted for Mathematics MCA-III, MTAS, and Mathematics and Reading MCA-Modified.</p>



<p>principals and are the reports accompanied by interpretive guidance for these audiences?</p> <p>(c) How has the State ensured that these individual student reports will be delivered to parents, teachers, and principals as soon as possible after the assessment is administered?</p>	<p>(c) MN referenced Document 3.4.3: Procedures Manual for the Minnesota Assessments 2010-2011, Page 34. The district assessment coordinator must distribute paper reports to parents or guardians, no later than fall parent/teacher conferences .</p>	<p>(c) MN provided documentation to meet this requirement.</p>
<p><b>7.4</b> How has the State ensured that student-level assessment data are maintained securely to protect student confidentiality?</p>	<p>MN has established policies and procedures for test security and for allowing access to student data files. Evidence: Document 7.4.1: Minnesota Administrative Rules 3501.0159 Test Security; Document 7.4.2: Minnesota Administrative Rules 3501.0140 Test Administration; Document 7.2.3: Guide to Educator’s Portal; Document 3.4.3- Procedures Manual.</p>	<p>MN provided documentation to meet this requirement.</p>
<p><b>7.5</b> How has the State provided for the production of itemized score analyses so that parents, teachers, and principals can interpret and address the specific academic needs of students?</p>	<p>MN provided Document 7.3.1:2010 MCA-III ISRs and Document 7.3.1b: 2010 MTAS ISRs which include Score Analysis by strand with descriptions related to the content standards (Pages 2-3).</p> <p>Document 7.2.3: Guide to Educator’s Portal for district and school personnel’s use after authorization. Pages 5-12 have instructions for accessing data and producing several types of outputs in data analyses.</p>	<p>MN must provide itemized score analyses for each of the assessments: MCA-III and MTAS Mathematics, and the Reading and Mathematics MCA-Modified.</p>
<p><b>SECTION 7: ASSESSMENT REPORTS</b> <b>Summary statement</b></p>		
<p>MN must submit the following:</p> <ul style="list-style-type: none"> <li>• Interpretive guides and use of assessment data for the Mathematics MCA-III and MTAS and Mathematics and Reading for MCA-Modified for the 2010-2011 assessments.</li> <li>• MN must provide report participation and assessment results for all students and for each of the required subgroups including race/ethnicity, gender, SWDs, ELLs, Migrant, and Economically Disadvantaged in its reports at the school, LEA, and State</li> </ul>		

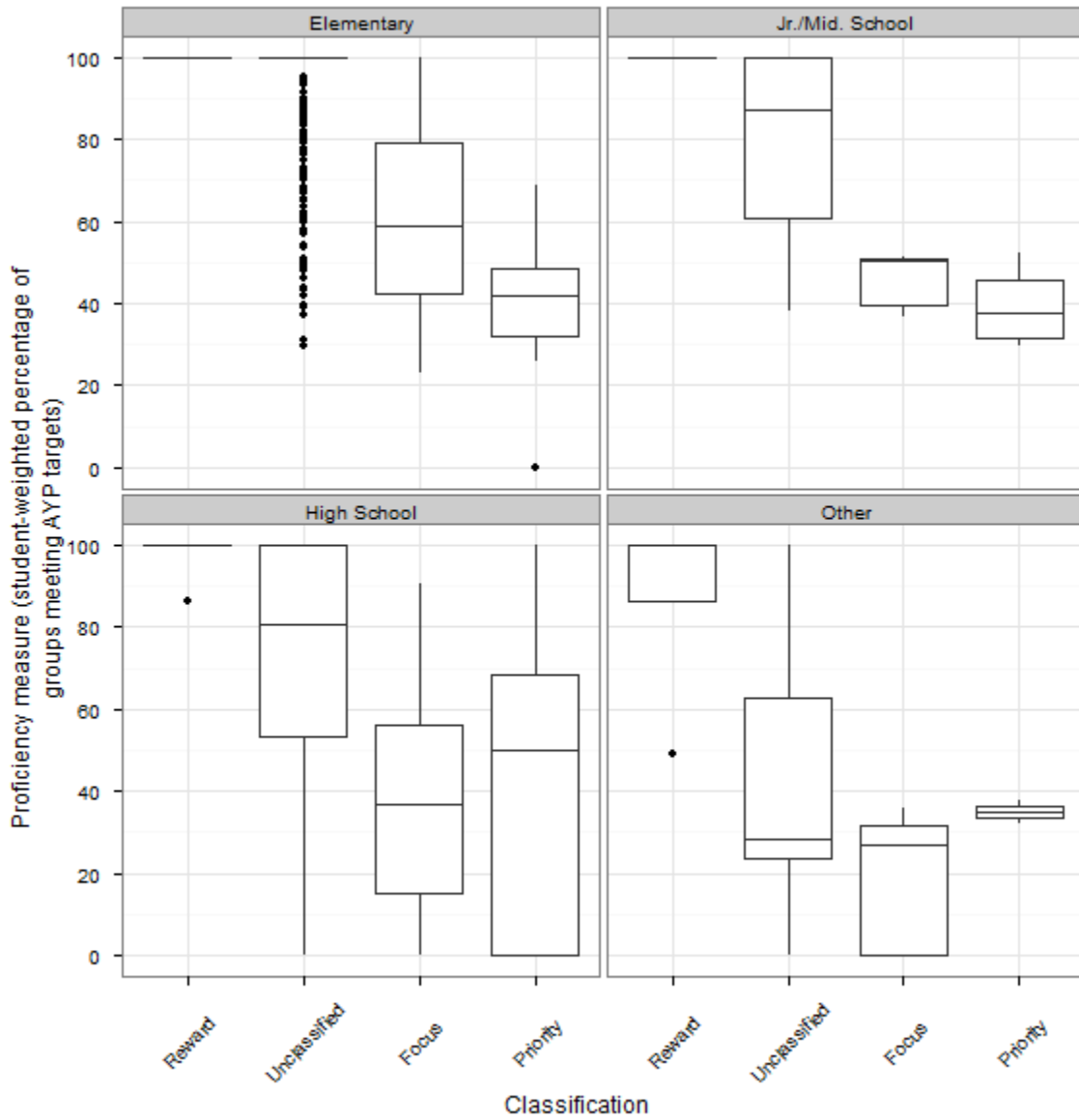
levels for the 2010-2011 assessments.

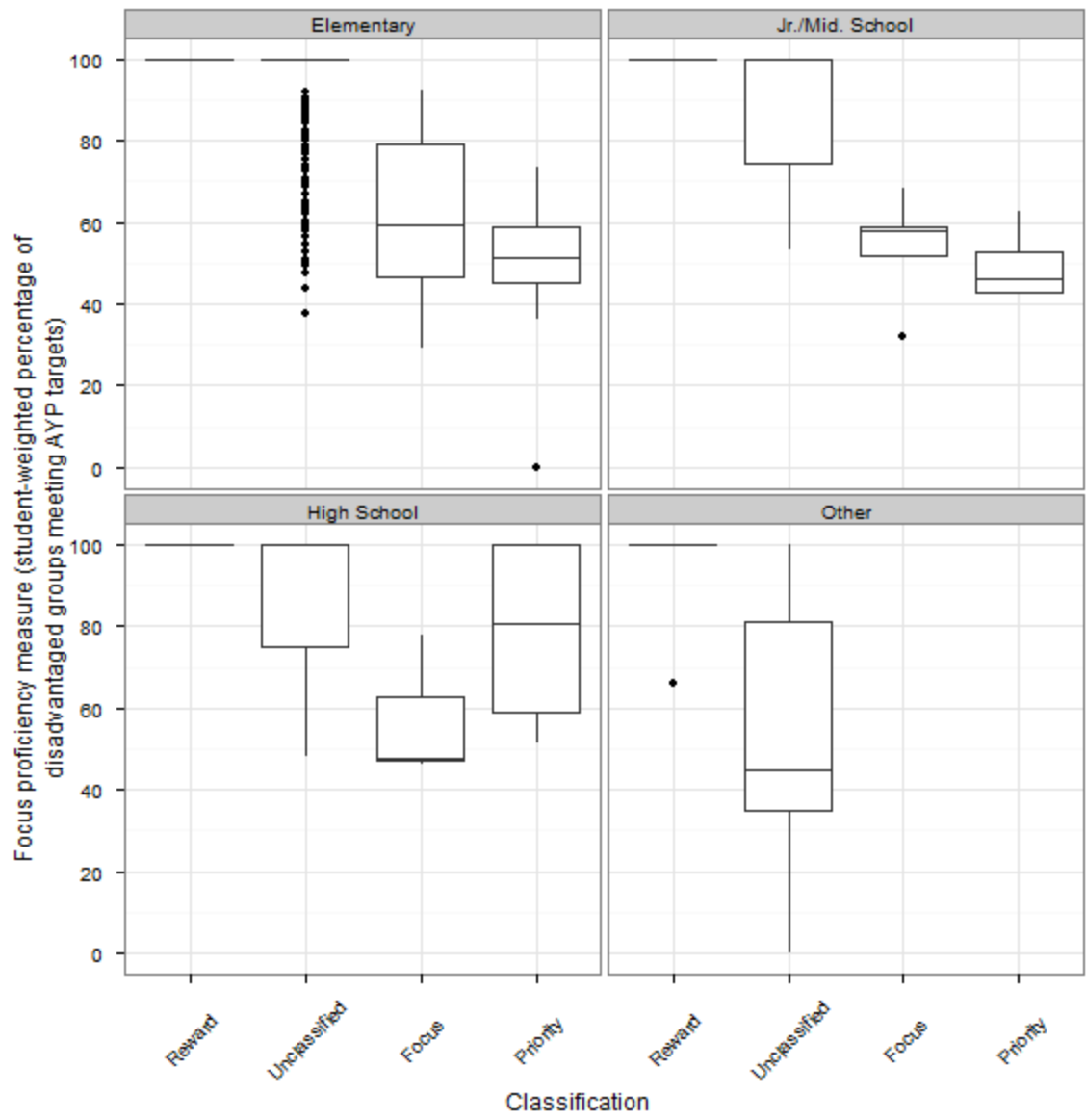
- Final copies of the student level reports for 2010-2011 for the Mathematics MCA-III and MTAS, and Mathematics and Reading for MCA-Modified.
- MN must provide itemized score analyses for each of the assessments: Mathematics MCA-III, MTAS Mathematics, and the Reading and Mathematics MCA-Modified.

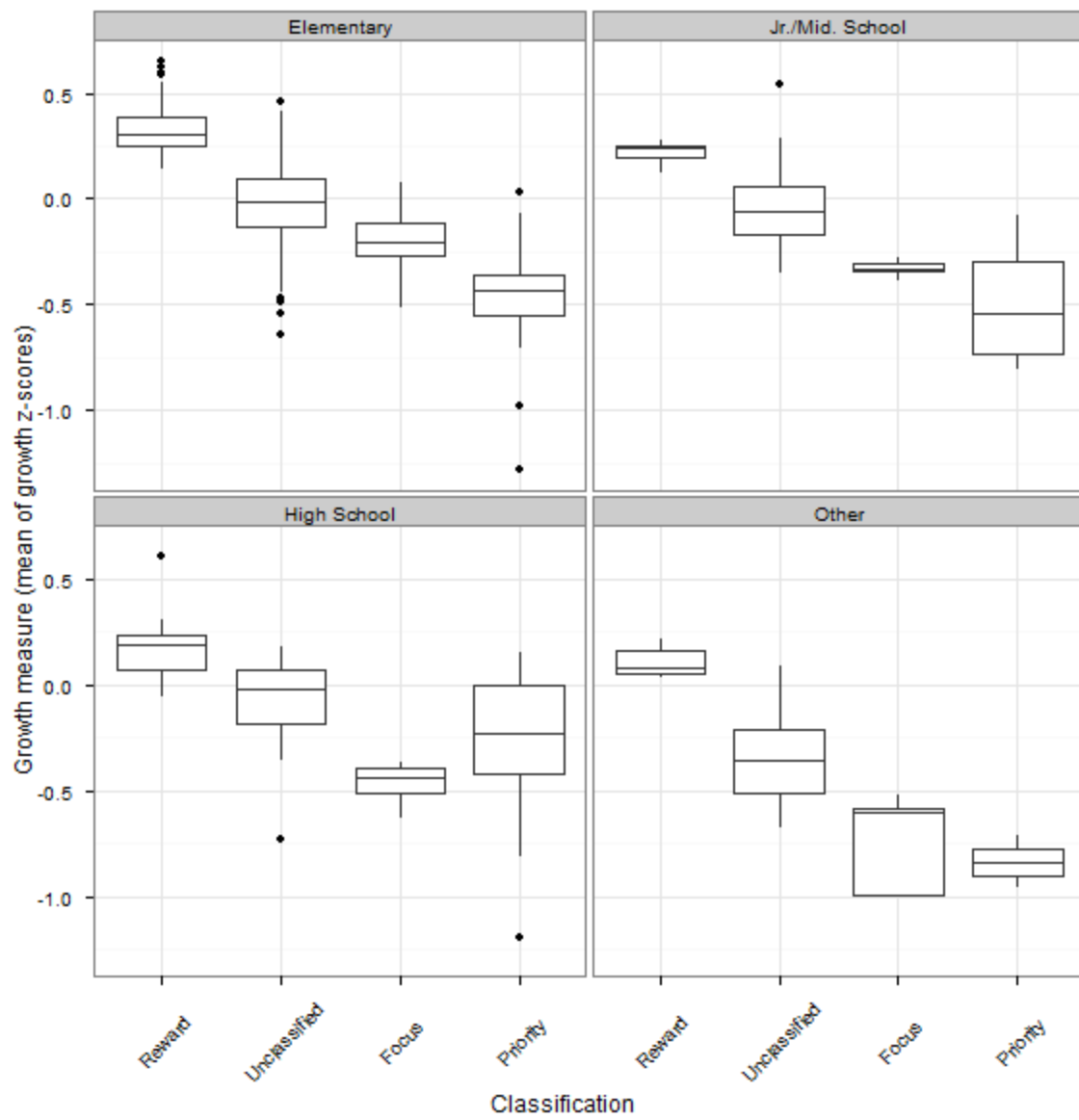
# Attachment 9

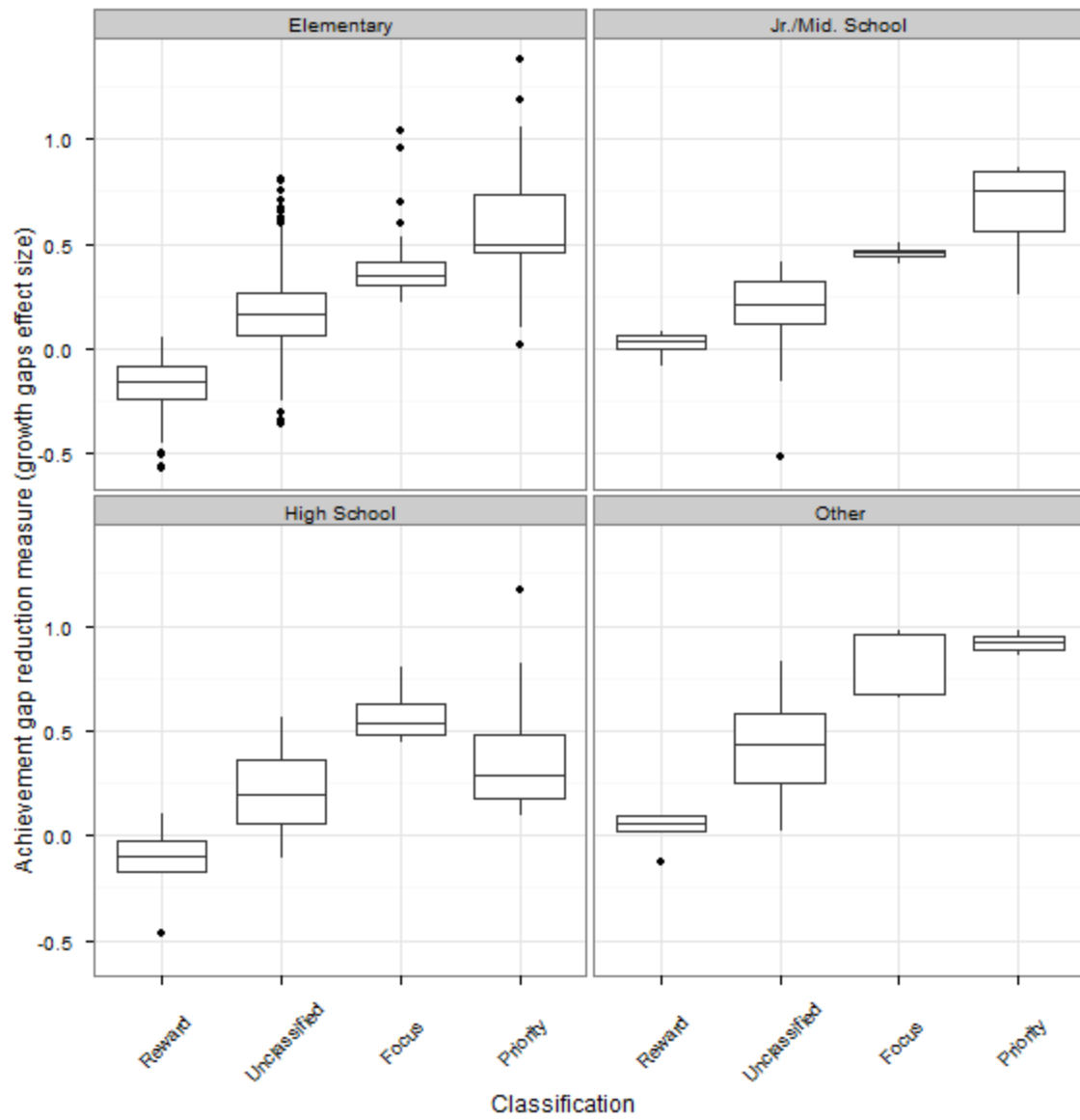
## Summary of Multiple Measures Ratings (MMRs) and List of Schools (Table 2 of ESEA Flexibility Request)

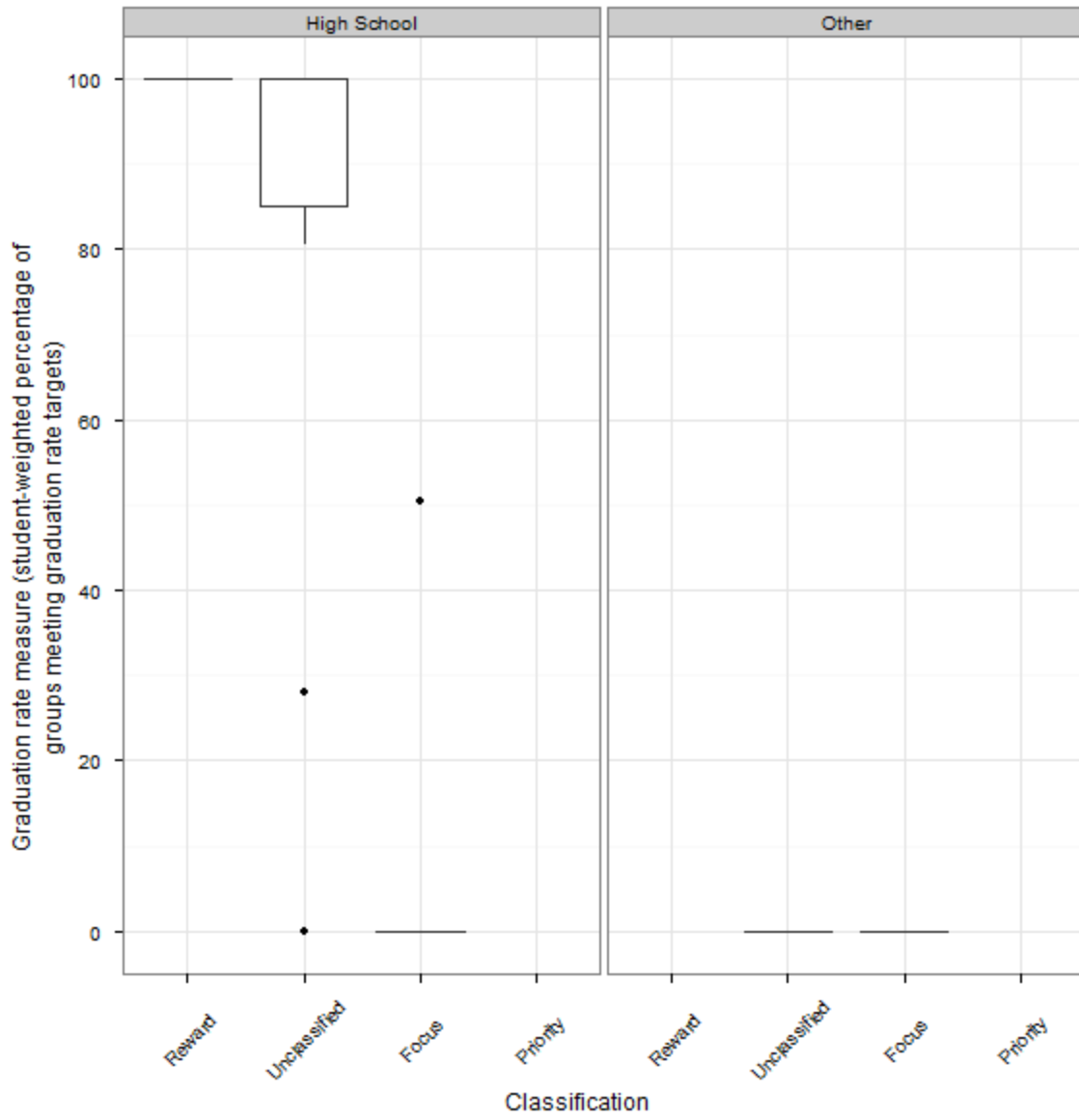
Graphical summary of schools' student achievement measures by MMR classification within school type: Title I and SIG schools











**Summary of Title I and SIG school classifications by school type (grade level): Percentages**

	Reward	Unclassified	Focus	Priority	Sum
Elementary	13.2	55.8	8.8	3.5	81.2
Jr./Mid. School	0.9	3.1	0.6	0.5	5.1
High School	1.3	5.0	0.9	1.9	9.1
Other	0.6	3.1	0.6	0.3	4.6
Sum	16.0	66.9	11.0	6.1	100.0

**U.S. Department of Education Criteria**

**Reward School Criteria:**

- A. Highest-performing school
- B. High-progress school

**Priority School Criteria:**

- C. Among the lowest five percent of Title I schools in the State based on the proficiency and lack of progress of the “all students” group
- D. Title I-participating or Title I-eligible high school with graduation rate less than 60% over a number of years
- E. Tier I or Tier II SIG school implementing a school intervention model

**Focus School Criteria:**

- F. Has the largest within-school gaps between the highest-achieving subgroup(s) and the lowest-achieving subgroup(s) or, at the high school level, has the largest within-school gaps in the graduation rate
- G. Has a subgroup or subgroups with low achievement or, at the high school level, a low graduation rate
- H. A Title I-participating high school with graduation rate less than 60% over a number of years that is not identified as a priority school

**Summary of school classifications by criteria: Counts**

	Reward	Focus	Priority	Sum
A	125	0	0	125
C	0	0	29	29
E	0	0	19	19
G	0	83	0	83
H	0	3	0	3
Sum	125	86	48	259

**Summary of school classifications by school type (grade level) and criteria: Counts**

School type	Criterion	Reward	Focus	Priority	Sum
Elementary	A	103	0	0	103
Elementary	C	0	0	21	21
Elementary	E	0	0	6	6
Elementary	G	0	69	0	69
Elementary	Sum	103	69	27	199
Jr./Mid. School	A	7	0	0	7
Jr./Mid. School	C	0	0	3	3
Jr./Mid. School	E	0	0	1	1
Jr./Mid. School	G	0	5	0	5
Jr./Mid. School	Sum	7	5	4	16



High School	A	10	0	0	10
High School	C	0	0	3	3
High School	E	0	0	12	12
High School	G	0	4	0	4
High School	H	0	3	0	3
High School	Sum	10	7	15	32
Other	A	5	0	0	5
Other	C	0	0	2	2
Other	G	0	5	0	5
Other	Sum	5	5	2	12
Sum	Sum	125	86	48	259

The following correlation matrix shows the degrees to which the Multiple Measures are associated with the overall rank and with student poverty. The Multiple Measures are correlated with the overall rank and in the expected directions. The growth and achievement gap reduction measures are less correlated with poverty than the proficiency measure and graduation rates. The overall rank is negatively correlated with poverty to a moderately small degree.

**Correlation (Kendall's tau) between poverty, multiple measures, and overall rank**

	Proficiency	Growth	Gaps	Graduation	MMR points (percent)	Poverty rate
Proficiency	1.00	0.35	-0.27	0.80	0.52	-0.55
Growth	0.35	1.00	-0.73	0.44	0.66	-0.25
Gaps	-0.27	-0.73	1.00	-0.38	-0.62	0.16
Graduation	0.80	0.44	-0.38	1.00	0.47	-0.53
MMR points (percent)	0.52	0.66	-0.62	0.47	1.00	-0.35
Poverty rate	-0.55	-0.25	0.16	-0.53	-0.35	1.00

**Table 2: Proposed list of schools classified as Reward, Focus, and Priority**

School	Classification	Criterion	Title I	SIG	Proficiency measure	Points for proficiency measure	Growth measure	Points for growth measure	Achievement gap reduction measure	Points for achievement gap reduction measure	Graduation rate measure	Points for graduation rate	Total points earned	Total points possible	Total MMR points earned (as a percentage of possible points)	Focus proficiency measure	Points for focus proficiency measure	Focus points earned	Focus points possible	Focus points earned (as a percentage of possible points)
Elementary 1	Reward	A	Yes	No	100.00	25.0	0.63	24.9	-0.57	25.0			74.9	75.0	99.9	100.00	25.0	50.0	50.0	100.0
Elementary 2	Reward	A	Yes	No	100.00	25.0	0.65	25.0	-0.49	24.9			74.9	75.0	99.8	100.00	25.0	49.9	50.0	99.8
Elementary 3	Reward	A	Yes	No	100.00	25.0	0.60	24.9	-0.51	24.9			74.8	75.0	99.8	100.00	25.0	49.9	50.0	99.9
Elementary 4	Reward	A	Yes	No	100.00	25.0	0.55	24.8	-0.56	25.0			74.8	75.0	99.7	100.00	25.0	50.0	50.0	99.9
Elementary 5	Reward	A	Yes	No	100.00	25.0	0.59	24.9	-0.44	24.8			74.7	75.0	99.6	100.00	25.0	49.8	50.0	99.6
Elementary 6	Reward	A	Yes	No	100.00	25.0	0.51	24.6	-0.45	24.9			74.5	75.0	99.3	100.00	25.0	49.9	50.0	99.8
Elementary 7	Reward	A	Yes	No	100.00	25.0	0.52	24.7	-0.38	24.6			74.3	75.0	99.1	100.00	25.0	49.6	50.0	99.3
Elementary 8	Reward	A	Yes	No	100.00	25.0	0.53	24.7	-0.35	24.5			74.3	75.0	99.0	100.00	25.0	49.5	50.0	99.1
Elementary 9	Reward	A	Yes	No	100.00	25.0	0.45	24.4	-0.39	24.7			74.1	75.0	98.8	100.00	25.0	49.7	50.0	99.4
Elementary 10	Reward	A	Yes	No	100.00	25.0	0.40	24.0	-0.35	24.6			73.6	75.0	98.1	100.00	25.0	49.6	50.0	99.1
Elementary 11	Reward	A	Yes	No	100.00	25.0	0.47	24.4	-0.26	24.1			73.5	75.0	98.0	100.00	25.0	49.1	50.0	98.1
Elementary 12	Reward	A	Yes	No	100.00	25.0	0.45	24.3	-0.27	24.1			73.5	75.0	98.0	100.00	25.0	49.1	50.0	98.3
Elementary 13	Reward	A	Yes	No	100.00	25.0	0.40	23.9	-0.30	24.3			73.2	75.0	97.6	100.00	25.0	49.3	50.0	98.5
Elementary 14	Reward	A	Yes	No	100.00	25.0	0.50	24.6	-0.22	23.6			73.1	75.0	97.5	100.00	25.0	48.6	50.0	97.1
Elementary 15	Reward	A	Yes	No	100.00	25.0	0.50	24.6	-0.22	23.5			73.1	75.0	97.5	100.00	25.0	48.5	50.0	97.1
Elementary 16	Reward	A	Yes	No	100.00	25.0	0.42	24.1	-0.25	24.0			73.1	75.0	97.5	100.00	25.0	49.0	50.0	98.0
Elementary 17	Reward	A	Yes	No	100.00	25.0	0.36	23.3	-0.40	24.8			73.1	75.0	97.5	100.00	25.0	49.8	50.0	99.5
Elementary 18	Reward	A	Yes	No	100.00	25.0	0.42	24.2	-0.25	23.9			73.1	75.0	97.4	100.00	25.0	48.9	50.0	97.8
Elementary 19	Reward	A	Yes	No	100.00	25.0	0.42	24.1	-0.25	23.9			73.0	75.0	97.4	100.00	25.0	48.9	50.0	97.8

School	Classification	Criterion	Title I	SIG	Proficiency measure	Points for proficiency measure	Growth measure	Points for growth measure	Achievement gap reduction measure	Points for achievement gap reduction measure	Graduation rate measure	Points for graduation rate	Total points earned	Total points possible	Total MMR points earned (as a percentage of possible points)	Focus proficiency measure	Points for focus proficiency measure	Focus points earned	Focus points possible	Focus points earned (as a percentage of possible points)
Elementary 20	Reward	A	Yes	No	100.00	25.0	0.36	23.4	-0.32	24.4			72.8	75.0	97.1	100.00	25.0	49.4	50.0	98.8
Elementary 21	Reward	A	Yes	No	100.00	25.0	0.37	23.6	-0.27	24.2			72.8	75.0	97.0	100.00	25.0	49.2	50.0	98.3
Elementary 22	Reward	A	Yes	No	100.00	25.0	0.52	24.7	-0.19	23.0			72.7	75.0	97.0	100.00	25.0	48.0	50.0	96.1
Elementary 23	Reward	A	Yes	No	100.00	25.0	0.33	22.9	-0.39	24.7			72.5	75.0	96.7	100.00	25.0	49.7	50.0	99.3
Elementary 24	Reward	A	Yes	No	100.00	25.0	0.35	23.3	-0.29	24.2			72.5	75.0	96.6	100.00	25.0	49.2	50.0	98.4
Elementary 25	Reward	A	Yes	No	100.00	25.0	0.40	23.9	-0.21	23.5			72.4	75.0	96.5	100.00	25.0	48.5	50.0	97.0
Elementary 26	Reward	A	Yes	No	100.00	25.0	0.38	23.6	-0.21	23.4			72.0	75.0	96.0	100.00	25.0	48.4	50.0	96.8
Elementary 27	Reward	A	Yes	No	100.00	25.0	0.32	22.5	-0.32	24.4			72.0	75.0	95.9	100.00	25.0	49.4	50.0	98.8
Elementary 28	Reward	A	Yes	No	100.00	25.0	0.35	23.2	-0.22	23.6			71.8	75.0	95.8	100.00	25.0	48.6	50.0	97.3
Elementary 29	Reward	A	Yes	No	100.00	25.0	0.34	23.0	-0.24	23.8			71.8	75.0	95.7	100.00	25.0	48.8	50.0	97.6
Elementary 30	Reward	A	Yes	No	100.00	25.0	0.32	22.7					47.7	50.0	95.3	100.00	25.0	25.0	25.0	100.0
Elementary 31	Reward	A	Yes	No	100.00	25.0	0.34	23.0	-0.22	23.5			71.5	75.0	95.3	100.00	25.0	48.5	50.0	97.0
Elementary 32	Reward	A	Yes	No	100.00	25.0	0.30	22.2	-0.29	24.2			71.4	75.0	95.2	100.00	25.0	49.2	50.0	98.4
Elementary 33	Reward	A	Yes	No	100.00	25.0	0.40	24.0	-0.16	22.3			71.3	75.0	95.1	100.00	25.0	47.3	50.0	94.7
Elementary 34	Reward	A	Yes	No	100.00	25.0	0.36	23.5	-0.17	22.7			71.2	75.0	94.9	100.00	25.0	47.7	50.0	95.4
Elementary 35	Reward	A	Yes	No	100.00	25.0	0.37	23.5	-0.17	22.6			71.2	75.0	94.9	100.00	25.0	47.6	50.0	95.2
Elementary 36	Reward	A	Yes	No	100.00	25.0	0.35	23.1	-0.18	23.0			71.1	75.0	94.8	100.00	25.0	48.0	50.0	96.0
Elementary 37	Reward	A	Yes	No	100.00	25.0	0.35	23.2	-0.18	22.9			71.1	75.0	94.8	100.00	25.0	47.9	50.0	95.7
Elementary 38	Reward	A	Yes	No	100.00	25.0	0.39	23.7	-0.15	22.2			70.9	75.0	94.6	100.00	25.0	47.2	50.0	94.5

School	Classification	Criterion	Title I	SIG	Proficiency measure	Points for proficiency measure	Growth measure	Points for growth measure	Achievement gap reduction measure	Points for achievement gap reduction measure	Graduation rate measure	Points for graduation rate	Total points earned	Total points possible	Total MMR points earned (as a percentage of possible points)	Focus proficiency measure	Points for focus proficiency measure	Focus points earned	Focus points possible	Focus points earned (as a percentage of possible points)
Elementary 39	Reward	A	Yes	No	100.00	25.0	0.44	24.3	-0.11	21.4			70.7	75.0	94.3	100.00	25.0	46.4	50.0	92.9
Elementary 40	Reward	A	Yes	No	100.00	25.0	0.33	22.8	-0.18	22.9			70.7	75.0	94.3	100.00	25.0	47.9	50.0	95.8
Elementary 41	Reward	A	Yes	No	100.00	25.0	0.29	21.8	-0.24	23.8			70.6	75.0	94.1	100.00	25.0	48.8	50.0	97.5
Elementary 42	Reward	A	Yes	No	100.00	25.0	0.40	24.0	-0.12	21.5			70.5	75.0	94.0	100.00	25.0	46.5	50.0	93.0
Elementary 43	Reward	A	Yes	No	100.00	25.0	0.30	22.3	-0.20	23.2			70.5	75.0	94.0	100.00	25.0	48.2	50.0	96.5
Elementary 44	Reward	A	Yes	No	100.00	25.0	0.38	23.7	-0.13	21.8			70.5	75.0	94.0	100.00	25.0	46.8	50.0	93.6
Elementary 45	Reward	A	Yes	No	100.00	25.0	0.34	23.0	-0.17	22.4			70.4	75.0	93.9	100.00	25.0	47.4	50.0	94.8
Elementary 46	Reward	A	Yes	No	100.00	25.0	0.39	23.7	-0.12	21.6			70.3	75.0	93.7	100.00	25.0	46.6	50.0	93.1
Elementary 47	Reward	A	Yes	No	100.00	25.0	0.28	21.6	-0.22	23.6			70.2	75.0	93.6	100.00	25.0	48.6	50.0	97.2
Elementary 48	Reward	A	Yes	No	100.00	25.0	0.29	21.8					46.8	50.0	93.5			0.0	0.0	
Elementary 49	Reward	A	Yes	No	100.00	25.0	0.27	21.2	-0.24	23.9			70.0	75.0	93.4	100.00	25.0	48.9	50.0	97.7
Elementary 50	Reward	A	Yes	No	100.00	25.0	0.31	22.3	-0.17	22.6			70.0	75.0	93.3	100.00	25.0	47.6	50.0	95.3
Elementary 51	Reward	A	Yes	No	100.00	25.0	0.34	23.1	-0.13	21.9			70.0	75.0	93.3	100.00	25.0	46.9	50.0	93.8
Elementary 52	Reward	A	Yes	No	100.00	25.0	0.32	22.5	-0.14	22.0			69.6	75.0	92.7	100.00	25.0	47.0	50.0	94.1
Elementary 53	Reward	A	Yes	No	100.00	25.0	0.33	22.8	-0.11	21.2			69.0	75.0	92.0	100.00	25.0	46.2	50.0	92.5
Elementary 54	Reward	A	Yes	No	100.00	25.0	0.31	22.3	-0.12	21.6			68.9	75.0	91.9	100.00	25.0	46.6	50.0	93.2
Elementary 55	Reward	A	Yes	No	100.00	25.0	0.30	22.1	-0.12	21.6			68.7	75.0	91.7	100.00	25.0	46.6	50.0	93.3
Elementary 56	Reward	A	Yes	No	100.00	25.0	0.27	21.3	-0.16	22.4			68.6	75.0	91.5	100.00	25.0	47.4	50.0	94.7
Elementary 57	Reward	A	Yes	No	100.00	25.0	0.33	22.9	-0.08	20.6			68.5	75.0	91.4	100.00	25.0	45.6	50.0	91.2

School	Classification	Criterion	Title I	SIG	Proficiency measure	Points for proficiency measure	Growth measure	Points for growth measure	Achievement gap reduction measure	Points for achievement gap reduction measure	Graduation rate measure	Points for graduation rate	Total points earned	Total points possible	Total MMR points earned (as a percentage of possible points)	Focus proficiency measure	Points for focus proficiency measure	Focus points earned	Focus points possible	Focus points earned (as a percentage of possible points)
Elementary 58	Reward	A	Yes	No	100.00	25.0	0.24	20.1	-0.20	23.3			68.4	75.0	91.2	100.00	25.0	48.3	50.0	96.5
Elementary 59	Reward	A	Yes	No	100.00	25.0	0.29	22.1	-0.11	21.3			68.4	75.0	91.2	100.00	25.0	46.3	50.0	92.6
Elementary 60	Reward	A	Yes	No	100.00	25.0	0.29	21.9	-0.11	21.2			68.1	75.0	90.8	100.00	25.0	46.2	50.0	92.4
Elementary 61	Reward	A	Yes	No	100.00	25.0	0.28	21.7	-0.11	21.1			67.8	75.0	90.4	100.00	25.0	46.1	50.0	92.3
Elementary 62	Reward	A	Yes	No	100.00	25.0	0.25	20.5	-0.16	22.3			67.8	75.0	90.4	100.00	25.0	47.3	50.0	94.6
Elementary 63	Reward	A	Yes	No	100.00	25.0	0.30	22.2	-0.08	20.5			67.7	75.0	90.3	100.00	25.0	45.5	50.0	91.1
Elementary 64	Reward	A	Yes	No	100.00	25.0	0.26	20.8	-0.13	21.7			67.5	75.0	90.0	100.00	25.0	46.7	50.0	93.5
Elementary 65	Reward	A	Yes	No	100.00	25.0	0.24	20.0					45.0	50.0	89.9			0.0	0.0	
Elementary 66	Reward	A	Yes	No	100.00	25.0	0.33	22.9	-0.05	19.4			67.3	75.0	89.7	100.00	25.0	44.4	50.0	88.8
Elementary 67	Reward	A	Yes	No	100.00	25.0	0.25	20.3	-0.13	21.8			67.2	75.0	89.5	100.00	25.0	46.8	50.0	93.7
Elementary 68	Reward	A	Yes	No	100.00	25.0	0.23	19.8	-0.16	22.3			67.0	75.0	89.4	100.00	25.0	47.3	50.0	94.5
Elementary 69	Reward	A	Yes	No	100.00	25.0	0.29	22.0	-0.06	19.9			67.0	75.0	89.3	100.00	25.0	44.9	50.0	89.9
Elementary 70	Reward	A	Yes	No	100.00	25.0	0.27	21.4	-0.07	20.5			66.9	75.0	89.2	100.00	25.0	45.5	50.0	90.9
Elementary 71	Reward	A	Yes	No	100.00	25.0	0.23	19.9	-0.14	22.0			66.9	75.0	89.2	100.00	25.0	47.0	50.0	94.0
Elementary 72	Reward	A	Yes	No	100.00	25.0	0.21	18.9	-0.18	23.0			66.8	75.0	89.1	100.00	25.0	48.0	50.0	95.9
Elementary 73	Reward	A	Yes	No	100.00	25.0	0.29	21.9	-0.05	19.7			66.6	75.0	88.8	100.00	25.0	44.7	50.0	89.4
Elementary 74	Reward	A	Yes	No	100.00	25.0	0.25	20.6	-0.09	20.8			66.4	75.0	88.5	100.00	25.0	45.8	50.0	91.6
Elementary 75	Reward	A	Yes	No	100.00	25.0	0.25	20.4	-0.09	20.9			66.3	75.0	88.4	100.00	25.0	45.9	50.0	91.7
Elementary 76	Reward	A	Yes	No	100.00	25.0	0.25	20.5	-0.07	20.5			66.0	75.0	88.0	100.00	25.0	45.5	50.0	91.0

School	Classification	Criterion	Title I	SIG	Proficiency measure	Points for proficiency measure	Growth measure	Points for growth measure	Achievement gap reduction measure	Points for achievement gap reduction measure	Graduation rate measure	Points for graduation rate	Total points earned	Total points possible	Total MMR points earned (as a percentage of possible points)	Focus proficiency measure	Points for focus proficiency measure	Focus points earned	Focus points possible	Focus points earned (as a percentage of possible points)
Elementary 77	Reward	A	Yes	No	100.00	25.0	0.24	20.1	-0.08	20.7			65.8	75.0	87.8	100.00	25.0	45.7	50.0	91.4
Elementary 78	Reward	A	Yes	No	100.00	25.0	0.23	19.7	-0.10	21.1			65.8	75.0	87.8	100.00	25.0	46.1	50.0	92.2
Elementary 79	Reward	A	Yes	No	100.00	25.0	0.27	21.4	-0.04	19.3			65.7	75.0	87.6	100.00	25.0	44.3	50.0	88.5
Elementary 80	Reward	A	Yes	No	100.00	25.0	0.15	16.8	-0.23	23.7			65.6	75.0	87.4	100.00	25.0	48.7	50.0	97.5
Elementary 81	Reward	A	Yes	No	100.00	25.0	0.28	21.6	-0.03	18.9			65.5	75.0	87.3	100.00	25.0	43.9	50.0	87.8
Elementary 82	Reward	A	Yes	No	100.00	25.0	0.18	18.2	-0.13	21.9			65.1	75.0	86.8	100.00	25.0	46.9	50.0	93.9
Elementary 83	Reward	A	Yes	No	100.00	25.0	0.24	20.1	-0.05	19.8			64.9	75.0	86.5	100.00	25.0	44.8	50.0	89.6
Elementary 84	Reward	A	Yes	No	100.00	25.0	0.14	16.5	-0.21	23.3			64.9	75.0	86.5	100.00	25.0	48.3	50.0	96.6
Elementary 85	Reward	A	Yes	No	100.00	25.0	0.25	20.3	-0.05	19.5			64.8	75.0	86.4	100.00	25.0	44.5	50.0	88.9
Elementary 86	Reward	A	Yes	No	100.00	25.0	0.26	21.1	-0.03	18.7			64.8	75.0	86.3	100.00	25.0	43.7	50.0	87.4
Elementary 87	Reward	A	Yes	No	100.00	25.0	0.26	20.9	-0.02	18.6			64.5	75.0	86.1	100.00	25.0	43.6	50.0	87.2
Elementary 88	Reward	A	Yes	No	100.00	25.0	0.23	19.8	-0.05	19.6			64.4	75.0	85.9	100.00	25.0	44.6	50.0	89.3
Elementary 89	Reward	A	Yes	No	100.00	25.0	0.26	20.9	-0.02	18.5			64.4	75.0	85.9	100.00	25.0	43.5	50.0	87.1
Elementary 90	Reward	A	Yes	No	100.00	25.0	0.25	20.4	-0.03	19.0			64.4	75.0	85.8	100.00	25.0	44.0	50.0	88.0
Elementary 91	Reward	A	Yes	No	100.00	25.0	0.26	20.9	-0.01	18.3			64.2	75.0	85.6	100.00	25.0	43.3	50.0	86.6
Elementary 92	Reward	A	Yes	No	100.00	25.0	0.25	20.6	-0.02	18.5			64.2	75.0	85.5	100.00	25.0	43.5	50.0	87.0
Elementary 93	Reward	A	Yes	No	100.00	25.0	0.25	20.7	-0.01	18.4			64.1	75.0	85.4	100.00	25.0	43.4	50.0	86.7
Elementary 94	Reward	A	Yes	No	100.00	25.0	0.16	17.6					42.6	50.0	85.2	100.00	25.0	25.0	25.0	100.0
Elementary 95	Reward	A	Yes	No	100.00	25.0	0.25	20.7	-0.01	18.2			63.9	75.0	85.2	100.00	25.0	43.2	50.0	86.5

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Elementary 96	Reward	A	Yes	No	100.00	25.0	0.21	18.8	-0.06	20.1			63.9	75.0	85.2	100.00	25.0	45.1	50.0	90.2
Elementary 97	Reward	A	Yes	No	100.00	25.0	0.20	18.6	-0.07	20.2			63.9	75.0	85.1	100.00	25.0	45.2	50.0	90.5
Elementary 98	Reward	A	Yes	No	100.00	25.0	0.18	18.1	-0.08	20.7			63.8	75.0	85.1	100.00	25.0	45.7	50.0	91.4
Elementary 99	Reward	A	Yes	No	100.00	25.0	0.20	18.5	-0.07	20.3			63.8	75.0	85.1	100.00	25.0	45.3	50.0	90.7
Elementary 100	Reward	A	Yes	No	100.00	25.0	0.32	22.7	0.05	16.1			63.8	75.0	85.0	100.00	25.0	41.1	50.0	82.2
Elementary 101	Reward	A	Yes	No	100.00	25.0	0.17	17.7	-0.09	20.9			63.6	75.0	84.8	100.00	25.0	45.9	50.0	91.9
Elementary 102	Reward	A	Yes	No	100.00	25.0	0.16	17.6	-0.09	21.0			63.6	75.0	84.8	100.00	25.0	46.0	50.0	92.0
Elementary 103	Reward	A	Yes	No	100.00	25.0	0.22	19.5	-0.04	19.1			63.6	75.0	84.7	100.00	25.0	44.1	50.0	88.2
Elementary 104	Priority	E	Yes	Yes	43.80	1.3	0.04	12.2	0.02	17.5			31.0	75.0	41.4	58.85	2.1	19.7	50.0	39.3
Elementary 105	Focus	G	Yes	No	100.00	25.0	-0.51	0.4	1.04	0.1			25.6	75.0	34.1			0.1	25.0	0.5
Elementary 106	Focus	G	Yes	No	44.03	1.4	0.07	13.9	0.22	8.8			24.0	75.0	32.1	44.58	0.7	9.4	50.0	18.9
Elementary 107	Priority	E	Yes	Yes	27.83	0.3	-0.07	7.8	0.10	13.7			21.7	75.0	29.0	39.49	0.5	14.2	50.0	28.3
Elementary 108	Focus	G	Yes	No	86.77	5.4	-0.03	9.4	0.26	6.8			21.7	75.0	28.9	78.67	3.8	10.6	50.0	21.2
Elementary 109	Focus	G	Yes	No	91.16	6.2	-0.05	8.6	0.27	6.7			21.5	75.0	28.6	83.30	4.2	10.9	50.0	21.9
Elementary 110	Focus	G	Yes	No	33.75	0.6	0.04	12.2	0.22	8.6			21.4	75.0	28.5	33.96	0.2	8.8	50.0	17.5
Elementary 111	Focus	G	Yes	No	58.61	2.6	-0.04	9.3	0.22	8.5			20.4	75.0	27.2	45.93	0.8	9.3	50.0	18.5
Elementary 112	Focus	G	Yes	No	64.33	3.2	0.01	11.3	0.31	5.2			19.8	75.0	26.4	81.62	4.1	9.3	50.0	18.7
Elementary 113	Focus	G	Yes	No	93.58	6.4	-0.08	7.6	0.32	4.8			18.9	75.0	25.1	82.23	4.1	8.9	50.0	17.9
Elementary 114	Focus	G	Yes	No	95.42	6.7	-0.07	7.7	0.35	4.2			18.6	75.0	24.9	92.49	5.4	9.6	50.0	19.2

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Elementary 115	Focus	G	Yes	No	93.13	6.3	-0.11	6.7	0.32	5.1			18.1	75.0	24.1	81.30	4.0	9.1	50.0	18.2
Elementary 116	Focus	G	Yes	No	65.08	3.3	-0.09	7.1	0.25	7.4			17.8	75.0	23.8	59.88	2.2	9.7	50.0	19.3
Elementary 117	Focus	G	Yes	No	65.63	3.4	-0.06	8.4	0.30	5.8			17.6	75.0	23.5	49.69	1.1	7.0	50.0	13.9
Elementary 118	Focus	G	Yes	No	59.70	2.7	-0.07	7.9	0.28	6.2			16.8	75.0	22.5	49.28	1.0	7.2	50.0	14.4
Elementary 119	Focus	G	Yes	No	94.94	6.6	-0.16	4.6	0.31	5.5			16.8	75.0	22.4	88.79	5.0	10.6	50.0	21.1
Elementary 120	Focus	G	Yes	No	70.90	3.8	-0.10	6.9	0.29	6.0			16.7	75.0	22.3	71.09	3.2	9.2	50.0	18.4
Elementary 121	Focus	G	Yes	No	51.16	2.2	-0.13	5.9	0.24	7.8			15.9	75.0	21.3	64.69	2.6	10.5	50.0	20.9
Elementary 122	Focus	G	Yes	No	34.41	0.7	-0.11	6.5	0.23	8.1			15.2	75.0	20.3	52.70	1.6	9.7	50.0	19.4
Elementary 123	Focus	G	Yes	No	77.22	4.3	-0.06	8.3	0.41	2.7			15.2	75.0	20.3	47.53	0.9	3.6	50.0	7.2
Elementary 124	Focus	G	Yes	No	79.34	4.5	-0.07	8.1	0.41	2.6			15.2	75.0	20.3	86.24	4.6	7.3	50.0	14.5
Elementary 125	Focus	G	Yes	No	93.98	6.5	-0.16	5.1	0.40	3.2			14.8	75.0	19.8	82.33	4.2	7.4	50.0	14.7
Elementary 126	Priority	E	Yes	Yes	37.58	0.9	-0.13	5.8	0.24	7.6			14.2	75.0	19.0	48.23	1.0	8.5	50.0	17.1
Elementary 127	Focus	G	Yes	No	63.67	3.1	-0.09	7.2	0.38	3.4			13.8	75.0	18.4	53.20	1.7	5.2	50.0	10.4
Elementary 128	Focus	G	Yes	No	79.70	4.6	-0.18	4.2	0.32	4.8			13.6	75.0	18.2	85.85	4.5	9.4	50.0	18.7
Elementary 129	Focus	G	Yes	No	61.77	3.0	-0.16	4.9	0.31	5.7			13.6	75.0	18.2	83.71	4.2	9.9	50.0	19.8
Elementary 130	Focus	G	Yes	No	41.44	1.1	-0.07	7.8	0.33	4.6			13.5	75.0	18.0	29.29	0.1	4.7	50.0	9.3
Elementary 131	Focus	G	Yes	No	71.65	3.9	-0.15	5.3	0.38	3.4			12.7	75.0	16.9	72.67	3.3	6.7	50.0	13.3
Elementary 132	Focus	G	Yes	No	42.16	1.2	-0.13	5.9	0.31	5.6			12.6	75.0	16.9	53.73	1.8	7.4	50.0	14.7
Elementary 133	Focus	G	Yes	No	85.95	5.3	-0.14	5.7	0.51	1.5			12.4	75.0	16.6	73.06	3.3	4.8	50.0	9.6



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Elementary 134	Focus	G	Yes	No	31.47	0.5	-0.16	4.8	0.25	7.2			12.4	75.0	16.6	39.70	0.5	7.7	50.0	15.4
Elementary 135	Focus	G	Yes	No	94.36	6.5	-0.16	4.7	0.54	1.1			12.3	75.0	16.4	85.88	4.6	5.7	50.0	11.4
Elementary 136	Focus	G	Yes	No	23.32	0.1	-0.16	4.7	0.25	7.4			12.2	75.0	16.3	30.41	0.1	7.5	50.0	15.0
Elementary 137	Focus	G	Yes	No	45.23	1.4	-0.18	4.3	0.27	6.5			12.2	75.0	16.2	58.81	2.1	8.6	50.0	17.1
Elementary 138	Focus	G	Yes	No	62.31	3.1	-0.21	3.4	0.34	4.3			10.8	75.0	14.4	77.37	3.7	8.0	50.0	16.0
Elementary 139	Focus	G	Yes	No	79.09	4.5	-0.19	4.1	0.45	2.0			10.6	75.0	14.1	84.59	4.3	6.4	50.0	12.8
Elementary 140	Focus	G	Yes	No	89.03	5.9	-0.30	1.7	0.41	2.8			10.4	75.0	13.8	70.01	3.1	5.9	50.0	11.7
Elementary 141	Focus	G	Yes	No	72.09	4.0	-0.25	2.7	0.37	3.6			10.3	75.0	13.7	92.46	5.4	9.0	50.0	18.0
Elementary 142	Focus	G	Yes	No	85.99	5.3	-0.21	3.6	0.52	1.4			10.3	75.0	13.7	61.43	2.3	3.7	50.0	7.4
Elementary 143	Focus	G	Yes	No	58.97	2.7	-0.26	2.5	0.32	4.8			10.0	75.0	13.3	71.65	3.2	8.0	50.0	16.0
Elementary 144	Focus	G	Yes	No	52.00	2.2	-0.30	1.8	0.30	5.8			9.9	75.0	13.2	66.47	2.8	8.6	50.0	17.3
Elementary 145	Focus	G	Yes	No	46.35	1.5	-0.28	2.0	0.29	6.1			9.6	75.0	12.8	45.34	0.7	6.8	50.0	13.6
Elementary 146	Focus	G	Yes	No	23.27	0.1	-0.19	3.9	0.31	5.5			9.5	75.0	12.7	30.58	0.1	5.6	50.0	11.2
Elementary 147	Focus	G	Yes	No	77.00	4.3	-0.23	2.9	0.44	2.3			9.5	75.0	12.6	80.87	4.0	6.3	50.0	12.5
Elementary 148	Focus	G	Yes	No	71.54	3.9	-0.27	2.3	0.40	3.0			9.2	75.0	12.3	90.01	5.2	8.2	50.0	16.4
Elementary 149	Focus	G	Yes	No	49.60	2.0	-0.21	3.4	0.37	3.7			9.1	75.0	12.1	66.45	2.8	6.5	50.0	13.0
Elementary 150	Focus	G	Yes	No	26.46	0.2	-0.20	3.6	0.32	5.2			9.0	75.0	12.0	35.98	0.3	5.5	50.0	10.9
Elementary 151	Focus	G	Yes	No	29.09	0.3	-0.24	2.8	0.30	5.7			8.9	75.0	11.8	41.02	0.6	6.3	50.0	12.6
Elementary 152	Focus	G	Yes	No	42.52	1.2	-0.22	3.1	0.33	4.6			8.8	75.0	11.8	47.03	0.9	5.4	50.0	10.9

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Elementary 153	Focus	G	Yes	No	40.37	1.0	-0.22	3.1	0.35	4.0			8.2	75.0	10.9	45.30	0.7	4.8	50.0	9.5
Elementary 154	Focus	G	Yes	No	38.61	0.9	-0.19	3.9	0.39	3.4			8.1	75.0	10.8	34.03	0.2	3.6	50.0	7.1
Elementary 155	Focus	G	Yes	No	55.47	2.5	-0.26	2.4	0.40	3.1			8.0	75.0	10.7	69.48	3.0	6.1	50.0	12.2
Elementary 156	Focus	G	Yes	No	37.33	0.8	-0.21	3.5	0.37	3.7			8.0	75.0	10.7	50.68	1.4	5.0	50.0	10.1
Elementary 157	Focus	G	Yes	No	33.33	0.5	-0.24	2.8	0.33	4.6			7.9	75.0	10.6	35.90	0.2	4.9	50.0	9.8
Elementary 158	Focus	G	Yes	No	43.85	1.4	-0.25	2.8	0.36	3.8			7.9	75.0	10.6	49.37	1.0	4.8	50.0	9.7
Elementary 159	Focus	G	Yes	No	91.96	6.2	-0.48	0.6	0.59	0.9			7.7	75.0	10.3	73.91	3.5	4.4	50.0	8.7
Elementary 160	Focus	G	Yes	No	28.40	0.3	-0.24	2.8	0.34	4.3			7.5	75.0	10.0	40.17	0.5	4.9	50.0	9.8
Elementary 161	Focus	G	Yes	No	92.46	6.3	-0.44	0.8	0.96	0.2			7.3	75.0	9.7	80.90	4.0	4.2	50.0	8.4
Elementary 162	Focus	G	Yes	No	35.29	0.8	-0.27	2.2	0.35	4.1			7.1	75.0	9.5	46.28	0.8	4.9	50.0	9.9
Elementary 163	Focus	G	Yes	No	46.81	1.5	-0.27	2.3	0.40	3.2			7.0	75.0	9.3	51.82	1.5	4.7	50.0	9.4
Elementary 164	Focus	G	Yes	No	78.85	4.4	-0.36	1.3	0.53	1.2			7.0	75.0	9.3	85.22	4.4	5.6	50.0	11.3
Elementary 165	Focus	G	Yes	No	54.83	2.4	-0.28	2.1	0.43	2.4			6.9	75.0	9.2	64.18	2.6	5.0	50.0	10.1
Elementary 166	Focus	G	Yes	No	45.32	1.5	-0.25	2.7	0.42	2.5			6.7	75.0	9.0	49.62	1.1	3.6	50.0	7.3
Elementary 167	Focus	G	Yes	No	68.22	3.6	-0.38	1.2	0.46	1.8			6.6	75.0	8.8	50.00	1.3	3.2	50.0	6.3
Elementary 168	Focus	G	Yes	No	54.84	2.4	-0.35	1.4	0.41	2.8			6.6	75.0	8.8	66.44	2.7	5.5	50.0	11.0
Elementary 169	Focus	G	Yes	No	87.62	5.5	-0.50	0.5	0.70	0.5			6.6	75.0	8.8	50.00	1.3	1.9	50.0	3.7
Elementary 170	Focus	G	Yes	No	33.15	0.5	-0.27	2.4	0.38	3.5			6.4	75.0	8.5	41.64	0.6	4.1	50.0	8.2
Elementary 171	Focus	G	Yes	No	49.17	1.8	-0.35	1.4	0.40	3.1			6.3	75.0	8.4	61.84	2.3	5.5	50.0	10.9

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Elementary 172	Focus	G	Yes	No	39.76	1.0	-0.29	1.9	0.39	3.2			6.1	75.0	8.2	52.63	1.6	4.8	50.0	9.6
Elementary 173	Focus	G	Yes	No	35.02	0.7	-0.32	1.6	0.38	3.5			5.8	75.0	7.8	33.89	0.2	3.6	50.0	7.3
Elementary 174	Focus	G	Yes	No	67.30	3.5	-0.42	0.9	0.52	1.3			5.8	75.0	7.7	50.00	1.3	2.7	50.0	5.3
Elementary 175	Focus	G	Yes	No	49.34	1.9	-0.30	1.8	0.45	2.1			5.7	75.0	7.6	53.83	1.8	3.9	50.0	7.8
Elementary 176	Priority	E	Yes	Yes	26.68	0.2	-0.32	1.5	0.37	3.7			5.4	75.0	7.3	37.33	0.3	4.0	50.0	8.1
Elementary 177	Priority	C	Yes	No	65.18	3.3	-0.50	0.5	0.49	1.6			5.4	75.0	7.2	73.56	3.4	5.0	50.0	10.0
Elementary 178	Priority	C	Yes	No	43.06	1.2	-0.28	2.1	0.46	2.0			5.3	75.0	7.1	45.29	0.7	2.7	50.0	5.3
Elementary 179	Priority	C	Yes	No	53.33	2.3	-0.42	1.0	0.46	1.9			5.2	75.0	6.9	62.73	2.5	4.4	50.0	8.8
Elementary 180	Priority	C	Yes	No	54.34	2.4	-0.43	0.9	0.47	1.8			5.0	75.0	6.7	68.57	2.9	4.7	50.0	9.4
Elementary 181	Priority	C	Yes	No	49.30	1.8	-0.42	1.0	0.49	1.6			4.4	75.0	5.9	49.88	1.2	2.8	50.0	5.5
Elementary 182	Priority	C	Yes	No	68.73	3.6	-0.52	0.4	0.93	0.2			4.3	75.0	5.7	66.57	2.8	3.0	50.0	6.1
Elementary 183	Priority	C	Yes	No	47.82	1.7	-0.32	1.6	0.57	0.9			4.2	75.0	5.6	52.80	1.7	2.6	50.0	5.2
Elementary 184	Priority	C	Yes	No	50.00	2.0	-0.43	0.8	0.53	1.3			4.2	75.0	5.6			1.3	25.0	5.2
Elementary 185	Priority	C	Yes	No	47.59	1.6	-0.51	0.5	0.46	2.0			4.1	75.0	5.4	62.48	2.4	4.4	50.0	8.8
Elementary 186	Priority	E	Yes	Yes	25.80	0.1	-0.35	1.4	0.44	2.1			3.7	75.0	5.0	36.33	0.3	2.5	50.0	4.9
Elementary 187	Priority	C	Yes	No	41.76	1.1	-0.41	1.1	0.52	1.4			3.6	75.0	4.7	54.46	1.8	3.2	50.0	6.4
Elementary 188	Priority	C	Yes	No	40.13	1.0	-0.43	0.9	0.48	1.6			3.5	75.0	4.7	52.70	1.6	3.3	50.0	6.5
Elementary 189	Priority	C	Yes	No	29.28	0.4	-0.38	1.2	0.46	1.9			3.4	75.0	4.6	37.46	0.4	2.3	50.0	4.6
Elementary 190	Priority	C	Yes	No	34.36	0.7	-0.36	1.3	0.51	1.4			3.4	75.0	4.5	46.51	0.8	2.3	50.0	4.5

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Elementary 191	Priority	C	Yes	No	54.87	2.5	-0.58	0.2	0.77	0.3			3.0	75.0	4.0	69.24	3.0	3.3	50.0	6.6
Elementary 192	Priority	C	Yes	No	27.43	0.2	-0.44	0.8	0.53	1.2			2.2	75.0	3.0	38.60	0.4	1.6	50.0	3.3
Elementary 193	Priority	C	Yes	No	47.27	1.6	-0.62	0.2	0.77	0.3			2.1	75.0	2.8	50.00	1.3	1.7	50.0	3.4
Elementary 194	Priority	C	Yes	No	42.44	1.2	-0.58	0.3	0.71	0.5			1.9	75.0	2.6	55.72	1.9	2.4	50.0	4.7
Elementary 195	Priority	C	Yes	No	0.00	0.1	-0.42	1.0					1.1	50.0	2.2			0.0	0.0	
Elementary 196	Priority	E	Yes	Yes	33.83	0.6	-0.62	0.2	0.75	0.4			1.2	75.0	1.6	51.13	1.5	1.9	50.0	3.8
Elementary 197	Priority	C	Yes	No	34.07	0.7	-0.98	0.1	1.06	0.1			0.8	75.0	1.1	52.09	1.6	1.6	50.0	3.3
Elementary 198	Priority	C	Yes	No	33.73	0.6	-1.28	0.0	1.38	0.0			0.6	75.0	0.8	50.90	1.4	1.4	50.0	2.9
Elementary 199	Priority	C	Yes	No	30.19	0.4	-0.71	0.1	1.18	0.1			0.6	75.0	0.8	0.00	0.0	0.1	50.0	0.2
Jr./Mid. School 200	Reward	A	Yes	No	100.00	25.0	0.26	23.5					48.5	50.0	96.9			0.0	0.0	
Jr./Mid. School 201	Reward	A	Yes	No	100.00	25.0	0.25	23.0	-0.09	23.8			71.8	75.0	95.7	100.00	25.0	48.8	50.0	97.5
Jr./Mid. School 202	Reward	A	Yes	No	100.00	25.0	0.25	23.2	0.02	21.2			69.4	75.0	92.6	100.00	25.0	46.2	50.0	92.4
Jr./Mid. School 203	Reward	A	Yes	No	100.00	25.0	0.27	23.9	0.07	19.1			68.0	75.0	90.6	100.00	25.0	44.1	50.0	88.2
Jr./Mid. School 204	Reward	A	Yes	No	100.00	25.0	0.25	23.1	0.08	18.4			66.5	75.0	88.7	100.00	25.0	43.4	50.0	86.8
Jr./Mid. School 205	Reward	A	Yes	No	100.00	25.0	0.12	18.9	-0.01	22.4			66.3	75.0	88.5	100.00	25.0	47.4	50.0	94.9
Jr./Mid. School 206	Reward	A	Yes	No	100.00	25.0	0.15	20.2	0.06	19.8			65.0	75.0	86.7	100.00	25.0	44.8	50.0	89.5
Jr./Mid. School 207	Priority	E	No	Yes	52.39	2.1	-0.08	8.3	0.26	8.6			19.0	75.0	25.3	62.84	2.3	10.9	50.0	21.9
Jr./Mid. School 208	Focus	G	Yes	No	50.46	1.6	-0.27	1.8	0.41	2.6			5.9	75.0	7.9	57.94	1.8	4.4	50.0	8.7
Jr./Mid. School 209	Focus	G	Yes	No	51.50	1.9	-0.34	0.9	0.47	1.3			4.1	75.0	5.5	58.86	1.9	3.2	50.0	6.5

School	Classification	Criterion	Title I	SIG	Proficiency measure	Points for proficiency measure	Growth measure	Points for growth measure	Achievement gap reduction measure	Points for achievement gap reduction measure	Graduation rate measure	Points for graduation rate	Total points earned	Total points possible	Total MMR points earned (as a percentage of possible points)	Focus proficiency measure	Points for focus proficiency measure	Focus points earned	Focus points possible	Focus points earned (as a percentage of possible points)
Jr./Mid. School 210	Focus	G	Yes	No	50.94	1.7	-0.39	0.6	0.46	1.6			3.8	75.0	5.0	68.28	3.0	4.6	50.0	9.2
Jr./Mid. School 211	Focus	G	Yes	No	36.60	0.3	-0.33	1.0	0.44	1.7			3.0	75.0	4.0	51.63	1.1	2.8	50.0	5.6
Jr./Mid. School 212	Focus	G	Yes	No	39.52	0.7	-0.31	1.3	0.51	0.9			2.9	75.0	3.8	32.06	0.1	1.0	50.0	2.0
Jr./Mid. School 213	Priority	C	Yes	No	43.19	1.0	-0.37	0.7	0.66	0.4			2.1	75.0	2.8	43.12	0.7	1.1	50.0	2.2
Jr./Mid. School 214	Priority	C	Yes	No	32.29	0.2	-0.71	0.2	0.84	0.3			0.8	75.0	1.0	49.51	1.0	1.3	50.0	2.7
Jr./Mid. School 215	Priority	C	Yes	No	29.64	0.1	-0.81	0.1	0.86	0.2			0.4	75.0	0.6	42.13	0.6	0.8	50.0	1.6
High School 216	Reward	A	Yes	No	100.00	25.0	0.23	22.0	-0.18	24.1	100.0	25.0	96.1	100.0	96.1	100.00	25.0	49.1	50.0	98.1
High School 217	Reward	A	Yes	No	100.00	25.0	0.23	21.9	-0.17	23.9			70.8	75.0	94.5	100.00	25.0	48.9	50.0	97.8
High School 218	Reward	A	Yes	No	100.00	25.0	0.30	23.2	-0.05	22.3			70.5	75.0	94.0	100.00	25.0	47.3	50.0	94.6
High School 219	Reward	A	Yes	No	100.00	25.0	0.15	20.1	-0.01	21.3			66.4	75.0	88.6	100.00	25.0	46.3	50.0	92.7
High School 220	Reward	A	Yes	No	100.00	25.0	0.05	16.4	-0.17	24.0			65.4	75.0	87.1			24.0	25.0	95.9
High School 221	Reward	A	Yes	No	100.00	25.0	0.23	22.3	0.10	17.8			65.1	75.0	86.8	100.00	25.0	42.8	50.0	85.6
High School 222	Reward	A	Yes	No	100.00	25.0	0.06	17.1	-0.09	22.7			64.8	75.0	86.4			22.7	25.0	90.9
High School 223	Reward	A	Yes	No	100.00	25.0	0.10	18.5	0.02	20.8			64.4	75.0	85.8	100.00	25.0	45.8	50.0	91.6
High School 224	Priority	E	No	Yes	100.00	25.0	0.15	20.2	0.09	18.2			63.3	75.0	84.4			18.2	25.0	72.7
High School 225	Reward	A	Yes	No	100.00	25.0	-0.06	11.2	-0.11	23.1	100.0	25.0	84.3	100.0	84.3			23.1	25.0	92.4
High School 226	Reward	A	Yes	No	86.26	8.9	0.61	25.0	-0.47	25.0	100.0	25.0	83.9	100.0	83.9	100.00	25.0	50.0	50.0	100.0
High School 227	Priority	E	No	Yes	80.67	6.6	0.01	14.7	0.13	16.5			37.8	75.0	50.4	100.00	25.0	41.5	50.0	82.9
High School 228	Priority	E	Yes	Yes	69.00	4.5	0.03	15.9	0.18	14.4			34.8	75.0	46.3	100.00	25.0	39.4	50.0	78.7

School	Classification	Criterion	Title I	SIG	Proficiency measure	Points for proficiency measure	Growth measure	Points for growth measure	Achievement gap reduction measure	Points for achievement gap reduction measure	Graduation rate measure	Points for graduation rate	Total points earned	Total points possible	Total MMR points earned (as a percentage of possible points)	Focus proficiency measure	Points for focus proficiency measure	Focus points earned	Focus points possible	Focus points earned (as a percentage of possible points)
High School 229	Priority	E	Yes	Yes	50.96	2.3	-0.00	14.1	0.18	14.7			31.1	75.0	41.4	59.37	1.7	16.4	50.0	32.9
High School 230	Priority	E	No	Yes	67.48	4.0	-0.12	8.6	0.17	14.9			27.5	75.0	36.7	100.00	25.0	39.9	50.0	79.7
High School 231	Priority	E	Yes	Yes	41.49	1.4	-0.18	6.3	0.25	11.1			18.8	75.0	25.1	54.30	1.3	12.5	50.0	24.9
High School 232	Priority	E	Yes	Yes	50.11	2.3	-0.23	5.1	0.32	8.5			15.9	75.0	21.2	58.96	1.6	10.2	50.0	20.3
High School 233	Focus	G	Yes	No	90.53	9.4	-0.37	2.1	0.58	1.6			13.1	75.0	17.5	77.95	3.6	5.2	50.0	10.4
High School 234	Priority	E	No	Yes	80.91	6.9	-0.46	1.1	0.43	5.1			13.1	75.0	17.5	100.00	25.0	30.1	50.0	60.1
High School 235	Priority	E	Yes	Yes	33.89	1.2	-0.36	2.2	0.45	4.4			7.9	75.0	10.5	51.26	1.0	5.4	50.0	10.8
High School 236	Focus	G	Yes	No	62.99	3.4	-0.48	1.0	0.49	3.8	50.5	1.0	9.3	100.0	9.3			3.8	25.0	15.2
High School 237	Priority	E	No	Yes	61.12	3.1	-0.42	1.6	0.57	1.8			6.4	75.0	8.6	80.84	4.1	5.8	50.0	11.6
High School 238	Focus	G	Yes	No	29.81	1.1	-0.41	1.6	0.44	4.6	0.0	0.9	8.2	100.0	8.2	46.42	0.5	5.1	50.0	10.2
High School 239	Focus	H	Yes	No	36.60	1.3					0.0	0.9	2.2	50.0	4.3			0.0	0.0	
High School 240	Focus	G	Yes	No	48.83	2.0	-0.63	0.6	0.80	0.3			2.9	75.0	3.9	47.82	0.6	0.9	50.0	1.8
High School 241	Focus	H	Yes	No	0.00	0.8					0.0	0.9	1.6	50.0	3.3			0.0	0.0	
High School 242	Focus	H	Yes	No	0.00	0.8					0.0	0.9	1.6	50.0	3.3			0.0	0.0	
High School 243	Priority	C	Yes	No	0.00	0.8	-0.42	1.5	1.17	0.1			2.4	75.0	3.2			0.1	25.0	0.5
High School 244	Priority	E	Yes	Yes	0.00	0.8							0.8	25.0	3.1			0.0	0.0	
High School 245	Priority	E	Yes	Yes	0.00	0.8							0.8	25.0	3.1			0.0	0.0	
High School 246	Priority	C	Yes	No	0.00	0.8	-0.81	0.4	0.82	0.3			1.4	75.0	1.8			0.3	25.0	1.0
High School 247	Priority	C	Yes	No	0.00	0.8	-1.20	0.1					0.9	50.0	1.8			0.0	0.0	
Other 248	Reward	A	Yes	No	100.00	25.0	0.16	24.7	0.06	24.3			74.0	75.0	98.6	100.00	25.0	49.3	50.0	98.5

School	Classification	Criterion	Title I	SIG	Proficiency measure	Points for proficiency measure	Growth measure	Points for growth measure	Achievement gap reduction measure	Points for achievement gap reduction measure	Graduation rate measure	Points for graduation rate	Total points earned	Total points possible	Total MMR points earned (as a percentage of possible points)	Focus proficiency measure	Points for focus proficiency measure	Focus points earned	Focus points possible	Focus points earned (as a percentage of possible points)
Other 249	Reward	A	Yes	No	100.00	25.0	0.08	24.1	0.02	24.6			73.7	75.0	98.3	100.00	25.0	49.6	50.0	99.3
Other 250	Reward	A	Yes	No	100.00	25.0	0.06	24.0	0.10	23.0			71.9	75.0	95.9	100.00	25.0	48.0	50.0	96.0
Other 251	Reward	A	Yes	No	86.23	23.2	0.03	23.8	0.09	23.3			70.4	75.0	93.8	100.00	25.0	48.3	50.0	96.7
Other 252	Reward	A	Yes	No	49.00	20.0	0.21	24.9	-0.13	25.0			69.9	75.0	93.1	66.02	19.1	44.1	50.0	88.1
Other 253	Focus	G	Yes	No	35.68	16.3	-1.01	2.2	0.96	4.8	0.0	21.2	44.5	100.0	44.5			4.8	25.0	19.1
Other 254	Focus	G	Yes	No	0.00	9.9	-0.58	11.4	0.66	11.9			33.2	75.0	44.2			11.9	25.0	47.8
Other 255	Focus	G	Yes	No	31.64	14.3	-0.52	14.2	0.98	3.7			32.2	75.0	42.9			3.7	25.0	14.7
Other 256	Focus	G	Yes	No	0.00	9.9	-0.60	10.9	0.67	11.0			31.8	75.0	42.4			11.0	25.0	44.1
Other 257	Focus	G	Yes	No	26.75	12.1	-1.00	2.5	0.96	5.1	0.0	21.2	40.9	100.0	40.9			5.1	25.0	20.6
Other 258	Priority	C	Yes	No	32.07	14.6	-0.71	8.2	0.85	7.7			30.5	75.0	40.7			7.7	25.0	30.9
Other 259	Priority	C	Yes	No	37.98	17.4	-0.96	3.1	0.98	3.9			24.4	75.0	32.5			3.9	25.0	15.4

**AYP Statewide Averages and Starting Points**

AYP Year	Category	Subject	Grade	Percent Tested	Level D Count	Level P Count	Level M Count	Level E Count	Percent Proficient	AYP Enrollment Count	AYP Participation Numerator	AYP Valid Score Count	Index Points	Prof Index
2011	All	M	0	99.3	86636	96632	144251	92981	56.4	430377	427310	420500	285548.0	0.6791
2011	All	M	3	99.6	7731	9691	24426	17471	70.6	60566	60353	59319	46742.5	0.7880
2011	All	M	4	99.7	9654	9849	22341	18596	67.7	61579	61376	60440	45861.5	0.7588
2011	All	M	5	99.6	11879	15973	22575	9483	53.5	61038	60807	59910	40044.5	0.6684
2011	All	M	6	99.5	13701	15948	19309	10542	50.2	60707	60419	59500	37825.0	0.6357
2011	All	M	7	99.5	11401	17705	19803	10984	51.4	61152	60820	59893	39639.5	0.6618
2011	All	M	8	99.3	12540	15658	18989	12929	53.1	61491	61059	60116	39747.0	0.6612
2011	All	M	11	97.9	19730	11808	16808	12976	48.6	63844	62476	61322	35688.0	0.5820
2011	All	R	0	99.5	41016	67021	141025	172386	74.4	430631	428471	421448	346921.5	0.8232
2011	All	R	3	99.7	6223	6446	14723	31904	78.6	60545	60361	59296	49850.0	0.8407
2011	All	R	4	99.7	6124	8802	22372	23140	75.3	61568	61410	60438	49913.0	0.8259
2011	All	R	5	99.7	4383	8134	23508	23928	79.1	61030	60842	59953	51503.0	0.8591
2011	All	R	6	99.6	5329	9905	18971	25330	74.4	60690	60470	59535	49253.5	0.8273
2011	All	R	7	99.6	6930	11376	18963	22696	69.5	61137	60879	59965	47347.0	0.7896
2011	All	R	8	99.4	7121	12166	18020	22872	68.0	61495	61145	60179	46975.0	0.7806
2011	All	R	10	98.8	4906	10192	24468	22516	75.7	64166	63364	62082	52080.0	0.8389



**AYP Statewide Averages and Starting Points (cont.)**

AYP Year	Category	Subject	Grade	Percent Tested	Level D Count	Level P Count	Level M Count	Level E Count	Percent Proficient	AYP Enrollment Count	AYP Participation Numerator	AYP Valid Score Count	Index Points	Prof Index
2011	Am Indian	M	0	97.6	3767	2537	2176	700	31.3	9725	9494	9180	4144.5	0.4515
2011	Am Indian	M	3	99.6	368	377	508	176	47.9	1467	1461	1429	872.5	0.6106
2011	Am Indian	M	4	98.9	458	329	449	169	44.0	1451	1435	1405	782.5	0.5569
2011	Am Indian	M	5	99.1	573	442	307	66	26.9	1432	1419	1388	594.0	0.4280
2011	Am Indian	M	6	98.4	606	362	251	65	24.6	1346	1324	1284	497.0	0.3871
2011	Am Indian	M	7	97.5	547	471	270	68	24.9	1433	1397	1356	573.5	0.4229
2011	Am Indian	M	8	96.4	601	371	233	86	24.7	1401	1351	1291	504.5	0.3908
2011	Am Indian	M	11	92.6	614	185	158	70	22.2	1195	1107	1027	320.5	0.3121
2011	Am Indian	R	0	98.3	1915	2342	3174	1918	54.5	9834	9669	9349	6263.0	0.6699
2011	Am Indian	R	3	99.8	291	273	437	423	60.4	1465	1462	1424	996.5	0.6998
2011	Am Indian	R	4	99.4	285	338	511	270	55.6	1448	1440	1404	950.0	0.6766
2011	Am Indian	R	5	99.6	226	330	566	272	60.1	1431	1425	1394	1003.0	0.7195
2011	Am Indian	R	6	99.0	266	334	418	267	53.3	1343	1329	1285	852.0	0.6630
2011	Am Indian	R	7	98.3	338	371	415	236	47.9	1434	1410	1360	836.5	0.6151
2011	Am Indian	R	8	97.1	302	382	371	247	47.5	1405	1364	1302	809.0	0.6214
2011	Am Indian	R	10	94.7	207	314	456	203	55.8	1308	1239	1180	816.0	0.6915
2011	Asian	M	0	99.3	6134	6328	8569	6159	54.2	28193	28008	27190	17892.0	0.6580
2011	Asian	M	3	99.5	698	796	1525	1125	63.9	4303	4282	4144	3048.0	0.7355
2011	Asian	M	4	99.7	711	667	1406	1303	66.3	4206	4192	4087	3042.5	0.7444
2011	Asian	M	5	99.6	810	1042	1433	736	53.9	4159	4143	4021	2690.0	0.6690
2011	Asian	M	6	99.5	982	985	1045	717	47.3	3873	3853	3729	2254.5	0.6046
2011	Asian	M	7	99.5	751	1055	1065	775	50.5	3762	3745	3646	2367.5	0.6493
2011	Asian	M	8	99.5	778	1012	1149	831	52.5	3897	3879	3770	2486.0	0.6594
2011	Asian	M	11	98.0	1404	771	946	672	42.7	3993	3914	3793	2003.5	0.5282
2011	Asian	R	0	99.5	3906	5563	8709	8925	65.1	28099	27957	27103	20415.5	0.7533
2011	Asian	R	3	99.5	634	649	1072	1786	69.0	4296	4274	4141	3182.5	0.7685
2011	Asian	R	4	99.6	606	780	1428	1262	66.0	4202	4186	4076	3080.0	0.7556
2011	Asian	R	5	99.5	415	739	1508	1355	71.3	4149	4129	4017	3232.5	0.8047
2011	Asian	R	6	99.6	522	816	1125	1266	64.1	3867	3851	3729	2799.0	0.7506
2011	Asian	R	7	99.5	635	783	1028	1188	61.0	3759	3740	3634	2607.5	0.7175
2011	Asian	R	8	99.6	573	915	1131	1148	60.5	3892	3875	3767	2736.5	0.7264
2011	Asian	R	10	99.2	521	881	1417	920	62.5	3934	3902	3739	2777.5	0.7428

**AYP Statewide Averages and Starting Points (cont.)**

AYP Year	Category	Subject	Grade	Percent Tested	Level D Count	Level P Count	Level M Count	Level E Count	Percent Proficient	AYP Enrollment Count	AYP Participation Numerator	AYP Valid Score Count	Index Points	Prof Index
2011	Hispanic	M	0	99.1	11076	7809	6822	2226	32.4	29081	28818	27933	12952.5	0.4637
2011	Hispanic	M	3	99.6	1264	1211	1618	525	46.4	4779	4759	4618	2748.5	0.5952
2011	Hispanic	M	4	99.5	1538	1012	1490	550	44.4	4760	4737	4590	2546.0	0.5547
2011	Hispanic	M	5	99.7	1644	1290	1019	242	30.1	4318	4305	4195	1906.0	0.4544
2011	Hispanic	M	6	99.5	1911	1198	771	210	24.0	4227	4204	4090	1580.0	0.3863
2011	Hispanic	M	7	99.2	1479	1337	721	210	24.8	3896	3865	3747	1599.5	0.4269
2011	Hispanic	M	8	99.1	1480	1218	754	283	27.8	3899	3865	3735	1646.0	0.4407
2011	Hispanic	M	11	96.3	1760	543	449	206	22.1	3202	3083	2958	926.5	0.3132
2011	Hispanic	R	0	99.3	6077	7108	9352	5654	53.2	29321	29128	28191	18560.0	0.6584
2011	Hispanic	R	3	99.7	1132	917	1323	1247	55.6	4780	4764	4619	3028.5	0.6557
2011	Hispanic	R	4	99.6	989	1119	1677	801	54.0	4759	4739	4586	3037.5	0.6623
2011	Hispanic	R	5	99.7	671	943	1739	837	61.5	4319	4304	4190	3047.5	0.7273
2011	Hispanic	R	6	99.8	819	1098	1343	837	53.2	4224	4214	4097	2729.0	0.6661
2011	Hispanic	R	7	99.3	928	1060	1087	677	47.0	3893	3866	3752	2294.0	0.6114
2011	Hispanic	R	8	99.2	927	1092	1000	715	45.9	3900	3868	3734	2261.0	0.6055
2011	Hispanic	R	10	97.9	611	879	1183	540	53.6	3446	3373	3213	2162.5	0.6730
2011	Black	M	0	98.5	18231	10147	8746	2881	29.1	42397	41761	40005	16700.5	0.4175
2011	Black	M	3	99.3	1996	1421	1975	701	43.9	6409	6365	6093	3386.5	0.5558
2011	Black	M	4	99.3	2320	1323	1829	778	41.7	6551	6506	6250	3268.5	0.5230
2011	Black	M	5	99.2	2736	1780	1313	267	25.9	6384	6334	6096	2470.0	0.4052
2011	Black	M	6	98.9	2939	1549	1022	266	22.3	6077	6011	5776	2062.5	0.3571
2011	Black	M	7	98.9	2437	1748	1000	272	23.3	5778	5712	5457	2146.0	0.3933
2011	Black	M	8	98.6	2455	1540	991	371	25.4	5666	5586	5357	2132.0	0.3980
2011	Black	M	11	94.8	3348	786	616	226	16.9	5532	5247	4976	1235.0	0.2482
2011	Black	R	0	98.9	9280	9856	13049	8217	52.6	42722	42268	40402	26194.0	0.6483
2011	Black	R	3	99.3	1452	1069	1746	1815	58.5	6408	6362	6082	4095.5	0.6734
2011	Black	R	4	99.6	1442	1456	2234	1129	53.7	6548	6519	6261	4091.0	0.6534
2011	Black	R	5	99.5	1136	1386	2400	1190	58.7	6384	6353	6112	4283.0	0.7008
2011	Black	R	6	99.3	1214	1460	1829	1281	53.8	6073	6031	5784	3840.0	0.6639
2011	Black	R	7	99.2	1358	1442	1541	1131	48.8	5773	5728	5472	3393.0	0.6201
2011	Black	R	8	98.7	1448	1541	1463	920	44.4	5674	5599	5372	3153.5	0.5870
2011	Black	R	10	96.8	1230	1502	1836	751	48.6	5862	5676	5319	3338.0	0.6276

**AYP Statewide Averages and Starting Points (cont.)**

AYP Year	Category	Subject	Grade	Percent Tested	Level D Count	Level P Count	Level M Count	Level E Count	Percent Proficient	AYP Enrollment Count	AYP Participation Numerator	AYP Valid Score Count	Index Points	Prof Index
2011	White	M	0	99.5	47428	69811	117938	81015	62.9	320981	319229	316192	233858.5	0.7396
2011	White	M	3	99.7	3405	5886	18800	14944	78.4	43608	43486	43035	36687.0	0.8525
2011	White	M	4	99.8	4627	6518	17167	15796	74.7	44611	44506	44108	36222.0	0.8212
2011	White	M	5	99.7	6116	11419	18503	8172	60.3	44745	44606	44210	32384.5	0.7325
2011	White	M	6	99.7	7263	11854	16220	9284	57.2	45184	45027	44621	31431.0	0.7044
2011	White	M	7	99.6	6187	13094	16747	9659	57.8	46283	46101	45687	32953.0	0.7213
2011	White	M	8	99.5	7226	11517	15862	11358	59.2	46628	46378	45963	32978.5	0.7175
2011	White	M	11	98.4	12604	9523	14639	11802	54.4	49922	49125	48568	31202.5	0.6424
2011	White	R	0	99.6	19838	42152	106741	147672	80.4	320655	319449	316403	275489.0	0.8707
2011	White	R	3	99.8	2714	3538	10145	26633	85.5	43596	43499	43030	38547.0	0.8958
2011	White	R	4	99.8	2802	5109	16522	19678	82.1	44611	44526	44111	38754.5	0.8786
2011	White	R	5	99.7	1935	4736	17295	20274	84.9	44747	44631	44240	39937.0	0.9027
2011	White	R	6	99.7	2508	6197	14256	21679	80.5	45183	45045	44640	39033.5	0.8744
2011	White	R	7	99.7	3671	7720	14892	19464	75.1	46278	46135	45747	38216.0	0.8354
2011	White	R	8	99.6	3871	8236	14055	19842	73.7	46624	46439	46004	38015.0	0.8263
2011	White	R	10	99.1	2337	6616	19576	20102	81.6	49616	49174	48631	42986.0	0.8839
2011	LEP	M	0	99.2	13952	8442	6596	1469	26.5	32332	32063	30459	12286.0	0.4034
2011	LEP	M	3	99.5	1981	1746	2033	470	40.2	6544	6509	6230	3376.0	0.5419
2011	LEP	M	4	99.5	2122	1343	1771	543	40.0	6052	6022	5779	2985.5	0.5166
2011	LEP	M	5	99.6	2273	1566	954	123	21.9	5195	5175	4916	1860.0	0.3784
2011	LEP	M	6	99.1	2372	1186	616	101	16.8	4542	4502	4275	1310.0	0.3064
2011	LEP	M	7	99.1	1787	1203	494	80	16.1	3806	3771	3564	1175.5	0.3298
2011	LEP	M	8	99.1	1636	1067	555	117	19.9	3616	3585	3375	1205.5	0.3572
2011	LEP	M	11	97.0	1781	331	173	35	9.0	2577	2499	2320	373.5	0.1610
2011	LEP	R	0	99.3	9691	9460	8952	2832	38.1	32932	32693	30935	16514.0	0.5338
2011	LEP	R	3	99.4	1851	1461	1810	1105	46.8	6539	6500	6227	3645.5	0.5854
2011	LEP	R	4	99.6	1610	1657	1974	521	43.3	6038	6016	5762	3323.5	0.5768
2011	LEP	R	5	99.5	1161	1462	1879	390	46.4	5188	5160	4892	3000.0	0.6132
2011	LEP	R	6	99.4	1299	1470	1188	305	35.0	4529	4500	4262	2228.0	0.5228
2011	LEP	R	7	99.2	1412	1192	702	240	26.6	3794	3763	3546	1538.0	0.4337
2011	LEP	R	8	99.1	1270	1232	691	172	25.6	3605	3574	3365	1479.0	0.4395
2011	LEP	R	10	98.2	1088	986	708	99	28.0	3239	3180	2881	1300.0	0.4512

**AYP Statewide Averages and Starting Points (cont.)**

AYP Year	Category	Subject	Grade	Percent Tested	Level D Count	Level P Count	Level M Count	Level E Count	Percent Proficient	AYP Enrollment Count	AYP Participation Numerator	AYP Valid Score Count	Index Points	Prof Index
2011	Special Ed	M	0	98.3	27558	13906	11611	5620	29.4	61086	60058	58695	24184.0	0.4120
2011	Special Ed	M	3	99.0	2790	1748	2512	1401	46.3	8697	8609	8451	4787.0	0.5664
2011	Special Ed	M	4	99.0	3628	1675	2556	1469	43.1	9586	9486	9328	4862.5	0.5213
2011	Special Ed	M	5	99.0	4059	2343	1961	639	28.9	9283	9194	9002	3771.5	0.4190
2011	Special Ed	M	6	98.7	4393	2151	1501	521	23.6	8884	8766	8566	3097.5	0.3616
2011	Special Ed	M	7	98.4	3858	2441	1230	587	22.4	8448	8309	8116	3037.5	0.3743
2011	Special Ed	M	8	97.9	4175	2214	1052	602	20.6	8410	8234	8043	2761.0	0.3433
2011	Special Ed	M	11	95.9	4655	1334	799	401	16.7	7778	7460	7189	1867.0	0.2597
2011	Special Ed	R	0	98.8	18811	14633	14392	11521	43.7	61489	60753	59357	33229.5	0.5598
2011	Special Ed	R	3	99.2	2895	1314	1902	2330	50.1	8690	8622	8441	4889.0	0.5792
2011	Special Ed	R	4	99.3	3147	1916	2374	1911	45.8	9580	9516	9348	5243.0	0.5609
2011	Special Ed	R	5	99.2	2220	2284	2640	1898	50.2	9283	9211	9042	5680.0	0.6282
2011	Special Ed	R	6	99.0	2672	2409	1894	1611	40.8	8881	8792	8586	4709.5	0.5485
2011	Special Ed	R	7	99.0	2935	2147	1682	1425	37.9	8453	8365	8189	4180.5	0.5105
2011	Special Ed	R	8	98.3	2779	2371	1586	1331	36.2	8421	8280	8067	4102.5	0.5086
2011	Special Ed	R	10	97.4	2163	2192	2314	1015	43.3	8181	7967	7684	4425.0	0.5759
2011	FRP	M	0	99.0	53515	42475	43083	15927	38.1	160685	159108	155000	80247.5	0.5177
2011	FRP	M	3	99.5	5604	5408	9219	3694	54.0	24701	24578	23925	15617.0	0.6527
2011	FRP	M	4	99.5	6734	5102	8255	3974	50.8	24762	24640	24065	14780.0	0.6142
2011	FRP	M	5	99.5	7966	7331	6580	1533	34.7	24073	23957	23410	11778.5	0.5031
2011	FRP	M	6	99.2	8785	6814	5374	1549	30.7	23267	23092	22522	10330.0	0.4587
2011	FRP	M	7	99.1	7276	7664	5215	1624	31.4	22555	22350	21779	10671.0	0.4900
2011	FRP	M	8	98.9	7655	6540	5046	2026	33.3	22079	21835	21267	10342.0	0.4863
2011	FRP	M	11	96.9	9495	3616	3394	1527	27.3	19248	18656	18032	6729.0	0.3732
2011	FRP	R	0	99.3	28508	36622	53990	37640	58.5	162232	161109	156760	109941.0	0.7013
2011	FRP	R	3	99.6	4580	3974	6934	8434	64.2	24685	24588	23922	17355.0	0.7255
2011	FRP	R	4	99.7	4398	5218	9216	5239	60.1	24754	24670	24071	17064.0	0.7089
2011	FRP	R	5	99.6	3235	4909	9901	5378	65.2	24073	23980	23423	17733.5	0.7571
2011	FRP	R	6	99.5	3806	5604	7541	5618	58.3	23264	23151	22569	15961.0	0.7072
2011	FRP	R	7	99.4	4631	5783	6716	4711	52.3	22553	22408	21841	14318.5	0.6556
2011	FRP	R	8	99.1	4597	6103	6037	4555	49.7	22085	21887	21292	13643.5	0.6408
2011	FRP	R	10	98.1	3261	5031	7645	3705	57.8	20818	20425	19642	13865.5	0.7059

## **2011 Minnesota Statutes**

### **122A.40 EMPLOYMENT; CONTRACTS; TERMINATION.**

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#### **Subdivision 1. Teacher defined.**

A principal, supervisor, and classroom teacher and any other professional employee required to hold a license from the state department shall be deemed to be a "teacher" within the meaning of this section. A superintendent is a "teacher" only for purposes of subdivisions 3 and 19.

#### **Subd. 2. Nonprovisional license defined.**

For purposes of this section, "nonprovisional license" means an entrance, continuing, or life license.

#### **Subd. 3. Hiring, dismissing.**

School boards must hire or dismiss teachers at duly called meetings. Where a husband and wife, brother and sister, or two brothers or sisters, constitute a quorum, no contract employing a teacher shall be made or authorized except upon the unanimous vote of the full board. A teacher related by blood or marriage, within the fourth degree, computed by the civil law, to a board member shall not be employed except by a unanimous vote of the full board. The initial employment of the teacher in the district must be by written contract, signed by the teacher and by the chair and clerk. All subsequent employment of the teacher in the district must be by written contract, signed by the teacher and by the chair and clerk, except where there is a master agreement covering the employment of the teacher. Contracts for teaching or supervision of teaching can be made only with qualified teachers. A teacher shall not be required to reside within the employing district as a condition to teaching employment or continued teaching employment.

#### **Subd. 4. Employment in supervisory positions.**

Notwithstanding other law, a teacher, as defined in section [179A.03](#), does not have a right to employment in a district as an assistant superintendent, as a principal defined in section [179A.03](#), as a confidential or supervisory employee defined in section [179A.03](#), or in a position that is a promotion from the position currently held, based on seniority, seniority date, or order of employment by the district. This provision shall not alter the reinstatement rights of an individual who is placed on leave from an assistant superintendent, principal or assistant principal, or supervisory or confidential employee position pursuant to this chapter.

#### **Subd. 5. Probationary period.**

(a) The first three consecutive years of a teacher's first teaching experience in Minnesota in a single district is deemed to be a probationary period of employment, and, the probationary period in each district in which the teacher is thereafter employed shall be one year. The school board must adopt a plan for written evaluation of teachers during the probationary period that is consistent with subdivision 8. Evaluation must occur at

least three times periodically throughout each school year for a teacher performing services during that school year; the first evaluation must occur within the first 90 days of teaching service. Days devoted to parent-teacher conferences, teachers' workshops, and other staff development opportunities and days on which a teacher is absent from school must not be included in determining the number of school days on which a teacher performs services. Except as otherwise provided in paragraph (b), during the probationary period any annual contract with any teacher may or may not be renewed as the school board shall see fit. However, the board must give any such teacher whose contract it declines to renew for the following school year written notice to that effect before June 1. If the teacher requests reasons for any nonrenewal of a teaching contract, the board must give the teacher its reason in writing, including a statement that appropriate supervision was furnished describing the nature and the extent of such supervision furnished the teacher during the employment by the board, within ten days after receiving such request. The school board may, after a hearing held upon due notice, discharge a teacher during the probationary period for cause, effective immediately, under section [122A.44](#).

(b) A board must discharge a probationary teacher, effective immediately, upon receipt of notice under section [122A.20, subdivision 1](#), paragraph (b), that the teacher's license has been revoked due to a conviction for child abuse or sexual abuse.

(c) A probationary teacher whose first three years of consecutive employment are interrupted for active military service and who promptly resumes teaching consistent with federal reemployment timelines for uniformed service personnel under United States Code, title 38, section 4312(e), is considered to have a consecutive teaching experience for purposes of paragraph (a).

(d) A probationary teacher must complete at least 120 days of teaching service each year during the probationary period. Days devoted to parent-teacher conferences, teachers' workshops, and other staff development opportunities and days on which a teacher is absent from school do not count as days of teaching service under this paragraph.

*[See Note.]*

#### **Subd. 6. Mentoring for probationary teachers.**

A school board and an exclusive representative of the teachers in the district must develop a probationary teacher peer review process through joint agreement that is consistent with subdivision 8. The process may include having trained observers serve as mentors or coaches or having teachers participate in professional learning communities.

*[See Note.]*

#### **Subd. 7. Termination of contract after probationary period.**

(a) A teacher who has completed a probationary period in any district, and who has not been discharged or advised of a refusal to renew the teacher's contract under subdivision 5, shall elect to have a continuing contract with such district where contract

terms and conditions, including salary and salary increases, are established based either on the length of the school calendar or an extended school calendar under section [120A.415](#). Thereafter, the teacher's contract must remain in full force and effect, except as modified by mutual consent of the board and the teacher, until terminated by a majority roll call vote of the full membership of the board prior to April 1 upon one of the grounds specified in subdivision 9 or July 1 upon one of the grounds specified in subdivision 10 or 11, or until the teacher is discharged pursuant to subdivision 13, or by the written resignation of the teacher submitted prior to April 1. If an agreement as to the terms and conditions of employment for the succeeding school year has not been adopted pursuant to the provisions of sections [179A.01](#) to [179A.25](#) prior to March 1, the teacher's right of resignation is extended to the 30th calendar day following the adoption of said contract in compliance with section [179A.20, subdivision 5](#). Such written resignation by the teacher is effective as of June 30 if submitted prior to that date and the teachers' right of resignation for the school year then beginning shall cease on July 15. Before a teacher's contract is terminated by the board, the board must notify the teacher in writing and state its ground for the proposed termination in reasonable detail together with a statement that the teacher may make a written request for a hearing before the board within 14 days after receipt of such notification. If the grounds are those specified in subdivision 9 or 13, the notice must also state a teacher may request arbitration under subdivision 15. Within 14 days after receipt of this notification the teacher may make a written request for a hearing before the board or an arbitrator and it shall be granted upon reasonable notice to the teacher of the date set for hearing, before final action is taken. If no hearing is requested within such period, it shall be deemed acquiescence by the teacher to the board's action. Such termination shall take effect at the close of the school year in which the contract is terminated in the manner aforesaid. Such contract may be terminated at any time by mutual consent of the board and the teacher and this section does not affect the powers of a board to suspend, discharge, or demote a teacher under and pursuant to other provisions of law.

(b) A teacher electing to have a continuing contract based on the extended school calendar under section [120A.415](#) must participate in staff development training under subdivision 7a and shall receive an increased base salary.

**Subd. 7a. Additional staff development and salary.**

(a) A teacher electing to have a continuing contract based on the extended school calendar under section [120A.415](#) must participate in a total number of staff development days where the total number of such days equals the difference between the total number of days of student instruction and 240 days. Staff development includes peer mentoring, peer gathering, continuing education, professional development, or other training. A school board may schedule such days throughout the calendar year. Staff development programs provided during such days shall enable teachers to achieve the staff development outcomes under section [122A.60, subdivision 3](#).



(b) A public employer and the exclusive representative of the teachers must include terms in the collective bargaining agreement for all teachers who participate in additional staff development days under paragraph (a) that increase base salaries.

**Subd. 8. Development, evaluation, and peer coaching for continuing contract teachers.**

(a) To improve student learning and success, a school board and an exclusive representative of the teachers in the district, consistent with paragraph (b), may develop a teacher evaluation and peer review process for probationary and continuing contract teachers through joint agreement. If a school board and the exclusive representative of the teachers do not agree to an annual teacher evaluation and peer review process, then the school board and the exclusive representative of the teachers must implement the plan for evaluation and review under paragraph (c). The process must include having trained observers serve as peer coaches or having teachers participate in professional learning communities, consistent with paragraph (b).

(b) To develop, improve, and support qualified teachers and effective teaching practices and improve student learning and success, the annual evaluation process for teachers:

(1) must, for probationary teachers, provide for all evaluations required under subdivision 5;

(2) must establish a three-year professional review cycle for each teacher that includes an individual growth and development plan, a peer review process, the opportunity to participate in a professional learning community under paragraph (a), and at least one summative evaluation performed by a qualified and trained evaluator such as a school administrator. For the years when a tenured teacher is not evaluated by a qualified and trained evaluator, the teacher must be evaluated by a peer review;

(3) must be based on professional teaching standards established in rule;

(4) must coordinate staff development activities under sections [122A.60](#) and [122A.61](#) with this evaluation process and teachers' evaluation outcomes;

(5) may provide time during the school day and school year for peer coaching and teacher collaboration;

(6) may include mentoring and induction programs;

(7) must include an option for teachers to develop and present a portfolio demonstrating evidence of reflection and professional growth, consistent with section [122A.18, subdivision 4](#), paragraph (b), and include teachers' own performance assessment based on student work samples and examples of teachers' work, which may include video among other activities for the summative evaluation;

(8) must use an agreed upon teacher value-added assessment model for the grade levels and subject areas for which value-added data are available and establish state or



local measures of student growth for the grade levels and subject areas for which value-added data are not available as a basis for 35 percent of teacher evaluation results;

(9) must use longitudinal data on student engagement and connection, and other student outcome measures explicitly aligned with the elements of curriculum for which teachers are responsible;

(10) must require qualified and trained evaluators such as school administrators to perform summative evaluations;

(11) must give teachers not meeting professional teaching standards under clauses (3) through (10) support to improve through a teacher improvement process that includes established goals and timelines; and

(12) must discipline a teacher for not making adequate progress in the teacher improvement process under clause (11) that may include a last chance warning, termination, discharge, nonrenewal, transfer to a different position, a leave of absence, or other discipline a school administrator determines is appropriate.

Data on individual teachers generated under this subdivision are personnel data under section [13.43](#).

(c) The department, in consultation with parents who may represent parent organizations and teacher and administrator representatives appointed by their respective organizations, representing the Board of Teaching, the Minnesota Association of School Administrators, the Minnesota School Boards Association, the Minnesota Elementary and Secondary Principals Associations, Education Minnesota, and representatives of the Minnesota Assessment Group, the Minnesota Business Partnership, the Minnesota Chamber of Commerce, and Minnesota postsecondary institutions with research expertise in teacher evaluation, must create and publish a teacher evaluation process that complies with the requirements in paragraph (b) and applies to all teachers under this section and section [122A.41](#) for whom no agreement exists under paragraph (a) for an annual teacher evaluation and peer review process. The teacher evaluation process created under this subdivision does not create additional due process rights for probationary teachers under subdivision 5.

*[See Note.]*

**Subd. 9. Grounds for termination.**

A continuing contract may be terminated, effective at the close of the school year, upon any of the following grounds:

(1) inefficiency in teaching or in the management of a school, consistent with subdivision 8, paragraph (b);

(2) neglect of duty, or persistent violation of school laws, rules, regulations, or directives;

(3) conduct unbecoming a teacher which materially impairs the teacher's educational effectiveness; or

(4) other good and sufficient grounds rendering the teacher unfit to perform the teacher's duties.

A contract must not be terminated upon one of the grounds specified in clause (1), (2), (3), or (4), unless the teacher fails to correct the deficiency after being given written notice of the specific items of complaint and reasonable time within which to remedy them.

*[See Note.]*

**Subd. 10. Negotiated unrequested leave of absence.**

The school board and the exclusive bargaining representative of the teachers may negotiate a plan providing for unrequested leave of absence without pay or fringe benefits for as many teachers as may be necessary because of discontinuance of position, lack of pupils, financial limitations, or merger of classes caused by consolidation of districts. Failing to successfully negotiate such a plan, the provisions of subdivision 11 shall apply. The negotiated plan must not include provisions which would result in the exercise of seniority by a teacher holding a provisional license, other than a vocational education license, contrary to the provisions of subdivision 11, clause (c), or the reinstatement of a teacher holding a provisional license, other than a vocational education license, contrary to the provisions of subdivision 11, clause (e). The provisions of section [179A.16](#) do not apply for the purposes of this subdivision.

**Subd. 11. Unrequested leave of absence.**

The board may place on unrequested leave of absence, without pay or fringe benefits, as many teachers as may be necessary because of discontinuance of position, lack of pupils, financial limitations, or merger of classes caused by consolidation of districts. The unrequested leave is effective at the close of the school year. In placing teachers on unrequested leave, the board is governed by the following provisions:

(a) The board may place probationary teachers on unrequested leave first in the inverse order of their employment. A teacher who has acquired continuing contract rights must not be placed on unrequested leave of absence while probationary teachers are retained in positions for which the teacher who has acquired continuing contract rights is licensed;

(b) Teachers who have acquired continuing contract rights shall be placed on unrequested leave of absence in fields in which they are licensed in the inverse order in which they were employed by the school district. In the case of equal seniority, the order in which teachers who have acquired continuing contract rights shall be placed on unrequested leave of absence in fields in which they are licensed is negotiable;

(c) Notwithstanding the provisions of clause (b), a teacher is not entitled to exercise any seniority when that exercise results in that teacher being retained by the district in a field for which the teacher holds only a provisional license, as defined by the board of teaching, unless that exercise of seniority results in the placement on unrequested leave of absence of another teacher who also holds a provisional license in the same field. The provisions of this clause do not apply to vocational education licenses;

(d) Notwithstanding clauses (a), (b) and (c), if the placing of a probationary teacher on unrequested leave before a teacher who has acquired continuing rights, the placing of a teacher who has acquired continuing contract rights on unrequested leave before another teacher who has acquired continuing contract rights but who has greater seniority, or the restriction imposed by the provisions of clause (c) would place the district in violation of its affirmative action program, the district may retain the probationary teacher, the teacher with less seniority, or the provisionally licensed teacher;

(e) Teachers placed on unrequested leave of absence must be reinstated to the positions from which they have been given leaves of absence or, if not available, to other available positions in the school district in fields in which they are licensed. Reinstatement must be in the inverse order of placement on leave of absence. A teacher must not be reinstated to a position in a field in which the teacher holds only a provisional license, other than a vocational education license, while another teacher who holds a nonprovisional license in the same field remains on unrequested leave. The order of reinstatement of teachers who have equal seniority and who are placed on unrequested leave in the same school year is negotiable;

(f) Appointment of a new teacher must not be made while there is available, on unrequested leave, a teacher who is properly licensed to fill such vacancy, unless the teacher fails to advise the school board within 30 days of the date of notification that a position is available to that teacher who may return to employment and assume the duties of the position to which appointed on a future date determined by the board;

(g) A teacher placed on unrequested leave of absence may engage in teaching or any other occupation during the period of this leave;

(h) The unrequested leave of absence must not impair the continuing contract rights of a teacher or result in a loss of credit for previous years of service;

(i) The unrequested leave of absence of a teacher who is placed on unrequested leave of absence and who is not reinstated shall continue for a period of five years, after which the right to reinstatement shall terminate. The teacher's right to reinstatement shall also terminate if the teacher fails to file with the board by April 1 of any year a written statement requesting reinstatement;

(j) The same provisions applicable to terminations of probationary or continuing contracts in subdivisions 5 and 7 must apply to placement on unrequested leave of absence;

(k) Nothing in this subdivision shall be construed to impair the rights of teachers placed on unrequested leave of absence to receive unemployment benefits if otherwise eligible.

**Subd. 12. Suspension and leave of absence for health reasons.**

Affliction with active tuberculosis or other communicable disease, mental illness, drug or alcoholic addiction, or other serious incapacity shall be grounds for temporary suspension and leave of absence while the teacher is suffering from such disability. Unless the teacher consents, such action must be taken only upon evidence that suspension is required from a physician who has examined the teacher. The physician must be competent in the field involved and must be selected by the teacher from a list of three provided by the school board, and the examination must be at the expense of the school district. A copy of the report of the physician shall be furnished the teacher upon request. If the teacher fails to submit to the examination within the prescribed time, the board may discharge the teacher, effective immediately. In the event of mental illness, if the teacher submits to such an examination and the examining physician's or psychiatrist's statement is unacceptable to the teacher or the board, a panel of three physicians or psychiatrists must be selected to examine the teacher at the board's expense. The board and the teacher shall each select a member of this panel, and these two members shall select a third member. The panel must examine the teacher and submit a statement of its findings and conclusions to the board. Upon receipt and consideration of the statement from the panel the board may suspend the teacher. The board must notify the teacher in writing of such suspension and the reasons therefor. During the leave of absence, the district must pay the teacher sick leave benefits up to the amount of unused accumulated sick leave, and after it is exhausted, the district may in its discretion pay additional benefits. The teacher must be reinstated to the teacher's position upon evidence from such a physician of sufficient recovery to be capable of resuming performance of duties in a proper manner. In the event that the teacher does not qualify for reinstatement within 12 months after the date of suspension, the continuing disability may be a ground for discharge under subdivision 13.

**Subd. 13. Immediate discharge.**

(a) Except as otherwise provided in paragraph (b), a board may discharge a continuing-contract teacher, effective immediately, upon any of the following grounds:

(1) immoral conduct, insubordination, or conviction of a felony;

(2) conduct unbecoming a teacher which requires the immediate removal of the teacher from classroom or other duties;

(3) failure without justifiable cause to teach without first securing the written release of the school board;

(4) gross inefficiency which the teacher has failed to correct after reasonable written notice;

(5) willful neglect of duty; or

(6) continuing physical or mental disability subsequent to a 12 months leave of absence and inability to qualify for reinstatement in accordance with subdivision 12.

For purposes of this paragraph, conduct unbecoming a teacher includes an unfair discriminatory practice described in section [363A.13](#).

Prior to discharging a teacher under this paragraph, the board must notify the teacher in writing and state its ground for the proposed discharge in reasonable detail. Within ten days after receipt of this notification the teacher may make a written request for a hearing before the board and it shall be granted before final action is taken. The board may, however, suspend a teacher with pay pending the conclusion of such hearing and determination of the issues raised in the hearing after charges have been filed which constitute ground for discharge.

(b) A board must discharge a continuing-contract teacher, effective immediately, upon receipt of notice under section [122A.20, subdivision 1](#), paragraph (b), that the teacher's license has been revoked due to a conviction for child abuse or sexual abuse.

#### **Subd. 14. Hearing procedures.**

Any hearing held pursuant to this section must be held upon appropriate and timely notice to the teacher, and any hearing held pursuant to subdivision 9 or 13 must be private or public at the discretion of the teacher. A hearing held pursuant to subdivision 11 must be public and may be consolidated by the school board. At the hearing, the board and the teacher may each be represented by counsel at each party's own expense, and such counsel may examine and cross-examine witnesses and present arguments. The board must first present evidence to sustain the grounds for termination or discharge and then receive evidence presented by the teacher. Each party may then present rebuttal evidence. Dismissal of the teacher must be based upon substantial and competent evidence in the record. All witnesses shall be sworn upon oath administered by the presiding officer of the board. The clerk of the board shall issue subpoenas for witnesses or the production of records pertinent to the grounds upon the request of either the board or the teacher. The board must employ a court reporter to record the proceedings at the hearing, and either party may obtain a transcript of the hearing at its own expense.

#### **Subd. 15. Hearing and determination by arbitrator.**

A teacher whose termination is proposed under subdivision 7 on grounds specified in subdivision 9, or whose discharge is proposed under subdivision 13, may elect a hearing before an arbitrator instead of the school board. The hearing is governed by this subdivision.

(a) The teacher must make a written request for a hearing before an arbitrator within 14 days after receiving notification of proposed termination on grounds specified in subdivision 9 or within ten days of receiving notification of proposed discharge under subdivision 13. If a request for a hearing does not specify that the hearing be before an arbitrator, it is considered to be a request for a hearing before the school board.

(b) If the teacher and the school board are unable to mutually agree on an arbitrator, the board must request from the bureau of mediation services a list of five persons to serve as an arbitrator. If the matter to be heard is a proposed termination on grounds specified in subdivision 9, arbitrators on the list must be available to hear the matter and make a decision within a time frame that will allow the board to comply with all statutory timelines relating to termination. If the teacher and the board are unable to mutually agree on an arbitrator from the list provided, the parties shall alternately strike names from the list until the name of one arbitrator remains. The person remaining after the striking procedure must be the arbitrator. If the parties are unable to agree on who shall strike the first name, the question must be decided by a flip of a coin. The teacher and the school board must share equally the costs and fees of the arbitrator.

(c) The arbitrator shall determine, by a preponderance of the evidence, whether the grounds for termination or discharge specified in subdivision 9 or 13 exist to support the proposed termination or discharge. A lesser penalty than termination or discharge may be imposed by the arbitrator only to the extent that either party proposes such lesser penalty in the proceeding. In making the determination, the arbitration proceeding is governed by sections [572B.15](#) to [572B.28](#) and by the collective bargaining agreement applicable to the teacher.

(d) An arbitration hearing conducted under this subdivision is a meeting for preliminary consideration of allegations or charges within the meaning of section [13D.05, subdivision 3](#), paragraph (a), and must be closed, unless the teacher requests it to be open.

(e) The arbitrator's award is final and binding on the parties, subject to sections [572B.18](#) to [572B.28](#).

**Subd. 16. Decision.**

After the hearing, the board must issue a written decision and order. If the board orders termination of a continuing contract or discharge of a teacher, its decision must include findings of fact based upon competent evidence in the record and must be served on the teacher, accompanied by an order of termination or discharge, prior to April 1 in the case of a contract termination for grounds specified in subdivision 9, prior to July 1 for grounds specified in subdivision 10 or 11, or within ten days after conclusion of the hearing in the case of a discharge. If the decision of the board or of a reviewing court is favorable to the teacher, the proceedings must be dismissed and the decision entered in the board minutes, and all references to such proceedings must be excluded from the teacher's record file.

**Subd. 17. Judicial review.**

The pendency of judicial proceedings must not be ground for postponement of the effective date of the board's order, but if judicial review eventuates in reinstatement of the teacher, the board must pay the teacher all compensation withheld as a result of the termination or dismissal order.

**Subd. 18. Exception.**

This section does not apply to any district in a city of the first class.

**Subd. 19. Records relating to individual teacher; access; expungement.**

All evaluations and files generated within a school district relating to each individual teacher must be available to each individual teacher upon written request. Effective January 1, 1976, all evaluations and files, wherever generated, relating to each individual teacher must be available to each individual teacher upon written request. The teacher shall have the right to reproduce any of the contents of the files at the teacher's expense and to submit for inclusion in the file written information in response to any material contained therein.

A district may destroy the files as provided by law and must expunge from the teacher's file any material found to be false or inaccurate through the grievance procedure required pursuant to section [179A.20, subdivision 4](#). The grievance procedure promulgated by the director of the bureau of mediation services, pursuant to section [179A.04, subdivision 3](#), clause (h), applies to those principals and supervisory employees not included in an appropriate unit as defined in section [179A.03](#). Expungement proceedings must be commenced within the time period provided in the collective bargaining agreement for the commencement of a grievance. If no time period is provided in the bargaining agreement, the expungement proceedings must commence within 15 days after the teacher has knowledge of the inclusion in the teacher's file of the material the teacher seeks to have expunged.

**History:**

*[Ex1959 c 71 art 6 s 12](#); [1963 c 450 s 1](#); [1967 c 890 s 1](#); [1969 c 781 s 1](#); [1971 c 253 s 1](#); [1971 c 743 s 1](#); [1973 c 128 s 1](#); [1974 c 458 s 1-4](#); [1975 c 151 s 1](#); [1975 c 177 s 1](#); [1975 c 432 s 70](#); [1976 c 222 s 17,208](#); [1977 c 447 art 7 s 21-23](#); [1978 c 632 s 1,2](#); [1978 c 706 s 38,39](#); [1978 c 764 s 75,76](#); [1979 c 40 s 2](#); [1979 c 139 s 1](#); [1980 c 509 s 35](#); [1980 c 609 art 6 s 24,25](#); [1982 c 424 s 33](#); [1983 c 314 art 7 s 29-31](#); [1984 c 462 s 27](#); [1984 c 463 art 7 s 13](#); [1984 c 525 s 1](#); [1Sp1985 c 12 art 7 s 22](#); [1986 c 444](#); [1988 c 718 art 7 s 35](#); [1989 c 152 s 1](#); [1990 c 562 art 8 s 29](#); [1991 c 130 s 26](#); [1991 c 196 s 1,2](#); [1991 c 265 art 9 s 45-48](#); [1992 c 499 art 8 s 13](#); [1993 c 224 art 12 s 22,23](#); [1994 c 488 s 8](#); [1Sp1995 c 3 art 8 s 6](#); [1Sp1997 c 4 art 7 s 8](#); [1998 c 397 art 8 s 17-33,101](#); [art 11 s 3](#); [1999 c 107 s 66](#); [1999 c 201 s 2,3](#); [1999 c 241 art 9 s 13-15](#); [2000 c 343 s 4](#); [1Sp2001 c 6 art 2 s 10,11](#); [2005 c 36 s 1](#); [1Sp2005 c 5 art 10 s 1](#); [2009 c 96 art 2 s 21,22](#); [2010 c 264 art 2 s 2,9](#); [1Sp2011 c 11 art 2 s 12-15](#)*

**NOTE:** The amendment to subdivision 5 by Laws 2011, First Special Session chapter 11, article 2, section 12, applies to all collective bargaining agreements ratified after July 1, 2013. Laws 2011, First Special Session chapter 11, article 2, section 12, the effective date.

**NOTE:** The amendments to subdivisions 6 and 8 by Laws 2011, First Special Session chapter 11, article 2, sections 13 and 14, are effective July 21, 2011, and apply beginning with the 2014-2015 school year and later. Laws 2011, First Special Session chapter 11, article 2, sections 13 and 14, the effective dates.

**NOTE:** The amendment to subdivision 9 by Laws 2011, First Special Session chapter 11, article 2, section 15, applies to all collective bargaining agreements ratified after July 1, 2014. Laws 2011, First Special Session chapter 11, article 2, section 15, the effective date.



## 2011 Minnesota Statutes

### 123B.143 SUPERINTENDENT.

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#### Subdivision 1. **Contract; duties.**

All districts maintaining a classified secondary school must employ a superintendent who shall be an ex officio nonvoting member of the school board. The authority for selection and employment of a superintendent must be vested in the board in all cases. An individual employed by a board as a superintendent shall have an initial employment contract for a period of time no longer than three years from the date of employment. Any subsequent employment contract must not exceed a period of three years. A board, at its discretion, may or may not renew an employment contract. A board must not, by action or inaction, extend the duration of an existing employment contract. Beginning 365 days prior to the expiration date of an existing employment contract, a board may negotiate and enter into a subsequent employment contract to take effect upon the expiration of the existing contract. A subsequent contract must be contingent upon the employee completing the terms of an existing contract. If a contract between a board and a superintendent is terminated prior to the date specified in the contract, the board may not enter into another superintendent contract with that same individual that has a term that extends beyond the date specified in the terminated contract. A board may terminate a superintendent during the term of an employment contract for any of the grounds specified in section [122A.40, subdivision 9](#) or 13. A superintendent shall not rely upon an employment contract with a board to assert any other continuing contract rights in the position of superintendent under section [122A.40](#). Notwithstanding the provisions of sections [122A.40, subdivision 10](#) or 11, [123A.32](#), [123A.75](#), or any other law to the contrary, no individual shall have a right to employment as a superintendent based on order of employment in any district. If two or more districts enter into an agreement for the purchase or sharing of the services of a superintendent, the contracting districts have the absolute right to select one of the individuals employed to serve as superintendent in one of the contracting districts and no individual has a right to employment as the superintendent to provide all or part of the services based on order of employment in a contracting district. The superintendent of a district shall perform the following:

(1) visit and supervise the schools in the district, report and make recommendations about their condition when advisable or on request by the board;

(2) recommend to the board employment and dismissal of teachers;

(3) annually evaluate each school principal assigned responsibility for supervising a school building within the district, consistent with section [123B.147, subdivision 3](#), paragraph (b);

(4) superintend school grading practices and examinations for promotions;

(5) make reports required by the commissioner; and

(6) perform other duties prescribed by the board.

*[See Note.]*

**Subd. 2. Disclose past buyouts or contract is void.**

(a) For the purposes of paragraph (b), a "buyout agreement" is any agreement under which a person employed as a superintendent left the position before the term of the contract was over and received a sum of money, something else of value, or the right to something of value for some purpose other than performing the services of a superintendent.

(b) Before a person may enter into a superintendent's contract with a board, the candidate shall disclose in writing the existence and terms of any previous buyout agreement, including amounts and the purpose for the payments, relating to a superintendent's contract with another board. A disclosure made under this paragraph is public data.

(c) The superintendent's contract of a person who fails to make a timely disclosure under paragraph (b) is void.

**History:**

*Ex1959 c 71 art 4 s 16; 1969 c 9 s 27; 1971 c 144 s 1; 1973 c 492 s 7; 1974 c 37 s 1; 1975 c 162 s 25; 1975 c 432 s 16; 1978 c 706 s 13-15; 1978 c 764 s 31,32; 1979 c 334 art 6 s 8; 1981 c 175 s 1; 1983 c 314 art 7 s 18; 1986 c 444; 1987 c 398 art 8 s 8; 1990 c 562 art 8 s 21,22; 1991 c 265 art 9 s 34,35; 1993 c 224 art 9 s 22; art 12 s 15; 1Sp1995 c 3 art 9 s 19; art 16 s 13; 1998 c 397 art 6 s 55-61,124; art 11 s 3; 1998 c 398 art 6 s 16; 2000 c 489 art 6 s 8; 1Sp2001 c 6 art 1 s 5; 2007 c 146 art 2 s 16; 2009 c 96 art 2 s 34; 1Sp2011 c 11 art 2 s 21*

**NOTE:** The amendment to subdivision 1 by Laws 2011, First Special Session chapter 11, article 2, section 21, is effective for the 2013-2014 school year and later. Laws 2011, First Special Session chapter 11, article 2, section 21, the effective date.

## **2011 Minnesota Statutes**

### **122A.60 STAFF DEVELOPMENT PROGRAM.**

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#### **Subdivision 1. Staff development committee.**

A school board must use the revenue authorized in section [122A.61](#) for in-service education for programs under section [120B.22, subdivision 2](#), or for staff development plans under this section. The board must establish an advisory staff development committee to develop the plan, assist site professional development teams in developing a site plan consistent with the goals of the plan, and evaluate staff development efforts at the site level. A majority of the advisory committee and the site professional development team must be teachers representing various grade levels, subject areas, and special education. The advisory committee must also include nonteaching staff, parents, and administrators.

#### **Subd. 1a. Effective staff development activities.**

(a) Staff development activities must:

- (1) focus on the school classroom and research-based strategies that improve student learning;
- (2) provide opportunities for teachers to practice and improve their instructional skills over time;
- (3) provide opportunities for teachers to use student data as part of their daily work to increase student achievement;
- (4) enhance teacher content knowledge and instructional skills;
- (5) align with state and local academic standards;
- (6) provide opportunities to build professional relationships, foster collaboration among principals and staff who provide instruction, and provide opportunities for teacher-to-teacher mentoring; and
- (7) align with the plan of the district or site for an alternative teacher professional pay system.

Staff development activities may include curriculum development and curriculum training programs, and activities that provide teachers and other members of site-based teams training to enhance team performance. The school district also may implement other staff development activities required by law and activities associated with professional teacher compensation models.

(b) Release time provided for teachers to supervise students on field trips and school activities, or independent tasks not associated with enhancing the teacher's knowledge and instructional skills, such as preparing report cards, calculating grades, or organizing

classroom materials, may not be counted as staff development time that is financed with staff development reserved revenue under section [122A.61](#).

**Subd. 2. Contents of plan.**

The plan must include the staff development outcomes under subdivision 3, the means to achieve the outcomes, and procedures for evaluating progress at each school site toward meeting education outcomes, consistent with relicensure requirements under section [122A.18](#), subdivision 4. The plan also must:

- (1) support stable and productive professional communities achieved through ongoing and schoolwide progress and growth in teaching practice;
- (2) emphasize coaching, professional learning communities, classroom action research, and other job-embedded models;
- (3) maintain a strong subject matter focus premised on students' learning goals;
- (4) ensure specialized preparation and learning about issues related to teaching students with special needs and limited English proficiency; and
- (5) reinforce national and state standards of effective teaching practice.

**Subd. 3. Staff development outcomes.**

The advisory staff development committee must adopt a staff development plan for improving student achievement. The plan must be consistent with education outcomes that the school board determines. The plan must include ongoing staff development activities that contribute toward continuous improvement in achievement of the following goals:

- (1) improve student achievement of state and local education standards in all areas of the curriculum by using best practices methods;
- (2) effectively meet the needs of a diverse student population, including at-risk children, children with disabilities, and gifted children, within the regular classroom and other settings;
- (3) provide an inclusive curriculum for a racially, ethnically, and culturally diverse student population that is consistent with the state education diversity rule and the district's education diversity plan;
- (4) improve staff collaboration and develop mentoring and peer coaching programs for teachers new to the school or district;
- (5) effectively teach and model violence prevention policy and curriculum that address early intervention alternatives, issues of harassment, and teach nonviolent alternatives for conflict resolution; and
- (6) provide teachers and other members of site-based management teams with appropriate management and financial management skills.

**Subd. 4. Staff development report.**

(a) By October 15 of each year, the district and site staff development committees shall write and submit a report of staff development activities and expenditures for the previous year, in the form and manner determined by the commissioner. The report, signed by the district superintendent and staff development chair, must include assessment and evaluation data indicating progress toward district and site staff development goals based on teaching and learning outcomes, including the percentage of teachers and other staff involved in instruction who participate in effective staff development activities under subdivision 3.

(b) The report must break down expenditures for:

(1) curriculum development and curriculum training programs; and

(2) staff development training models, workshops, and conferences, and the cost of releasing teachers or providing substitute teachers for staff development purposes.

The report also must indicate whether the expenditures were incurred at the district level or the school site level, and whether the school site expenditures were made possible by grants to school sites that demonstrate exemplary use of allocated staff development revenue. These expenditures must be reported using the uniform financial and accounting and reporting standards.

(c) The commissioner shall report the staff development progress and expenditure data to the house of representatives and senate committees having jurisdiction over education by February 15 each year.

**History:**

*1Sp1985 c 12 art 8 s 23,61; 1987 c 398 art 8 s 27,28; 1Sp1987 c 4 art 1 s 3; 1988 c 486 s 73,74; 1990 c 562 art 4 s 8; 1991 c 265 art 7 s 30-32; 1992 c 499 art 1 s 19; 1992 c 571 art 10 s 4,5; 1993 c 224 art 7 s 24; 1994 c 647 art 7 s 10,11; 1Sp1995 c 3 art 8 s 9; 1996 c 412 art 9 s 11; 1998 c 397 art 8 s 95,96,101; art 11 s 3; 1998 c 398 art 5 s 13; 1999 c 241 art 5 s 3; 1999 c 241 art 9 s 17; 1Sp2005 c 5 art 2 s 44-46; 2009 c 96 art 2 s 28; 2010 c 382 s 23*

## 2011 Minnesota Statutes

### 123B.147 PRINCIPALS.

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#### Subdivision 1. **Supervision of school building.**

Each public school building, as defined by section [120A.05, subdivisions 9, 11, and 13](#), in an independent district may be under the supervision of a principal who is assigned to that responsibility by the board of education in that district upon the recommendation of the superintendent of schools of that district. If pupils in kindergarten through grade 12 attend school in one building, one principal may supervise the building.

#### Subd. 2. **Valid license required.**

Each principal assigned the responsibility for the supervision of a school building shall hold a valid license in the assigned position of supervision and administration as established by the rules of the commissioner of education.

#### Subd. 3. **Duties; evaluation.**

(a) The principal shall provide administrative, supervisory, and instructional leadership services, under the supervision of the superintendent of schools of the district and according to the policies, rules, and regulations of the school board, for the planning, management, operation, and evaluation of the education program of the building or buildings to which the principal is assigned.

(b) To enhance a principal's leadership skills and support and improve teaching practices, school performance, and student achievement, a district must develop and implement a performance-based system for annually evaluating school principals assigned to supervise a school building within the district. The evaluation must be designed to improve teaching and learning by supporting the principal in shaping the school's professional environment and developing teacher quality, performance, and effectiveness. The annual evaluation must:

(1) support and improve a principal's instructional leadership, organizational management, and professional development, and strengthen the principal's capacity in the areas of instruction, supervision, evaluation, and teacher development;

(2) include formative and summative evaluations;

(3) be consistent with a principal's job description, a district's long-term plans and goals, and the principal's own professional multiyear growth plans and goals, all of which must support the principal's leadership behaviors and practices, rigorous curriculum, school performance, and high-quality instruction;

(4) include on-the-job observations and previous evaluations;

(5) allow surveys to help identify a principal's effectiveness, leadership skills and processes, and strengths and weaknesses in exercising leadership in pursuit of school success;

(6) use longitudinal data on student academic growth as an evaluation component and incorporate district achievement goals and targets;

(7) be linked to professional development that emphasizes improved teaching and learning, curriculum and instruction, student learning, and a collaborative professional culture; and

(8) for principals not meeting standards of professional practice or other criteria under this subdivision, implement a plan to improve the principal's performance and specify the procedure and consequence if the principal's performance is not improved.

The provisions of this paragraph are intended to provide districts with sufficient flexibility to accommodate district needs and goals related to developing, supporting, and evaluating principals.

*[See Note.]*

**History:**

*Ex1959 c 71 art 4 s 16; 1969 c 9 s 27; 1971 c 144 s 1; 1973 c 492 s 7; 1974 c 37 s 1; 1975 c 162 s 25; 1975 c 432 s 16; 1978 c 706 s 13-15; 1978 c 764 s 31,32; 1979 c 334 art 6 s 8; 1981 c 175 s 1; 1983 c 314 art 7 s 18; 1986 c 444; 1987 c 398 art 8 s 8; 1990 c 562 art 8 s 21,22; 1991 c 265 art 9 s 34,35; 1993 c 224 art 9 s 22; art 12 s 15; 1Sp1995 c 3 art 9 s 19; art 16 s 13; 1998 c 397 art 6 s 55-61,124; art 11 s 3; 1998 c 398 art 5 s 55; art 6 s 16; 2003 c 130 s 12; 1Sp2011 c 11 art 2 s 22*

**NOTE:** The amendment to subdivision 3 by Laws 2011, First Special Session chapter 11, article 2, section 22, is effective for the 2013-2014 school year and later. Laws 2011, First Special Session chapter 11, article 2, section 22, the effective date.

## 2011 Minnesota Statutes

### 122A.41 TEACHER TENURE ACT; CITIES OF THE FIRST CLASS; DEFINITIONS.

#### Subdivision 1. **Words, terms, and phrases.**

Unless the language or context clearly indicates that a different meaning is intended, the following words, terms, and phrases, for the purposes of the following subdivisions in this section shall be defined as follows:

(a) **Teachers.** The term "teacher" includes every person regularly employed, as a principal, or to give instruction in a classroom, or to superintend or supervise classroom instruction, or as placement teacher and visiting teacher. Persons regularly employed as counselors and school librarians shall be covered by these sections as teachers if licensed as teachers or as school librarians.

(b) **School board.** The term "school board" includes a majority in membership of any and all boards or official bodies having the care, management, or control over public schools.

(c) **Demote.** The word "demote" means to reduce the compensation a person actually receives in the new position.

(d) **Nonprovisional license.** For purposes of this section, "nonprovisional license" shall mean an entrance, continuing, or life license.

#### Subd. 2. **Probationary period; discharge or demotion.**

(a) All teachers in the public schools in cities of the first class during the first three years of consecutive employment shall be deemed to be in a probationary period of employment during which period any annual contract with any teacher may, or may not, be renewed as the school board, after consulting with the peer review committee charged with evaluating the probationary teachers under subdivision 3, shall see fit. The school site management team or the school board if there is no school site management team, shall adopt a plan for a written evaluation of teachers during the probationary period according to subdivisions 3 and 5. Evaluation by the peer review committee charged with evaluating probationary teachers under subdivision 3 shall occur at least three times periodically throughout each school year for a teacher performing services during that school year; the first evaluation must occur within the first 90 days of teaching service. Days devoted to parent-teacher conferences, teachers' workshops, and other staff development opportunities and days on which a teacher is absent from school shall not be included in determining the number of school days on which a teacher performs services. The school board may, during such probationary period, discharge or demote a teacher for any of the causes as specified in this code. A written statement of the cause of such discharge or demotion shall be given to the teacher by the school board at least 30 days before such removal or demotion shall become effective, and the teacher so notified shall have no right of appeal therefrom.



(b) A probationary teacher whose first three years of consecutive employment are interrupted for active military service and who promptly resumes teaching consistent with federal reemployment timelines for uniformed service personnel under United States Code, title 38, section 4312(e), is considered to have a consecutive teaching experience for purposes of paragraph (a).

(c) A probationary teacher must complete at least 120 days of teaching service each year during the probationary period. Days devoted to parent-teacher conferences, teachers' workshops, and other staff development opportunities and days on which a teacher is absent from school do not count as days of teaching service under this paragraph.

*[See Note.]*

**Subd. 3. Mentoring for probationary teachers.**

A board and an exclusive representative of the teachers in the district must develop a probationary teacher peer review process through joint agreement that is consistent with subdivision 5. The process may include having trained observers serve as mentors or coaches or having teachers participate in professional learning communities.

*[See Note.]*

**Subd. 4. Period of service after probationary period; discharge or demotion.**

(a) After the completion of such probationary period, without discharge, such teachers as are thereupon reemployed shall continue in service and hold their respective position during good behavior and efficient and competent service and must not be discharged or demoted except for cause after a hearing. The terms and conditions of a teacher's employment contract, including salary and salary increases, must be based either on the length of the school year or an extended school calendar under section [120A.415](#).

(b) A probationary teacher is deemed to have been reemployed for the ensuing school year, unless the school board in charge of such school gave such teacher notice in writing before July 1 of the termination of such employment.

(c) A teacher electing to have an employment contract based on the extended school calendar under section [120A.415](#) must participate in staff development training under subdivision 4a and shall receive an increased base salary.

**Subd. 4a. Additional staff development and salary.**

(a) A teacher electing to have a continuing contract based on the extended school calendar under section [120A.415](#) must participate in a total number of staff development days where the total number of such days equals the difference between the total number of days of student instruction and 240 days. Staff development includes peer mentoring, peer gathering, continuing education, professional development, or other training. A school board may schedule such days throughout the calendar year. Staff development programs provided during such days shall enable teachers to achieve the staff development outcomes under section [122A.60, subdivision 3](#).

(b) A public employer and the exclusive representative of the teachers must include terms in the collective bargaining agreement for all teachers who participate in additional staff development days under paragraph (a) that increase base salaries.

**Subd. 5. Development, evaluation, and peer coaching for continuing contract teachers.**

(a) To improve student learning and success, a school board and an exclusive representative of the teachers in the district, consistent with paragraph (b), may develop an annual teacher evaluation and peer review process for probationary and nonprobationary teachers through joint agreement. If a school board and the exclusive representative of the teachers in the district do not agree to an annual teacher evaluation and peer review process, then the school board and the exclusive representative of the teachers must implement the plan for evaluation and review developed under paragraph (c). The process must include having trained observers serve as peer coaches or having teachers participate in professional learning communities, consistent with paragraph (b).

(b) To develop, improve, and support qualified teachers and effective teaching practices and improve student learning and success, the annual evaluation process for teachers:

(1) must, for probationary teachers, provide for all evaluations required under subdivision 5;

(2) must establish a three-year professional review cycle for each teacher that includes an individual growth and development plan, a peer review process, the opportunity to participate in a professional learning community under paragraph (a), and at least one summative evaluation performed by a qualified and trained evaluator such as a school administrator;

(3) must be based on professional teaching standards established in rule;

(4) must coordinate staff development activities under sections [122A.60](#) and [122A.61](#) with this evaluation process and teachers' evaluation outcomes;

(5) may provide time during the school day and school year for peer coaching and teacher collaboration;

(6) may include mentoring and induction programs;

(7) must include an option for teachers to develop and present a portfolio demonstrating evidence of reflection and professional growth, consistent with section [122A.18, subdivision 4](#), paragraph (b), and include teachers' own performance assessment based on student work samples and examples of teachers' work, which may include video among other activities for the summative evaluation;

(8) must use an agreed upon teacher value-added assessment model for the grade levels and subject areas for which value-added data are available and establish state or

local measures of student growth for the grade levels and subject areas for which value-added data are not available as a basis for 35 percent of teacher evaluation results;

(9) must use longitudinal data on student engagement and connection and other student outcome measures explicitly aligned with the elements of curriculum for which teachers are responsible;

(10) must require qualified and trained evaluators such as school administrators to perform summative evaluations;

(11) must give teachers not meeting professional teaching standards under clauses (3) through (10) support to improve through a teacher improvement process that includes established goals and timelines; and

(12) must discipline a teacher for not making adequate progress in the teacher improvement process under clause (11) that may include a last chance warning, termination, discharge, nonrenewal, transfer to a different position, a leave of absence, or other discipline a school administrator determines is appropriate.

Data on individual teachers generated under this subdivision are personnel data under section [13.43](#).

(c) The department, in consultation with parents who may represent parent organizations and teacher and administrator representatives appointed by their respective organizations, representing the Board of Teaching, the Minnesota Association of School Administrators, the Minnesota School Boards Association, the Minnesota Elementary and Secondary Principals Associations, Education Minnesota, and representatives of the Minnesota Assessment Group, the Minnesota Business Partnership, the Minnesota Chamber of Commerce, and Minnesota postsecondary institutions with research expertise in teacher evaluation, must create and publish a teacher evaluation process that complies with the requirements in paragraph (b) and applies to all teachers under this section and section [122A.41](#) for whom no agreement exists under paragraph (a) for an annual teacher evaluation and peer review process. The teacher evaluation process created under this subdivision does not create additional due process rights for probationary teachers under subdivision 5.

*[See Note.]*

**Subd. 5a. Probationary period for principals hired internally.**

A board and the exclusive representative of the school principals in the district may negotiate a plan for a probationary period of up to two school years for licensed teachers employed by the board who are subsequently employed by the board as a licensed school principal or assistant principal and an additional probationary period of up to two years for licensed assistant principals employed by the board who are subsequently employed by the board as a licensed school principal.

**Subd. 6. Grounds for discharge or demotion.**

(a) Except as otherwise provided in paragraph (b), causes for the discharge or demotion of a teacher either during or after the probationary period must be:

(1) immoral character, conduct unbecoming a teacher, or insubordination;

(2) failure without justifiable cause to teach without first securing the written release of the school board having the care, management, or control of the school in which the teacher is employed;

(3) inefficiency in teaching or in the management of a school, consistent with subdivision 5, paragraph (b);

(4) affliction with active tuberculosis or other communicable disease must be considered as cause for removal or suspension while the teacher is suffering from such disability; or

(5) discontinuance of position or lack of pupils.

For purposes of this paragraph, conduct unbecoming a teacher includes an unfair discriminatory practice described in section [363A.13](#).

(b) A probationary or continuing-contract teacher must be discharged immediately upon receipt of notice under section [122A.20, subdivision 1](#), paragraph (b), that the teacher's license has been revoked due to a conviction for child abuse or sexual abuse.

*[See Note.]*

#### **Subd. 7. Hearing of charges against teacher.**

The charges against a teacher must be in writing and signed by the person making the same and then filed with the secretary or clerk of the school board having charge of the school in which the teacher is employed. Before the school board discharges or demotes a teacher, the board must notify the teacher in writing and state in reasonable detail its grounds for the proposed discharge or demotion, together with a statement that the teacher may request in writing within ten days after receiving the notice a hearing before the board. The board may have the notice served personally or may send it by certified mail addressed to the teacher at the teacher's last known post office address. The teacher, under subdivision 13, also may elect a hearing before an arbitrator instead of the school board. Within ten days after receiving the notice the teacher may request in writing a hearing before the board or an arbitrator and it shall be granted. The teacher must be given reasonable notice of the time and place of the hearing before final action is taken. A teacher who fails to request a hearing within ten days is considered to acquiesce in the board's action. If the charge is made by a person not connected with the school system the charge may be disregarded by the school board. If the grounds are those specified in subdivision 6, clause (1), (2), (3), or (4), the notice must also state a teacher may request arbitration under subdivision 13. At the hearing, the school board or arbitrator shall hear all evidence that may be adduced in support of the charges and for the teacher's defense to

the charges. Either party has the right to have a written record of the hearing at the expense of the board and to have witnesses subpoenaed and all witnesses so subpoenaed must be examined under oath. Any member of the school board conducting such a hearing has authority to issue subpoenas and to administer oaths to witnesses.

**Subd. 8. Counsel; examination of witnesses.**

Each party appearing before the school board has the right to be represented by counsel, and such counsel may examine and cross-examine witnesses and present arguments.

**Subd. 9. Hearings.**

All hearings before the school board must be private or may be public at the decision of the teacher against whom such charges have been filed.

**Subd. 10. Decision, when rendered.**

The hearing must be concluded and a decision in writing, stating the grounds on which it is based, rendered within 25 days after giving of such notice. Where the hearing is before a school board the teacher may be discharged or demoted upon the affirmative vote of a majority of the members of the board. If the charges, or any of such, are found to be true, the board conducting the hearing must discharge, demote, or suspend the teacher, as seems to be for the best interest of the school. A teacher must not be discharged for either of the causes specified in subdivision 6, clause (3), except during the school year, and then only upon charges filed at least four months before the close of the school sessions of such school year.

**Subd. 11. Charges expunged from records.**

In all cases where the final decision is in favor of the teacher the charge or charges must be physically expunged from the records.

**Subd. 12. Suspension pending hearing; salary.**

After charges are filed against a teacher, the school board may suspend the teacher from regular duty. If the teacher is suspended or removed after the final decision, the board may in its discretion determine the teacher's salary or compensation as of the time of filing the charges. If the final decision is favorable to the teacher, the board must not abate the teacher's salary or compensation.

**Subd. 13. Hearing and determination by arbitrator.**

A teacher against whom charges have been filed alleging any cause for discharge or demotion specified in subdivision 6, clause (1), (2), (3), or (4), may elect a hearing before an arbitrator instead of the school board. The hearing is governed by this subdivision.

(a) The teacher must make a written request for a hearing before an arbitrator within ten days after receiving a written notice of the filing of charges required by subdivision 7. Failure to request a hearing before an arbitrator during this period is considered acquiescence to the board's action.

(b) If the teacher and the school board are unable to mutually agree on an arbitrator, the board must request from the Bureau of Mediation Services a list of five persons to serve as an arbitrator. If the teacher and the school board are unable to mutually agree on an arbitrator from the list provided, the parties shall alternately strike names from the list until the name of one arbitrator remains. The person remaining after the striking procedure must be the arbitrator. If the parties are unable to agree on who shall strike the first name, the question must be decided by a flip of a coin. The teacher and the board must share equally the costs and fees of the arbitrator.

(c) The arbitrator shall determine, by a preponderance of the evidence, whether the causes specified in subdivision 6, clause (1), (2), (3), or (4), exist to support the proposed discharge or demotion. A lesser penalty than discharge or demotion may be imposed by the arbitrator only to the extent that either party proposes such lesser penalty in the proceeding. In making the determination, the arbitration proceeding is governed by sections [572B.15](#) to [572B.28](#) and by the collective bargaining agreement applicable to the teacher.

(d) An arbitration hearing conducted under this subdivision is a meeting for preliminary consideration of allegations or charges within the meaning of section [13D.05, subdivision 3](#), paragraph (a), and must be closed, unless the teacher requests it to be open.

(e) The arbitrator's decision is final and binding on the parties, subject to sections [572B.18](#) to [572B.28](#).

**Subd. 14. Services terminated by discontinuance or lack of pupils; preference given.**

(a) A teacher whose services are terminated on account of discontinuance of position or lack of pupils must receive first consideration for other positions in the district for which that teacher is qualified. In the event it becomes necessary to discontinue one or more positions, in making such discontinuance, teachers must be discontinued in any department in the inverse order in which they were employed, unless a board and the exclusive representative of teachers in the district negotiate a plan providing otherwise.

(b) Notwithstanding the provisions of clause (a), a teacher is not entitled to exercise any seniority when that exercise results in that teacher being retained by the district in a field for which the teacher holds only a provisional license, as defined by the Board of Teaching, unless that exercise of seniority results in the termination of services, on account of discontinuance of position or lack of pupils, of another teacher who also holds a provisional license in the same field. The provisions of this clause do not apply to vocational education licenses.

(c) Notwithstanding the provisions of clause (a), a teacher must not be reinstated to a position in a field in which the teacher holds only a provisional license, other than a vocational education license, while another teacher who holds a nonprovisional license in the same field is available for reinstatement.

**Subd. 15. Records relating to individual teacher; access; expungement.**

All evaluations and files generated within a district relating to each individual teacher must be available to each individual teacher upon the teacher's written request. Effective January 1, 1976, all evaluations and files, wherever generated, relating to each individual teacher must be available to each individual teacher upon the teacher's written request. The teacher has the right to reproduce any of the contents of the files at the teacher's expense and to submit for inclusion in the file written information in response to any material contained therein.

A district may destroy the files as provided by law and must expunge from the teacher's file any material found to be false or substantially inaccurate through the grievance procedure required pursuant to section [179A.20, subdivision 4](#). The grievance procedure promulgated by the director of the Bureau of Mediation Services, pursuant to section [179A.04, subdivision 3](#), clause (h), applies to those principals and supervisory employees not included in an appropriate unit as defined in section [179A.03](#). Expungement proceedings must be commenced within the time period provided in the collective bargaining agreement for the commencement of a grievance. If no time period is provided in the bargaining agreement, the expungement proceedings must commence within 15 days after the teacher has knowledge of the inclusion in the teacher's file of the material the teacher seeks to have expunged.

**History:**

*Ex1959 c 71 art 6 s 17; 1961 c 720 s 1; 1971 c 667 s 1; 1975 c 177 s 2; 1976 c 222 s 19,208; 1977 c 447 art 7 s 24; 1978 c 632 s 3; 1978 c 674 s 60; 1979 c 139 s 2; 1983 c 314 art 7 s 32,33; 1984 c 462 s 27; 1984 c 463 art 7 s 14; 1986 c 444; 1988 c 718 art 7 s 36; 1989 c 152 s 2; 1991 c 196 s 3,4; 1991 c 265 art 9 s 52-55; 1992 c 499 art 8 s 14; 1993 c 224 art 12 s 24,25; 1998 c 397 art 8 s 42-54,101; art 11 s 3; 1999 c 201 s 4; 1999 c 241 art 9 s 16; 1Sp2001 c 6 art 2 s 12-16; 1Sp2003 c 9 art 12 s 3; 2005 c 36 s 2; 1Sp2005 c 5 art 2 s 37,38; art 10 s 2; 2009 c 96 art 2 s 23,24; 2010 c 264 art 2 s 3,9; 1Sp2011 c 11 art 2 s 16-20*

**NOTE:** The amendment to subdivision 2 by Laws 2011, First Special Session chapter 11, article 2, section 17, applies to all collective bargaining agreements ratified after July 1, 2013. Laws 2011, First Special Session chapter 11, article 2, section 17, the effective date.

**NOTE:** The amendments to subdivisions 3 and 5 by Laws 2011, First Special Session chapter 11, article 2, sections 18 and 19, are effective July 21, 2011, and apply beginning with the 2014-2015 school year and later. Laws 2011, First Special Session chapter 11, article 2, sections 18 and 19, the effective dates.

**NOTE:** The amendment to subdivision 6 by Laws 2011, First Special Session chapter 11, article 2, section 20, applies to all collective bargaining agreements ratified after July 1, 2014. Laws 2011, First Special Session chapter 11, article 2, section 20, the effective date.

**Review of 2/8/10 Common Core Standards Drafts**  
Special Education Policy Division Review  
2/10/10

**Comments related to both the ELA and Mathematics drafts:**

**1) Universal Design for Learning (UDL)/ Universal Design for Instruction (UDI):**

Move the references to UDL and UDI into the overall preamble. They are concepts that are beneficial to all students, not just students with disabilities. Incorporating the principles of UDL provides greater access to the instructional standards by removing content standard variant details. UDL is not, by nature, a pedagogical model for students with disabilities. It is a model for all students, which includes students with disabilities.

**2) Make sure that intended flexibility in instruction and assessment is clear in the way that standards are written.** Many users will read these standards and develop assessment items to measure them very concretely, without applying flexibility in instruction and assessment that may be intended. If flexibility (e.g., multiple means of presentation, multiple means of expression, etc.) is important, it needs to be specifically stated and clear in the way that standards are written. Otherwise, there will be inconsistent application and artificial barriers to accessing the content standards.

For example, in the College- and Career-Ready Standards for Writing (p.41), the following are currently included:

- Write arguments to support...
- Write informative...
- Write well-structured...

The way these are currently written allows great variability in the extent to which teachers will approach the idea of “writing” and the “acceptable” demonstrations of these writing skills.

**2) Improve the Students with Disabilities Preamble.** We suggest replacing the second paragraph on P.7 of the ELA draft and P.11 of the Mathematics draft with the following:

“Students with disabilities- students eligible under the Individuals with Disabilities Education Act (IDEA)- must be provided access to the same high standards in mathematics and English language arts (ELA) as all other students in order to demonstrate the knowledge and skills necessary for success in their post-school lives. These common core standards, developed with the principles of Universal Design for Learning as an organizing principle for all students, provide a historic opportunity to improve and ensure access to academic content standards for students with disabilities. The continued development of understanding about research-based practices and a focus on their effective implementation will also help improve the instructional practices provided by all teachers and improve access to the content standards for all students, including students with disabilities”.



*Rationale:* The draft narrative is very subjective, without supporting fact or citation, and is difficult to operationalize. It also does not motivate those who have been working in the field nor are currently teachers to understand the changes that need to be made. The emphasis in this section should be on effective implementation of the proposed standards.

3) **Improved Consistency Across Drafts.** There needs to be better consistency across the ELA and Mathematics standards, in terms of the grain size of the standard and the writing/organizational style. There are many consumers of these standards (including grade-level general education teachers, special education teachers, and parents) who will access more than one of these documents. The learning progressions across grade bands were very helpful in the ELA draft, but not articulated in the Mathematics draft.

4) **Organizing principle(s).** There appears to be a conflict within some of the standards. Some appear to be constructed with the idea that all children can/should be able to demonstrate their knowledge on a standard. Others appear to be designed in order to differentiate student performance. Differentiation, particularly among groups (including students with disabilities), has had a troubled past and should not be inferred or supported through these standards.

5) **UDL Language Applied at the Standard Level.** We very much appreciate the efforts to date to apply UDL principles in the development of standards. We have seen progress in many areas from the earlier draft, but some standards that continue to have difficulty incorporating these principles.

UDL principles provide for:

- **Multiple and flexible methods of presentation** to give students with diverse learning styles various ways of acquiring information and knowledge;
- **Multiple and flexible means of expression and representation** to provide diverse students with alternatives for demonstrating what they have learned;
- **Multiple and flexible means of engagement** to tap into diverse learners' interests, challenge them appropriately, and motivate them to learn<sup>1</sup>.

Reviewers discussed the word '**describe**' and made the assumption that this term can be more than verbal or written action. Verbal and written modes may work for the vast majority of students, but limiting the forms of acceptable expression or demonstration of knowledge in this way may inadvertently limit access to these specific standards for students with disabilities who have limited verbal or written skills. The reviewer recommendation would be to change the word 'describe' to '**express**' or some other word that does not artificially narrow the forms of expression that would be acceptable for demonstration of student knowledge of the content of each standard. In several instances, it is possible to demonstrate knowledge in a certain area without the requirement for verbal or written expression.

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<sup>1</sup> CAST, *UDL Questions and Answers*, <http://www.cast.org/research/faq/index.html#q1>

If the term “describe” is integral to the standards, then it is recommended that a common definition of “describe” is provided to clarify the flexibility included to allow multiple ways to demonstrate or perform in all areas.

### **Examples of ELA *Core Standards* that do and do not apply UDL principles:**

Standards that apply UDL principles:

- Demonstrate understanding of text using vocabulary... (p.58)
- Produce and expand complete sentences in response to questions and prompts.
- Sort words into categories (e.g., colors, clothing).

Standards that do not apply UDL principles

- ***Explain*** how the author of the text uses to structure information... (p.58)
  - ***Alternate= Demonstrate an understanding***
- ***Speak audibly and clearly.***
  - ***Alternate= Communicate clearly***
- ***Write*** narratives, informative and explanatory text, and opinions that communicate to a familiar, known audience.
  - ***Alternate= Generate narratives...***

### **Examples of Mathematical *Core Standards* that do and do not apply UDL principles**

Standards that apply UDL principles:

- Use representations (objects, pictures, story contexts) to describe and justify properties of addition and subtraction.
- Solve word problems that involve adding, subtracting, ordering and comparing fractions.

Standards that do not apply UDL principles:

- Use facts about angles ***to write*** and solve simple equations... (p.21)
  - ***Alternate= to develop and solve***
- ***Say*** the number word sequence to 100 (p.17);
  - ***Alternate= Demonstrate understanding of...***
- ***Write*** numbers from 1 to 30 (p.17);
  - ***Alternates= generate, produce, express, or represent***
- ***Draw*** a picture graph and a bar graph (p.19). . .
  - ***Alternate= generate***

# Standard Setting Technical Report for Minnesota Assessments:

Mathematics MCA-III  
Mathematics MCA-Modified  
Mathematics MTAS  
Reading MCA-Modified

Meeting Dates  
June 27 – June 30, 2011



Prepared by Pearson

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## Introduction

This report documents the procedures and the outcomes of the standard-setting meeting held for the following assessments from June 27 – June 30, 2011:

- Mathematics Minnesota Comprehensive Assessment (MCA) III Grades 3–8
- Mathematics MCA-Modified Grades 5–8, 11
- Mathematics Test of Academic Skills (MTAS) Grades 3–8
- Reading MCA-Modified Grades 5–8, 10

The standard setting methodology outlined below provides process and methodology based on standard setting best practices and TAC recommendations. The methodology and processes were presented to the Minnesota Department of Education (MDE) and the Minnesota Technical Advisory Committee (TAC) in a series of meetings between June 2010 and June 2011. Feedback was collected and modifications were made and reflected during the standard setting activities.

The procedures adopted were essentially Bookmark and a combination of Modified Angoff and Reasoned Judgment methodologies (Mitzel, Lewis, Patz, & Green, 2001; Jaeger, 1989; Roeber, 2002), followed by vertical articulations for the various assessments:

- **Bookmark method:** Mathematics MCA-III, Mathematics MCA-Modified, and Reading MCA-Modified
- **Modified Angoff with some components of Reasoned & Judgment:** Mathematics MTAS !

This standard setting report is organized in the following manner:

1. Panel Recruitment
2. Schedule and Process
3. Standard Setting Methodologies
  - ALD discussion
  - Standard setting methods
  - Vertical articulation
4. Specifics by Assessment
  - Mathematics MCA-III
  - Reading MCA-Modified
  - Mathematics MTAS
  - Mathematics MCA-Modified
5. Meeting Proceedings

## Panelist Recruiting Process

The Minnesota Department of Education took the following steps to secure panelists to attend the standard setting workshops. The department made extensive efforts to ensure appropriate representation from minority groups.

### Goals:

The educator panelist criteria were identified as listed in MDE's *Vendor Guide to Advisory Panels* (version 1.09) on pages 5–12. This guide identifies the following criteria, in descending rank of importance:

- **Subject Matter:** Those individuals in our database who identify special education, mathematics, reading or English as a second language as their main area of expertise. The target goal for the standard-setting panel was representation of mathematics and reading content.
- **Grade Level:** Those individuals in our database who identified the grade of the standard-setting activity (i.e., high school).
- **Male/Female:** The target goal for the standard-setting panels was half male participants and half female participants.
- **Ethnicity:** MDE set a minimum goal of ethnicity that is reflected in the current distribution of Minnesota students. It was not required to meet the White, Non-Hispanic percentage.
  - American Indian/Alaskan Native = 2.20%
  - Asian/Pacific Islander = 6.32%
  - Black, Non-Hispanic = 9.71%
  - Hispanic = 6.74%
  - White, Non-Hispanic = 75.03%
- **Geographic Representation:** MDE used an even distribution of geographic representation of panelists as its goal in selection.
  - Minneapolis/St. Paul = 33%
  - Seven-County Metro Area = 33%
  - Greater Minnesota = 33%
- **Other Experience:** Other experience or credentials of panelists may be considered but only after the above criteria are fulfilled, if possible.

### **ACTIONS TAKEN:**

- **Subject Matter:** The number of panelists in the MDE database with expertise in the content areas was minimally sufficient to ensure effective recruitment. Steps taken to enlarge the pool of potential panelists are described below.
- **Grade Level:** The number of panelists in the MDE database with expertise at each grade level was minimally sufficient to ensure effective recruitment. Steps taken to enlarge the pool of potential panelists are described below.
- **Geographic Representation:** The database includes teachers from across the state, but steps were taken to enlarge the pool of potential panelists as described below.
- **Male/Female:** The database does not have an equal number of males and females.
- **Ethnicity:** The database does not have an equal representation of all ethnicities.

To obtain a larger and more diverse pool of panelists, MDE began recruitment efforts early in the year. All teachers and administrators in the current database were sent invitations to apply for the standard setting panels. They were asked to share the invitation with their colleagues. The invitation included an application to return to MDE. This invitation was also disseminated through an e-newsletter for district assessment coordinators and school administrators, a superintendents' listserv, and in presentations and committee meetings. MDE made additional recruitment efforts with internal staff with school district relationships, looking for additional individuals who might be able to serve. MDE reviewed all applications and, when selecting teachers to invite to serve on the panels, attempted to ensure ethnic, gender and geographic diversity. Applicants who accepted the invitation by a given date and completed work on the panel were assured a signing bonus as additional incentive.

### **Schedule and Process**

The standard setting activities for all four assessments were scheduled to occur during the week of June 27, 2011. Pearson provided facilitators and statistical analysts for this endeavor. Table 1 outlines the sequence and schedule of the standard setting activity.

**Table 1. Standard Setting Activity Sequence and Schedule &**

	Facilitator Group 1 (3 facilitators total)		Facilitator Group 2 (3 facilitators total)	
	MCA-III Math	Math MTAS	MCA- Modified Math	Reading MCA- Modified
Monday	Standard Setting			Standard Setting
Tuesday	Standard Setting			Standard Setting
Wednesday AM	Articulation	Standard Setting	Standard Setting	Articulation
Wednesday PM		Standard Setting	Standard Setting	
Thursday		Standard Setting	Standard Setting	
Thursday PM		Articulation	Articulation	

As shown in the table, the standard setting week was divided into two major components: the first half of the week was devoted to standard setting for Mathematics MCA-III and Reading MCA-Modified, and the second half of the week was devoted to standard setting for Mathematics MCA-Modified and Mathematics MTAS.

During each part of the week, a total of six facilitators from Pearson staffed the meeting. In addition, five statistical analysts, standard setting planner, program team members and content team members from Pearson were also available at the meeting to help provide data and logistical needs for the meetings.

The facilitators were divided into two major groups:

- **Facilitator Group 1** devoted the first half of the week to the standard setting and articulation activity for Mathematics MCA-III. Next, starting on Wednesday morning, the same psychometricians facilitated the standard setting for the Mathematics MTAS.
- **Facilitator Group 2** started the week working with the Reading MCA-Modified standard setting activities; starting on Wednesday morning, the same facilitators facilitated the standard setting meetings for mathematics MCA-Modified.



For each assessment, generally one committee will recommend standards for two adjacent grades. Table 2 provides an overview of how multiple grades were combined within each of the standard setting meetings.

**Table 2. Standard Setting Committees and Multiple Grades**

<b>MCA-III Math</b>	<b>MCA-Modified Math</b>	<b>MTAS Math</b>	<b>Reading MCA-Modified</b>
Grades 3-4	Grades 5-6	Grades 3-4	Grades 5-6
Grades 5-6	Grades 7-8	Grades 5-6	Grades 7-8
Grades 7-8	Grade 11	Grades 7-8	Grade 10

For the committees that recommended standards for two grade levels, the recommendations were collected for the lower grade level first, followed by the recommendations for the higher grade level. Each committee member participated in the recommendations for the two grade levels (or for one grade level in the case of Grade 11 for Mathematics MCA-Modified and Grade 10 for Reading MCA-Modified). After the completion of the standard setting activities for all grades within an assessment, vertical articulation followed, where a subset of the participants (table leaders) as well as some additional stakeholders participated in articulating across grades.

The meetings were structured in the following manner:

- **June 27 – 28** : Mathematics MCA-III and Modified Reading
  - six committees (three per assessment)
  - fifteen to eighteen panelists per committee
  - one facilitator for each committee !
- **Morning of June 29:** Vertical Articulation
  - two committees (one per assessment)
  - Each committee included three to four panelists (table leaders) from each grade-band group within an assessment for a total of approximately nine to twelve panelists.
  - Each committee also included additional stakeholder representation from various organizations.
  - one facilitator for each committee !

- **June 29 – 30:** Mathematics MCA-Modified and Mathematics MTAS
  - six committees (three per assessment)
  - fifteen to eighteen panelists per committee
  - one facilitator for each committee !
- **Evening of June 29:** Vertical Articulation
  - two committees (one per assessment)
  - Each committee included three to four panelists (table leaders) from each grade-band group within an assessment for a total of approximately nine to twelve panelists.
  - Each committee also included additional stakeholder representation from various organizations.
  - one facilitator for each committee !

There were several benefits to structuring the meetings this way.

1. It allowed those involved in the meetings (MDE and Pearson) to focus their attention on a subset of the programs at one time rather than having to focus on all four assessments at the same time.
2. Results for the Mathematics MCA-III meetings could be made available for the standard setting activities for both MTAS and Modified Mathematics.
3. Any “lessons learned” during the first set of standard setting activities could be applied to the activities for assessments standard set later in the week.
4. If desired by MDE, some qualified panelists (or policymakers) could participate in two standard setting activities.

## **Methodology**

### **Achievement Level Descriptors (ALDs)**

Operational definitions of the achievement levels, called the achievement level descriptors (ALDs), define the knowledge and skills that characterize a typical student in each achievement level and provide a frame of reference for the standard setting activities. ALDs for each of the assessments were developed before the standard setting meetings. Content specialists at MDE and Pearson worked together to develop and finalize the ALDs.

There are three advantages for developing ALDs prior to the standard setting meetings. First, perspectives from multiple sources, not just the panelists at the standard setting, could be included in the development of ALDs, which served as a reference framework for the standard setting activities. Secondly, given the ALDs, the panelists were able to focus more on threshold definitions, the set of skills, knowledge, and abilities that distinguish the “just make-it” students for each achievement level. Finally, already developed ALDs helped save time in the already-tight standard setting schedule. This process was recommended and endorsed by TAC and is considered as best practice in the literature (Perie, 2008).

The following general steps were used to develop ALDs before the standard setting meetings:

1. ALDs for NAEP, TIMSS, and PISA were researched and examined.
2. MDE and Pearson content staffs developed the ALDs for the various assessment programs.
  - a. Picked one grade to develop ALDs across assessment programs
  - b. Presented proposed ALD development plan to the Technical Advisory Committee, which approved draft ALDs and process.
  - c. Developed ALDs for other grades
  - d. Internal reviews of ALDs across grades and tests
3. ALDs finalized based on feedback.

Prior to the standard setting meetings, the panelists received ALDs in the mail to review. In addition, guiding questions were provided together with ALDs to help panelists review ALDs prior to the standard setting meeting.

The ALDs were one of the most important elements during a standard setting process. They defined what students should know and be able to do at each of the achievement levels. The ALDs were heavily used during both the regular standard setting and the vertical articulation.

### **Bookmark Procedure**

The Bookmark procedure (Mitzel et al., 2001) has been successfully implemented to recommend cut scores for previous Minnesota assessments, such as the predecessor assessment MCA-II Mathematics. For consistency purposes, and also because of the prevalence and robustness of the Bookmark methodology, the

Bookmark procedure was implemented for recommending cut scores for Mathematics MCA-III, Mathematics MCA-Modified, and Reading MCA-Modified. It was not applied to the MTAS because of the limited number of operational tasks on that assessment, which will be discussed further later in this report.

There are several advantages to the Bookmark procedure. This methodology presents a relatively simple task to participants at the conceptual level. It is an item response theory (IRT) based methodology, which aligns well with how psychometrically these four Minnesota assessments are analyzed. This methodology takes advantage of the fact that item difficulty and examinee proficiency are on the same scale under IRT. It uses a systematic set of steps to link skills and knowledge dictated by the standards to identify where cut scores can be recommended.

Under the Bookmark methodology, items selected for use at standard setting will be rank ordered based on IRT-based item difficulties and are often called the ordered item book (OIB). Panelists were asked to consider the knowledge and skill requirements associated with each item in the OIB in light of the expectations for student performance at each level and then identify the locations within the OIB that best define the transition from one achievement level to the next (e.g., *Does Not Meet the Standards to Partially Meets the Standards; Partially Meets the Standards to Meets the Standards; Meets the Standards to Exceeds the Standards*). For a given level (e.g., *Meets the Standards*), this location is defined as “the point that divides the items into those that all students are likely to answer correctly from those that they are not likely to answer correctly”—where “likely” is defined as having a 0.67 probability or greater of answering that item or an item like it (measuring a similar set of knowledge/skills) correctly equal to a stated response probability. For each assessment, an OIB was generated. The IRT scale value was presented for each item contained in the OIB.

The construction of the OIB for each assessment will be discussed later in this document.. A response probability (RP) (Cizek & Bunch, 2006; Huynh, 1998) of 0.67 was used to construct the OIB for the assessments using the Bookmark method. Operational data from the spring 2011 administration of the assessments were used for the standard setting.

For all four of the assessments, three cut scores were recommended at each grade to establish four achievement levels—*Does Not Meet the*

*Standards, Partially Meets the Standards, Meets the Standards, and Exceeds the Standards.*

Typical directions provided to panelists for placing the bookmark for a given level may be as follows:

- Now we want to identify the location of the *Meets the Standards* cut.
- This is equivalent to the point in the OIB that divides items into those that the typical threshold *Meets the Standards* students are expected to master from those they are not expected to master with at least a 0.67 probability of success.
- Since it is more difficult for students at the threshold of a level (minimally proficient) to answer items correctly than those students in the middle of a level, think about a “threshold” *Meets the Standards* student when placing your bookmark.
- Starting with the first item in the OIB, ask yourself the following: “Given the knowledge and skills required to answer this item correctly, SHOULD I expect a threshold *Meets the Standards* student to have a 0.67 probability or greater of answering this item correctly?”
- Find the last item in the OIB for which a threshold *Meets the Standards* student should have a 0.67 probability or greater of answering correctly.
- Place your bookmark **on** this item (the last Yes item).

Since item difficulty and examinee ability exist on a common scale, when a panelist identifies the item in the OIB that they believe represents the cut score, the IRT difficulty associated with that item essentially defines the location of its recommended cut score on the underlying ability scale. Or, synonymously, the minimum ability required to achieve a given achievement level.

### **Modified Angoff and Reasoned Judgment Methods**

As mentioned earlier in the document, Modified Angoff, with some features of the Reasoned Judgment method, was used for the standard setting for MTAS.

**Modified Angoff** is a test-centered standard setting method (Jaeger, 1989). This procedure has been used successfully in many states and by many publishers. In this technique, the standard setting panelists examine each test item and estimate the percentage of students at the bottom of the score range (e.g., the “minimally *Partially Meets the*

*Standard*” or the “minimally *Meets the Standard*” students) who should be able to answer the item correctly. These individual estimates are then summed and result in an overall percentage of the items correct that correspond to the minimum passing score for that achievement level for the assessment.

The Modified Angoff standard setting procedure has a number of advantages. First, panel members are asked to define or review the operational definitions of the performance standards (proficiency levels). This helps panelists internalize how the levels are defined and makes the standard statements more meaningful during their subsequent use (Berk, 1996), promoting a common frame of reference. Teachers should use the ALDs and threshold descriptions as a basis for the classification of students into the various achievement levels. They can model their judgments by picking a student who mirrors the “just-barely” definitions. Clearly, this allows the teachers to maximize what they know best and the most about: the interaction between content requirements and student performance. Also, panel members get an opportunity to see and review their judgments in relation to actual student performance on the assessment (Berk, 1996) as required by most standard setting processes.

Of course, as is the case with all standard setting procedures, there are also drawbacks associated with the Modified Angoff method. First, depending on the number of proficiency levels to be established, this procedure can be extremely time consuming and quite tedious. It is an iterative process that requires panelists to provide a separate judgment for each item relative to each cut score to be defined. For the MTAS exam, under the modified procedure being proposed, each panelist will have to provide a total of twenty-seven ratings (three ratings per task for all nine tasks), instead of the three ratings that will occur for the Bookmark procedure. We will allocate enough time for the panelists to provide their ratings.

Secondly, research has shown that it can be a challenge for judges to label the difficulty of an item for hypothetical groups of examinees (Shepard, 1994). This could work to increase the variability of cut score recommendations over panelists and deflate estimates of reliability. To help teachers assess the accuracy of their item difficulty estimates, performance data from the spring 2011 administration will be provided to the committee for review, and group discussion will be encouraged. A total of three rounds make it possible for judges to revise their initial ratings based on further data and discussions.

**Reasoned judgment** is a straightforward approach in which to set standards is for an appropriate group (either an expert panel, a representative group of users, or a policymaker group) to examine the score scale and to divide the full range of possible scores into the number of desired categories (Kingston, Kahl, Sweeney, & Bay, 2001; Roeber, 2002). The advantages of this strategy are that it takes little time, requires little in the way of a process, and does not hide the standard-setting in a cloak of mysterious statistical procedures. Presumably, the rationale for the choices is relatively evident. The major disadvantage is that natural divisions of performance rarely occur, so that it may be difficult to defend the choices that were made or the assignment of particular students to one level or another, since other reasonable people could arrive at different choices (Roeber, 2002).

The Modified Angoff method was the primary methodology proposed to provide the assignment of score points into each of the achievement levels. Panelists followed the steps under this methodology and provided their ratings using the ALDs and threshold descriptions. There were three components that are slightly different from a typical Modified Angoff method for the process we are planning for the MTAS standard setting activities:

1. At the task level, instead of the typical percentage correct rating for each of the cut scores, the panelists used ratings from 0 to 3 (in keeping with the scoring rubric) for each of the nine tasks, with quarter increments.
2. Some level of judgment process was implemented into the standard setting activities by including sample profiles into the activities.
3. For the first two rounds, panelists provided ratings at the task level, for each of the cut scores. For round 3, the panelists provided a holistic rating at the test level.

The MTAS exam includes nine operational tasks, with each task scored from 0 to 3. The exact rubric is presented in a later section, where we discuss the specific details for this assessment. Due to the nature of the scoring rubric, it was considered easier for the panelists to provide ratings on points scored, instead of percentage correct, for the cut scores. A similar approach was used for MTAS standard setting in the past.

Due to the discrete nature of the MTAS assessment, incorporating judgment process on the actual sample profiles helped the panelists

get a better sense of the testing population, how the exam tasks worked with students, as well as to get an overall picture of the assessment. The sample profiles were introduced after round 2 and before the actual impact data.

## **Specific Assessments**

### **Mathematics MCA-III Grades 3–8**

The MCAs are the state tests that help districts measure student progress toward Minnesota's academic standards and meet the requirements of No Child Left Behind. The reading and mathematics tests are used to determine whether schools and districts have made adequate yearly progress (AYP) toward all students being proficient in 2014.

In the school year of 2010–11, the mathematics assessment transitioned to the new MCA-III standards. The purpose of the MCA-III is to measure Minnesota students' achievement with regard to the Minnesota academic standards. The MCA-III results can be used to inform curriculum decisions at the district and school level, inform instruction at the classroom level and demonstrate student academic progress from year to year.

Because of the requirements of House File 2, the MCA-III will not have traditional, human-scored CR items. Instead, MDE is developing innovative items that utilize computer-score technology to assure that the MCA-III still measures higher-level thinking and concepts. The assessment is delivered online, and the plan is to eventually select items using a Computer Adaptive Test (CAT) algorithm, so as to provide the highest-quality assessment with the most information for educators, minimize testing time, and provide timely and accurate results. However, for the spring 2011 administration, the test was administered as a set of fixed online and paper forms. A total of twenty partially overlapping operational forms were used so as to maximize the number of calibrated online items that can be entered into the future CAT pool.

### **OIB**

By the time standard setting meetings occurred, some five hundred items had been piloted in the item pool for each grade for the Mathematics MCA-III. These items provide a great source for selection of items to include in the OIB.



Per discussions with TAC and MDE, it was decided that a total of 60 items would be included in the OIB—to include enough items to ensure a solid coverage of the content and statistical properties of the items, and to make the length of the OIB manageable for the panelists during the standard setting activities.

OIB can be composed of any collection of items spanning the range of content, item types, and difficulty represented in a typical test, even though the common practice for construction of an OIB is to include all the operational items on the test from the baseline year. A direct advantage of including only operational items from a given test form in the OIB is the straightforward interpretation of the standard setting results: the test booklet on which standards are set is the same set of items on which student scores and decisions are based.

In 2011, the MCA-III test length was fixed and delivered online. All the test forms contained fifty operational items for each grade and sixteen field test items. Students may be taking different test forms consisting of different operational items, however, instead of the traditional paper-and-pencil tests where students often respond to the same set of operational items. In 2012 and beyond, the CAT algorithm will be implemented. Again, the items delivered to each student will be different. These items will be selected using a CAT algorithm to maximize information collected to estimate a student’s ability using the least amount of items and testing time.

These items were carefully selected from the item pool such that gaps in item difficulty or content coverage were minimized. Table 3 summarizes the current published test specifications for the Mathematics MCA-III. To ensure content coverage, the OIB consisted of similar proportions of items in the various content strands at each grade.

**Table 3. Number of Items by Content Strand**

<b>Grade</b>	<b>Number of Operational Items</b>	<b>Number &amp; Operation</b>	<b>Algebra</b>	<b>Geometry &amp; Measurement</b>	<b>Data Analysis &amp; Probability</b>
3	50	20–24	8–10	10–13	6–8
4	50	18–22	8–10	12–15	6–8
5	50	18–22	10–14	8–10	6–8
6	50	14–19	12–16	10–12	6–8
7	50	12–16	16–20	8–10	8–10
8	50	6–8	24–30	8–10	6–8

Furthermore, to avoid gaps in the OIB, items were selected based on their IRT item difficulty based on the operational data. A somewhat even distribution of IRT item difficulties (after using response probability of .67) was modeled, so that there was be no gap or lump in the distribution of items in the OIB, and a continuum of ability scale was presented in the OIB.

## **Reading MCA-Modified Grades 5–8, 10**

The Reading MCA-Modified is a testing option for students receiving special education services who have a disability that significantly affects academic progress in the grade-level curriculum and precludes the achievement of grade-level proficiency for two consecutive school years. Students with disabilities who meet the participation requirements for MCA-II Modified may be tested on grade-level content using the modified assessment. Modifications to the assessment may include:

- a reduced test blueprint
- fewer items per page
- simplification of wording
- removal of one of the distractors
- a reduction of multi-tiered items
- simplified language, sentence structure, and paragraph structure
- a more targeted use of graphics
- formula selection rather than recall
- simplified constructs
- avoidance of unfamiliar contexts
- a restricted use of multi-meaning words
- embedding items within passages

These modifications, which align with United States Department of Education (USDE) regulatory guidance, have been designed to allow accessibility while maintaining alignment to the grade-level standards.

There are thirty-five operational items at each grade level. All the operational items on the test in 2011 were included in the OIB. In addition, some 8-10 field test items were also included in the OIB to avoid any gaps on the ability continuum. The rank order of the items was based on empirical IRT item difficulty from the operational data. Again, a response probability of .67 was used to construct the OIB.

## **Mathematics MCA-Modified Grades 5–8, 11**

Similar to the Reading MCA-Modified, the Mathematics MCA-Modified assessment is a testing option for students receiving special education services who have a disability that significantly affects academic progress in the grade-level curriculum and precludes the achievement of grade-level proficiency for two consecutive school years. Similar modifications are made to the items to allow accessibility.

A straightforward Bookmark process was adopted for the standard setting activities for the Mathematics MCA-Modified. All thirty-five to forty of the operational items administered in 2011 were included in the OIB. In addition, 10 field test items were also included in the OIB to avoid any gaps on the ability continuum when applicable. The rank order of the items was based on empirical IRT item difficulty from the operational data.

### **Mathematics MTAS Grades 3–8**

The Minnesota Test of Academic Skills (MTAS), an alternate assessment based on alternate achievement standards, was developed for students with the most significant cognitive disabilities. The MTAS consists of performance tasks that the test administrator scores with the use of a script and a task-specific scoring rubric.

The MTAS serves a number of purposes:

- It meets the requirements of NCLB by providing Minnesota students who meet the eligibility guidelines for the MTAS with an alternate assessment based on alternate achievement standards that are aligned with grade-level academic standards.
- It promotes access to the general education curriculum for students with significant cognitive disabilities, as required by both NCLB and the Individuals with Disabilities Education Act (IDEA).
- It provides educators with a tool for measuring the progress students are making toward proficiency on academic standards in mathematics.
- It provides results that can be used to inform instruction at the classroom level.

The MTAS has nine operational tasks, with each task scored 0 to 3. The following table provides the scoring rubric for MTAS tasks.

**Table 4. MTAS Scoring Rubric**

<b>3</b>	<b>2</b>	<b>1</b>	<b>0</b>
Correct Response	Correct Response with Additional Support	Incorrect Response	Unrelated or No Response
The student responds correctly without assistance.	The student responds correctly to the task after the teacher provides additional support as indicated in the task script.	The student responds incorrectly to the task after the teacher provides additional support as indicated in the task script.	The student does not respond to the task, or the student's response is unrelated to the task.

For the previous version of the MTAS, the Bookmark and Modified Angoff (Jaeger, 1989) methods were used for the standard setting activity in 2007 and 2008. As mentioned in an earlier section, Modified Angoff standard setting methodology continued to be used for the MTAS standard setting for 2011. In addition, some elements from the Reasoned Judgment methodology were incorporated into the standard setting process, where panelists made judgments using the sample profiles before round 3.

## **Meeting Proceedings**

### **Overview of Standard Setting Meetings**

During the week of June 26<sup>th</sup>, 2011, sixteen committees (twelve standard setting committees and four vertical articulation committees) of Minnesota educators and stakeholders were convened for the purpose of establishing cut score recommendations for the new MCA-III, Modified and MTAS assessments.

The applied standard setting methodology was designed in collaboration with MDE and TAC. Based on the characteristics of the assessment, two standard setting methods were followed: Bookmark method was used for Mathematics MCA-III, Mathematics MCA-Modified and Reading MCA-Modified; Modified Angoff was used for Mathematics MTAS. Vertical articulation by assessment followed the standard setting meetings.

The Mathematics MCA-III and Reading MCA-Modified standard setting meetings were conducted on June 27-28, for grades 3-8 and grades 5-8 and 10, respectively. The articulation for each assessment occurred in the morning of June 29. The Mathematics MCA-Modified and Mathematics MTAS were conducted on June 29-30 for grades 5-8 and 11, and grades 3-8 respectively. Articulation occurred on the evening of June 30.

### **Participants**

Slightly more than 180 panelists participated in the standard setting and vertical articulation activities. Panelists were selected by the MDE with the goal of representing the state with regard to gender, ethnicity, school and district size and location, and other demographic factors, as described earlier in the report.

While the majority of panelists in attendance were classroom teachers, representatives of other stakeholder groups with relevant subject matter expertise were also included in the process, such as representatives from higher education, representatives from the business sector, etc. A summary of the number of panelists representing each committee is provided in

Table 5 below. "VA" stands for vertical articulation committee. The vertical articulation committee contains representatives from the grade-span standard setting as well as stakeholders in the state.

**Table 5. Number of Panelists per Standard Setting Committee.**

Grade	Mathematics MCA-III				Grade	Reading MCA-Modified			
	Total	Female	Male	Ethnic Minority		Total	Female	Male	Ethnic Minority
<b>3-4</b>	14	11	3	3	<b>5-6</b>	12	12	0	1
<b>5-6</b>	15	13	2	1	<b>7-8</b>	12	11	1	1
<b>7-8</b>	14	10	4	3	<b>10</b>	14	9	5	4
<b>VA</b>	17	9	8	3	<b>VA</b>	17	12	5	2
	Mathematics MCA-Modified					Mathematics MTAS			
<b>5-6</b>	13	10	3	1	<b>3-4</b>	13	10	3	0
<b>7-8</b>	15	13	2	0	<b>5-6</b>	14	10	4	0
<b>11</b>	15	12	3	1	<b>7-8</b>	12	10	2	1
<b>VA</b>	16	12	4	0	<b>VA</b>	16	11	5	3

In addition to the panelists, each committee was assigned a research scientist from Pearson. The primary role of the research scientist was to train panelists in the standard setting procedure and facilitate group discussion. For each assessment, one or two content specialists from Pearson were available to answer questions about the content or design of individual items or the overall test. Content specialists floated from room to room as needed, but they did not contribute to the process unless requested to do so. Similarly, representatives from the MDE were available during the process and answered program or policy- related questions as needed.

**Standard Setting Materials**

A variety of materials were provided to panelists to support the standard setting process. The most relevant include:

- Achievement Level Descriptors – The specific knowledge and skill expectations associated with each achievement level for a given grade and content area.
- Ordered Item Book (OIB) – A compilation of the 2011 test items ordered from easiest to most difficult. The OIB is one of the key materials used for the Bookmark standard setting process and was available for MCA-III and MCA-Modified assessments.
- Item Book – for MTAS, where Modified Angoff method was used for the standard setting, an item book was assembled to include on the operational tasks. These tasks are ordered in the same sequence as they appear on the test.
- Panelist rating sheet – The document upon which the panelists recorded their recommendations.



- Practice Materials – A sample OIB (8-10 items) or item task (for MTAS only) and practice rating sheet were provide for panelists to practice the rating task prior to their actual standard setting recommendations.
- Readiness Survey – brief questionnaire provided to panelists before each round of the standard setting process in which panelist are asked to verify that they understand the task at hand and are ready to move forward.
- Historical or Relevant Impact Data– data summarizing how MN students performed on the historical or relevant assessments.

Appendix A presents agenda for the meetings. Appendix B lists the ALDs distributed to the panelists. In additional to these materials, participants were provided with (or given access to) a variety of supplemental documents intended to inform their recommendations, including academic standards, test specifications, samples of operational test books.

### **Flow of Meeting**

#### **Day 1**

##### *Large Group Training*

On the morning of Day 1, all panelists were convened in a large conference room for introductions and large group training. The MDE welcomed the panelists and introduced the staff from both MDE and Pearson. Next, Pearson described the purpose of the standard setting and provided a general overview which included the rationale and the context for setting standards, and an introduction to the standard setting technique.

##### *Break Down of the Group*

After the large group session, panelists were broken into grade-level groups and escorted to separate meeting rooms for the remainder of Day 1 and all of Day 2. As panelists arrived in their room they were directed to one of three or four pre-assigned tables. To help ensure diversity across tables, panelists were assigned to tables in consideration of: gender, ethnicity, years of teaching, school district, and current educational role (e.g., teacher, administrator, etc...). In addition, each table had one “table leader” that that had been previously selected by the MDE. Table leaders were expected to keep track of the table-level discussion and represent their committee’s

point of view during the vertical articulation. Table leaders were briefly trained about their roles and responsibilities over lunch on Day 1.

*Discussion of ALDs (Lower Grade)*

After the completion of confidentiality forms and panelist introductions, the facilitator initiated a discussion about achievement level descriptors. The facilitator described the role of the specific achievement level descriptors (i.e., to describe the expectations for student performance at each achievement level) and reiterated that the ALDs were developed in consideration of the MN curriculum and the expectations associated with similar assessment programs. Since panelists were provided with the achievement level descriptors a week prior to attending the meeting, it was assumed they had reviewed, and were familiar with, these documents.

Next the facilitator introduced the concept of the threshold, or minimally-qualified, student. This is a student who has just enough knowledge and skill to make it into a given achievement level. The facilitator pointed out that there is a range of abilities represented by the students within each achievement level, and asked the panelists to think about the ways in which a student at the threshold of a given level may differ from a student in the middle or the top of a given level.

After group discussion on this concept, each table was asked to come up with several statements that they believed best characterized their expectations for a typical student at the threshold of each achievement level given the provided ALDs. Since ALDs were defined by content standard, each table was assigned 1 or 2 content standards to consider. Tables began their discussion by thinking about a typical student at the threshold of the *Meets the Standards* achievement level, followed by threshold students at the Partially Meets the Standards and Exceeds the Standards levels. After the threshold descriptors generated by each table had been typed up, reviewed and discussed by the group it was time to convene for lunch. Over lunch the lists were printed out so that they could be distributed for panelist reference during the remainder of the standard setting task.

### *Standard Setting Training and Practice*

After lunch, the facilitator reiterated and expanded on the standard setting training provided during the morning's large group session. The complete training session included the following:

- A recap of the purpose and goal of the standard setting meeting.
- A detailed description of the format and content of the OIB for MCA-III and MCA-Modified or item book for MTAS.
- A detailed description of the goal of standard setting within the context of the adopted standard setting procedures. That is, for the Bookmark method, "to identify the location in the OIB that best divides the items into those a threshold student at a given level should have at least 2/3 probability of answering correctly from those a threshold student should have less than 2/3 probability of answering correctly". For Modified Angoff, "to provide the average score on each operational task that a hypothetical 100 threshold students at a given level should obtain given the ALDs and the threshold descriptions".
- A description of the process and strategy to use when making recommendations.
- Instructions on how to record ratings onto the rating sheet.

After training panelists were provided with a practice OIB or task to practice implementing the standard setting procedure. The practice set allowed panelists to conceptualize, operationalize, and discuss the standard setting process prior to the actual tasks.

### *OIB or Item Book Review (Lower Grade)*

When the panelists stated that they understood the process and had no further questions, they were provided with the OIB or Item Book associated with the lower grade in their grade-band. For security purposes, all books were numbered so that distributed materials could be easily monitored and accounted for.

After a brief review of the format of the OIB or Item Book, panelists were instructed to begin their independent review of the items or tasks. Specifically panelists were instructed to do the following:

- Read each item in the OIB or Item Book thinking about the knowledge, skills and abilities required to answer the item correctly.
- Record comments or notes about competencies required to address a given item in the OIB or Item Book.
- Think about how students of different achievement levels should perform on each item.

The facilitator stressed that panelists should not mark their ratings at this time, but they should get a feel for the range of skills represented.

### *Round 1 Bookmark Rating (Lower Grade)*

For each grade level standard setting occurred in three rounds. Round 1 and 2 recommendations were first completed for the lower grade, followed by Rounds 1 and 2 for the upper grade. Round 3 recommendations were made for both grades concurrently after the review of Round 2 impact across grades. This process, including the recommendation task and the feedback provided to panelists after each round to inform subsequent recommendations, is summarized in the remainder of this document.

After the panelists completed their review for the lower grade, it was time for Round 1. Before beginning Round 1 the facilitator asked the panelists if there were any questions or concerns. After all questions were addressed, the panelists completed a Readiness Survey and proceeded to make their first round of recommendations. After making their Round 1 recommendations for the lower grade, panelists were excused for the day.

## **Day 2**

### *Review and Discuss Round 1 Feedback (Lower Grade)*

At the beginning of Day 2 panelists were provided with table-level feedback on their Round 1 recommendations, including the minimum, maximum, mean and median recommendation associated with each level. Each table was instructed to discuss their Round 1 recommendations with the goal of identifying major sources of variance among panelists. Understanding, rather than consensus, was the ultimate goal of the discussion. Near the end of the table-level discussion each panelist was also presented with a p-value report which provided the percentage of students who answered each item

correctly. The facilitator informed the committee that the intent of the p-value report was to help panelists validate their conceptions around the difficulty of items (when needed), and should only be used as a reference.

After group level discussion, panelists were instructed to make their Round 2 recommendations.

#### *Round 2 Rating (Lower Grade)*

After group discussion, panelists were given the opportunity to review and modify (if necessary) their Round 1 recommendations independently. Panelists were reminded to consider the table and group-level discussion.

#### *Round 1 and Round 2 Standard Setting (Upper Grade)*

After Round 2 recommendations for the lower grade were completed, the committee was directed to locate the ALDs associated with the upper grade level in their panelist folder. Panelists reviewed and discussed the ALDs and threshold descriptions in tables and as a large group in the same manner as was done for the lower grade. ALD discussion was followed by OIB and item book review, and Rounds 1 and 2 of standard setting as described above.

#### *Review and Discussion of Round 2 Feedback (Both Grades)*

While the panelists were waiting for the feedback data from Round 2 on both grades, historical impact or relevant impact data were presented to them and discussions followed. For MCA-III, 2006-2010 MCA-II impact data were presented; for Reading MCA-Modified, Reading MCA-II data from 2006-2011 were presented. For both MTAS and Mathematics MCA-Modified, preliminary impact data from MCA-III earlier in the week were presented. In addition, MTAS 2006-2010 were also presented to the MTAS committee. Panelists were instructed that these historical or relevant impact were only for external reference. Panelists discussed their expectations of the actual impact for the grades they have worked on in the past two days.

After data entry, results based on Round 2 recommendations were provided for both the lower and upper grade levels (e.g., 7 and 8). First, table and group level summary data were distributed for the lower grade. Next, the impact data associated with the panelists' median recommendations for the lower-grade were presented for discussion. As a group, panelists were given the opportunity to discuss and react to the recommendations and impact associated with the lower grade level. They were then presented with this same

information and data for the upper grade level. After the results for each grade were reviewed separately, the facilitator presented the total group impact data for the two grades side by side. Panelists were asked to think about whether the observed impact made sense in light of the ALDs, the test taking population, and the requirements of the assessment.

Table leaders were reminded to take notes throughout the impact discussions so that they could accurately represent the impressions of their committee at the vertical articulation meeting. After group discussion panelists were asked to make their final, Round 3 recommendations.

### *Round 3 Bookmark Rating (Both Grades)*

At Round 3, panelists were given the opportunity to change their Round 2 recommendations if desired. Panelists were reminded that they must be able to defend any changes from a content-perspective and should not arbitrarily change their rating in the hope to affect impact.

After Round 3 panelists were asked to check in their materials and complete the meeting evaluation. This was the end of the regular by grade-level standard setting activities.

### **Vertical Articulation**

A subset of the panelists who participated in standard setting, as well as some stakeholders, participated in the vertical articulation. The purpose of the vertical articulation meeting was to review the impact data associated with the recommended cut scores across all grades to see if it made sense to the panelists given the expectations outlined at each grade, the test taking population, and skills/tasks presented on the assessments. One vertical articulation committee was established for each assessment.

For the stakeholders who did not participate in the grade-level standard setting activities, an orientation was provided by Pearson staff. Standard setting method, process and relevant materials were provided so that stakeholders could get an overview of the work that had been completed. Next, stakeholders joined the table leaders in the respective committees for the vertical articulation process.

The steps in the vertical articulation process were as follows:

1. Panelists reviewed the ALDs associated with all grades within assessment.
2. Panelists reviewed historical or relevant impact for the assessment.
3. As a group, the panelists discussed their expectations for impact across the grade levels in light of the ALDs and content assessed in each grade.
4. The group reviewed the impact associated with the Round 3 recommended cut scores across all grades and then discussed the extent to which the data mirrored their expectations.
5. As a group the committee discussed how/if the cut scores should be adjusted to provide for impact more consistent with their expectations.
6. Panelists were instructed that, after the meeting, their percentages recommendations would be compared to the content recommendations from the past two days to make sure that the vertical articulation recommendations are within the range of variability from the content recommendations.
7. Panelists made independent recommendations as to the percentage of students testing in 2011 that they believed should fall in each level for each grade. Panelists were reminded that the goal was make a recommendation that considered *both* the content-based ratings (from Round 3) and their expectations.
8. Impact recommendations were entered and the median recommended impact percentages associated with each achievement level in a grade were provided for review and discussion.
9. The panelists were asked to discuss whether the median impact percentages appropriately represented expected impact for the test taking population. The result was a final set of impact recommendations for each assessment.
10. Panelists completed evaluations.

### **Analysis of Vertical Articulation Results**

After the completion of vertical articulation, the final recommended impact for each grade within an assessment was mapped back to the obtained 2011 frequency distribution to identify the raw scores or IRT theta values that would provide for impact as similar to that recommended as possible. The values associated with these mapped scores were considered the "vertical articulation mapped cut scores" for all future discussions.

## **Final Recommendations Resulting from the Standard Setting Process**

Table 6 to Table 7 provide the final recommended cut scores and related impact resulting from the standard setting process. Figures 1 through 4 present the corresponding impact across grades by assessments. Appendix C provides all the data from standard setting.

**Table 6.** Cut Scores Associated with Committee Recommendations

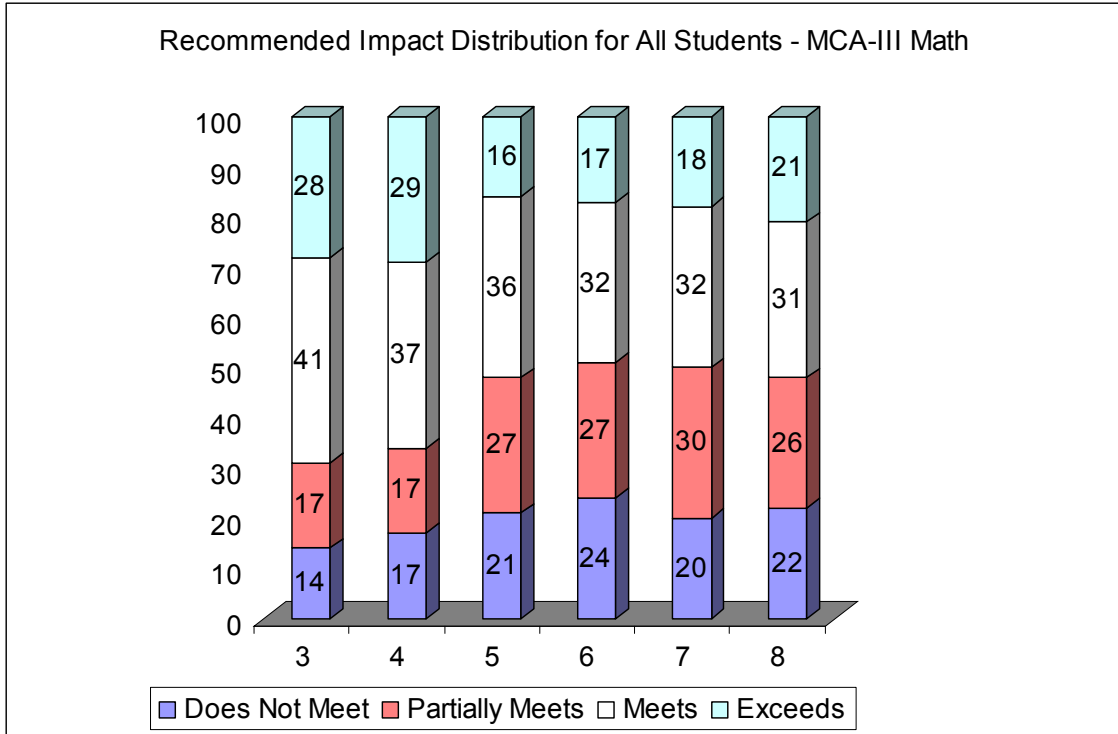
Assessment	Level	GRADE						10/11
		3	4	5	6	7	8	
MCA-III	Partially Meets	-1.22	-1.06	-0.88	-0.75	-0.91	-0.83	
	Meets	-0.52	-0.44	-0.04	0.03	0.03	-0.03	
	Exceeds	0.60	0.57	1.01	0.96	0.94	0.83	
MTAS	Partially Meets	13	14	12	11	12	12	
	Meets	17	18	19	17	18	17	
	Exceeds	24	24	25	23	21	21	
Math MCA-Modified	Partially Meets			16	15	14	15	17
	Meets			22	20	21	21	23
	Exceeds			25	24	23	23	28
Reading MCA-Modified	Partially Meets			18	18	20	16	16
	Meets			24	23	25	23	23
	Exceeds			27	26	28	27	27

Note: MCA-III recommendations are on the IRT ability scale (Theta scale)

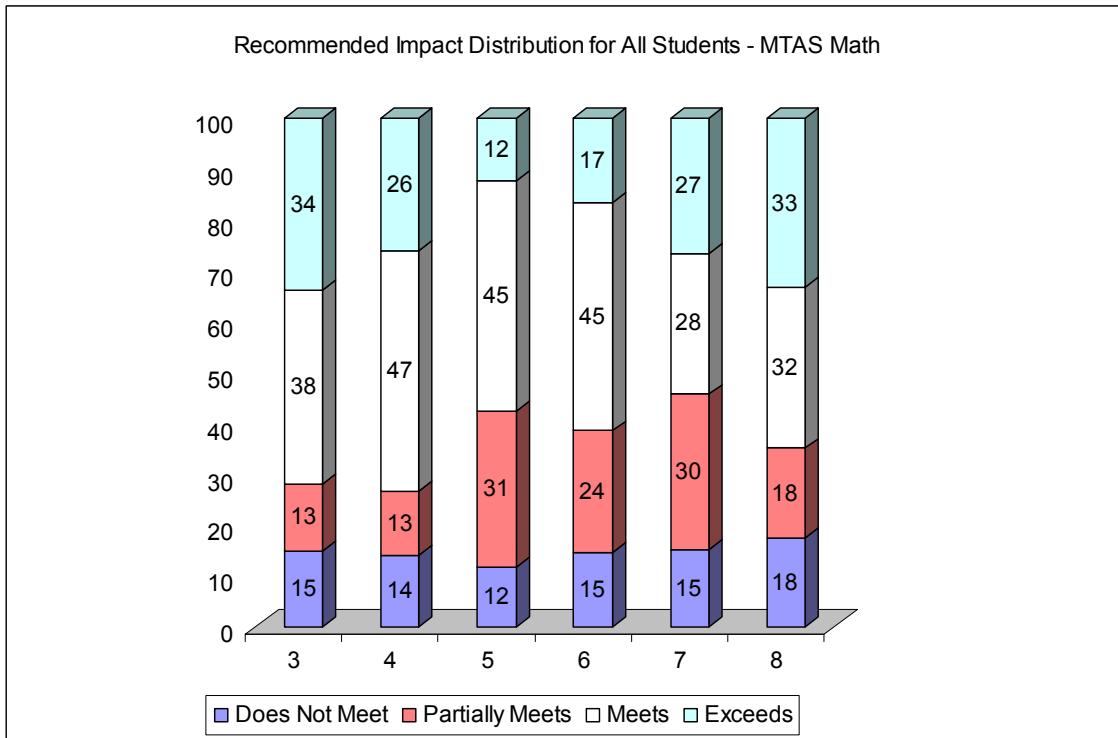
**Table 7. Impact Associated with Standard Setting Recommendations**

	Level	GRADES						10/11
		3	4	5	6	7	8	
MCA-III	Does Not Meet	14	17	21	24	20	22	
	Partially Meets	17	17	27	27	30	26	
	Meets	41	37	36	32	32	31	
	Exceeds	28	29	16	17	18	21	
MTAS	Does Not Meet	15	14	12	15	15	18	
	Partially Meets	13	13	31	24	30	18	
	Meets	38	47	45	45	28	32	
	Exceeds	34	26	12	17	27	33	
Math MCA-Modified	Does Not Meet			56	58	46	45	51
	Partially Meets			33	32	46	48	39
	Meets			6	7	5	4	8
	Exceeds			5	3	3	3	2
Reading MCA-Modified	Does Not Meet			37	37	33	22	14
	Partially Meets			37	32	31	44	30
	Meets			14	15	18	23	25
	Exceeds			12	16	17	11	31

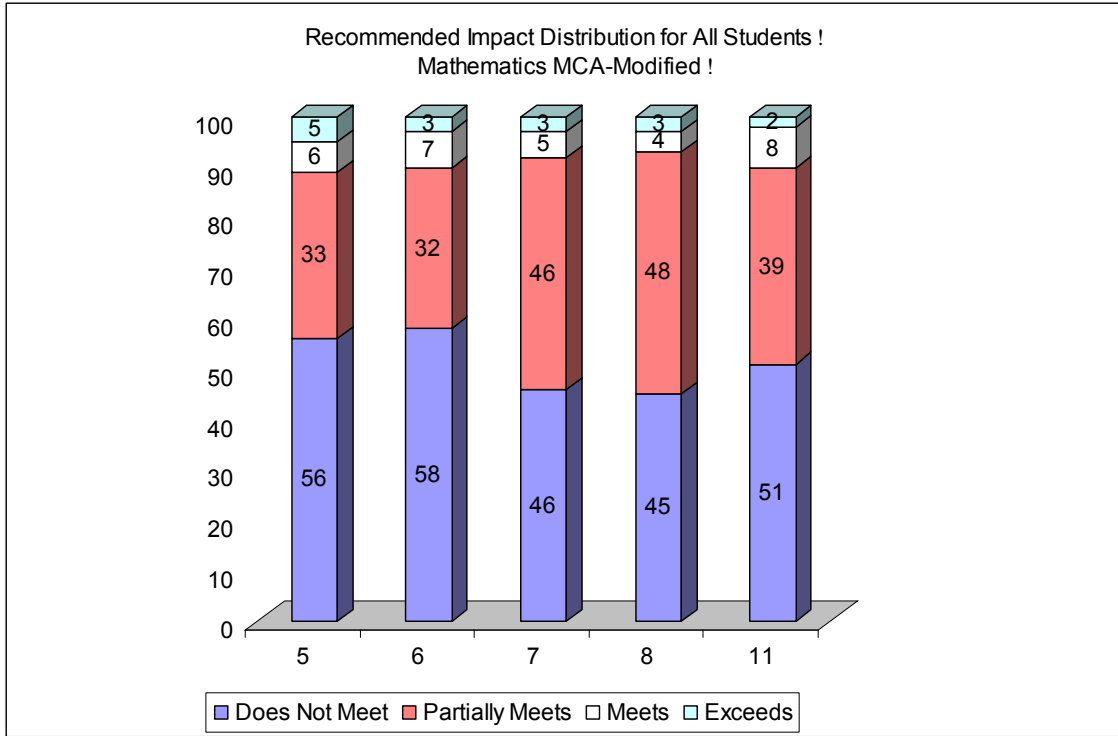




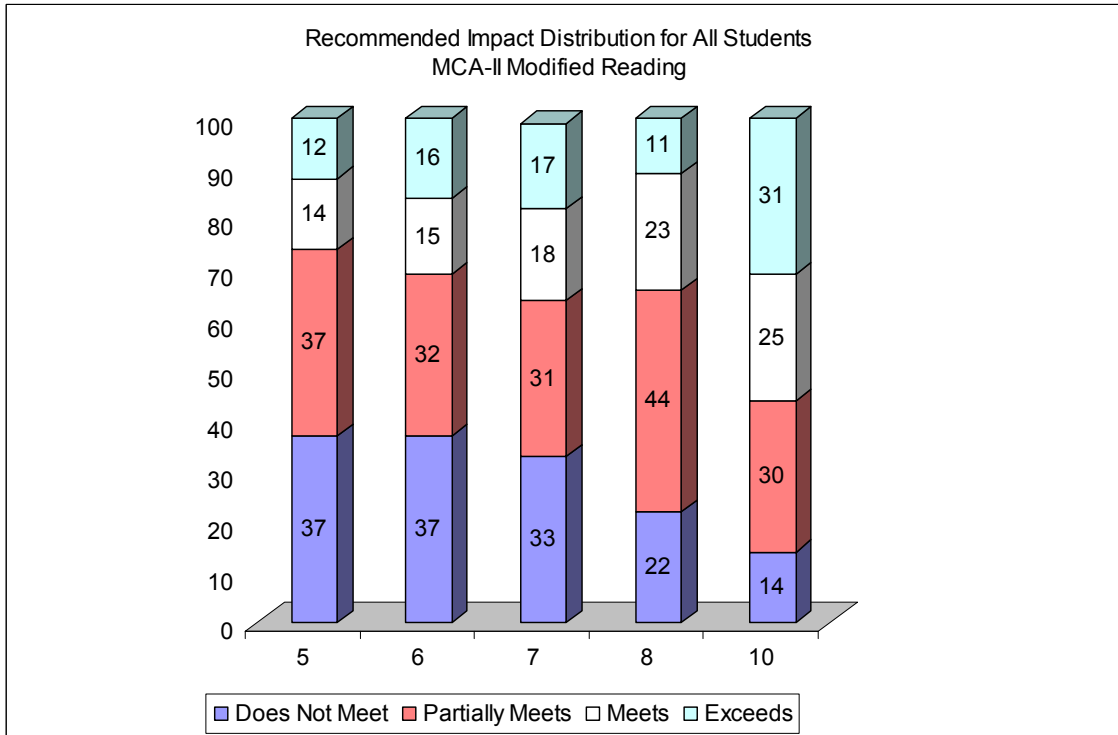
**Figure 1. Recommended Impact for All Students, Mathematics MCA-III.**



**Figure 2. Recommended Impact for All Students, Mathematics MTAS. '**



**Figure 3. Recommended Impact for All Students, Mathematics MCA-Modified.**



**Figure 4. Recommended Impact for All Students, Reading MCA-Modified.**

## **Evaluations**

Panelists were asked to fill out an evaluation on the basis of the portion(s) of the conference they attended. Table 8 to Table 22 presents evaluation summaries for all the meetings included except for Reading MCA-Modified Grades 5–6. Unfortunately for that grade span, the paper copies of the evaluation documents were shredded before the data were entered. Looking at the evaluation results in general, panelists appeared to have been comfortable with the process, they understood the purpose and were able to follow the steps. Feedback and facilitation of the meetings were helpful in guiding them through recommendations. People’s opinions were valued and panelists generally felt comfortable expressing their opinions and sharing their perspectives. For most of the standards recommended across all assessments, panelists generally felt comfortable with the final recommendations after their two days’ of hard work. We also received a lot of additional comments where people expressed their appreciation in participating in the standard setting activities.

**Table 8.** Evaluation Summary, Mathematics MCA-III, Grades 3–4. !

	Strongly Agree	Moderately Agree	Neutral	Moderately Disagree	Strongly Disagree
1. I clearly understood the purpose of the workshop.	13	2	0	0	0
2. The conference leaders clearly explained the tasks I needed to complete.	8	4	2	1	0
3. The achievement level descriptions were clear to me.	1	8	3	3	0
4. The activities in which we clarified the achievement level descriptors helped me to recommend cut scores.	2	10	2	1	0
5. The activities in which we developed threshold descriptions helped me to recommend cut scores.	7	7	1	0	0
6. The examples and exercises helped me to understand the process.	10	5	0	0	0
7. The explanations about how to set the cut score helped me to understand what I needed to do in the rounds.	7	6	1	1	0
8. The discussions after rounds 1 and 2 for the lower grade were helpful to me.	10	4	1	0	0
9. The discussion after rounds 1 and 2 for the upper grade were helpful to me.	10	4	1	0	0
10. The panelist agreement data presented after rounds 1 and 2 for the lower grade were helpful.	9	5	1	0	0
11. The panelist agreement data presented after rounds 1 and 2 for the upper grade were helpful.	7	6	2	0	0
12. The impact data (percentages of students at or above the suggested cut scores) presented during the stakeholder portion of the meeting were helpful to me.	7	6	1	0	0
13. I felt comfortable expressing my opinions.	9	6	0	0	0
14. Everyone was given the opportunity to express his/her opinions.	10	5	0	0	0
15. I could clearly distinguish between levels of achievement.	4	10	1	0	0

	Strongly Agree	Moderately Agree	Neutral	Moderately Disagree	Strongly Disagree
16. Group discussions were helpful and relevant.	10	5	0	0	0
17. The pace of the workshop was right.	3	10	1	1	0
18. I believe the standard-setting workshop was fair and unbiased.	10	4	1	0	0
19. I would defend the standards recommended by our committee.	13	2	0	0	0
20. The final group-recommended Does Not Meet/partially Meets borderline cut score fairly represented the minimal level of achievement for students at Partially Meets the Standards	11	4	0	0	0
21. If you answered Disagree or Strongly disagree to Question 20, do you believe the final group-recommended cut score is (check one):	Too High 0	Too Low 0			
22. The final group-recommended Partially Meet/ Meets borderline cut score fairly represented the minimal level of achievement for students at Meets the Standards	10	5	0	0	0
23. If you answered Disagree or Strongly disagree to Question 22, do you believe the final group-recommended cut score is (check one):	Too High 0	Too Low 0			
24. The final group-recommended Meet/Exceeds borderline cut score fairly represented the minimal level of achievement for students at Exceeds the Standards	6	6	0	3	0
25. If you answered Disagree or Strongly disagree to Question 24, do you believe the final group-recommended cut score is (check one):	Too High 0	Too Low 3			

**Table 9.** Evaluation Summary, Mathematics MCA-III, Grades 5–6. !

	Strongly Agree	Moderately Agree	Neutral	Moderately Disagree	Strongly Disagree
1. I clearly understood the purpose of the workshop.	14	1	0	0	0
2. The conference leaders clearly explained the tasks I needed to complete.	15	0	0	0	0
3. The achievement level descriptions were clear to me.	0	11	3	1	0
4. The activities in which we clarified the achievement level descriptors helped me to recommend cut scores.	5	8	2	0	0
5. The activities in which we developed threshold descriptions helped me to recommend cut scores.	8	4	2	1	0
6. The examples and exercises helped me to understand the process.	13	1	1	0	0
7. The explanations about how to set the cut score helped me to understand what I needed to do in the rounds.	11	4	0	0	0
8. The discussions after rounds 1 and 2 for the lower grade were helpful to me.	14	1	0	0	0
9. The discussion after rounds 1 and 2 for the upper grade were helpful to me.	14	1	0	0	0
10. The panelist agreement data presented after rounds 1 and 2 for the lower grade were helpful.	13	2	0	0	0
11. The panelist agreement data presented after rounds 1 and 2 for the upper grade were helpful.	13	2	0	0	0
12. The impact data (percentages of students at or above the suggested cut scores) presented during the stakeholder portion of the meeting were helpful to me.	9	5	0	1	0
13. I felt comfortable expressing my opinions.	12	3	0	0	0
14. Everyone was given the opportunity to express his/her opinions.	11	4	0	0	0

	Strongly Agree	Moderately Agree	Neutral	Moderately Disagree	Strongly Disagree
15. I could clearly distinguish between levels of achievement.	0	13	0	2	0
16. Group discussions were helpful and relevant.	13	2	0	0	0
17. the pace of the workshop was right.	9	5	1	0	0
18. I believe the standard-setting workshop was fair and unbiased.	12	2	1	0	0
19. I would defend the standards recommended by our committee.	9	4	1	1	0
20. The final group-recommended Does Not Meet/partially Meets borderline cut score fairly represented the minimal level of achievement for students at Partially Meets the Standards	3	10	1	1	0
21. If you answered Disagree or Strongly disagree to Question 20, do you believe the final group-recommended cut score is (check one):	Too High 2	Too Low 0			
22. The final group-recommended Partially Meet/ Meets borderline cut score fairly represented the minimal level of achievement for students at Meets the Standards	3	9	2	1	0
23. If you answered Disagree or Strongly disagree to Question 22, do you believe the final group-recommended cut score is (check one):	Too High 2	Too Low 0			
24. The final group-recommended Meet/Exceeds borderline cut score fairly represented the minimal level of achievement for students at Exceeds the Standards	4	8	1	2	0
25. If you answered Disagree or Strongly disagree to Question 24, do you believe the final group-recommended cut score is (check one):	Too High 3	Too Low 0			

**Table 10.** Evaluation Summary, Mathematics MCA-III, Grades 7–8. !

	Strongly Agree	Moderately Agree	Neutral	Moderately Disagree	Strongly Disagree
1. I clearly understood the purpose of the workshop.	9	5	0	0	0
2. The conference leaders clearly explained the tasks I needed to complete.	7	5	2	0	0
3. The achievement level descriptions were clear to me.	0	7	4	3	0
4. The activities in which we clarified the achievement level descriptors helped me to recommend cut scores.	1	9	3	1	0
5. The activities in which we developed threshold descriptions helped me to recommend cut scores.	3	7	3	1	0
6. The examples and exercises helped me to understand the process.	2	8	3	1	0
7. The explanations about how to set the cut score helped me to understand what I needed to do in the rounds.	3	11	0	0	0
8. The discussions after rounds 1 and 2 for the lower grade were helpful to me.	11	3	0	0	0
9. The discussion after rounds 1 and 2 for the upper grade were helpful to me.	10	4	0	0	0
10. The panelist agreement data presented after rounds 1 and 2 for the lower grade were helpful.	8	4	2	0	0
11. The panelist agreement data presented after rounds 1 and 2 for the upper grade were helpful.	8	4	2	0	0
12. The impact data (percentages of students at or above the suggested cut scores) presented during the stakeholder portion of the meeting were helpful to me.	5	7	2	0	0
13. I felt comfortable expressing my opinions.	12	2	0	0	0
14. Everyone was given the opportunity to express his/her opinions.	13	1	0	0	0



	Strongly Agree	Moderately Agree	Neutral	Moderately Disagree	Strongly Disagree
15. I could clearly distinguish between levels of achievement.	0	11	3	0	0
16. Group discussions were helpful and relevant.	11	3	0	0	0
17. the pace of the workshop was right.	3	8	2	1	0
18. I believe the standard-setting workshop was fair and unbiased.	8	5	1	0	0
19. I would defend the standards recommended by our committee.	8	6	0	0	0
20. The final group-recommended Does Not Meet/partially Meets borderline cut score fairly represented the minimal level of achievement for students at Partially Meets the Standards	3	10	0	1	0
21. If you answered Disagree or Strongly disagree to Question 20, do you believe the final group-recommended cut score is (check one):	Too High 1	Too Low 0			
22. The final group-recommended Partially Meet/ Meets borderline cut score fairly represented the minimal level of achievement for students at Meets the Standards	2	8	1	3	0
23. If you answered Disagree or Strongly disagree to Question 22, do you believe the final group-recommended cut score is (check one):	Too High 3	Too Low 0			
24. The final group-recommended Meet/Exceeds borderline cut score fairly represented the minimal level of achievement for students at Exceeds the Standards	3	8	1	0	0
25. If you answered Disagree or Strongly disagree to Question 24, do you believe the final group-recommended cut score is (check one):	Too High 0	Too Low 0			

**Table 11.** Evaluation Summary, Mathematics MCA-Modified, Grades 5–6.

	Strongly Agree	Moderately Agree	Neutral	Moderately Disagree	Strongly Disagree
1. I clearly understood the purpose of the workshop.	13	1	0	0	0
2. The conference leaders clearly explained the tasks I needed to complete.	12	2	0	0	0
3. The achievement level descriptions were clear to me.	4	9	1	0	0
4. The activities in which we clarified the achievement level descriptors helped me to recommend cut scores.	5	9	0	0	0
5. The activities in which we developed threshold descriptions helped me to recommend cut scores.	6	8	0	0	0
6. The examples and exercises helped me to understand the process.	11	3	0	0	0
7. The explanations about how to set the cut score helped me to understand what I needed to do in the rounds.	9	5	0	0	0
8. The discussions after rounds 1 and 2 for the lower grade were helpful to me.	11	3	0	0	0
9. The discussion after rounds 1 and 2 for the upper grade were helpful to me.	11	3	0	0	0
10. The panelist agreement data presented after rounds 1 and 2 for the lower grade were helpful.	12	2	0	0	0
11. The panelist agreement data presented after rounds 1 and 2 for the upper grade were helpful.	12	2	0	0	0
12. The impact data (percentages of students at or above the suggested cut scores) presented during the stakeholder portion of the meeting were helpful to me.	10	4	0	0	0
13. I felt comfortable expressing my opinions.	12	2	0	0	0
14. Everyone was given the opportunity to express his/her opinions.	9	4	0	0	1

	Strongly Agree	Moderately Agree	Neutral	Moderately Disagree	Strongly Disagree
15. I could clearly distinguish between levels of achievement.	4	9	1	0	0
16. Group discussions were helpful and relevant.	12	2	0	0	0
17. the pace of the workshop was right.	9	4	1	0	0
18. I believe the standard-setting workshop was fair and unbiased.	12	2	0	0	0
19. I would defend the standards recommended by our committee.	12	2	0	0	0
20. The final group-recommended Does Not Meet/partially Meets borderline cut score fairly represented the minimal level of achievement for students at Partially Meets the Standards	8	5	0	1	0
21. If you answered Disagree or Strongly disagree to Question 20, do you believe the final group-recommended cut score is (check one):	Too High 1	Too Low 0			
22. The final group-recommended Partially Meet/ Meets borderline cut score fairly represented the minimal level of achievement for students at Meets the Standards	8	5	0	1	0
23. If you answered Disagree or Strongly disagree to Question 22, do you believe the final group-recommended cut score is (check one):	Too High 1	Too Low 0			
24. The final group-recommended Meet/Exceeds borderline cut score fairly represented the minimal level of achievement for students at Exceeds the Standards	10	4	0	0	0
25. If you answered Disagree or Strongly disagree to Question 24, do you believe the final group-recommended cut score is (check one):	Too High 0	Too Low 0			

**Table 12.** Evaluation Summary, Mathematics MCA-Modified, Grades 7–8.

	Strongly Agree	Moderately Agree	Neutral	Moderately Disagree	Strongly Disagree
1. I clearly understood the purpose of the workshop.	12	2	0	1	0
2. The conference leaders clearly explained the tasks I needed to complete.	14	1	0	0	0
3. The achievement level descriptions were clear to me.	4	5	2	2	2
4. The activities in which we clarified the achievement level descriptors helped me to recommend cut scores.	6	5	1	3	0
5. The activities in which we developed threshold descriptions helped me to recommend cut scores.	9	3	0	2	1
6. The examples and exercises helped me to understand the process.	9	3	3	0	0
7. The explanations about how to set the cut score helped me to understand what I needed to do in the rounds.	8	7	0	0	0
8. The discussions after rounds 1 and 2 for the lower grade were helpful to me.	11	4	0	0	0
9. The discussion after rounds 1 and 2 for the upper grade were helpful to me.	13	2	0	0	0
10. The panelist agreement data presented after rounds 1 and 2 for the lower grade were helpful.	11	4	0	0	0
11. The panelist agreement data presented after rounds 1 and 2 for the upper grade were helpful.	12	3	0	0	0
12. The impact data (percentages of students at or above the suggested cut scores) presented during the stakeholder portion of the meeting were helpful to me.	10	2	3	0	0
13. I felt comfortable expressing my opinions.	12	2	0	1	0
14. Everyone was given the opportunity to express his/her opinions.	11	3	0	1	0

	Strongly Agree	Moderately Agree	Neutral	Moderately Disagree	Strongly Disagree
15. I could clearly distinguish between levels of achievement.	5	7	2	1	0
16. Group discussions were helpful and relevant.	13	2	0	0	0
17. the pace of the workshop was right.	12	3	0	0	0
18. I believe the standard-setting workshop was fair and unbiased.	10	4	0	0	0
19. I would defend the standards recommended by our committee.	11	4	0	0	0
20. The final group-recommended Does Not Meet/partially Meets borderline cut score fairly represented the minimal level of achievement for students at Partially Meets the Standards	5	9	1	0	0
21. If you answered Disagree or Strongly disagree to Question 20, do you believe the final group-recommended cut score is (check one):	Too High 1	Too Low 0			
22. The final group-recommended Partially Meet/ Meets borderline cut score fairly represented the minimal level of achievement for students at Meets the Standards	5	9	1	0	0
23. If you answered Disagree or Strongly disagree to Question 22, do you believe the final group-recommended cut score is (check one):	Too High 1	Too Low 0			
24. The final group-recommended Meet/Exceeds borderline cut score fairly represented the minimal level of achievement for students at Exceeds the Standards	5	8	1	1	0
25. If you answered Disagree or Strongly disagree to Question 24, do you believe the final group-recommended cut score is (check one):	Too High 1	Too Low 1			

**Table 13.** Evaluation Summary, Mathematics MCA-Modified, Grades 11.

	Strongly Agree	Moderately Agree	Neutral	Moderately Disagree	Strongly Disagree
1. I clearly understood the purpose of the workshop.	10	1	1	0	0
2. The conference leaders clearly explained the tasks I needed to complete.	1	9	1	2	0
3. The achievement level descriptions were clear to me.	0	5	4	2	2
4. The activities in which we clarified the achievement level descriptors helped me to recommend cut scores.	2	9	2	0	0
5. The activities in which we developed threshold descriptions helped me to recommend cut scores.	2	6	2	3	0
6. The examples and exercises helped me to understand the process.	1	7	3	2	0
7. The explanations about how to set the cut score helped me to understand what I needed to do in the rounds.	3	8	2	0	0
8. The discussions after rounds 1 and 2 were helpful to me.	7	5	1	0	0
9. The panelist agreement data presented after rounds 1 and 2 were helpful.	7	5	1	0	0
10. The impact data (percentages of students at or above the suggested cut scores) presented based on Round 2 results were helpful to me.	10	2	1	0	0
11. I felt comfortable expressing my opinions.	9	3	1	0	0
12. Everyone was given the opportunity to express his/her opinions.	11	1	1	0	0
13. I could clearly distinguish between levels of achievement.	1	4	3	4	1
14. Group discussions were helpful and relevant.	7	6	0	0	0
15. The pace of the workshop was right.	5	6	0	2	0

	Strongly Agree	Moderately Agree	Neutral	Moderately Disagree	Strongly Disagree
16. I believe the standard-setting workshop was fair and unbiased	7	5	1	0	0
17. I would defend the standards recommended by our committee.	1	4	5	2	1
18. The final group-recommended Does Not Meet/partially Meets borderline cut score fairly represented the minimal level of achievement for students at Partially Meets the Standards	3	5	2	2	1
19. If you answered Disagree or Strongly disagree to Question 18, do you believe the final group-recommended cut score is (check one):	Too High 4	Too Low 0			
20. The final group-recommended Partially Meets/Meets borderline cut score fairly represented the minimal level of achievement for students at Partially Meets the Standards	1	4	2	3	3
21. If you answered Disagree or Strongly disagree to Question 20, do you believe the final group-recommended cut score is (check one):	Too High 6	Too Low 0			
22. The final group-recommended Partially Meet/Exceeds borderline cut score fairly represented the minimal level of achievement for students at Meets the Standards	0	5	2	4	2
23. If you answered Disagree or Strongly disagree to Question 22, do you believe the final group-recommended cut score is (check one):	Too High 7	Too Low 0			

**Table 14.** Evaluation Summary, Reading MCA-Modified, Grades 7–8.<sup>1</sup>

	Strongly Agree	Moderately Agree	Neutral	Moderately Disagree	Strongly Disagree
1. I clearly understood the purpose of the workshop.	9	3	0	0	0
2. The conference leaders clearly explained the tasks I needed to complete.	8	4	0	0	0
3. The achievement level descriptions were clear to me.	6	4	1	1	0
4. The activities in which we clarified the achievement level descriptors helped me to recommend cut scores.	7	4	1	0	0
5. The activities in which we developed threshold descriptions helped me to recommend cut scores.	7	5	0	0	0
6. The examples and exercises helped me to understand the process.	7	4	1	0	0
7. The explanations about how to set the cut score helped me to understand what I needed to do in the rounds.	9	1	2	0	0
8. The discussions after rounds 1 and 2 for the lower grade were helpful to me.	9	2	0	0	0
9. The discussion after rounds 1 and 2 for the upper grade were helpful to me.	8	3	0	0	0
10. The panelist agreement data presented after rounds 1 and 2 for the lower grade were helpful.	6	5	0	0	0
11. The panelist agreement data presented after rounds 1 and 2 for the upper grade were helpful.	8	3	0	0	0
12. The impact data (percentages of students at or above the suggested cut scores) presented during the stakeholder portion of the meeting were helpful to me.	7	2	2	0	0
13. I felt comfortable expressing my opinions.	11	0	0	0	0

<sup>1</sup> Reading MCA-Modified Grades 5-6 evaluation forms were shredded prior to data entry.



	Strongly Agree	Moderately Agree	Neutral	Moderately Disagree	Strongly Disagree
14. Everyone was given the opportunity to express his/her opinions.	10	0	0	1	0
15. I could clearly distinguish between levels of achievement.	4	4	2	1	0
16. Group discussions were helpful and relevant.	7	3	2	0	0
17. the pace of the workshop was right.	8	4	0	0	0
18. I believe the standard-setting workshop was fair and unbiased.	11	0	1	0	0
19. I would defend the standards recommended by our committee.	8	4	0	0	0
20. The final group-recommended Does Not Meet/partially Meets borderline cut score fairly represented the minimal level of achievement for students at Partially Meets the Standards	6	5	1	0	0
21. If you answered Disagree or Strongly disagree to Question 20, do you believe the final group-recommended cut score is (check one):	Too High 0	Too Low 0			
22. The final group-recommended Partially Meet/ Meets borderline cut score fairly represented the minimal level of achievement for students at Meets the Standards	5	3	1	2	0
23. If you answered Disagree or Strongly disagree to Question 22, do you believe the final group-recommended cut score is (check one):	Too High 2	Too Low 0			
24. The final group-recommended Meet/Exceeds borderline cut score fairly represented the minimal level of achievement for students at Exceeds the Standards	6	3	2	0	0
25. If you answered Disagree or Strongly disagree to Question 24, do you believe the final group-recommended cut score is (check one):	Too High 0	Too Low 0			

**Table 15.** Evaluation Summary, Reading MCA-Modified, Grade 10. !

	Strongly Agree	Moderately Agree	Neutral	Moderately Disagree	Strongly Disagree
1. I clearly understood the purpose of the workshop.	13	1	0	0	0
2. The conference leaders clearly explained the tasks I needed to complete.	8	3	2	0	0
3. The achievement level descriptions were clear to me.	8	5	0	1	0
4. The activities in which we clarified the achievement level descriptors helped me to recommend cut scores.	9	4	1	0	0
5. The activities in which we developed threshold descriptions helped me to recommend cut scores.	8	4	2	0	0
6. The examples and exercises helped me to understand the process.	8	6	0	0	0
7. The explanations about how to set the cut score helped me to understand what I needed to do in the rounds.	8	4	2	0	0
8. The discussions after rounds 1 and 2 were helpful to me.	11	2	1	0	0
9. The panelist agreement data presented after rounds 1 and 2 were helpful.	9	5	0	0	0
10. The impact data (percentages of students at or above the suggested cut scores) presented based on Round 2 results were helpful to me.	8	5	1	0	0
11. I felt comfortable expressing my opinions.	11	2	1	0	0
12. Everyone was given the opportunity to express his/her opinions.	11	1	2	0	0
13. I could clearly distinguish between levels of achievement.	4	9	1	0	0
14. Group discussions were helpful and relevant.	12	2	0	0	0
15. The pace of the workshop was right.	7	4	3	0	0

	Strongly Agree	Moderately Agree	Neutral	Moderately Disagree	Strongly Disagree
16. I believe the standard-setting workshop was fair and unbiased	9	5	0	0	0
17. I would defend the standards recommended by our committee.	12	2	0	0	0
18. The final group-recommended Does Not Meet/partially Meets borderline cut score fairly represented the minimal level of achievement for students at Partially Meets the Standards	0	0	0	0	0
19. If you answered Disagree or Strongly disagree to Question 18, do you believe the final group-recommended cut score is (check one):	Too High 0	Too Low 0			
20. The final group-recommended Partially Meets/Meets borderline cut score fairly represented the minimal level of achievement for students at Partially Meets the Standards	0	0	0	0	0
21. If you answered Disagree or Strongly disagree to Question 20, do you believe the final group-recommended cut score is (check one):	Too High 0	Too Low 0			
22. The final group-recommended Partially Meet/Exceeds borderline cut score fairly represented the minimal level of achievement for students at Meets the Standards	0	0	0	0	0
23. If you answered Disagree or Strongly disagree to Question 22, do you believe the final group-recommended cut score is (check one):	Too High 0	Too Low 0			

**Table 16.** Evaluation Summary, Mathematics MTAS, Grades 3–4.

	Strongly Agree	Moderately Agree	Neutral	Moderately Disagree	Strongly Disagree
1. I clearly understood the purpose of the workshop.	10	2	1	0	0
2. The conference leaders clearly explained the tasks I needed to complete.	5	4	1	3	0
3. The achievement level descriptions were clear to me.	8	3	1	1	0
4. The activities in which we clarified the achievement level descriptors helped me to recommend cut scores.	5	5	2	0	1
5. The activities in which we developed threshold descriptions helped me to recommend cut scores.	7	4	2	0	0
6. The examples and exercises helped me to understand the process.	4	5	1	2	1
7. The explanations about how to set the cut score helped me to understand what I needed to do in the rounds.	3	6	2	2	0
8. The discussions after rounds 1 and 2 for the lower grade were helpful to me.	9	2	1	1	0
9. The discussion after rounds 1 and 2 for the upper grade were helpful to me.	7	3	1	1	0
10. The panelist agreement data presented after rounds 1 and 2 for the lower grade were helpful.	9	3	1	0	0
11. The panelist agreement data presented after rounds 1 and 2 for the upper grade were helpful.	8	3	1	0	0
12. The impact data (percentages of students at or above the suggested cut scores) presented during the stakeholder portion of the meeting were helpful to me.	6	4	1	0	1
13. I felt comfortable expressing my opinions.	9	4	0	0	0
14. Everyone was given the opportunity to express his/her opinions.	12	1	0	0	0

	Strongly Agree	Moderately Agree	Neutral	Moderately Disagree	Strongly Disagree
15. I could clearly distinguish between levels of achievement.	6	6	1	0	0
16. Group discussions were helpful and relevant.	12	1	0	0	0
17. the pace of the workshop was right.	6	4	0	3	0
18. I believe the standard-setting workshop was fair and unbiased.	7	4	1	1	0
19. I would defend the standards recommended by our committee.	8	4	0	1	0
20. The final group-recommended Does Not Meet/partially Meets borderline cut score fairly represented the minimal level of achievement for students at Partially Meets the Standards	4	8	1	0	0
21. If you answered Disagree or Strongly disagree to Question 20, do you believe the final group-recommended cut score is (check one):	Too High 2	Too Low 0			
22. The final group-recommended Partially Meet/ Meets borderline cut score fairly represented the minimal level of achievement for students at Meets the Standards	3	7	3	0	0
23. If you answered Disagree or Strongly disagree to Question 22, do you believe the final group-recommended cut score is (check one):	Too High 2	Too Low 0			
24. The final group-recommended Meet/Exceeds borderline cut score fairly represented the minimal level of achievement for students at Exceeds the Standards	2	4	5	1	1
25. If you answered Disagree or Strongly disagree to Question 24, do you believe the final group-recommended cut score is (check one):	Too High 5	Too Low 0			

**Table 17.** Evaluation Summary, Mathematics MTAS, Grades 5–6.

	Strongly Agree	Moderately Agree	Neutral	Moderately Disagree	Strongly Disagree
1. I clearly understood the purpose of the workshop.	10	3	1	0	0
2. The conference leaders clearly explained the tasks I needed to complete.	6	7	0	0	0
3. The achievement level descriptions were clear to me.	4	8	1	1	0
4. The activities in which we clarified the achievement level descriptors helped me to recommend cut scores.	10	2	1	1	0
5. The activities in which we developed threshold descriptions helped me to recommend cut scores.	9	4	0	1	0
6. The examples and exercises helped me to understand the process.	8	5	0	1	0
7. The explanations about how to set the cut score helped me to understand what I needed to do in the rounds.	11	2	0	1	0
8. The discussions after rounds 1 and 2 for the lower grade were helpful to me.	10	3	1	0	0
9. The discussion after rounds 1 and 2 for the upper grade were helpful to me.	11	3	0	0	0
10. The panelist agreement data presented after rounds 1 and 2 for the lower grade were helpful.	8	4	1	0	0
11. The panelist agreement data presented after rounds 1 and 2 for the upper grade were helpful.	8	5	0	0	0
12. The impact data (percentages of students at or above the suggested cut scores) presented during the stakeholder portion of the meeting were helpful to me.	6	7	0	0	0
13. I felt comfortable expressing my opinions.	11	2	0	1	0
14. Everyone was given the opportunity to express his/her opinions.	12	2	0	0	0

	Strongly Agree	Moderately Agree	Neutral	Moderately Disagree	Strongly Disagree
15. I could clearly distinguish between levels of achievement.	4	10	0	0	0
16. Group discussions were helpful and relevant.	11	2	0	1	0
17. the pace of the workshop was right.	8	5	0	1	0
18. I believe the standard-setting workshop was fair and unbiased.	9	4	0	0	0
19. I would defend the standards recommended by our committee.	9	4	0	0	0
20. The final group-recommended Does Not Meet/partially Meets borderline cut score fairly represented the minimal level of achievement for students at Partially Meets the Standards	8	6	0	0	0
21. If you answered Disagree or Strongly disagree to Question 20, do you believe the final group-recommended cut score is (check one):	Too High 0	Too Low 0			
22. The final group-recommended Partially Meet/ Meets borderline cut score fairly represented the minimal level of achievement for students at Meets the Standards	9	5	0	0	0
23. If you answered Disagree or Strongly disagree to Question 22, do you believe the final group-recommended cut score is (check one):	Too High 0	Too Low 0			
24. The final group-recommended Meet/Exceeds borderline cut score fairly represented the minimal level of achievement for students at Exceeds the Standards	9	5	0	0	0
25. If you answered Disagree or Strongly disagree to Question 24, do you believe the final group-recommended cut score is (check one):	Too High 0	Too Low 0			

**Table 18.** Evaluation Summary, Mathematics MTAS, Grades 7–8.

	Strongly Agree	Moderately Agree	Neutral	Moderately Disagree	Strongly Disagree
1. I clearly understood the purpose of the workshop.	4	4	3	1	0
2. The conference leaders clearly explained the tasks I needed to complete.	1	8	1	2	0
3. The achievement level descriptions were clear to me.	1	9	1	1	0
4. The activities in which we clarified the achievement level descriptors helped me to recommend cut scores.	4	7	1	0	0
5. The activities in which we developed threshold descriptions helped me to recommend cut scores.	5	6	1	0	0
6. The examples and exercises helped me to understand the process.	5	6	0	1	0
7. The explanations about how to set the cut score helped me to understand what I needed to do in the rounds.	3	4	3	1	0
8. The discussions after rounds 1 and 2 for the lower grade were helpful to me.	6	6	0	0	0
9. The discussion after rounds 1 and 2 for the upper grade were helpful to me.	7	5	0	0	0
10. The panelist agreement data presented after rounds 1 and 2 for the lower grade were helpful.	4	6	0	1	0
11. The panelist agreement data presented after rounds 1 and 2 for the upper grade were helpful.	6	4	0	1	0
12. The impact data (percentages of students at or above the suggested cut scores) presented during the stakeholder portion of the meeting were helpful to me.	4	7	0	1	0
13. I felt comfortable expressing my opinions.	7	5	0	0	0
14. Everyone was given the opportunity to express his/her opinions.	5	7	0	0	0



	Strongly Agree	Moderately Agree	Neutral	Moderately Disagree	Strongly Disagree
15. I could clearly distinguish between levels of achievement.	1	7	3	1	0
16. Group discussions were helpful and relevant.	7	5	0	0	0
17. the pace of the workshop was right.	1	9	0	2	0
18. I believe the standard-setting workshop was fair and unbiased.	8	2	2	0	0
19. I would defend the standards recommended by our committee.	6	5	0	0	0
20. The final group-recommended Does Not Meet/partially Meets borderline cut score fairly represented the minimal level of achievement for students at Partially Meets the Standards	2	7	2	1	0
21. If you answered Disagree or Strongly disagree to Question 20, do you believe the final group-recommended cut score is (check one):	Too High 0	Too Low 1			
22. The final group-recommended Partially Meet/ Meets borderline cut score fairly represented the minimal level of achievement for students at Meets the Standards	3	4	2	2	1
23. If you answered Disagree or Strongly disagree to Question 22, do you believe the final group-recommended cut score is (check one):	Too High 0	Too Low 3			
24. The final group-recommended Meet/Exceeds borderline cut score fairly represented the minimal level of achievement for students at Exceeds the Standards	2	4	2	4	0
25. If you answered Disagree or Strongly disagree to Question 24, do you believe the final group-recommended cut score is (check one):	Too High 1	Too Low 2			

**Table 19.** Evaluation Summary, Mathematics MCA-III, Vertical Articulation.

	Too little time		About right		Too much time
1. To what extent was the length of this meeting appropriate for completing the vertical articulation?	1	1	15	0	0
	Not at all accurate		Somewhat Accurate		Extremely Accurate
2. To what extent do you believe the Round 3 impact (from Day 2) accurately reflected the percentage of students that should be classified in each level across grades?	0	0	9	8	0
	Not at all Comfortable		Somewhat Comfortable		Extremely Comfortable
3. What was your level of comfort with the vertical articulation impact rating task?	0	0	3	8	6
	Not at all Comfortable		Somewhat Comfortable		Extremely Comfortable
4. How comfortable are you with the final group-level impact recommendations?	0	0	5	7	5
5. How influential were the following factors in determining your impact recommendations?	Not at all Influential		Somewhat Influential		Very Influential
A. The Round 3 impact data	0	0	4	7	6
B. Other panelists' comments/Group Discussion	0	2	3	9	3
C. Other data points (historical impact, impact from relevant assessments, etc.)	0	1	8	6	2
D. My professional experience	0	0	3	10	4

**Table 20.** Evaluation Summary, Mathematics MCA-Modified, Vertical Articulation.

	Too little time		About right		Too much time
1. To what extent was the length of this meeting appropriate for completing the vertical articulation?	0	0	12	2	0
	Not at all accurate		Somewhat Accurate		Extremely Accurate
2. To what extent do you believe the Round 3 impact (from Day 2) accurately reflected the percentage of students that should be classified in each level across grades?	2	2	5	5	0
	Not at all Comfortable		Somewhat Comfortable		Extremely Comfortable
3. What was your level of comfort with the vertical articulation impact rating task?	1	4	5	4	0
	Not at all Comfortable		Somewhat Comfortable		Extremely Comfortable
4. How comfortable are you with the final group-level impact recommendations?	2	2	6	4	0
5. How influential were the following factors in determining your impact recommendations?	Not at all Influential		Somewhat Influential		Very Influential
A. The Round 3 impact data	1	0	4	5	4
B. Other panelists' comments/Group Discussion	0	0	3	6	5
C. Other data points (historical impact, impact from relevant assessments, etc.)	0	0	3	9	2
D. My professional experience	0	0	0	11	3

**Table 21.** Evaluation Summary, Reading MCA-Modified, Vertical Articulation.

	Too little time		About right		Too much time
1. To what extent was the length of this meeting appropriate for completing the vertical articulation?	0	1	12	3	1
	Not at all accurate		Somewhat Accurate		Extremely Accurate
2. To what extent do you believe the Round 3 impact (from Day 2) accurately reflected the percentage of students that should be classified in each level across grades?	0	2	5	10	0
	Not at all Comfortable		Somewhat Comfortable		Extremely Comfortable
3. What was your level of comfort with the vertical articulation impact rating task?	0	0	4	8	5
	Not at all Comfortable		Somewhat Comfortable		Extremely Comfortable
4. How comfortable are you with the final group-level impact recommendations?	0	0	1	8	7
5. How influential were the following factors in determining your impact recommendations?	Not at all Influential		Somewhat Influential		Very Influential
A. The Round 3 impact data	0	0	2	8	7
B. Other panelists' comments/Group Discussion	0	0	2	7	8
C. Other data points (historical impact, impact from relevant assessments, etc.)	0	1	3	10	3
D. My professional experience	0	0	4	6	7

**Table 22.** Evaluation Summary, MTAS, Vertical Articulation.

	Too little time		About right		Too much time
1. To what extent was the length of this meeting appropriate for completing the vertical articulation?	0	0	13	4	0
	Not at all accurate		Somewhat Accurate		Extremely Accurate
2. To what extent do you believe the Round 3 impact (from Day 2) accurately reflected the percentage of students that should be classified in each level across grades?	0	1	6	8	2
	Not at all Comfortable		Somewhat Comfortable		Extremely Comfortable
3. What was your level of comfort with the vertical articulation impact rating task?	0	3	1	12	1
	Not at all Comfortable		Somewhat Comfortable		Extremely Comfortable
4. How comfortable are you with the final group-level impact recommendations?	0	3	3	8	3
5. How influential were the following factors in determining your impact recommendations?	Not at all Influential		Somewhat Influential		Very Influential
A. The Round 3 impact data	0	1	2	9	5
B. Other panelists' comments/Group Discussion	0	0	4	10	3
C. Other data points (historical impact, impact from relevant assessments, etc.)	0	0	3	9	5
D. My professional experience	0	2	2	9	4

## Commissioner Decision

After consideration of the data sources described in this report, and committee recommendations, the Commissioner formally made the final decisions on the performance standards for the various grades for all four assessments. Table 23 provides the final approved cut scores for all grades for all four assessments.

**Table 23. Final Approved Cut Scores.**

Assessment	Level	GRADE						10/11
		3	4	5	6	7	8	
MCA-III	Partially Meets	-1.22	-1.06	-0.88	-0.75	-0.91	-0.83	
	Meets	-0.52	-0.44	-0.04	0.03	0.03	-0.03	
	Exceeds	0.60	0.57	1.01	0.96	0.94	0.83	
MTAS	Partially Meets	13	14	12	11	12	12	
	Meets	17	18	19	17	18	17	
	Exceeds	24	24	25	23	21	21	
Math MCA-Modified	Partially Meets			17	15	15	15	17
	Meets			22	20	22	21	23
	Exceeds			25	24	24	23	28
Reading MCA-Modified	Partially Meets			18	18	20	16	16
	Meets			24	23	25	23	23
	Exceeds			27	26	28	26	28

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## **APPENDIX A: AGENDA**

**Mathematics MCA-III  
Reading MCA-Modified  
Standard Setting Agenda  
June 27–28, 2011**

**Monday, June 27** \*

- 8:00–8:30 Check-in, Refreshments, and Housekeeping Tasks
- 8:30–8:45 Welcome and Introductions (MDE)
- 8:45–9:15 Purpose and Goal of the Standard Setting Meeting (MDE)
- 9:15–9:45 General Overview of the Standard Setting Process
- 9:45–10:00 Assignment to Assessment/Grade Groups and Move to Separate Rooms
- 10:00–10:15 Panelist Introductions/Overview of the Agenda
- 10:15–11:30 Review, Discuss, and Clarify Achievement Level Descriptors (Lower Grade)
- 11:30–12:30 LUNCH
- 12:30–1:30 Training on and Practice with the Bookmark Procedure
- 1:30–3:00 Panelists Review the OIB (Lower Grade)
- 3:00–4:45 Round 1 of Standard Setting (Lower Grade)
- 4:45–5:00 Check in of Secure Materials

**Tuesday, June 28**

- 8:00–9:30 Round 2—Review and Discuss Round 1 Feedback in Small Groups %
- 9:30–10:00 Round 2 Ratings (Lower Grade) %
- 10:00–11:15 Review, Discuss, and Clarify Achievement Level Descriptors (Upper Grade)
- 11:15–12:30 Panelists Review the OIB (Upper Grade) %
- 12:30–1:00 LUNCH %
- 1:00–2:00 Round 1 of Standard Setting (Upper Grade) %
- 2:00–2:15 Data Entry and QC %

2:15–3:00	Round 2—Review and Discuss Round 1 Feedback in Small Groups
3:00–3:30	Round 2 Ratings (Upper Grade)
3:30–4:00	Data Entry and QC/Discuss Expectations for Impact
4:00–4:30	Review Round 2 Impact for Lower and Upper Grades
4:30–5:00	Round 3 Ratings
5:00–5:30	Evaluations and Materials Check-in

# **Minnesota Standard Setting Vertical Articulation Agenda June 29th, 2011 \***

- |             |   |
|-------------|---|
| 8:00–9:30   | Orientation Session for Stakeholder Group (Separate Group)                            |
| 9:30–10:00  | Introduction to Vertical Articulation (Content and Stakeholder Groups, By Assessment) |
| 10:00–10:30 | Review ALDs for All Grade Levels  |
| 10:30–11:00 | Discuss Impact Expectations across Grades   |
| 11:00–12:00 | Review/Discuss Impact Associated with Recommendations                                 |
| 12:00–12:30 | Panelists Make Impact Recommendations   |
| 12:30–1:00  | LUNCH   |
| 1:00–1:45   | Present and Discuss Round 1 Feedback; Establish Group Consensus                       |
| 1:45–2:00   | Evaluations   |

**Mathematics MCA-Modified  
Mathematics MTAS  
Standard Setting Agenda  
June 29–30, 2011**

**Wednesday, June 29** \*

- 8:00–8:30 Check-in, Refreshments, and Housekeeping Tasks
- 8:30–8:45 Welcome and Introductions (MDE)
- 8:45–9:15 Purpose and Goal of the Standard Setting Meeting (MDE)
- 9:15–9:45 General Overview of the Standard Setting Process
- 9:45–10:00 Assignment to Assessment/Grade Groups and Move to Separate Rooms
- 10:00–10:15 Panelist Introductions/Overview of the Agenda
- 10:15–11:30 Review, Discuss, and Clarify Achievement Level Descriptors (Lower Grade)
- 11:30–12:30 LUNCH
- 12:30–1:30 Training on and Practice with the Bookmark Procedure
- 1:30–3:00 Panelists Review the OIB/Item Book (Lower Grade)
- 3:00–4:45 Round 1 of Standard Setting (Lower Grade)
- 4:45–5:00 Check in of Secure Materials

**Thursday, June 30**

- 8:00–9:30 Round 2—Review and Discuss Round 1 Feedback in Small Groups %
- 9:30–10:00 Round 2 Ratings (Lower Grade) %
- 10:00–11:15 Review, Discuss, and Clarify Achievement Level Descriptors (Upper Grade)
- 11:15–12:30 Panelists Review the OIB/Item Book (Upper Grade) %
- 12:30–1:00 LUNCH %
- 1:00–2:00 Round 1 of Standard Setting (Upper Grade) %
- 2:00–2:15 Data Entry and QC %

2:15–3:00	Round 2—Review and Discuss Round 1 Feedback in Small Groups
3:00–3:30	Round 2 Ratings (Upper Grade)
3:30–4:00	Data Entry and QC/Discuss Expectations for Impact
4:00–4:30	Review Round 2 Impact for Lower and Upper Grades
4:30–5:00	Round 3 Ratings
5:00–5:30	Evaluations and Materials Check-in

# **Minnesota Standard Setting Vertical Articulation Agenda June 30th, 2011 \***

3:00–4:30	Orientation Session for Stakeholder Group (Separate Group)
4:30–5:00	Introduction to Vertical Articulation (Content and Stakeholder Groups, By Assessment)
5:00–5:30	Review ALDs for All Grade Levels
5:30–6:00	Discuss Impact Expectations across Grades
6:00–7:00	Review/Discuss Impact Associated with Recommendations
7:00–7:30	Panelists Make Impact Recommendations
7:30–8:00	DINNER
8:00–8:45	Present and Discuss Round 1 Feedback; Establish Group Consensus
8:45–9:00	Evaluations

## **APPENDIX B: ALD and Threshold Descriptions**

### **Grade 3 Mathematics MCA-III Achievement Level Descriptors**

#### **(ALDs)**

#### **Does Not Meet the Standards**

A student at this level of mathematics succeeds at few of the most fundamental mathematics skills of the Minnesota Academic Standards. Some of the skills demonstrated may include:

- **Number & Operation:** Represents whole numbers with words; adds multi-digit whole numbers, matches fractions with correct area model
- **Algebra:** Recognizes additive patterns in lists of numbers; recognizes basic facts represented in number sentences
- **Geometry & Measurement:** Recognizes parallel lines; matches a picture to the name of a familiar polygon (pattern blocks); knows to use a ruler to measure distance; knows the value of coins; reads a thermometer
- **Data Analysis:** Reads data from a bar graph

#### **Partially Meets the Standards**

A student at this level of mathematics partially meets the mathematics skills of the Minnesota Academic Standards. Some of the skills demonstrated may include:

- **Number & Operation:** Represents whole numbers up to 1,000 using expanded notations; compares whole numbers up to 100,000; subtracts multi-digit whole numbers without regrouping; knows common multiplication and division facts (2s, 5s, 10s); writes fractions for a given representation, including number line
- **Algebra:** Identifies next number in a pattern; represents simple situations with a number sentence involving basic facts and an isolated unknown
- **Geometry & Measurement:** Names and describes polygons based on a familiar pictorial orientation by counting number of sides; determines perimeter using additive model
- **Data Analysis:** Matches set of data with data display (e.g., table or graph)

#### **Meets the Standards**

A student at this level of mathematics meets the mathematics skills of the Minnesota Academic Standards. Some of the skills demonstrated may include:

- **Number & Operation:** Compares and represents whole numbers up to 100,000; solves real-world and mathematical problems using addition and subtraction; represents multiplication and division in various ways (reference MN Academic Standards 3.1.2.3); compares and orders fractions with common denominators
- **Algebra:** Continues patterns to a specified term (e.g., given first three terms in a pattern, finds sixth term); represents real-world situations with a number sentence involving basic facts and an unknown
- **Geometry & Measurement:** Identifies parallel and perpendicular lines; calculates perimeter; makes correct change from a dollar; tells time from an analog clock; determines elapsed time within an hour; solves problems involving reading a thermometer and calculating temperature
- **Data Analysis:** Interprets bar graphs, pictographs, and tally charts

#### **Exceeds the Standards**

A student at this level of mathematics exceeds the mathematics skills of the Minnesota Academic Standards. Some of the skills demonstrated very consistently may include:

- **Number & Operation:** Solves real-world and mathematical problems using addition, subtraction, and multiplication; understands that the size of a fractional part is relative to the size of the whole
- **Algebra:** Conceptual understanding of pattern (e.g., recognizes input-output relationship); interprets number sentences involving unknowns
- **Geometry & Measurement:** Distinguishes between parallel and perpendicular lines in a shape; conceptual understanding of perimeter; determines elapsed time and does not require a graphic
- **Data Analysis:** Translates between data and data displays in a variety of situations



## Grade 4 Mathematics MCA-III Achievement Level Descriptors (ALDs) §

### Does Not Meet the Standards

A student at this level of mathematics succeeds at few of the most fundamental mathematics skills of the Minnesota Academic Standards. Some of the skills demonstrated may include:

- **Number & Operation:** Partial recall of basic multiplication facts; computes inefficiently (e.g., uses repeated addition instead of multiplication); uses models to represent fractions
- **Algebra:** Recognizes patterns in lists of numbers
- **Geometry & Measurement:** Names familiar polygons (e.g., pattern blocks); classifies angles in a familiar orientation (e.g., one ray is horizontal)
- **Data Analysis:** Displays data from a table in a bar graph

A student at this level of mathematics partially meets the mathematics skills of the Minnesota Academic Standards. Some of the skills demonstrated may include:

- **Number & Operation:** Knows basic multiplication facts and recognizes some division facts; knows decimal and fraction equivalents for halves and fourths; uses models to compute with fractions
- **Algebra:** Uses a verbal rule to continue pattern; matches number sentences with an isolated unknown in situations involving only multiplication
- **Geometry & Measurement:** Names and describes polygons based on a familiar pictorial orientation using solely one attribute; identifies lines of symmetry; recognizes congruent shapes with the same orientation; calculates perimeter when all sides of a graphic are labeled
- **Data Analysis:** Translates between tables and bar graphs

A student at this level of mathematics meets the mathematics skills of the Minnesota Academic Standards. Some of the skills demonstrated may include:

- **Number & Operation:** Knows division facts; multiplies multi-digit numbers; solves multiplication problems when all relevant information is present and the question is clearly defined; solves division problems by solving for missing factor; connects relationship between multiplication and division; solves multi-step problems involving addition and subtraction; uses fraction models to determine equivalent fractions; reads and writes decimals up to thousandths
- **Algebra:** Uses a verbal rule for input-output table; recognizes an algebraic rule for a one-operation pattern; represents real-world situations with a number sentence involving an unknown
- **Geometry & Measurement:** Names and describes triangles and common quadrilaterals using definitions; classifies angles in a variety of orientations; conceptual understanding of area as length times width; identifies a transformation (reference MN Academic Standards 4.3.3)
- **Data Analysis:** Collects, organizes, and displays data; solves problems in data displays involving fractions

A student at this level of mathematics exceeds the mathematics skills of the Minnesota Academic Standards. Some of the skills demonstrated very consistently may include:

- **Number & Operation:** Chooses correct operation in a problem solving situation; uses various strategies to solve multi-step problems and assess the reasonableness of results; develops a rule for addition and subtraction of fractions with common denominators; compares and orders decimals to the thousandths
- **Algebra:** Uses multi-step rules for patterns presented in different formats; translates between real-world situations and number sentences
- **Geometry & Measurement:** Names and classifies polygons in a variety of contexts and orientations; conceptual understanding that polygons can be described using sides AND/OR angles; calculates area by decomposing shapes into rectangles; applies transformations to shapes; conceptual understanding of congruency (reference MN Academic Standards 4.3.3.4)
- **Data Analysis:** Conceptual understanding of solving problems involving data displays, including timelines and Venn diagrams

## Grade 5 Mathematics MCA-III Achievement Level Descriptors (ALDs) §

### Does Not Meet the Standards

A student at this level of mathematics succeeds at few of the most fundamental mathematics skills of the Minnesota Academic Standards. Some of the skills demonstrated may include:

- **Number & Operation:** Partial mastery of basic division facts; recognizes fractions and decimals in familiar context
- **Algebra:** Recognizes patterns that use skip counting; works with simple variable representations
- **Geometry & Measurement:** Distinguishes between two- and three-dimensional shapes; uses informal naming conventions
- **Data Analysis:** Performs procedures for finding mean, median and range according to direct instructions; reads displays of data

A student at this level of mathematics partially meets the mathematics skills of the Minnesota Academic Standards. Some of the skills demonstrated may include:

- **Number & Operation:** Knows basic division facts; knows benchmark decimal and fraction equivalents (e.g.,  $\frac{1}{2} = 0.5$ ,  $\frac{1}{4} = 0.25$ )
- **Algebra:** Recognizes patterns in a list of numbers; resorts to calculation to verify commutative and associative properties; solves verbal and simple one-step equations and inequalities by substituting a value for the unknown
- **Geometry & Measurement:** Recognizes similar attributes of three-dimensional figures; limited vocabulary for attributes of three-dimensional figures; recognizes area as a multiplicative model (e.g., multiplies two sides of any shape to find area)
- **Data Analysis:** Applies rote procedures for calculating mean, median and range (e.g., median is always middle number in a list); interprets simple displays of data to solve problems

A student at this level of mathematics meets the mathematics skills of the Minnesota Academic Standards. Some of the skills demonstrated may include:

- **Number & Operation:** Divides multi-digit numbers; solves division problems when all relevant information is present and the question is clearly defined; orders and compares common fractions and decimals; adds and subtracts fractions; adds and subtracts decimals
- **Algebra:** Uses rules to generate patterns; translates between patterns and rules; applies commutative and associative properties; understands simple inequalities; represents a situation with an equation containing a variable
- **Geometry & Measurement:** Classifies three-dimensional figures and describes distinct attributes using correct vocabulary; uses formulas to calculate area, surface area, and volume; decomposes familiar shapes
- **Data Analysis:** Calculates mean, median and range, and data can be provided in a variety of formats (e.g., tables, bar graphs); works fluently with data displays and solving problems

A student at this level of mathematics exceeds the mathematics skills of the Minnesota Academic Standards. Some of the skills demonstrated very consistently may include:

- **Number & Operation:** Efficiently divides and knows when to divide in a problem solving situation; computes fluently with fractions and decimals
- **Algebra:** Works fluently with patterns and/or rules involving more than one operation or complex problem; applies the commutative, associate and distributive properties; interprets inequalities using variables
- **Geometry & Measurement:** Understands the connections between two- and three-dimensional representations; conceptual understanding of area, surface area, and volume
- **Data Analysis:** Conceptual understanding of mean, median and range; analyzes complex situations that include data displays and making interpretations

## Grade 6 Mathematics MCA-III Achievement Level Descriptors (ALDs)

### Does Not Meet the Standards

A student at this level of mathematics succeeds at few of the most fundamental mathematics skills of the Minnesota Academic Standards. Some of the skills demonstrated may include:

- **Number & Operation:** Can only name common pairs of factors of a given number (e.g.,  $12 = 3 \times 4$ ); uses decimals to separate numbers (e.g.,  $\frac{3}{4} = 3.4$ ); sees decimal in money context only; solves ratio or rate problems as multiplication and division problems
- **Algebra:** Understands concept of variable as a place holder for an answer; recognizes patterns (additive) within lists of numbers; occasionally solves one-step problems in very familiar situations (money); can find missing whole number based on number facts, not algebraic properties
- **Geometry & Measurement:** When determining area and perimeter of irregular shapes, counts by whole numbers (part is whole, diagonal is always one unit); associates 180 degrees with a triangle and 90 degrees with a right angle; finds one missing angle if given the other two in a triangle; given a problem requiring unit conversion, will multiply or divide
- **Data Analysis:** Determines probability as a fraction when sample space is given

A student at this level of mathematics partially meets the mathematics skills of the Minnesota Academic Standards. Some of the skills demonstrated may include:

- **Number & Operation:** Names pairs of factors of numbers (e.g.,  $12 = 2 \times 6$ ,  $12 = 3 \times 4$ ); recognizes equivalences among common fractions, decimals, and percents; recognizes a ratio (only) in numeric form; solves unit rate problems in a straight-forward context (division)
- **Algebra:** Solves one-step problems in straightforward situations; uses computational facts, instead of equality, to find solutions; recognizes patterns (e.g., multiplicative and additive patterns); recognizes relationships between varying quantities represented in tables, graphs, or verbal descriptions
- **Geometry & Measurement:** Calculates area and volume for basic figures (rectangles) when dimensions are provided; determines area and perimeter of irregular shapes by counting; calculates surface area when a net is provided; converts between feet and inches, hours and minutes
- **Data Analysis:** Determines sample space (i.e., the set of all possible outcomes) in a simple and very familiar context; understands simple probability expressed in fractional form

### Meets the Standards

A student at this level of mathematics meets the mathematics skills of the Minnesota Academic Standards. Some of the skills demonstrated may include:

- **Number & Operation:** Understands the concept of factors and factoring (composing and decomposing numbers); determines equivalences among fractions, decimals, and percents but reverts to one representation to solve problems (e.g., changes everything to decimals); creates ratio to represent situation when given key words in context; understands concept of ratio
- **Algebra:** Represents relationships between varying quantities using equations and inequalities, involving variables, graphs, and verbal descriptions; uses the properties of arithmetic as well as order of operations to generate equivalent expressions and to solve problems
- **Geometry & Measurement:** Recognizes and applies formulas for two- and three-dimensional figures; determines area and perimeter of irregular shapes when key is one-square unit; recognizes vocabulary associated with angles; knows basic conversions among units within a measurement system (e.g., feet to inches, centimeters to meters)
- **Data Analysis:** Determines sample space; understands simple probability in fractions, decimals, and percents

A student at this level of mathematics exceeds the mathematics skills of the Minnesota Academic Standards. Some of the skills demonstrated very consistently may include:

- **Number & Operation:** Recognizes when it is appropriate to apply the concept of factoring; sees connection between factoring and application in a problem solving situation; efficiently translates between fraction, decimal, and percent forms of positive rational number to solve problems; compares ratios and understands their relationship to fractions; recognizes ratios in context
- **Algebra:** Interprets equations and inequalities with multiple unknowns; understands that solving for a variable is not always the answer to the question
- **Geometry & Measurement:** Determines area and perimeter of irregular shapes; determines surface area; understands and uses relationships between angles in geometric figures; converts among units of measure within a measurement system
- **Data Analysis:** Represents probabilities in real-world problems, including determining sample space in a variety of ways; understands concept of probability; solves problems involving compound probability

## Grade 7 Mathematics MCA-III Achievement Level Descriptors (ALDs) §

### Does Not Meet the Standards

A student at this level of mathematics succeeds at few of the most fundamental mathematics skills of the Minnesota Academic Standards. Some of the skills demonstrated may include:

- **Number & Operation:** Changes numbers in fractional form to decimal form by dividing; recognizes that short terminating decimals, fractions, and whole numbers are rational; recognizes familiar numbers as rational; recognizes that a negative number is less than a positive number; solves one-step problems with integers; uses a set of defined steps to find a missing number in a given proportion
- **Algebra:** Represents simple context as a graph; relies on key words to determine operations to represent relationships; solves one-step equations in explicit situations following rote procedure, instead of the concept of equality
- **Geometry & Measurement:** calculates the circumference of a circle when given the diameter; recognizes a translation or a reflection on a coordinate grid
- **Data Analysis:** Calculates mean, median and range from a string of numbers using rote procedures (numbers must be in increasing order to calculate median); matches a given data set to the graph of the data; determines sample space (i.e., the set of all possible outcomes) in a simple and very familiar context; understands simple probability expressed in fractional form

A student at this level of mathematics partially meets the mathematics skills of the Minnesota Academic Standards. Some of the skills demonstrated may include:

- **Number & Operation:** Changes numbers in fractional form to decimal form and uses to compare; recognizes common repeating decimals and perfect squares under 100 as rational; solves multi-step problems involving familiar rational numbers when all relevant information is present and the question is clearly defined
- **Algebra:** Matches a proportion to a given problem situation; writes algebraic expressions using the commutative and associative properties; solves equations numerically (by substitution)
- **Geometry & Measurement:** Uses formulas for area and circumference of a circle and volume of a cylinder when exact values to substitute are given; solves problems with similar figures when a diagram is provided with corresponding parts labeled with “friendly” numbers; uses verbal description to perform a single translation or reflection on a grid
- **Data Analysis:** Calculates mean, median and range from a string of numbers (knows to order data set to determine median – or does not have to write down the ordered data set); reads circle graphs to solve problems; determines the sample space for an experiment using inefficient procedures; understands simple probability in fractions, decimals, and percents

A student at this level of mathematics meets the mathematics skills of the Minnesota Academic Standards. Some of the skills demonstrated may include:

- **Number & Operation:** Recognizes rational numbers in various forms and converts between forms; compares positive and negative rational numbers; solves multi-step problems involving rational numbers in routine problems/situations including proportions; understands that absolute value is the distance from zero
- **Algebra:** Understands the concept of proportionality and applies to routine problem solving situations; uses properties of algebra as well as order of operations to generate equivalent algebraic expressions and solve problems; represents and solves equations involving one variable, symbolically
- **Geometry & Measurement:** Uses formulas to calculate area and circumference of circles and volume and surface area of cylinders; uses proportions and ratios to solve problems involving scale drawings and conversions; uses verbal descriptions to perform translations or reflections on a grid
- **Data Analysis:** Calculates mean, median and range from various data displays; understands impact of change in data set (increase or decrease); reads circle graphs and histograms to solve problems; calculates probability as a fraction of sample space

## Exceeds the Standards

A student at this level of mathematics exceeds the mathematics skills of the Minnesota Academic Standards. Some of the skills demonstrated very consistently may include:

- **Number & Operation:** Conceptual understanding of rational numbers including justification of why a number is rational; solves non-routine (complex) problems/situations using rational numbers
- **Algebra:** Distinguishes proportional relationships from other relationships; understands the concept of proportionality and applies it to non-routine problem solving situations; uses the properties as well as order of operations to generate equivalent algebraic expressions and solve non-routine problems; represents and solves equations involving non-routine representations
- **Geometry & Measurement:** Justifies formulas for surface area and volume; can see relationships between circles and cylinders; solves problems involving scale factor and area ratios (with or without a diagram); uses algebraic rules to describe multiple translations or reflections on a grid
- **Data Analysis:** Efficiently determines mean, median and range regardless of presentation; understands abstractly how change in data set impacts mean and median (quantity of change without recalculating); interprets circle graphs and histograms to solve problems; uses proportions to calculate probabilities and solve non-routine problems

## Grade 8 Mathematics MCA-III Achievement Level Descriptors (ALDs) §

## Does Not Meet the Standards

A student at this level of mathematics succeeds at few of the most fundamental mathematics skills of the Minnesota Academic Standards. Some of the skills demonstrated may include:

- **Number & Operation:** Recognizes fractions and terminating decimals as rational numbers
- **Algebra:** Recognizes linear functions in graphic presentations; translates linear representations from a table to a graph; identifies slope by counting whole number units on a graph; identifies patterns in a table of a linear function (e.g., recognizes patterns for  $x$  or  $y$ -values but the not relationship between  $x$  and  $y$ ); substitutes “easy” numbers and evaluates simple expressions
- **Geometry & Measurement:** Recognizes the equation for the Pythagorean Theorem; recognizes parallel or perpendicular lines on a graph
- **Data Analysis:** Generalizes the properties of the line of best fit of a graphed data set; displays data using scatterplots

A student at this level of mathematics partially meets the mathematics skills of the Minnesota Academic Standards. Some of the skills demonstrated may include:

- **Number & Operation:** Recognizes familiar rational and irrational numbers
- **Algebra:** Recognizes familiar linear functions in symbolic (using key variables) and graphic presentations; translates linear representations from an equation in slope-intercept form to a graph; identifies  $y$ -intercept and slope from graphical representation or an equation written in slope-intercept form; evaluates routine algebraic expressions; solves equations with variables using substitution
- **Geometry & Measurement:** Substitutes numbers in the Pythagorean Theorem to determine hypotenuse; partial connection of slope with parallel lines
- **Data Analysis:** Given a data set, student identifies the line of best fit and makes statements about the general trend of the data

A student at this level of mathematics meets the mathematics skills of the Minnesota Academic Standards. Some of the skills demonstrated may include:

- **Number & Operation:** Recognizes real numbers in various forms; compares real numbers; generates equivalent expressions involving rational numbers in routine problems/situations, including scientific notation
- **Algebra:** Recognizes a linear function in symbolic and graphic presentations; represents familiar and routine linear situations with tables, verbal descriptions, symbols, equations, and graphs and translates from one representation to another; identifies graphical properties of linear functions; generates and evaluates equivalent algebraic expressions; identifies systems of linear equations when provided a verbal description; identifies the solution of a linear system as the intersection of the two lines when given the graph; solves equations and inequalities using algebraic properties
- **Geometry & Measurement:** Applies the Pythagorean Theorem to solve problems; identifies parallel lines graphically and symbolically; partial connection of slope with perpendicular lines
- **Data Analysis:** Given a data set, student identifies the line of best fit and interprets the data; makes predictions about the data set

## Exceeds the Standards

A student at this level of mathematics exceeds the mathematics skills of the Minnesota Academic Standards. Some of the skills demonstrated very consistently may include:

- **Number & Operation:** Conceptual understanding of real numbers
- **Algebra:** Conceptual understanding of dependent and independent variables; solves equations and inequalities and interprets solutions; represents non-routine linear situations with tables, verbal descriptions, symbols, equations, and graphs; converts between forms of a linear equation (i.e., standard, point-slope, slope-intercept); knows names of algebraic properties for justification in evaluating algebraic expressions; represents systems of linear equations provided a verbal description; solves a linear system algebraically and graphically and expresses the solution as an ordered pair
- **Geometry & Measurement:** Conceptual understanding of the Pythagorean Theorem and applies it in non-routine problems; understands and applies slopes of parallel and perpendicular lines graphically and symbolically
- **Data Analysis:** Given a data set, student determines the line of best fit and interprets the data; assesses reasonableness of predictions in non-routine situations

## Grade 5 Mathematics MCA-Modified Achievement Level Descriptors

### Does Not Meet the Modified Achievement Standards

Students at this level succeed at few of the most fundamental mathematics skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Numbers and Operations:** Order numbers expressed in decimals to two places; solve addition and subtraction problems involving decimals to two places

**Algebra:** Identify the operation required in a simple mathematical situation

**Geometry and Measurement:** Identify nets for simple three-dimensional figures

**Data Analysis:** Count to find the median of a short, ordered list consisting of an uneven number of items

### Partially Meets the Modified Achievement Standards

Students at this level partially meet the mathematics skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Numbers and Operations:** Find 0.1 more than a number and 0.1 less than a number; solve multi-step problems involving addition, subtraction, and multiplication

**Algebra:** Extend number patterns; represent mathematical situations using simple number sentences

**Geometry and Measurement:** Find the surface area of a three-dimensional shape represented by a net

**Data Analysis:** Find the median of a short, ordered list of one and two-digit numbers

### Meets the Modified Achievement Standards

Students at this level meet the mathematics skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Numbers and Operations:** Order fractions; express quotients as whole numbers with remainders

**Algebra:** Solve an equation or inequality with a variable

**Geometry and Measurement:** Identify faces of three-dimensional figures

**Data Analysis:** Find mean, median and range of data comprised of one and two-digit numbers; read line and bar graphs using whole numbers

### Exceeds the Modified Achievement Standards

Students at this level exceed the mathematics skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Numbers and Operations:** Recognize equivalent fractions; divide numbers with dividends up to three-digits

**Algebra:** Apply order of operations to solve problems

**Geometry and Measurement:** Find volume and surface area of rectangular prisms

**Data Analysis:** Find mean, median and range of data comprised of two and three-digit numbers; interpret line and bar graphs



## Grade 6 Mathematics MCA-Modified Achievement Level Descriptors

Students at this level succeed at few of the most fundamental mathematics skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Numbers and Operations:** Recognize that ratio notation may take different forms (e.g.,  $\frac{1}{4}$ , 1 out of 4)

**Algebra:** Apply function rules in graphs

**Geometry and Measurement:** Identify complementary, right, and supplementary angles

**Data Analysis:** Distinguish between theoretical and experimental probability

Students at this level partially meet the mathematics skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Numbers and Operations:** Use multiplication to solve rate and ratio problems

**Algebra:** Apply function rules in graphs and tables

**Geometry and Measurement:** Solve problems involving complementary and supplementary angles

**Data Analysis:** Represent probabilities as fractions

Students at this level meet the mathematics skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Numbers and Operations:** Convert between ratios, fractions, and percents to solve problems

**Algebra:** Determine the value of a variable in an equation

**Geometry and Measurement:** Find the measure of a missing angle in a triangle

**Data Analysis:** Use a tree diagram to determine sample space

Students at this level exceed the mathematics skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Numbers and Operations:** Convert a percent to a fraction in lowest terms

**Algebra:** Use equations involving variables to solve problems

**Geometry and Measurement:** Decompose polygons into triangles to find measure of interior angles

**Data Analysis:** Calculate experimental probabilities and express the results as fractions

## Grade 7 Mathematics MCA-Modified Achievement Level Descriptors

Students at this level succeed at few of the most fundamental mathematics skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Numbers and Operations:** Locate positive and negative rational numbers that are integers on a number line

**Algebra:** Identify proportional relationships in real-world situations

**Geometry and Measurement:** Determine change of scale in similar geometric figures

**Data Analysis:** Identify median in an unordered data set

Students at this level partially meet the mathematics skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Numbers and Operations:** Add positive and negative rational numbers that are integers

**Algebra:** Recognize linear functions in graphical representation

**Geometry and Measurement:** Use scale factors to solve problems with similar geometric figures

**Data Analysis:** Determine mean, median and range for given data

Students at this level meet the mathematics skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Numbers and Operations:** Use the properties of arithmetic as well as order of operations to solve problems

**Algebra:** Determine slope from graphical presentations

**Geometry and Measurement:** Graph reflections and translations on a coordinate grid

**Data Analysis:** Compare mean, median and range for a data set

Students at this level exceed the mathematics skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Numbers and Operations:** Represent absolute value as distance on a number line

**Algebra:** Recognize how the graph of a function changes when the unit rate changes

**Geometry and Measurement:** Use length ratios to calculate area of similar geometric figures

**Data Analysis:** Calculate the impact of inserting or deleting a data point on the mean and median of a data set

## Grade 8 Mathematics MCA-Modified Achievement Level Descriptors

Students at this level succeed at few of the most fundamental mathematics skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Numbers and Operations:** Generate equivalent expressions involving scientific notation

**Algebra:** Apply order of operations to generate equivalent expressions

**Geometry and Measurement:** Identify the Pythagorean Theorem

**Data Analysis:** Identify simple patterns in a data set

Students at this level partially meet the mathematics skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Numbers and Operations:** Recognize perfect squares under 100

**Algebra:** Evaluate simple expressions by substituting whole numbers

**Geometry and Measurement:** Recognize that the Pythagorean Theorem applies only to right triangles

**Data Analysis:** Generalize the properties of the line of best fit

Students at this level meet the mathematics skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Numbers and Operations:** Calculate expressions involving positive integer exponents

**Algebra:** Solve algebraic expressions at specified values of their variables

**Geometry and Measurement:** Apply the Pythagorean Theorem to find the length of a missing side of a right triangle

**Data Analysis:** Identify the line of best fit and make predictions about the data set

Students at this level exceed the mathematics skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Numbers and Operations:** Identify the square root of a positive integer

**Algebra:** Evaluate algebraic expressions involving absolute values

**Geometry and Measurement:** Use the Pythagorean Theorem to find the distance between two points in a coordinate system.

**Data Analysis:** Estimate rate of change based on line of best fit

## Grade 11 Mathematics MCA-Modified Achievement Level Descriptors

Students at this level succeed at few of the most fundamental mathematics skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Number Sense:** (Skills are embedded in the strands shown below)

**Patterns, Functions and Algebra:** Recognize functions and patterns in tables and graphs

**Data Analysis, Statistics and Probability:** Identify approximate lines of best fit on scatter plots

**Spatial Sense, Geometry and Measurement:** Apply translations to coordinate grids

Students at this level partially meet the mathematics skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Number Sense:** (Skills are embedded in the strands shown below)

**Patterns, Functions and Algebra:** Use slopes to identify parallel and perpendicular lines

**Data Analysis, Statistics and Probability:** Compare and draw conclusions about data sets

**Spatial Sense, Geometry and Measurement:** Apply basic concepts of right triangle trigonometry to solve problems

Students at this level meet the mathematics skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Number Sense:** (Skills are embedded in the strands shown below)

**Patterns, Functions and Algebra:** Identify equivalent algebraic expressions; apply the laws of exponents to perform operations on expressions

**Data Analysis, Statistics and Probability:** Recognize the influence that a change in data has on the mean, median, and range

**Spatial Sense, Geometry and Measurement:** Understand and apply slopes of parallel and perpendicular lines graphically and symbolically

Students at this level exceed the mathematics skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Number Sense:** (Skills are embedded in the strands shown below)

**Patterns, Functions and Algebra:** Identify graphing of absolute value and inequalities; solve multi-step algebraic expressions

**Data Analysis, Statistics and Probability:** Use measures of central tendency to draw conclusions about a given data set

**Spatial Sense, Geometry and Measurement:** Apply coordinate geometry to find the distance between two points or midpoint of a line segment

## Grade 5 Reading MCA-Modified Achievement Level Descriptors

Students at this level of reading succeed at few of the most fundamental reading skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Vocabulary Expansion:** Understand some literal word meanings

**Comprehension:** Identify some details in basic text; draw a simple conclusion

**Literature:** Show beginning understanding of literary elements (e.g. character, setting) in basic text

Students at this level of reading partially meet the reading skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Vocabulary Expansion:** Use context clues to identify some grade-level word meanings in simple text

**Comprehension:** Identify relevant details in a simple text; identify main idea of all or a portion of simple text; draw some conclusions based on explicit information in simple text; identify simple cause and effect relationships

**Literature:** Identify and make some simple connections between literary elements (e.g. character, plot, and setting) in uncomplicated text

Students at this level of reading meet the reading skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Vocabulary Expansion:** Identify grade-level word meanings, including synonyms and antonyms, using context clues

**Comprehension:** Summarize and paraphrase text, identify main idea of all or a portion of a text and identify relevant details; make inferences and draw conclusions using textual support; determine cause and effect/draw conclusions; distinguish between fact and opinion; compare and contrast information; identify author's point of view

**Literature:** Identify and analyze literary elements, like characterization, plot, and setting; respond to literature making some literary connections

Students at this level of reading exceed the reading skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Vocabulary Expansion:** Determine the meaning of grade-level words in challenging text

**Comprehension:** Infer main idea of a challenging text and determine supporting details; draw conclusions about challenging text; compare and contrast difficult concepts within a challenging text; evaluate challenging text to determine author's point of view and purpose; distinguish between fact and opinion and determine how using fact or opinion strengthens the text

**Literature:** Analyze elements of fiction in challenging text; determine the meaning of literature using ideas and details from the text to support reactions and make literary connections; distinguish between first- and third-person point of view and determine the effect on the text



## Grade 6 Reading MCA-Modified Achievement Level Descriptors

Students at this level of reading succeed at few of the most fundamental reading skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Vocabulary Expansion:** Determine the literal meaning of a word or phrase

**Comprehension:** Identify clearly stated details in basic text; draw some conclusions about basic text

**Literature:** Identify the meaning of a simple simile

Students at this level of reading partially meet the reading skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Vocabulary Expansion:** Use explicit context clues to determine the meaning of a grade-level word in simple text

**Comprehension:** Identify a basic main idea of all or a portion of a simple text; identify details that directly support the main idea of a simple text; choose the next step in a given sequence from a simple text; identify directly stated author's purpose or support for the author's point of view in a simple text; make some inferences about simple text

**Literature:** Identify simple connections between literary elements (e.g. character, plot, setting); identify an explicit theme of simple text; determine the meaning of figurative language directly supported in simple text (e.g. similes, metaphors)

Students at this level of reading meet the reading skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Vocabulary Expansion:** Use context clues to determine the meaning of a grade-level word

**Comprehension:** Determine main idea and identify supporting details; retell text events in sequence; make literal or inferential conclusions about text; identify an opinion; determine the author's purpose

**Literature:** Identify elements of fiction, including setting, character, plot, conflict/resolution, theme and tone and describe how they interact; recognize and interpret figurative language and literary devices as they add to the meaning of a text

Students at this level of reading exceed the reading skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Vocabulary Expansion:** Determine the meaning of grade-level words in challenging text

**Comprehension:** Analyze sequence of events to make logical conclusion or predictions; make inferences and draw conclusions about essential ideas of challenging text; analyze how author conveys purpose of a challenging text; evaluate how fact and opinion contribute to the message of a challenging text; evaluate a challenging text to determine main idea

**Literature:** Evaluate how elements of fiction affect one another; interpret, evaluate, and respond to text; analyze how figurative language and literary devices contribute to the meaning of a challenging text; respond to literature, making discerning literary connections

## Grade 7 Reading MCA-Modified Achievement Level Descriptors

Students at this level of reading succeed at few of the most fundamental reading skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Vocabulary Expansion:** Derive the literal meaning of some words using explicit context clues

**Comprehension:** Draw basic conclusions based on explicit text; identify the literal interpretation of clearly-stated main ideas and/or supporting details in basic text

**Literature:** Answer some basic questions about literary elements in basic text

Students at this level of reading partially meet the reading skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Vocabulary Expansion:** Consider the literal or implied meaning of grade-level words by using direct context clues

**Literature:** Identify and do some simple analysis of literary elements, including setting, character, plot, conflict/resolution, theme, and tone; determine the meaning of figurative language in simple text, such as analogies, similes, and metaphors; make connections and respond to simple text

**Comprehension:** Identify author's purpose of a simple text; make inferences and draw conclusions about simple text; determine main idea for all or a portion of simple texts; determine details that directly relate to the main idea

Students at this level of reading meet the reading skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Vocabulary Expansion:** Analyze word structure and use literal and inferential context clues to determine the meaning of a grade-level word

**Comprehension:** Make inferences and draw conclusions containing ideas supported with text details; assess text to determine main idea and determine relevant details; distinguish statements of fact from opinion; determine the author's purpose or audience or providing support for the author's purpose

**Literature:** Identify and analyze the relationships among elements of fiction, including setting, character, plot, conflict/resolution, theme, and tone and the effects of character traits on the plot; analyze figurative language and literary devices as they add to the meaning of text; recognize the difference

between first- and third-person point of view; respond to literature by making direct literary connections

Students at this level of reading exceed the reading skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Vocabulary Expansion:** Determine the meaning of grade-level words in challenging text

**Comprehension:** Make inferences and draw conclusions based on implied information; distinguish analogous statements of fact from opinion; critically read and evaluate to determine the author's purpose, point of view, audience, and message; evaluate challenging text to determine main ideas and details that support the main ideas; use inferential context clues to determine the meaning of grade-level words in challenging text

**Literature:** Use examples and ideas from text to support response to challenging literature; analyze use of first- and third-person point of view; analyze challenging text and explain the relationships among elements of fiction, including setting, character, plot, conflict/resolution, theme, and tone

## Grade 8 Reading MCA-Modified Achievement Level Descriptors

Students at this level of reading succeed at few of the most fundamental reading skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Vocabulary Expansion:** Determine grade-level word meaning using explicit context clues in basic text

**Comprehension:** Identify relevant details in basic text; make inferences based on explicit information in basic text

**Literature:** Identify some basic character traits

Students at this level of reading partially meet the reading skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Vocabulary Expansion:** Derive the meaning of grade-level words using context clues from simple text

**Comprehension:** Identify explicit main idea of simple text; identify relevant details and facts in simple text; make limited inferences and drawing conclusions based primarily on explicit information in simple text; identify author's purpose of a simple text

**Literature:** Identify character traits, emotions or motivations in simple text

Students at this level of reading meet the reading skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Vocabulary Expansion:** Derive the meaning of grade-level words using context clues from text including recognizing and interpreting multiple-meaning words

**Comprehension:** Determine author's purpose or audience and locate textual support for author's purpose (which includes determining how fact and opinion contribute to the message of a text); summarize and paraphrase main idea and relevant details in grade-level text; make inferences and draw conclusions based on explicit or implied information; distinguish fact from opinion

**Literature:** Identify and analyze character traits, emotions and motivations providing some supporting evidence; determine the meaning of figurative language and literary devices ; make relevant literary connections about grade-level text; analyze the effect point of view has on text meaning

Students at this level of reading exceed the reading skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Vocabulary Expansion:** Determine the meanings of grade-level words in challenging text

**Comprehension:** Infer the author's purpose, attitude, or audience of a challenging text; determine and evaluate main idea and relevant details in challenging text; make inferences and draw conclusions based on implied information in challenging text; analyze how fact and opinion support the meaning of a challenging text

**Literature:** Provide supporting textual evidence for evaluation of character traits, emotions and motivations in challenging text; evaluate the use of figurative language and literary devices; evaluate the effect point of view has on the meaning of a challenging text; make literary connections supported by ideas and details from challenging text

## Grade 10 Reading MCA-Modified Achievement Level Descriptors

Students at this level of reading succeed at few of the most fundamental reading skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Vocabulary Expansion:** Make limited use of context clues to determine the meaning of grade-level words in basic text

**Comprehension:** Make basic inferences and conclusions

**Literature:** Interpret some well supported figurative language in basic text

Students at this level of reading partially meet the reading skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Vocabulary Expansion:** Determine the meaning of grade-level words based primarily on explicit context clues in simple text

**Comprehension:** Identify author's purpose of a simple text; draw conclusions and make some inferences about simple text; recognize main ideas and supporting details of simple text

**Literature:** Understand figurative language such as imagery or tone within simple text; identify literary elements and make basic literary connections in simple text

Students at this level of reading meet the reading skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Vocabulary Expansion:** Determine the meaning of grade-level words by using context clues and word parts in text; interpret unfamiliar vocabulary with reduced contextual support

**Comprehension:** Summarize a main idea and determine details that support the main idea; identify and analyze author's argument, point of view or perspective and locate textual support; make inferences and draw conclusions about implied information in a variety of texts

**Literature:** Understand figurative language, such as imagery, symbolism, tone, irony, and satire, and describe how it relates to the meaning of the text; recognize and analyze the relationship between elements of literature (character, setting, plot, tone, symbolism, rising action, climax, falling action, point of view, theme, conflict/resolution)

Students at this level of reading exceed the reading skills of the Minnesota Academic Standards. The following are some of the skills these students demonstrate.

**Vocabulary Expansion:** Determine the meanings of grade-level words in challenging text

**Comprehension:** Evaluate the author's argument, point of view, or perspective in a challenging text and provide support from the text; analyze challenging text to provide a comprehensive main idea; make inferences and draw conclusions based implied information in challenging text

**Literature:** Synthesize information from an entire text to gain varied levels of understanding; evaluate the relationship between elements of literature (character, setting, plot, tone, symbolism, rising action, climax, falling action, point of view, theme, conflict/resolution); evaluate figurative language, such as imagery, symbolism, tone, irony, and satire, and describe how it relates to the meaning of a challenging text; recognize relationships among structure, style, and content to make literary connections



## Grade 3 Mathematics MTAS Achievement Level Descriptors

Students at this level succeed at a limited number of the most fundamental skills represented by the alternate achievement standards for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the extensive use of supports.

- Recognize numbers 1–10
- Recognize operation symbols such as + and -
- Recognize squares, circles and triangles
- Recognize a pictograph

Students at this level succeed at some of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the frequent use of supports.

- Order whole numbers
- Identify repeating and growing patterns
- Identify shapes based on the number of sides
- Recognize parts of a pictograph and bar graph

Students at this level succeed at many of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the occasional use of supports.

- Compare whole numbers 1 – 20
- Identify rules to represent patterns, such as +1 and -1
- Identify shapes based on the number of sides and the number of angles
- Interpret data in a pictograph

Students at this level succeed at most of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with little to no use of supports.

- Compare whole numbers up to 100
- Identify and applying rules to represent patterns
- Identify parallel and perpendicular lines in a shape
- Interpret a simple bar graph

## Grade 4 Mathematics MTAS Achievement Level Descriptors

Students at this level succeed at a limited number of the most fundamental skills represented by the alternate achievement standards for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the extensive use of supports.

- Count objects represented graphically !
- Indicate "one more" of a number
- Recognize basic symbols (+, -, and =) in number sentences
- Identify squares
- Identify pictographs and bar graphs

Students at this level succeed at some of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the frequent use of supports.

- Add and subtract one-digit numbers
- Identify a real-world situation that corresponds to a number sentence involving multiplication
- Classify squares and rectangles
- Interpret data in a pictograph !

Students at this level succeed at many of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the occasional use of supports.

- Multiply one-digit numbers with graphical support
- Identify a real-world situation that corresponds to a number sentence involving multiplication or division
- Describe squares, rectangles, and parallelograms
- Interpret data in a table

### Exceeds the Alternate Achievement Standards

Students at this level succeed at most of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with little to no use of supports.

- Divide one-digit numbers with graphical support
- Find an unknown value in a number sentence involving multiplication
- Describe and classifying quadrilaterals
- Interpret a bar graph or line plot

## Grade 5 Mathematics MTAS Achievement Level Descriptors

Students at this level succeed at a limited number of the most fundamental skills represented by the alternate achievement standards for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the extensive use of supports.

Add one-digit numbers represented graphically (e.g.,  $\text{☺☺☺} + \text{☺☺☺☺} = \text{☺☺☺☺☺☺☺}$ )

Locate whole numbers on a number line

Identify a real-world situation that corresponds to a simple equation

Recognize some two-dimensional shapes

Identify different types of data displays, including double-bar graphs and line graphs

Students at this level succeed at some of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the frequent use of supports.

Add and subtract one- and two-digit numbers

Recognize numbers written as decimals

Represent real-world situations with simple equations

Identify three-dimensional shapes such as cubes, cones and cylinders

Read tables

Students at this level succeed at many of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the occasional use of supports.

Solve two-step addition and subtraction problems !

Identify equivalent fractions represented graphically

Identify the value of one variable in simple equations

Count faces on three-dimensional shapes

Reading line graphs !

Students at this level succeed at most of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with little to no use of supports.

Solve simple multiplication problems

Order fractions on a number line

Evaluate an expression for a given value of a variable

Count edges on three-dimensional shapes  
Interpret double-bar graphs

## Grade 6 Mathematics MTAS Achievement Level Descriptors

### Does Not Meet the Alternate Achievement Standards

Students at this level succeed at a limited number of the most fundamental skills represented by the alternate achievement standards for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the extensive use of supports.

- Order whole numbers on a number line
- Recognize that both sides of an equation have equal value
- Identify inches, feet, and yards
- Recognize that some events are more likely to occur than others

Students at this level succeed at some of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the frequent use of supports.

- Identify points on a coordinate grid
- Identify a variable as a quantity that can change
- Recognize that geometric measurement units and capacity units measure different things
- Recognize probability as likelihood of an event

Students at this level succeed at many of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the occasional use of supports.

- Identify ordered pairs on a coordinate grid
- Recognize variables change as other quantities change
- Solve simple conversion problems, such as 3 feet = 1 yard
- Represent probabilities as fractions

Students at this level succeed at most of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with little to no use of supports.

- Locate ordered pairs on a coordinate grid
- Represent the relationship between 2 varying quantities with a table
- Solve conversion problems involving geometric measurement, capacity, and time units
- Represent probabilities as fractions or ratios

## Grade 7 Mathematics MTAS Achievement Level Descriptors

Students at this level succeed at a limited number of the most fundamental skills represented by the alternate achievement standards for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the extensive use of supports.

- Add positive and negative integers
- Recognize an equation
- Identify an example of a scale drawing
- Identify a real-world situation involving probability, such as in a weather forecast

Students at this level succeed at some of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the frequent use of supports.

- Add and subtract positive and negative integers
- Recognize that a real-world situation can be represented with an equation
- Recognize the relationship between scale drawings and full-size drawings
- Identify probability as the likelihood of an event occurring

Students at this level succeed at many of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the occasional use of supports.

- Add and subtract integers and fractions
- Find solutions to equations with proportional relationships with graphical support
- Solve problems involving scale drawings
- Select a fraction to represent probability with graphical support

Students at this level succeed at most of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with little to no use of supports.

- Multiply and divide integers
- Represent a situation with an equation or inequality that involves a variable
- Solve equations involving proportional relationships
- Use proportions to solve problems involving scale drawings
- Calculate simple probabilities by representing outcomes as fractions

## Grade 8 Mathematics MTAS Achievement Level Descriptors

Students at this level succeed at a limited number of the most fundamental skills represented by the alternate achievement standards for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the extensive use of supports.

- Identify a point on a number line
- Recognize that a variable can be used to represent a quantity that changes
- Recognize slope in real objects such as ramps
- Identify scatterplots

Students at this level succeed at some of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the frequent use of supports.

- Locate fractions on a number line
- Recognize that one or more values can replace a variable
- Identify parallel lines
- Recognize line of best fit on scatterplots

Students at this level succeed at many of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the occasional use of supports.

- Compare rational numbers
- Evaluate an algebraic expression when the value of one variable is given
- Recognize that parallel lines have the same slope
- Estimate line of best fit on scatterplots

Students at this level succeed at most of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with little to no use of supports.

- Compare rational numbers, including fractions that do not have common denominators
- Evaluate algebraic expressions when values of variables are given
- Identify the slope of a line when given the slope of a parallel line
- Use line of best fit to make predictions on a scatterplot

## APPENDIX C: Data from Various Rounds and Vertical Articulations

In this Appendix, the results from all three rounds for the various assessments, as well as impact data from round 3, are presented. Vertical articulation percentage recommendations are also included. The vertical articulation percentages were mapped to the score distribution and corresponding cut scores that would provide the closest impact were identified—therefore, the impact percentages included in this Appendix for the articulation can be slightly different from the final standard setting recommendations.

**Modified Reading**  
**MCA-II Modified Reading, Grade 5, Round 1 \$**  
**Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	5	11	32
	Maximum	12	30	42
	Mean	10	22	37
	<b>Median</b>	<b>11</b>	<b>24</b>	<b>37</b>
2	Minimum	5	33	34
	Maximum	11	39	45
	Mean	7	36	42
	<b>Median</b>	<b>7</b>	<b>36</b>	<b>45</b>
3	Minimum	24	40	43
	Maximum	33	42	45
	Mean	30	41	44
	<b>Median</b>	<b>31</b>	<b>41</b>	<b>44</b>
Total	Minimum	5	11	32
	Maximum	33	42	45
	Mean	16	33	41
	<b>Median</b>	<b>11</b>	<b>36</b>	<b>43</b>



**MCA-II Modified Reading, Grade 5, Round 2  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	5	21	30
	Maximum	11	25	32
	Mean	9	22	31
	<b>Median</b>	<b>9</b>	<b>21</b>	<b>31</b>
2	Minimum	7	33	45
	Maximum	7	34	45
	Mean	7	34	45
	<b>Median</b>	<b>7</b>	<b>34</b>	<b>45</b>
3	Minimum	13	30	40
	Maximum	30	40	45
	Mean	26	38	44
	<b>Median</b>	<b>30</b>	<b>40</b>	<b>45</b>
Total	Minimum	5	21	30
	Maximum	30	40	45
	Mean	14	31	40
	<b>Median</b>	<b>9</b>	<b>33</b>	<b>45</b>

**MCA-II Modified Reading, Grade 5, Round 3 \$  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	5	21	31
	Maximum	12	25	34
	Mean	9	22	32
	<b>Median</b>	<b>9</b>	<b>21</b>	<b>31</b>
2	Minimum	6	27	37
	Maximum	7	34	42
	Mean	7	31	39
	<b>Median</b>	<b>7</b>	<b>31</b>	<b>38</b>
3	Minimum	13	30	40
	Maximum	26	40	45
	Mean	21	35	42
	<b>Median</b>	<b>22</b>	<b>36</b>	<b>42</b>
Total	Minimum	5	21	31
	Maximum	26	40	45
	Mean	12	29	38
	<b>Median</b>	<b>9</b>	<b>29</b>	<b>38</b>

**MCA-II Modified Reading, Grade 6, Round 1 \$  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	3	15	25
	Maximum	10	22	31
	Mean	6	20	29
	<b>Median</b>	<b>5</b>	<b>21</b>	<b>30</b>
2	Minimum	5	18	42
	Maximum	8	36	45
	Mean	7	29	44
	<b>Median</b>	<b>7</b>	<b>31</b>	<b>45</b>
3	Minimum	7	18	37
	Maximum	19	33	45
	Mean	12	25	43
	<b>Median</b>	<b>12</b>	<b>24</b>	<b>45</b>
Total	Minimum	3	15	25
	Maximum	19	36	45
	Mean	8	24	39
	<b>Median</b>	<b>8</b>	<b>22</b>	<b>43</b>

**MCA-II Modified Reading, Grade 6, Round 2 \$  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	3	20	28
	Maximum	9	21	30
	Mean	6	20	30
	<b>Median</b>	<b>5</b>	<b>20</b>	<b>30</b>
2	Minimum	6	28	42
	Maximum	8	33	45
	Mean	7	31	44
	<b>Median</b>	<b>7</b>	<b>31</b>	<b>44</b>
3	Minimum	7	19	37
	Maximum	14	28	45
	Mean	11	24	42
	<b>Median</b>	<b>12</b>	<b>24</b>	<b>43</b>
Total	Minimum	3	19	28
	Maximum	14	33	45
	Mean	8	25	38
	<b>Median</b>	<b>7</b>	<b>25</b>	<b>42</b>

**MCA-II Modified Reading, Grade 6, Round 3 \$**  
**Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	3	20	28
	Maximum	10	22	33
	Mean	6	21	30
	<b>Median</b>	<b>5</b>	<b>20</b>	<b>29</b>
2	Minimum	6	23	33
	Maximum	8	33	40
	Mean	7	28	36
	<b>Median</b>	<b>7</b>	<b>29</b>	<b>36</b>
3	Minimum	3	18	32
	Maximum	14	28	44
	Mean	9	23	39
	<b>Median</b>	<b>10</b>	<b>24</b>	<b>40</b>
Total	Minimum	3	18	28
	Maximum	14	33	44
	Mean	7	24	35
	<b>Median</b>	<b>7</b>	<b>23</b>	<b>35</b>

**MCA-II Modified Reading, Grade 7, Round 1 \$**  
**Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	11	25	37
	Maximum	14	37	44
	Mean	12	30	41
	<b>Median</b>	<b>12</b>	<b>29</b>	<b>41</b>
2	Minimum	4	18	38
	Maximum	14	35	41
	Mean	11	27	40
	<b>Median</b>	<b>13</b>	<b>28</b>	<b>40</b>
3	Minimum	11	22	35
	Maximum	14	35	43
	Mean	13	29	39
	<b>Median</b>	<b>13</b>	<b>30</b>	<b>38</b>
Total	Minimum	4	18	35
	Maximum	14	37	44
	Mean	12	29	40
	<b>Median</b>	<b>13</b>	<b>29</b>	<b>40</b>

**MCA-II Modified Reading, Grade 7, Round 2 \$  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	12	27	35
	Maximum	14	31	43
	Mean	13	30	40
	<b>Median</b>	<b>13</b>	<b>30</b>	<b>42</b>
2	Minimum	10	28	39
	Maximum	12	35	40
	Mean	12	33	39
	<b>Median</b>	<b>12</b>	<b>35</b>	<b>39</b>
3	Minimum	12	25	35
	Maximum	13	25	39
	Mean	12	25	37
	<b>Median</b>	<b>12</b>	<b>25</b>	<b>37</b>
Total	Minimum	10	25	35
	Maximum	14	35	43
	Mean	12	29	39
	<b>Median</b>	<b>12</b>	<b>29</b>	<b>39</b>

**MCA-II Modified Reading, Grade 7, Round 3 \$  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	12	29	39
	Maximum	14	30	42
	Mean	13	30	41
	<b>Median</b>	<b>12</b>	<b>30</b>	<b>41</b>
2	Minimum	9	25	35
	Maximum	12	35	39
	Mean	11	31	38
	<b>Median</b>	<b>12</b>	<b>32</b>	<b>39</b>
3	Minimum	12	25	35
	Maximum	13	27	39
	Mean	12	26	37
	<b>Median</b>	<b>12</b>	<b>25</b>	<b>37</b>
Total	Minimum	9	25	35
	Maximum	14	35	42
	Mean	12	29	38
	<b>Median</b>	<b>12</b>	<b>29</b>	<b>39</b>

**MCA-II Modified Reading, Grade 8, Round 1 \$  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	8	13	30
	Maximum	19	37	44
	Mean	14	27	39
	<b>Median</b>	<b>14</b>	<b>30</b>	<b>42</b>
2	Minimum	6	30	37
	Maximum	17	40	45
	Mean	10	33	40
	<b>Median</b>	<b>9</b>	<b>31</b>	<b>38</b>
3	Minimum	5	20	35
	Maximum	15	26	41
	Mean	8	23	38
	<b>Median</b>	<b>6</b>	<b>22</b>	<b>38</b>
Total	Minimum	5	13	30
	Maximum	19	40	45
	Mean	11	28	39
	<b>Median</b>	<b>9</b>	<b>30</b>	<b>38</b>

**MCA-II Modified Reading, Grade 8, Round 2 \$  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	10	29	40
	Maximum	16	35	42
	Mean	14	32	41
	<b>Median</b>	<b>15</b>	<b>32</b>	<b>41</b>
2	Minimum	6	30	37
	Maximum	6	30	38
	Mean	6	30	37
	<b>Median</b>	<b>6</b>	<b>30</b>	<b>37</b>
3	Minimum	6	19	35
	Maximum	6	20	38
	Mean	6	20	36
	<b>Median</b>	<b>6</b>	<b>20</b>	<b>35</b>
Total	Minimum	6	19	35
	Maximum	16	35	42
	Mean	9	27	38
	<b>Median</b>	<b>6</b>	<b>30</b>	<b>38</b>

**MCA-II Modified Reading, Grade 8, Round 3 \$**  
**Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	8	29	38
	Maximum	10	33	41
	Mean	10	31	40
	<b>Median</b>	<b>10</b>	<b>31</b>	<b>40</b>
2	Minimum	6	30	37
	Maximum	7	30	37
	Mean	6	30	37
	<b>Median</b>	<b>6</b>	<b>30</b>	<b>37</b>
3	Minimum	6	20	35
	Maximum	6	28	38
	Mean	6	25	36
	<b>Median</b>	<b>6</b>	<b>25</b>	<b>35</b>
Total	Minimum	6	20	35
	Maximum	10	33	41
	Mean	7	29	38
	<b>Median</b>	<b>6</b>	<b>30</b>	<b>37</b>

**MCA-II Modified Reading, Grade 10, Round 1 \$**  
**Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	4	8	12
	Maximum	10	38	44
	Mean	8	21	31
	<b>Median</b>	<b>8</b>	<b>16</b>	<b>32</b>
2	Minimum	9	24	40
	Maximum	42	43	44
	Mean	20	32	42
	<b>Median</b>	<b>16</b>	<b>30</b>	<b>41</b>
3	Minimum	7	21	27
	Maximum	10	25	39
	Mean	9	23	34
	<b>Median</b>	<b>10</b>	<b>23</b>	<b>34</b>
Total	Minimum	4	8	12
	Maximum	42	43	44
	Mean	12	25	36
	<b>Median</b>	<b>10</b>	<b>24</b>	<b>38</b>

**MCA-II Modified Reading, Grade 10, Round 2 \$  
Combined Cut Reports \$**

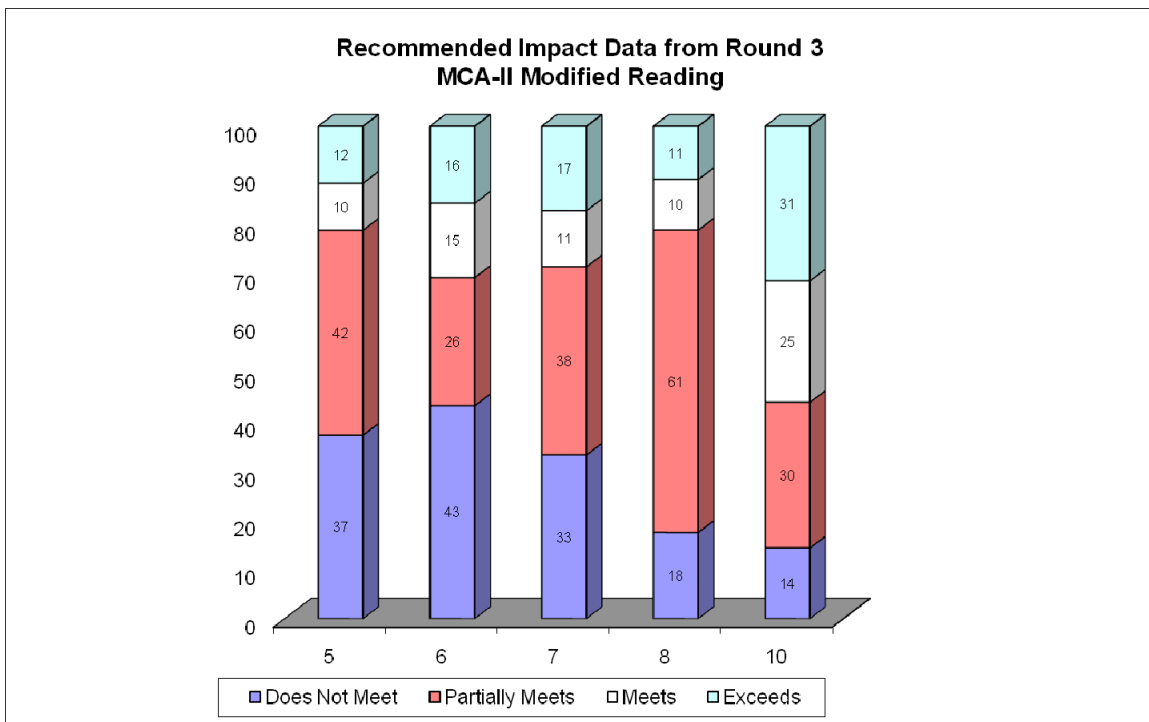
Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	6	15	28
	Maximum	10	22	32
	Mean	8	19	30
	<b>Median</b>	<b>9</b>	<b>20</b>	<b>31</b>
2	Minimum	10	26	41
	Maximum	10	26	44
	Mean	10	26	42
	<b>Median</b>	<b>10</b>	<b>26</b>	<b>41</b>
3	Minimum	9	21	28
	Maximum	10	22	31
	Mean	9	22	30
	<b>Median</b>	<b>9</b>	<b>22</b>	<b>31</b>
Total	Minimum	6	15	28
	Maximum	10	26	44
	Mean	9	22	35
	<b>Median</b>	<b>10</b>	<b>22</b>	<b>32</b>

**MCA-II Modified Reading, Grade 10, Round 3 \$  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	5	8	28
	Maximum	9	28	36
	Mean	6	16	32
	<b>Median</b>	<b>5</b>	<b>15</b>	<b>32</b>
2	Minimum	7	24	40
	Maximum	10	26	40
	Mean	8	24	40
	<b>Median</b>	<b>7</b>	<b>24</b>	<b>40</b>
3	Minimum	4	14	27
	Maximum	4	14	31
	Mean	4	14	30
	<b>Median</b>	<b>4</b>	<b>14</b>	<b>30</b>
Total	Minimum	4	8	27
	Maximum	10	28	40
	Mean	6	18	34
	<b>Median</b>	<b>6</b>	<b>17</b>	<b>34</b>

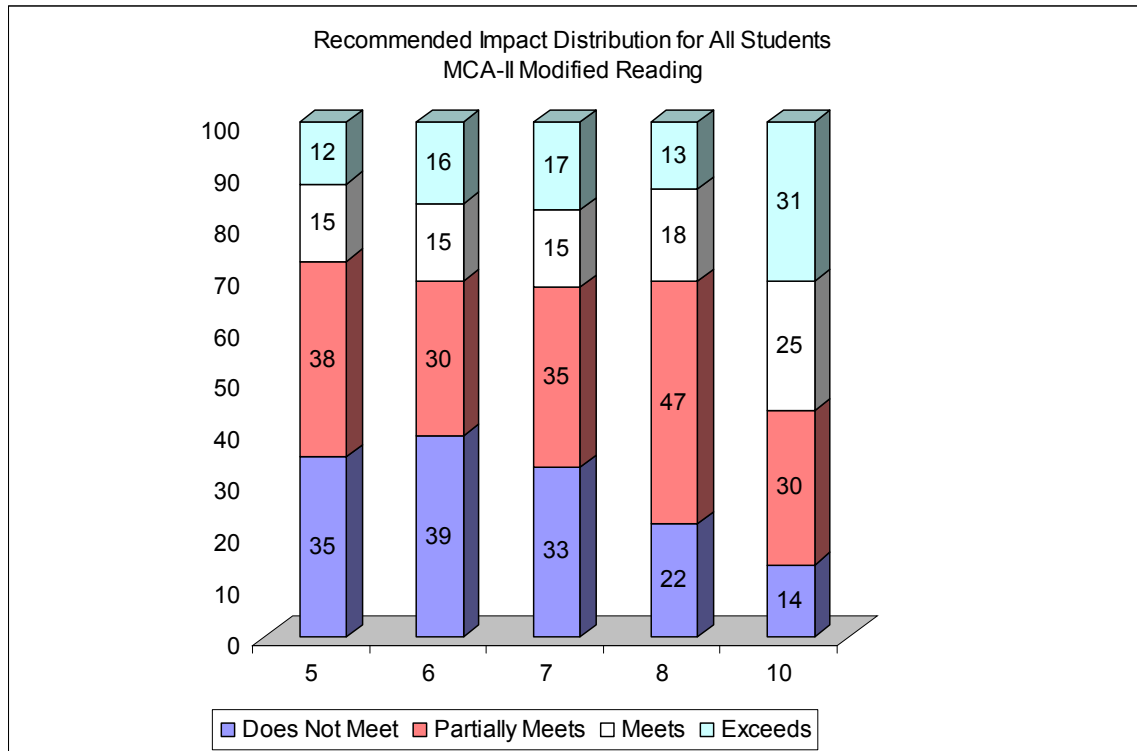
**Raw Score Cuts and Impact Data Based on Round 3 !**

	<b>Partially Meets the Standards</b>	<b>Meets the Standards</b>	<b>Exceeds the Standards</b>
<b>Grade 5</b>	18	25	27
<b>Grade 6</b>	19	23	26
<b>Grade 7</b>	20	26	28
<b>Grade 8</b>	15	25	27
<b>Grade 10</b>	16	23	27





## Vertical Articulation !



**MCA-III**

**MCA-III Mathematics, Grade 3, Round 1  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	9	18	40
	Maximum	10	20	47
	Mean	9	19	45
	<b>Median</b>	<b>9</b>	<b>19</b>	<b>46</b>
2	Minimum	7	26	45
	Maximum	11	36	49
	Mean	9	31	47
	<b>Median</b>	<b>8</b>	<b>32</b>	<b>47</b>
3	Minimum	9	19	45
	Maximum	10	45	60
	Mean	9	28	50
	<b>Median</b>	<b>9</b>	<b>21</b>	<b>45</b>
4	Minimum	9	18	36
	Maximum	9	36	52
	Mean	9	24	44
	<b>Median</b>	<b>9</b>	<b>22</b>	<b>44</b>
Total	Minimum	7	18	36
	Maximum	11	45	60
	Mean	9	25	46
	<b>Median</b>	<b>9</b>	<b>21</b>	<b>46</b>

**MCA-III Mathematics, Grade 3, Round 2  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	9	18	43
	Maximum	11	19	49
	Mean	10	18	46
	<b>Median</b>	<b>9</b>	<b>18</b>	<b>45</b>
2	Minimum	7	33	45
	Maximum	11	33	49
	Mean	9	33	48
	<b>Median</b>	<b>8</b>	<b>33</b>	<b>49</b>
3	Minimum	9	21	46
	Maximum	10	36	46
	Mean	10	31	46
	<b>Median</b>	<b>10</b>	<b>36</b>	<b>46</b>
4	Minimum	9	20	36
	Maximum	9	21	43
	Mean	9	21	39
	<b>Median</b>	<b>9</b>	<b>21</b>	<b>38</b>
Total	Minimum	7	18	36
	Maximum	11	36	49
	Mean	9	25	44
	<b>Median</b>	<b>9</b>	<b>21</b>	<b>45</b>

**MCA-III Mathematics, Grade 3, Round 3  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	9	18	43
	Maximum	9	21	45
	Mean	9	20	45
	<b>Median</b>	<b>9</b>	<b>21</b>	<b>45</b>
2	Minimum	7	21	33
	Maximum	9	25	42
	Mean	8	23	38
	<b>Median</b>	<b>8</b>	<b>24</b>	<b>39</b>
3	Minimum	9	21	37
	Maximum	10	28	46
	Mean	10	25	43
	<b>Median</b>	<b>10</b>	<b>27</b>	<b>46</b>
4	Minimum	9	20	37
	Maximum	9	21	45
	Mean	9	21	41
	<b>Median</b>	<b>9</b>	<b>21</b>	<b>41</b>
Total	Minimum	7	18	33
	Maximum	10	28	46
	Mean	9	22	42
	<b>Median</b>	<b>9</b>	<b>21</b>	<b>43</b>

**MCA-III Mathematics, Grade 4, Round 1  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	6	16	40
	Maximum	16	29	47
	Mean	10	20	42
	<b>Median</b>	<b>9</b>	<b>18</b>	<b>41</b>
2	Minimum	6	25	41
	Maximum	10	33	49
	Mean	9	29	44
	<b>Median</b>	<b>10</b>	<b>29</b>	<b>44</b>
3	Minimum	4	13	44
	Maximum	12	31	52
	Mean	7	22	49
	<b>Median</b>	<b>4</b>	<b>21</b>	<b>51</b>
4	Minimum	4	17	37
	Maximum	9	21	45
	Mean	7	20	42
	<b>Median</b>	<b>7</b>	<b>20</b>	<b>42</b>
Total	Minimum	4	13	37
	Maximum	16	33	52
	Mean	8	23	44
	<b>Median</b>	<b>9</b>	<b>21</b>	<b>44</b>

**MCA-III Mathematics, Grade 4, Round 2  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	8	17	37
	Maximum	9	23	41
	Mean	9	21	39
	<b>Median</b>	<b>9</b>	<b>22</b>	<b>40</b>
2	Minimum	9	25	33
	Maximum	9	30	45
	Mean	9	28	39
	<b>Median</b>	<b>9</b>	<b>28</b>	<b>39</b>
3	Minimum	4	18	44
	Maximum	9	31	51
	Mean	7	23	48
	<b>Median</b>	<b>9</b>	<b>21</b>	<b>48</b>
4	Minimum	8	18	37
	Maximum	9	21	39
	Mean	9	19	38
	<b>Median</b>	<b>9</b>	<b>19</b>	<b>37</b>
Total	Minimum	4	17	33
	Maximum	9	31	51
	Mean	8	23	40
	<b>Median</b>	<b>9</b>	<b>21</b>	<b>39</b>

**MCA-III Mathematics, Grade 4, Round 3  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	9	20	37
	Maximum	9	21	41
	Mean	9	21	40
	<b>Median</b>	<b>9</b>	<b>21</b>	<b>40</b>
2	Minimum	9	22	33
	Maximum	9	29	37
	Mean	9	25	36
	<b>Median</b>	<b>9</b>	<b>25</b>	<b>37</b>
3	Minimum	9	17	37
	Maximum	9	31	51
	Mean	9	23	45
	<b>Median</b>	<b>9</b>	<b>21</b>	<b>48</b>
4	Minimum	8	19	37
	Maximum	9	21	40
	Mean	9	20	38
	<b>Median</b>	<b>9</b>	<b>21</b>	<b>38</b>
Total	Minimum	8	17	33
	Maximum	9	31	51
	Mean	9	22	39
	<b>Median</b>	<b>9</b>	<b>21</b>	<b>37</b>

**MCA-III Mathematics, Grade 5, Round 1  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	14	44	52
	Maximum	22	48	60
	Mean	19	46	56
	<b>Median</b>	<b>19</b>	<b>47</b>	<b>56</b>
2	Minimum	5	27	46
	Maximum	13	29	60
	Mean	9	28	52
	<b>Median</b>	<b>9</b>	<b>28</b>	<b>52</b>
3	Minimum	5	36	52
	Maximum	22	49	59
	Mean	14	42	56
	<b>Median</b>	<b>14</b>	<b>41</b>	<b>57</b>
4	Minimum	6	23	40
	Maximum	20	42	60
	Mean	11	29	47
	<b>Median</b>	<b>8</b>	<b>23</b>	<b>42</b>
Total	Minimum	5	23	40
	Maximum	22	49	60
	Mean	13	37	53
	<b>Median</b>	<b>13</b>	<b>39</b>	<b>54</b>

**MCA-III Mathematics, Grade 5, Round 2  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	18	44	52
	Maximum	18	46	52
	Mean	18	45	52
	<b>Median</b>	<b>18</b>	<b>44</b>	<b>52</b>
2	Minimum	7	28	50
	Maximum	12	28	59
	Mean	9	28	53
	<b>Median</b>	<b>9</b>	<b>28</b>	<b>51</b>
3	Minimum	10	38	55
	Maximum	18	41	56
	Mean	14	40	56
	<b>Median</b>	<b>14</b>	<b>40</b>	<b>56</b>
4	Minimum	7	23	40
	Maximum	13	25	46
	Mean	9	24	43
	<b>Median</b>	<b>7</b>	<b>23</b>	<b>42</b>
Total	Minimum	7	23	40
	Maximum	18	46	59
	Mean	13	35	51
	<b>Median</b>	<b>12</b>	<b>38</b>	<b>52</b>

**MCA-III Mathematics, Grade 5, Round 3  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	11	24	41
	Maximum	16	39	52
	Mean	13	34	49
	<b>Median</b>	<b>12</b>	<b>37</b>	<b>51</b>
2	Minimum	5	28	48
	Maximum	9	28	50
	Mean	7	28	50
	<b>Median</b>	<b>7</b>	<b>28</b>	<b>50</b>
3	Minimum	5	27	49
	Maximum	14	38	57
	Mean	10	34	54
	<b>Median</b>	<b>10</b>	<b>36</b>	<b>54</b>
4	Minimum	7	23	40
	Maximum	15	27	46
	Mean	10	24	43
	<b>Median</b>	<b>7</b>	<b>23</b>	<b>42</b>
Total	Minimum	5	23	40
	Maximum	16	39	57
	Mean	10	31	49
	<b>Median</b>	<b>10</b>	<b>28</b>	<b>50</b>

**MCA-III Mathematics, Grade 6, Round 1  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	12	41	49
	Maximum	16	41	53
	Mean	15	41	50
	<b>Median</b>	<b>15</b>	<b>41</b>	<b>49</b>
2	Minimum	5	26	47
	Maximum	29	52	60
	Mean	14	34	51
	<b>Median</b>	<b>10</b>	<b>29</b>	<b>49</b>
3	Minimum	16	40	50
	Maximum	18	49	60
	Mean	17	45	57
	<b>Median</b>	<b>16</b>	<b>46</b>	<b>58</b>
4	Minimum	7	22	44
	Maximum	9	24	46
	Mean	8	23	45
	<b>Median</b>	<b>9</b>	<b>23</b>	<b>45</b>
Total	Minimum	5	22	44
	Maximum	29	52	60
	Mean	14	37	51
	<b>Median</b>	<b>14</b>	<b>41</b>	<b>49</b>

**MCA-III Mathematics, Grade 6, Round 2  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	14	40	47
	Maximum	16	42	49
	Mean	15	41	48
	<b>Median</b>	<b>15</b>	<b>40</b>	<b>49</b>
2	Minimum	7	25	47
	Maximum	14	29	52
	Mean	10	28	50
	<b>Median</b>	<b>10</b>	<b>28</b>	<b>50</b>
3	Minimum	16	41	50
	Maximum	16	49	60
	Mean	16	46	54
	<b>Median</b>	<b>16</b>	<b>47</b>	<b>52</b>
4	Minimum	9	22	45
	Maximum	14	24	46
	Mean	11	23	45
	<b>Median</b>	<b>10</b>	<b>23</b>	<b>45</b>
Total	Minimum	7	22	45
	Maximum	16	49	60
	Mean	13	35	49
	<b>Median</b>	<b>14</b>	<b>40</b>	<b>49</b>

**MCA-III Mathematics, Grade 6, Round 3  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	5	25	42
	Maximum	16	41	49
	Mean	12	37	47
	<b>Median</b>	<b>13</b>	<b>40</b>	<b>48</b>
2	Minimum	6	25	47
	Maximum	14	29	52
	Mean	10	27	49
	<b>Median</b>	<b>10</b>	<b>28</b>	<b>48</b>
3	Minimum	12	33	50
	Maximum	16	49	60
	Mean	14	42	54
	<b>Median</b>	<b>14</b>	<b>42</b>	<b>52</b>
4	Minimum	9	22	45
	Maximum	16	29	46
	Mean	12	25	45
	<b>Median</b>	<b>10</b>	<b>23</b>	<b>45</b>
Total	Minimum	5	22	42
	Maximum	16	49	60
	Mean	12	33	49
	<b>Median</b>	<b>12</b>	<b>29</b>	<b>48</b>

**MCA-III Mathematics, Grade 7, Round 1  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	3	29	43
	Maximum	5	41	60
	Mean	4	35	50
	<b>Median</b>	<b>3</b>	<b>36</b>	<b>46</b>
2	Minimum	3	41	50
	Maximum	5	46	58
	Mean	4	44	55
	<b>Median</b>	<b>4</b>	<b>46</b>	<b>58</b>
3	Minimum	4	21	46
	Maximum	23	37	48
	Mean	13	30	47
	<b>Median</b>	<b>13</b>	<b>31</b>	<b>47</b>
4	Minimum	3	30	51
	Maximum	4	33	56
	Mean	3	32	53
	<b>Median</b>	<b>3</b>	<b>32</b>	<b>53</b>
Total	Minimum	3	21	43
	Maximum	23	46	60
	Mean	6	35	51
	<b>Median</b>	<b>4</b>	<b>35</b>	<b>51</b>



**MCA-III Mathematics, Grade 7, Round 2  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	3	31	41
	Maximum	5	31	48
	Mean	4	31	45
	<b>Median</b>	<b>5</b>	<b>31</b>	<b>47</b>
2	Minimum	2	15	41
	Maximum	7	19	46
	Mean	5	17	44
	<b>Median</b>	<b>5</b>	<b>18</b>	<b>46</b>
3	Minimum	9	21	40
	Maximum	9	21	40
	Mean	9	21	40
	<b>Median</b>	<b>9</b>	<b>21</b>	<b>40</b>
4	Minimum	3	26	49
	Maximum	3	32	49
	Mean	3	28	49
	<b>Median</b>	<b>3</b>	<b>26</b>	<b>49</b>
Total	Minimum	2	15	40
	Maximum	9	32	49
	Mean	5	24	45
	<b>Median</b>	<b>5</b>	<b>24</b>	<b>46</b>

**MCA-III Mathematics, Grade 7, Round 3  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	3	25	41
	Maximum	5	25	48
	Mean	4	25	45
	<b>Median</b>	<b>4</b>	<b>25</b>	<b>45</b>
2	Minimum	5	20	41
	Maximum	7	24	46
	Mean	6	23	44
	<b>Median</b>	<b>5</b>	<b>24</b>	<b>46</b>
3	Minimum	5	18	40
	Maximum	8	24	46
	Mean	6	21	43
	<b>Median</b>	<b>5</b>	<b>21</b>	<b>42</b>
4	Minimum	3	25	47
	Maximum	5	29	49
	Mean	4	27	49
	<b>Median</b>	<b>4</b>	<b>26</b>	<b>49</b>
Total	Minimum	3	18	40
	Maximum	8	29	49
	Mean	5	24	45
	<b>Median</b>	<b>5</b>	<b>25</b>	<b>46</b>

**MCA-III Mathematics, Grade 8, Round 1  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	8	27	41
	Maximum	9	40	56
	Mean	9	32	50
	<b>Median</b>	<b>9</b>	<b>30</b>	<b>53</b>
2	Minimum	1	11	34
	Maximum	12	30	47
	Mean	8	23	42
	<b>Median</b>	<b>11</b>	<b>27</b>	<b>44</b>
3	Minimum	8	17	39
	Maximum	11	26	44
	Mean	9	22	41
	<b>Median</b>	<b>9</b>	<b>22</b>	<b>40</b>
4	Minimum	5	29	45
	Maximum	10	35	57
	Mean	8	31	52
	<b>Median</b>	<b>8</b>	<b>30</b>	<b>52</b>
Total	Minimum	1	11	34
	Maximum	12	40	57
	Mean	8	27	46
	<b>Median</b>	<b>9</b>	<b>28</b>	<b>45</b>

**MCA-III Mathematics, Grade 8, Round 2  
Combined Cut Reports \$**

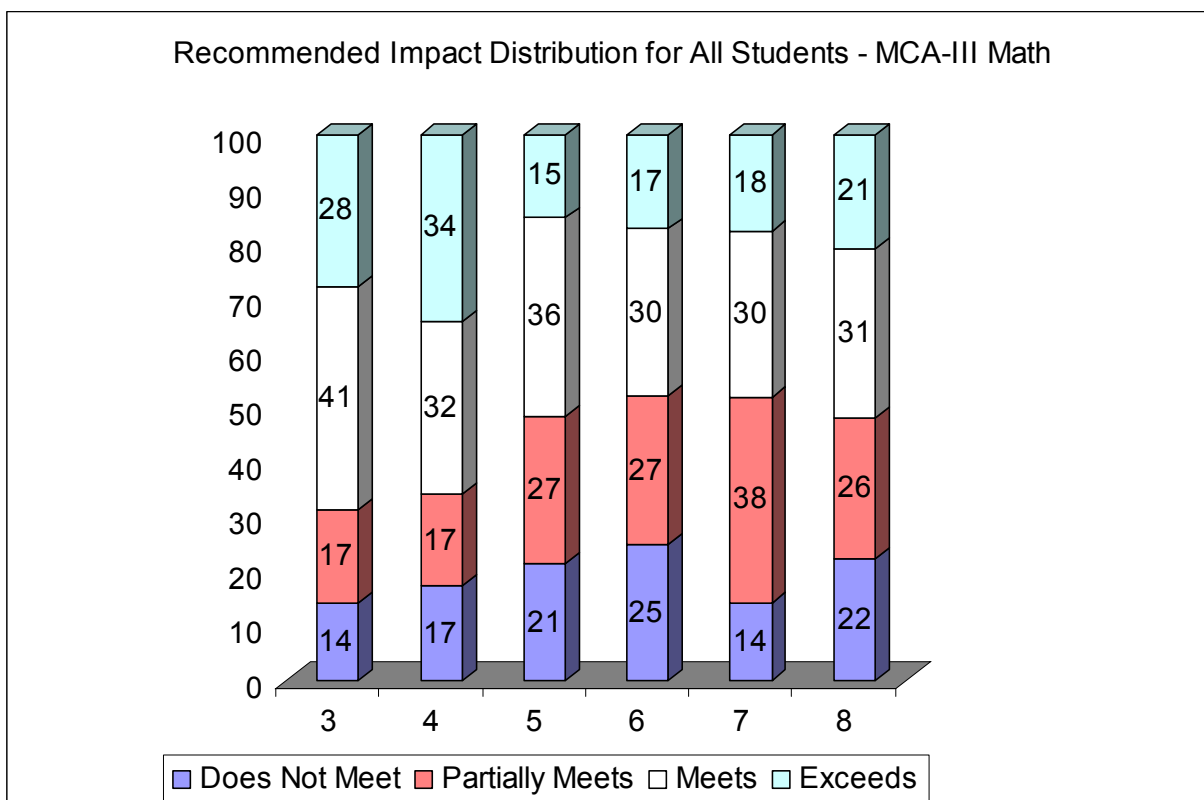
Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	8	29	49
	Maximum	8	34	49
	Mean	8	31	49
	<b>Median</b>	<b>8</b>	<b>30</b>	<b>49</b>
2	Minimum	11	22	37
	Maximum	12	23	42
	Mean	11	22	40
	<b>Median</b>	<b>11</b>	<b>22</b>	<b>41</b>
3	Minimum	8	17	39
	Maximum	9	22	40
	Mean	9	19	40
	<b>Median</b>	<b>9</b>	<b>19</b>	<b>40</b>
4	Minimum	8	29	48
	Maximum	9	33	54
	Mean	8	31	51
	<b>Median</b>	<b>8</b>	<b>31</b>	<b>51</b>
Total	Minimum	8	17	37
	Maximum	12	34	54
	Mean	9	26	45
	<b>Median</b>	<b>9</b>	<b>26</b>	<b>45</b>

**MCA-III Mathematics, Grade 8, Round 3  
Combined Cut Reports \$**

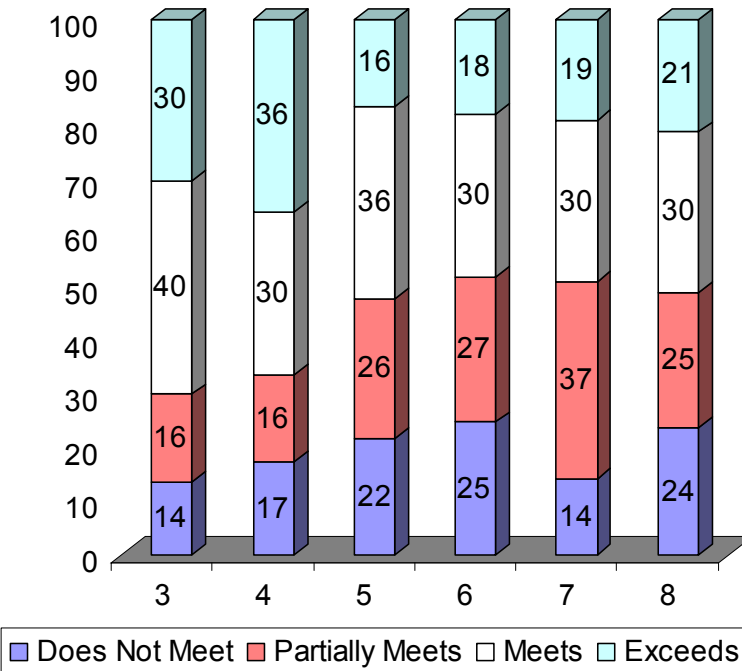
Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	8	26	40
	Maximum	8	29	49
	Mean	8	28	46
	<b>Median</b>	<b>8</b>	<b>29</b>	<b>49</b>
2	Minimum	8	24	37
	Maximum	12	26	45
	Mean	10	25	41
	<b>Median</b>	<b>11</b>	<b>24</b>	<b>42</b>
3	Minimum	3	17	39
	Maximum	9	26	44
	Mean	8	22	41
	<b>Median</b>	<b>9</b>	<b>22</b>	<b>41</b>
4	Minimum	8	26	48
	Maximum	9	30	52
	Mean	9	28	50
	<b>Median</b>	<b>9</b>	<b>28</b>	<b>50</b>
Total	Minimum	3	17	37
	Maximum	12	30	52
	Mean	9	25	45
	<b>Median</b>	<b>9</b>	<b>26</b>	<b>45</b>

### Raw Score Theta Cuts and Impact Data Based on Round 3

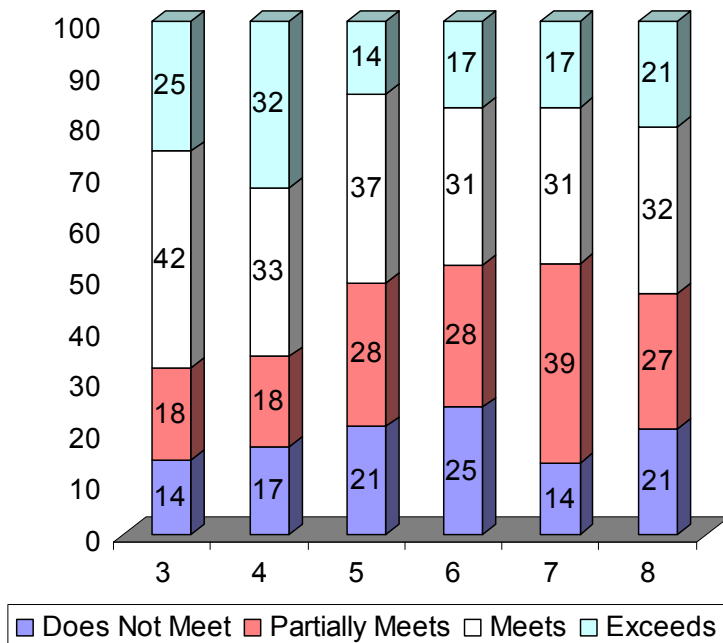
	Partially Meets the Standards	Meets the Standards	Exceeds the Standards
<b>Grade 3</b>	-1.21	-0.51	0.61
<b>Grade 4</b>	-1.05	-0.43	0.42
<b>Grade 5</b>	-0.86	-0.03	1.04
<b>Grade 6</b>	-0.72	0.06	0.95
<b>Grade 7</b>	-1.19	0.08	0.95
<b>Grade 8</b>	-0.82	-0.03	0.84



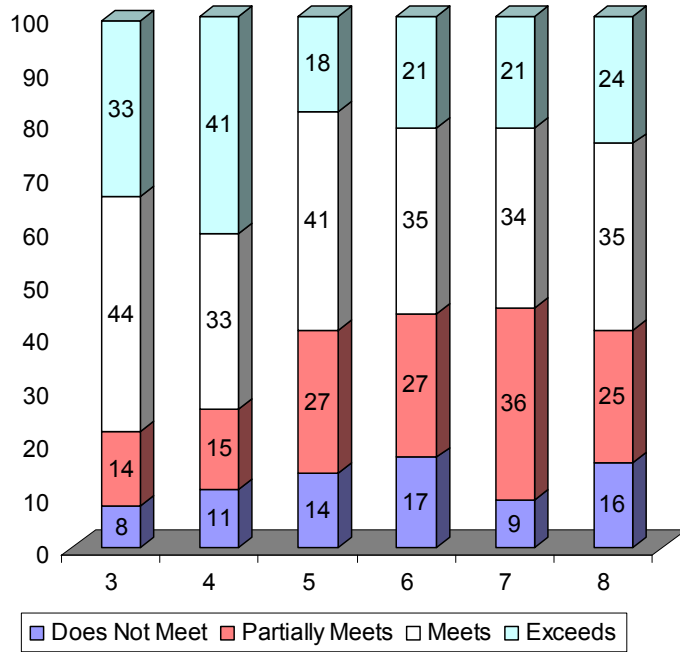
Recommended Impact Distribution for All Students - MCA-III Math  
Male Students Only



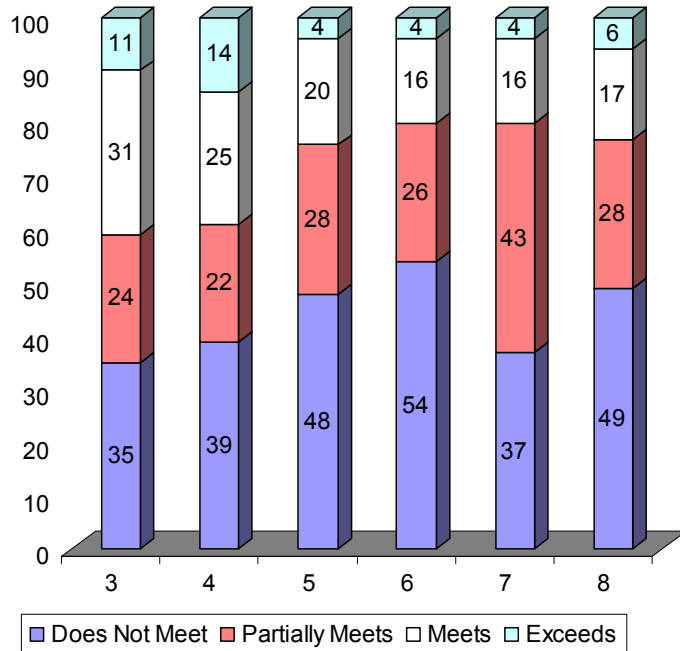
Recommended Impact Distribution for All Students - MCA-III Math  
Female Students Only



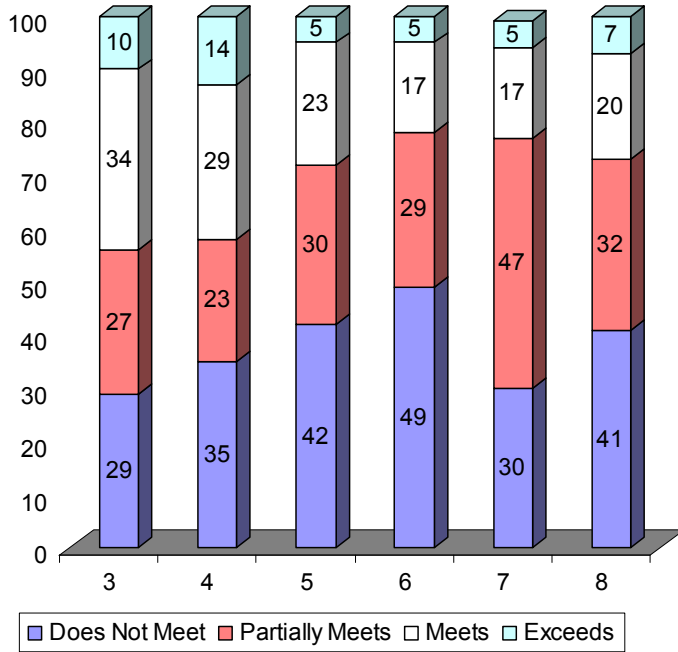
Recommended Impact Distribution for All Students - MCA-III Math  
White Students Only



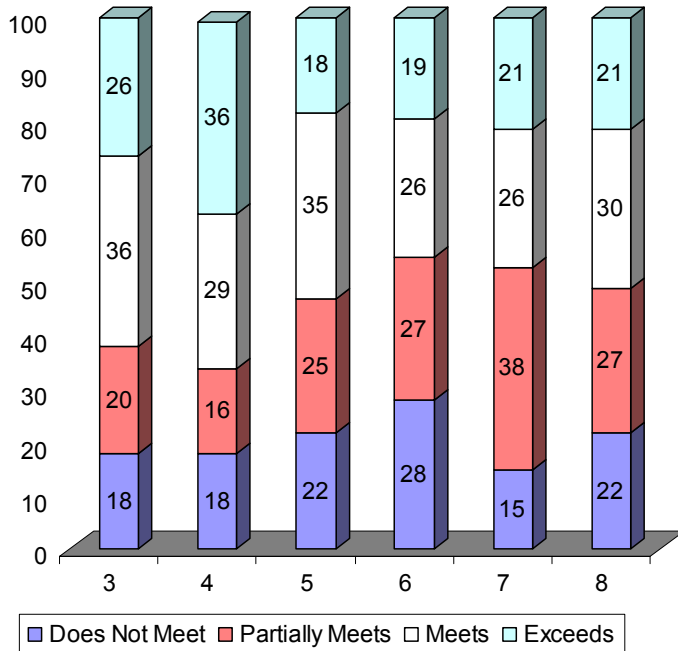
Recommended Impact Distribution for All Students - MCA-III Math  
Black Students Only



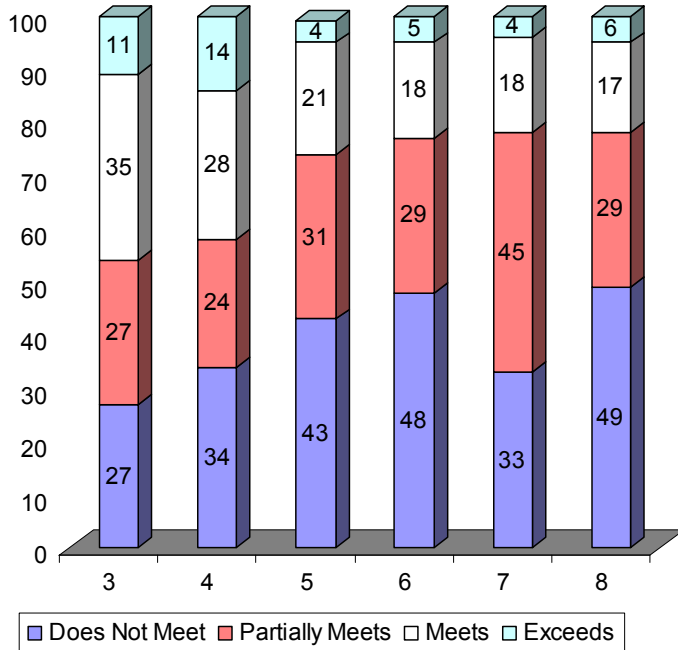
Recommended Impact Distribution for All Students - MCA-III Math  
Hispanic Students Only



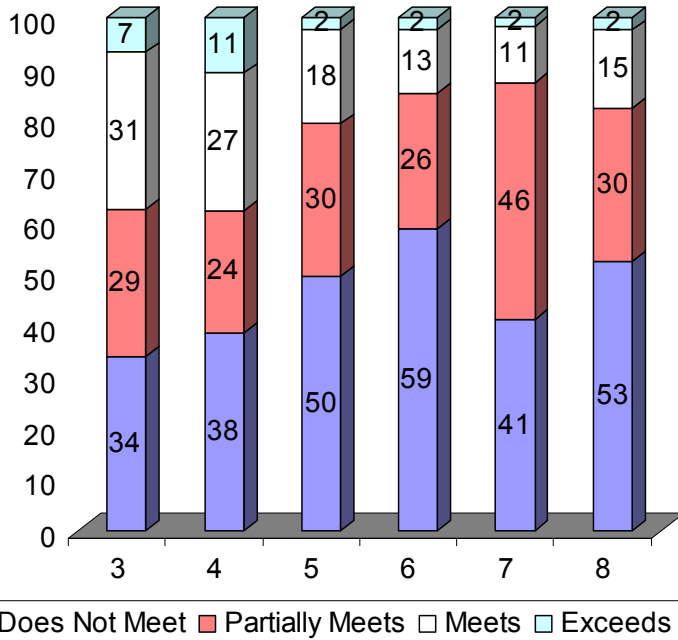
Recommended Impact Distribution for All Students - MCA-III Math  
Asian Students Only



Recommended Impact Distribution for All Students - MCA-III Math !  
American Indian Students Only !

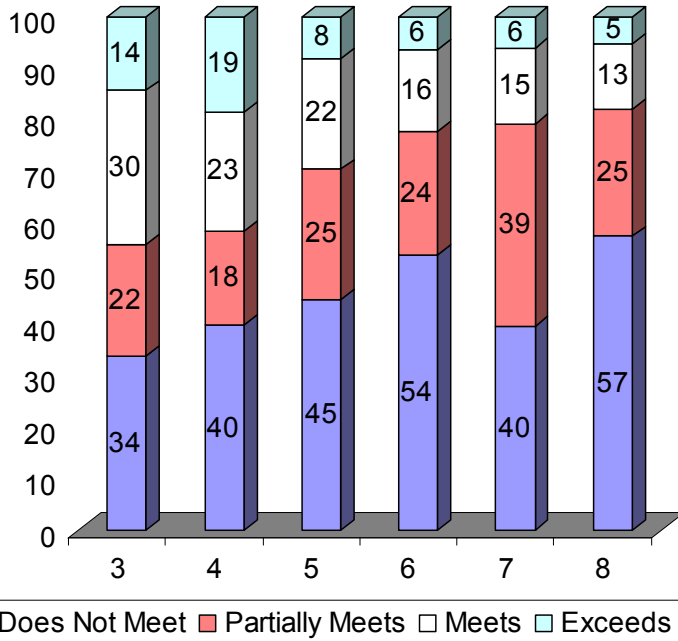


Recommended Impact Distribution for All Students - MCA-III Math !  
English Learners Students Only !

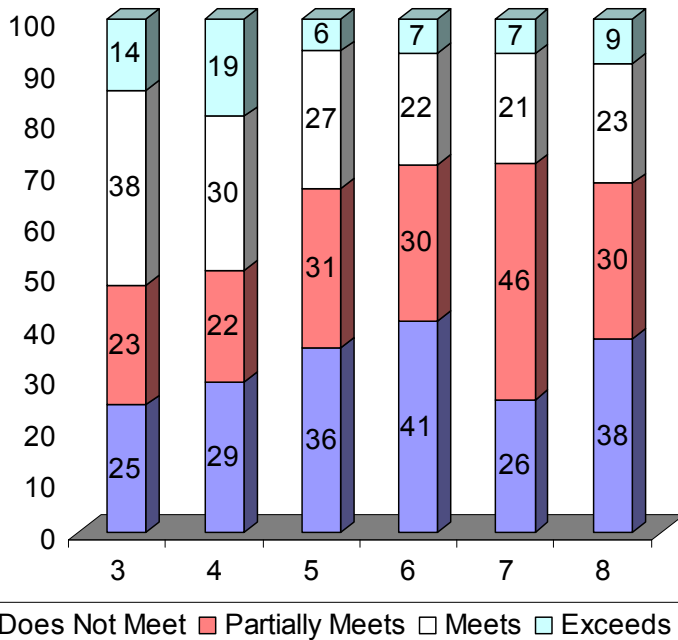




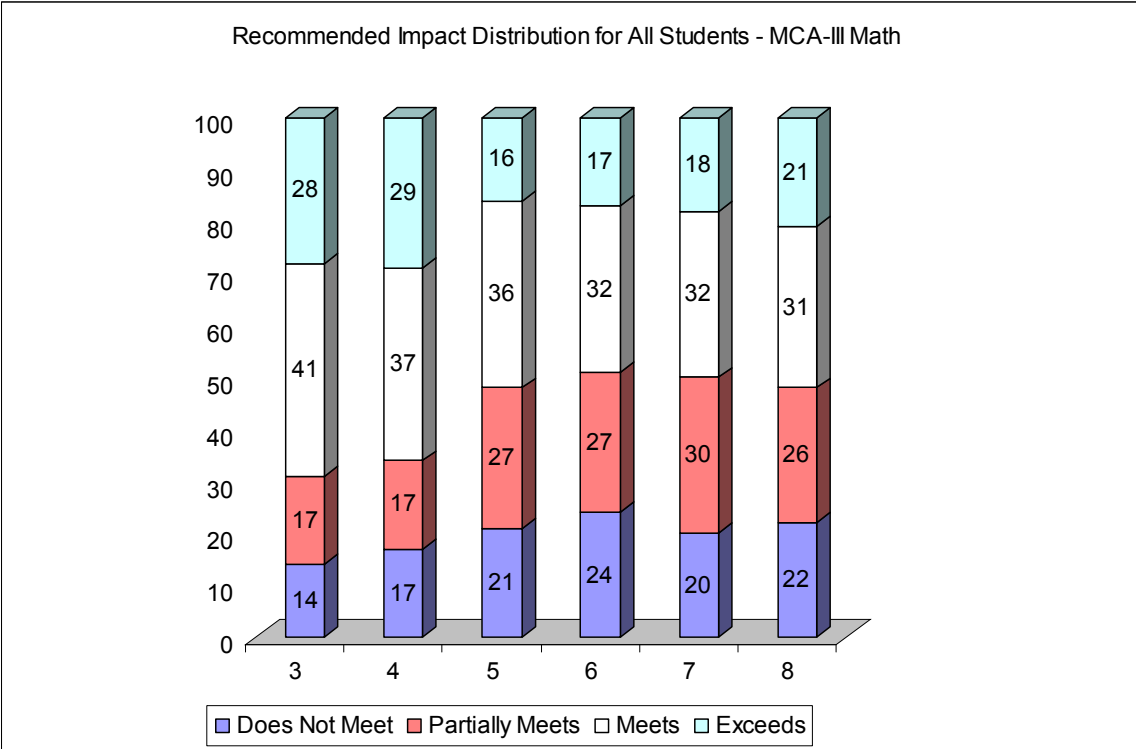
Recommended Impact Distribution for All Students - MCA-III Math  
Special Education Students Only



Recommended Impact Distribution for All Students - MCA-III Math  
Free and Reduced Lunch Program Students Only



### Articulation Results !



**Modified Math**  
**MCA-III Modified Math, Grade 5, Round 1**  
**Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	4	18	27
	Maximum	30	38	43
	Mean	13	24	34
	<b>Median</b>	<b>8</b>	<b>20</b>	<b>32</b>
2	Minimum	3	15	28
	Maximum	16	33	44
	Mean	8	24	36
	<b>Median</b>	<b>5</b>	<b>24</b>	<b>36</b>
3	Minimum	9	20	27
	Maximum	14	21	29
	Mean	11	21	28
	<b>Median</b>	<b>11</b>	<b>21</b>	<b>27</b>
4	Minimum	7	15	27
	Maximum	18	33	45
	Mean	14	23	35
	<b>Median</b>	<b>15</b>	<b>22</b>	<b>34</b>
Total	Minimum	3	15	27
	Maximum	30	38	45
	Mean	12	23	33
	<b>Median</b>	<b>10</b>	<b>21</b>	<b>32</b>

**MCA-III Modified Math, Grade 5, Round 2**  
**Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	5	19	24
	Maximum	8	20	36
	Mean	6	20	29
	<b>Median</b>	<b>6</b>	<b>20</b>	<b>28</b>
2	Minimum	3	18	28
	Maximum	4	18	30
	Mean	3	18	29
	<b>Median</b>	<b>3</b>	<b>18</b>	<b>30</b>
3	Minimum	11	20	27
	Maximum	11	20	27
	Mean	11	20	27
	<b>Median</b>	<b>11</b>	<b>20</b>	<b>27</b>
4	Minimum	11	19	25
	Maximum	12	25	36
	Mean	12	22	33
	<b>Median</b>	<b>12</b>	<b>22</b>	<b>35</b>
Total	Minimum	3	18	24
	Maximum	12	25	36
	Mean	8	20	30
	<b>Median</b>	<b>10</b>	<b>20</b>	<b>29</b>

**MCA-III Modified Math, Grade 5, Round 3**  
**Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	5	18	24
	Maximum	8	20	30
	Mean	6	19	27
	<b>Median</b>	<b>6</b>	<b>18</b>	<b>26</b>
2	Minimum	4	18	28
	Maximum	4	18	30
	Mean	4	18	29
	<b>Median</b>	<b>4</b>	<b>18</b>	<b>30</b>
3	Minimum	9	16	24
	Maximum	11	20	27
	Mean	10	18	25
	<b>Median</b>	<b>11</b>	<b>19</b>	<b>24</b>
4	Minimum	9	19	27
	Maximum	11	23	35
	Mean	10	20	30
	<b>Median</b>	<b>10</b>	<b>19</b>	<b>29</b>
Total	Minimum	4	16	24
	Maximum	11	23	35
	Mean	8	19	28
	<b>Median</b>	<b>9</b>	<b>19</b>	<b>28</b>

**MCA-III Modified Math, Grade 6, Round 1**  
**Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	4	11	23
	Maximum	6	16	27
	Mean	5	13	25
	<b>Median</b>	<b>6</b>	<b>13</b>	<b>25</b>
2	Minimum	3	12	24
	Maximum	4	15	31
	Mean	4	13	28
	<b>Median</b>	<b>4</b>	<b>13</b>	<b>29</b>
3	Minimum	9	16	23
	Maximum	12	24	36
	Mean	10	20	28
	<b>Median</b>	<b>10</b>	<b>19</b>	<b>24</b>
4	Minimum	1	13	24
	Maximum	9	19	27
	Mean	6	16	26
	<b>Median</b>	<b>7</b>	<b>16</b>	<b>26</b>
Total	Minimum	1	11	23
	Maximum	12	24	36
	Mean	6	15	26
	<b>Median</b>	<b>6</b>	<b>15</b>	<b>25</b>

**MCA-III Modified Math, Grade 6, Round 2  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	4	5	15
	Maximum	6	13	23
	Mean	5	11	21
	<b>Median</b>	<b>5</b>	<b>13</b>	<b>23</b>
2	Minimum	3	13	24
	Maximum	4	13	29
	Mean	4	13	27
	<b>Median</b>	<b>4</b>	<b>13</b>	<b>29</b>
3	Minimum	10	19	23
	Maximum	12	21	24
	Mean	11	20	24
	<b>Median</b>	<b>10</b>	<b>19</b>	<b>24</b>
4	Minimum	6	7	25
	Maximum	8	19	33
	Mean	8	16	30
	<b>Median</b>	<b>8</b>	<b>19</b>	<b>31</b>
Total	Minimum	3	5	15
	Maximum	12	21	33
	Mean	7	15	25
	<b>Median</b>	<b>6</b>	<b>13</b>	<b>24</b>

**MCA-III Modified Math, Grade 6, Round 3  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	4	9	15
	Maximum	6	13	23
	Mean	5	12	21
	<b>Median</b>	<b>5</b>	<b>13</b>	<b>23</b>
2	Minimum	3	13	24
	Maximum	4	13	29
	Mean	4	13	27
	<b>Median</b>	<b>4</b>	<b>13</b>	<b>29</b>
3	Minimum	8	18	23
	Maximum	10	19	24
	Mean	9	19	24
	<b>Median</b>	<b>9</b>	<b>19</b>	<b>24</b>
4	Minimum	1	12	23
	Maximum	8	18	30
	Mean	5	15	26
	<b>Median</b>	<b>6</b>	<b>15</b>	<b>25</b>
Total	Minimum	1	9	15
	Maximum	10	19	30
	Mean	6	15	24
	<b>Median</b>	<b>6</b>	<b>13</b>	<b>24</b>

**MCA-III Modified Math, Grade 7, Round 1  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	7	17	38
	Maximum	15	42	45
	Mean	12	31	43
	<b>Median</b>	<b>12</b>	<b>37</b>	<b>43</b>
2	Minimum	5	25	32
	Maximum	16	32	41
	Mean	10	27	37
	<b>Median</b>	<b>10</b>	<b>26</b>	<b>39</b>
3	Minimum	10	25	36
	Maximum	18	43	45
	Mean	12	33	42
	<b>Median</b>	<b>10</b>	<b>29</b>	<b>44</b>
Total	Minimum	5	17	32
	Maximum	18	43	45
	Mean	11	31	41
	<b>Median</b>	<b>10</b>	<b>28</b>	<b>43</b>

**MCA-III Modified Math, Grade 7, Round 2  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	4	15	34
	Maximum	9	25	41
	Mean	7	20	37
	<b>Median</b>	<b>8</b>	<b>21</b>	<b>37</b>
2	Minimum	5	23	32
	Maximum	9	28	37
	Mean	6	25	34
	<b>Median</b>	<b>6</b>	<b>25</b>	<b>33</b>
3	Minimum	9	22	39
	Maximum	10	37	44
	Mean	9	31	42
	<b>Median</b>	<b>9</b>	<b>31</b>	<b>43</b>
Total	Minimum	4	15	32
	Maximum	10	37	44
	Mean	8	26	38
	<b>Median</b>	<b>9</b>	<b>25</b>	<b>37</b>

**MCA-III Modified Math, Grade 7, Round 3  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	5	17	34
	Maximum	9	25	40
	Mean	8	22	37
	<b>Median</b>	<b>8</b>	<b>22</b>	<b>37</b>
2	Minimum	5	17	24
	Maximum	9	27	35
	Mean	6	24	31
	<b>Median</b>	<b>5</b>	<b>26</b>	<b>32</b>
3	Minimum	8	22	37
	Maximum	10	25	42
	Mean	9	24	39
	<b>Median</b>	<b>9</b>	<b>25</b>	<b>38</b>
Total	Minimum	5	17	24
	Maximum	10	27	42
	Mean	8	23	36
	<b>Median</b>	<b>8</b>	<b>25</b>	<b>37</b>

**MCA-III Modified Math, Grade 8, Round 1  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	5	14	24
	Maximum	12	23	36
	Mean	8	19	29
	<b>Median</b>	<b>8</b>	<b>20</b>	<b>29</b>
2	Minimum	6	11	16
	Maximum	11	26	33
	Mean	7	17	25
	<b>Median</b>	<b>6</b>	<b>14</b>	<b>26</b>
3	Minimum	6	15	31
	Maximum	15	35	43
	Mean	11	27	39
	<b>Median</b>	<b>11</b>	<b>31</b>	<b>40</b>
Total	Minimum	5	11	16
	Maximum	15	35	43
	Mean	9	21	31
	<b>Median</b>	<b>8</b>	<b>21</b>	<b>31</b>

**MCA-III Modified Math, Grade 8, Round 2  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	8	21	26
	Maximum	8	21	31
	Mean	8	21	29
	<b>Median</b>	<b>8</b>	<b>21</b>	<b>29</b>
2	Minimum	6	11	16
	Maximum	11	21	25
	Mean	7	16	22
	<b>Median</b>	<b>6</b>	<b>15</b>	<b>23</b>
3	Minimum	11	21	32
	Maximum	12	31	37
	Mean	12	23	36
	<b>Median</b>	<b>12</b>	<b>21</b>	<b>37</b>
Total	Minimum	6	11	16
	Maximum	12	31	37
	Mean	9	20	29
	<b>Median</b>	<b>8</b>	<b>21</b>	<b>29</b>

**MCA-III Modified Math, Grade 8, Round 3  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	6	18	25
	Maximum	8	21	29
	Mean	8	20	28
	<b>Median</b>	<b>8</b>	<b>21</b>	<b>29</b>
2	Minimum	5	11	21
	Maximum	11	21	25
	Mean	7	15	23
	<b>Median</b>	<b>6</b>	<b>15</b>	<b>23</b>
3	Minimum	8	21	26
	Maximum	11	24	37
	Mean	10	22	31
	<b>Median</b>	<b>11</b>	<b>21</b>	<b>30</b>
Total	Minimum	5	11	21
	Maximum	11	24	37
	Mean	8	19	27
	<b>Median</b>	<b>8</b>	<b>21</b>	<b>26</b>



**MCA-III Modified Math, Grade 11, Round 1  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	8	21	27
	Maximum	17	36	41
	Mean	13	27	37
	<b>Median</b>	<b>15</b>	<b>27</b>	<b>39</b>
2	Minimum	4	17	28
	Maximum	9	37	50
	Mean	6	30	41
	<b>Median</b>	<b>5</b>	<b>34</b>	<b>41</b>
3	Minimum	5	28	39
	Maximum	16	36	50
	Mean	8	33	43
	<b>Median</b>	<b>7</b>	<b>33</b>	<b>40</b>
Total	Minimum	4	17	27
	Maximum	17	37	50
	Mean	9	30	40
	<b>Median</b>	<b>8</b>	<b>33</b>	<b>40</b>

**MCA-III Modified Math, Grade 11, Round 2  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	5	17	35
	Maximum	15	29	44
	Mean	11	24	38
	<b>Median</b>	<b>13</b>	<b>24</b>	<b>37</b>
2	Minimum	4	15	28
	Maximum	9	28	41
	Mean	5	21	36
	<b>Median</b>	<b>4</b>	<b>17</b>	<b>40</b>
3	Minimum	5	24	33
	Maximum	12	33	41
	Mean	9	30	39
	<b>Median</b>	<b>9</b>	<b>31</b>	<b>40</b>
Total	Minimum	4	15	28
	Maximum	15	33	44
	Mean	8	24	38
	<b>Median</b>	<b>8</b>	<b>25</b>	<b>40</b>

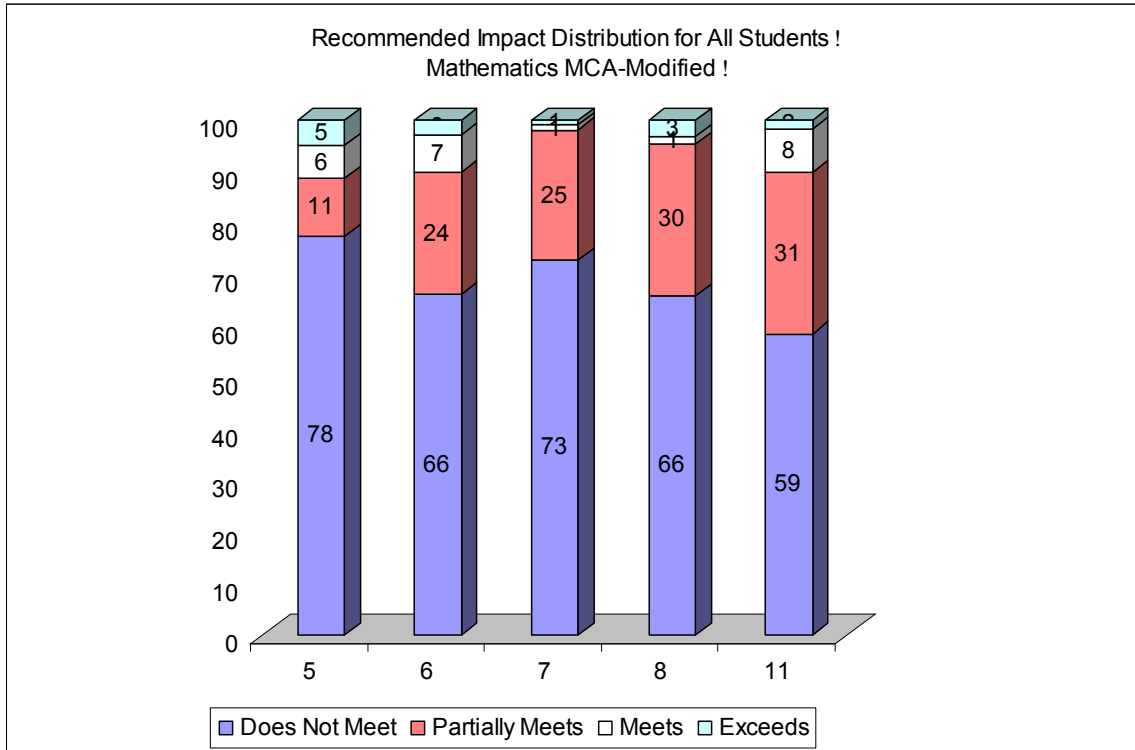
**MCA-III Modified Math, Grade 11, Round 3  
Combined Cut Reports \$**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	4	10	17
	Maximum	15	26	33
	Mean	7	19	30
	<b>Median</b>	<b>5</b>	<b>20</b>	<b>33</b>
2	Minimum	1	4	20
	Maximum	5	17	42
	Mean	4	14	33
	<b>Median</b>	<b>4</b>	<b>17</b>	<b>34</b>
3	Minimum	5	16	30
	Maximum	9	18	40
	Mean	6	17	37
	<b>Median</b>	<b>5</b>	<b>17</b>	<b>39</b>
Total	Minimum	1	4	17
	Maximum	15	26	42
	Mean	6	17	33
	<b>Median</b>	<b>5</b>	<b>17</b>	<b>33</b>

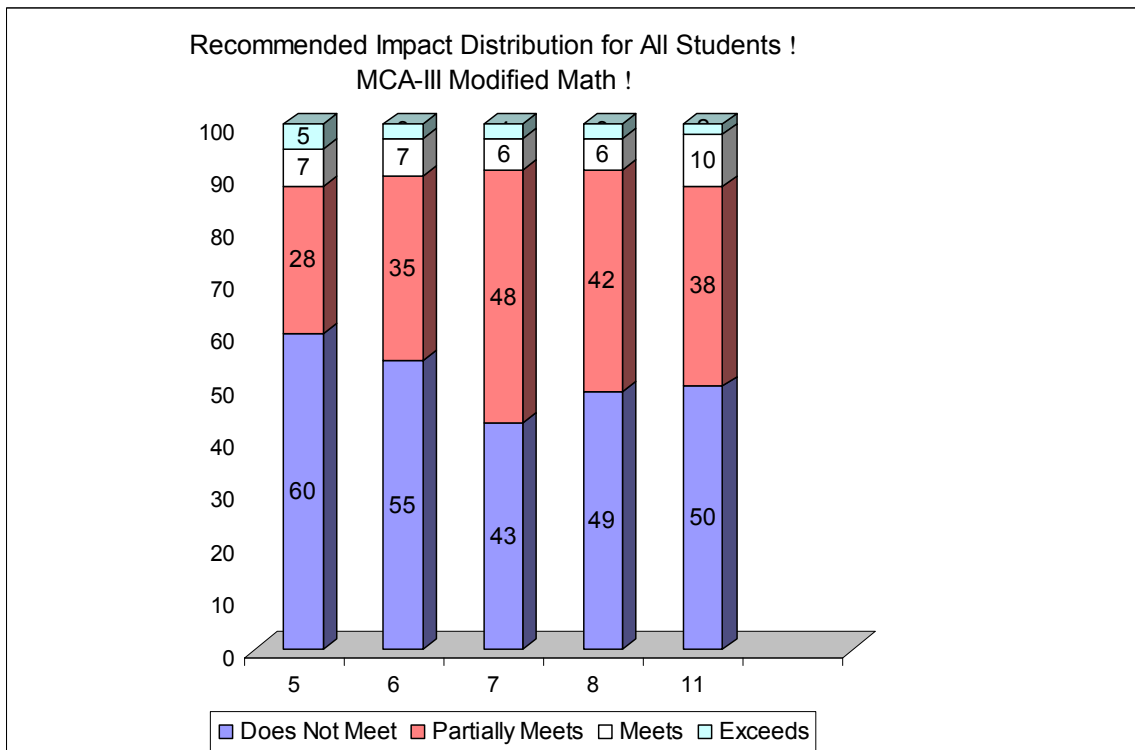
**Raw Score Cuts and Impact Data from Round 3 !**

	Partially Meets the Standards	Meets the Standards	Exceeds the Standards
<b>Grade 5</b>	19	22	25
<b>Grade 6</b>	16	20	24
<b>Grade 7</b>	17	24	26
<b>Grade 8</b>	17	22	23
<b>Grade 11</b>	18	23	28

### Round 3 Impact Data !



### Vertical Articulation



## MTAS Math

### Mathematics, Grade 3, Round 1 Overall

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	10.75	14.25	16.50
	Maximum	14.75	21.25	25.50
	Mean	13.06	18.44	22.38
	<b>Median</b>	<b>13</b>	<b>19</b>	<b>24</b>
2	Minimum	11.25	14.75	17.00
	Maximum	14.75	17.25	21.75
	Mean	12.81	16.19	19.50
	<b>Median</b>	<b>13</b>	<b>16</b>	<b>20</b>
3	Minimum	4.25	13.00	17.75
	Maximum	13.75	20.25	24.00
	Mean	8.10	16.40	21.70
	<b>Median</b>	<b>7</b>	<b>16</b>	<b>22</b>
Total	Minimum	4.25	13.00	16.50
	Maximum	14.75	21.25	25.50
	Mean	11.08	16.96	21.23
	<b>Median</b>	<b>12</b>	<b>17</b>	<b>22</b>

### Mathematics, Grade 3, Round 2 Overall

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	12.25	18.75	21.75
	Maximum	16.25	21.50	24.50
	Mean	14.00	19.81	23.38
	<b>Median</b>	<b>14</b>	<b>20</b>	<b>24</b>
2	Minimum	12.50	15.25	21.00
	Maximum	13.25	17.00	21.50
	Mean	13.00	16.31	21.25
	<b>Median</b>	<b>13</b>	<b>17</b>	<b>21</b>
3	Minimum	4.75	12.50	19.50
	Maximum	8.50	17.00	21.25
	Mean	6.75	15.10	20.30
	<b>Median</b>	<b>7</b>	<b>15</b>	<b>20</b>
Total	Minimum	4.75	12.50	19.50
	Maximum	16.25	21.50	24.50
	Mean	10.90	16.92	21.54
	<b>Median</b>	<b>13</b>	<b>17</b>	<b>21</b>

**Mathematics, Grade 3, Round 3 Overall**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	13	16	19
	Maximum	13	19	24
	Mean	13.00	17.25	22.00
	<b>Median</b>	<b>13</b>	<b>17</b>	<b>23</b>
2	Minimum	13	17	23
	Maximum	13	17	24
	Mean	13.00	17.00	23.50
	<b>Median</b>	<b>13</b>	<b>17</b>	<b>24</b>
3	Minimum	13	17	24
	Maximum	14	18	26
	Mean	13.20	17.20	25.00
	<b>Median</b>	<b>13</b>	<b>17</b>	<b>25</b>
Total	Minimum	13	16	19
	Maximum	14	19	26
	Mean	13.08	17.15	23.62
	<b>Median</b>	<b>13</b>	<b>17</b>	<b>24</b>

**Mathematics, Grade 4, Round 1 Overall**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	13.00	17.25	21.50
	Maximum	17.00	21.00	25.00
	Mean	14.94	19.44	23.06
	<b>Median</b>	<b>15</b>	<b>20</b>	<b>23</b>
2	Minimum	12.50	14.75	19.25
	Maximum	14.75	18.25	21.50
	Mean	13.69	16.63	20.31
	<b>Median</b>	<b>14</b>	<b>17</b>	<b>20</b>
3	Minimum	4.75	12.25	15.00
	Maximum	8.00	14.50	24.75
	Mean	6.15	13.25	19.60
	<b>Median</b>	<b>6</b>	<b>13</b>	<b>20</b>
Total	Minimum	4.75	12.25	15.00
	Maximum	17.00	21.00	25.00
	Mean	11.17	16.19	20.88
	<b>Median</b>	<b>13</b>	<b>16</b>	<b>21</b>

**Mathematics, Grade 4, Round 2 Overall**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	13.50	17.25	21.50
	Maximum	14.50	19.00	24.50
	Mean	13.88	18.31	22.56
	<b>Median</b>	<b>14</b>	<b>19</b>	<b>22</b>
2	Minimum	13.25	16.25	20.00
	Maximum	14.00	17.50	21.00
	Mean	13.75	16.81	20.63
	<b>Median</b>	<b>14</b>	<b>17</b>	<b>21</b>
3	Minimum	5.25	12.50	18.75
	Maximum	9.25	15.00	21.00
	Mean	6.90	13.70	19.70
	<b>Median</b>	<b>6</b>	<b>14</b>	<b>20</b>
Total	Minimum	5.25	12.50	18.75
	Maximum	14.50	19.00	24.50
	Mean	11.15	16.08	20.87
	<b>Median</b>	<b>14</b>	<b>17</b>	<b>21</b>

**Mathematics, Grade 4, Round 3 Overall**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	13	17	19
	Maximum	14	18	24
	Mean	13.75	17.50	22.25
	<b>Median</b>	<b>14</b>	<b>18</b>	<b>23</b>
2	Minimum	14	17	23
	Maximum	14	18	24
	Mean	14.00	17.25	23.75
	<b>Median</b>	<b>14</b>	<b>17</b>	<b>24</b>
3	Minimum	13	17	24
	Maximum	15	18	26
	Mean	14.00	17.20	24.80
	<b>Median</b>	<b>14</b>	<b>17</b>	<b>25</b>
Total	Minimum	13	17	19
	Maximum	15	18	26
	Mean	13.92	17.31	23.69
	<b>Median</b>	<b>14</b>	<b>17</b>	<b>24</b>

**Mathematics, Grade 5, Round 1 Overall**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	7.00	17.50	24.25
	Maximum	15.75	23.25	27.00
	Mean	11.06	20.19	25.88
	<b>Median</b>	<b>11</b>	<b>20</b>	<b>26</b>
2	Minimum	9.75	19.25	25.25
	Maximum	13.00	22.75	26.25
	Mean	11.50	20.63	25.63
	<b>Median</b>	<b>12</b>	<b>20</b>	<b>26</b>
3	Minimum	11.75	15.50	20.75
	Maximum	12.50	18.50	24.75
	Mean	12.17	17.17	22.33
	<b>Median</b>	<b>12</b>	<b>18</b>	<b>22</b>
4	Minimum	12.00	18.25	22.50
	Maximum	13.00	23.50	26.75
	Mean	12.42	21.25	25.25
	<b>Median</b>	<b>12</b>	<b>22</b>	<b>27</b>
Total	Minimum	7.00	15.50	20.75
	Maximum	15.75	23.50	27.00
	Mean	11.71	19.89	24.91
	<b>Median</b>	<b>12</b>	<b>19</b>	<b>25</b>

**Mathematics, Grade 5, Round 2 Overall**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	6.00	15.00	25.25
	Maximum	8.50	19.75	26.00
	Mean	7.75	17.94	25.63
	<b>Median</b>	<b>8</b>	<b>19</b>	<b>26</b>
2	Minimum	10.00	18.25	24.50
	Maximum	14.00	20.75	26.75
	Mean	12.25	19.25	25.38
	<b>Median</b>	<b>13</b>	<b>19</b>	<b>25</b>
3	Minimum	11.75	16.00	20.75
	Maximum	12.50	18.25	24.25
	Mean	12.17	17.33	22.25
	<b>Median</b>	<b>12</b>	<b>18</b>	<b>22</b>
4	Minimum	11.00	17.75	22.25
	Maximum	12.00	20.50	24.50
	Mean	11.58	19.33	23.58
	<b>Median</b>	<b>12</b>	<b>20</b>	<b>24</b>
Total	Minimum	6.00	15.00	20.75
	Maximum	14.00	20.75	26.75
	Mean	10.80	18.48	24.39
	<b>Median</b>	<b>12</b>	<b>19</b>	<b>25</b>

**Mathematics, Grade 5, Round 3 Overall**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	12	18	24
	Maximum	12	19	25
	Mean	12.00	18.75	24.50
	<b>Median</b>	<b>12</b>	<b>19</b>	<b>25</b>
2	Minimum	12	19	25
	Maximum	13	19	25
	Mean	12.50	19.00	25.00
	<b>Median</b>	<b>13</b>	<b>19</b>	<b>25</b>
3	Minimum	12	18	24
	Maximum	12	19	25
	Mean	12.00	18.33	24.67
	<b>Median</b>	<b>12</b>	<b>18</b>	<b>25</b>
4	Minimum	12	19	24
	Maximum	12	20	25
	Mean	12.00	19.33	24.67
	<b>Median</b>	<b>12</b>	<b>19</b>	<b>25</b>
Total	Minimum	12	18	24
	Maximum	13	20	25
	Mean	12.14	18.86	24.71
	<b>Median</b>	<b>12</b>	<b>19</b>	<b>25</b>

**Mathematics, Grade 6, Round 1 Overall**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	5.75	16.50	23.25
	Maximum	9.75	18.00	25.75
	Mean	7.69	17.06	24.44
	<b>Median</b>	<b>8</b>	<b>17</b>	<b>24</b>
2	Minimum	9.75	18.25	23.25
	Maximum	13.75	21.25	26.50
	Mean	11.63	19.75	24.94
	<b>Median</b>	<b>12</b>	<b>20</b>	<b>25</b>
3	Minimum	11.50	15.00	18.00
	Maximum	12.00	18.75	24.25
	Mean	11.75	16.75	21.00
	<b>Median</b>	<b>12</b>	<b>17</b>	<b>21</b>
4	Minimum	7.75	16.25	22.50
	Maximum	11.25	18.25	24.50
	Mean	9.42	17.00	23.83
	<b>Median</b>	<b>9</b>	<b>17</b>	<b>25</b>
Total	Minimum	5.75	15.00	18.00
	Maximum	13.75	21.25	26.50
	Mean	10.05	17.75	23.71
	<b>Median</b>	<b>11</b>	<b>18</b>	<b>24</b>



**Mathematics, Grade 6, Round 2 Overall**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	7.00	16.50	23.25
	Maximum	8.50	17.25	25.50
	Mean	7.63	16.81	24.44
	<b>Median</b>	<b>8</b>	<b>17</b>	<b>25</b>
2	Minimum	10.00	17.50	23.75
	Maximum	12.25	20.25	25.25
	Mean	11.00	18.75	24.44
	<b>Median</b>	<b>11</b>	<b>19</b>	<b>24</b>
3	Minimum	11.25	15.00	18.00
	Maximum	12.00	17.75	23.00
	Mean	11.75	16.42	20.58
	<b>Median</b>	<b>12</b>	<b>17</b>	<b>21</b>
4	Minimum	8.00	16.00	22.50
	Maximum	9.50	17.00	23.50
	Mean	9.00	16.42	23.08
	<b>Median</b>	<b>10</b>	<b>16</b>	<b>23</b>
Total	Minimum	7.00	15.00	18.00
	Maximum	12.25	20.25	25.50
	Mean	9.77	17.20	23.32
	<b>Median</b>	<b>10</b>	<b>17</b>	<b>24</b>

**Mathematics, Grade 6, Round 3 Overall**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	10	16	23
	Maximum	12	17	24
	Mean	11.25	16.75	23.50
	<b>Median</b>	<b>12</b>	<b>17</b>	<b>24</b>
2	Minimum	10	17	24
	Maximum	11	17	24
	Mean	10.50	17.00	24.00
	<b>Median</b>	<b>11</b>	<b>17</b>	<b>24</b>
3	Minimum	11	17	23
	Maximum	12	17	24
	Mean	11.67	17.00	23.67
	<b>Median</b>	<b>12</b>	<b>17</b>	<b>24</b>
4	Minimum	10	16	23
	Maximum	11	17	24
	Mean	10.33	16.67	23.33
	<b>Median</b>	<b>10</b>	<b>17</b>	<b>23</b>
Total	Minimum	10	16	23
	Maximum	12	17	24
	Mean	10.93	16.86	23.64
	<b>Median</b>	<b>11</b>	<b>17</b>	<b>24</b>

**Mathematics, Grade 7, Round 1 Overall**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	11.50	17.25	20.50
	Maximum	13.00	19.00	23.00
	Mean	12.38	18.13	21.81
	<b>Median</b>	<b>13</b>	<b>18</b>	<b>22</b>
2	Minimum	9.20	12.50	17.25
	Maximum	11.25	18.50	23.50
	Mean	9.86	15.06	19.75
	<b>Median</b>	<b>10</b>	<b>15</b>	<b>19</b>
3	Minimum	11.00	14.75	17.50
	Maximum	14.00	22.00	24.50
	Mean	12.50	18.19	21.44
	<b>Median</b>	<b>13</b>	<b>18</b>	<b>22</b>
Total	Minimum	9.20	12.50	17.25
	Maximum	14.00	22.00	24.50
	Mean	11.58	17.13	21.00
	<b>Median</b>	<b>12</b>	<b>18</b>	<b>21</b>

**Mathematics, Grade 7, Round 2 Overall**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	11.50	17.25	20.75
	Maximum	12.75	18.75	22.50
	Mean	12.13	17.94	21.69
	<b>Median</b>	<b>12</b>	<b>18</b>	<b>22</b>
2	Minimum	9.50	13.25	18.00
	Maximum	10.25	15.00	20.50
	Mean	9.69	14.25	18.75
	<b>Median</b>	<b>10</b>	<b>14</b>	<b>18</b>
3	Minimum	12.75	17.00	21.25
	Maximum	13.00	18.00	22.50
	Mean	12.88	17.75	21.75
	<b>Median</b>	<b>13</b>	<b>18</b>	<b>22</b>
Total	Minimum	9.50	13.25	18.00
	Maximum	13.00	18.75	22.50
	Mean	11.56	16.65	20.73
	<b>Median</b>	<b>12</b>	<b>18</b>	<b>21</b>

**Mathematics, Grade 7, Round 3 Overall**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	11	16	20
	Maximum	12	18	22
	Mean	11.75	17.25	21.50
	<b>Median</b>	<b>12</b>	<b>18</b>	<b>22</b>
2	Minimum	11	15	19
	Maximum	12	18	20
	Mean	11.75	16.25	19.75
	<b>Median</b>	<b>12</b>	<b>16</b>	<b>20</b>
3	Minimum	12	18	21
	Maximum	12	18	21
	Mean	12.00	18.00	21.00
	<b>Median</b>	<b>12</b>	<b>18</b>	<b>21</b>
Total	Minimum	11	15	19
	Maximum	12	18	22
	Mean	11.83	17.17	20.75
	<b>Median</b>	<b>12</b>	<b>18</b>	<b>21</b>

**Mathematics, Grade 8, Round 1 Overall**

Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	11.25	17.75	21.75
	Maximum	13.50	20.00	23.25
	Mean	12.38	18.56	22.25
	<b>Median</b>	<b>12</b>	<b>18</b>	<b>22</b>
2	Minimum	6.00	12.50	17.00
	Maximum	10.75	14.50	20.50
	Mean	8.69	13.25	18.44
	<b>Median</b>	<b>9</b>	<b>13</b>	<b>18</b>
3	Minimum	12.25	14.75	17.75
	Maximum	13.00	19.50	23.50
	Mean	12.63	16.81	21.00
	<b>Median</b>	<b>13</b>	<b>17</b>	<b>21</b>
Total	Minimum	6.00	12.50	17.00
	Maximum	13.50	20.00	23.50
	Mean	11.23	16.21	20.56
	<b>Median</b>	<b>12</b>	<b>17</b>	<b>21</b>

**Mathematics, Grade 8, Round 2 Overall**

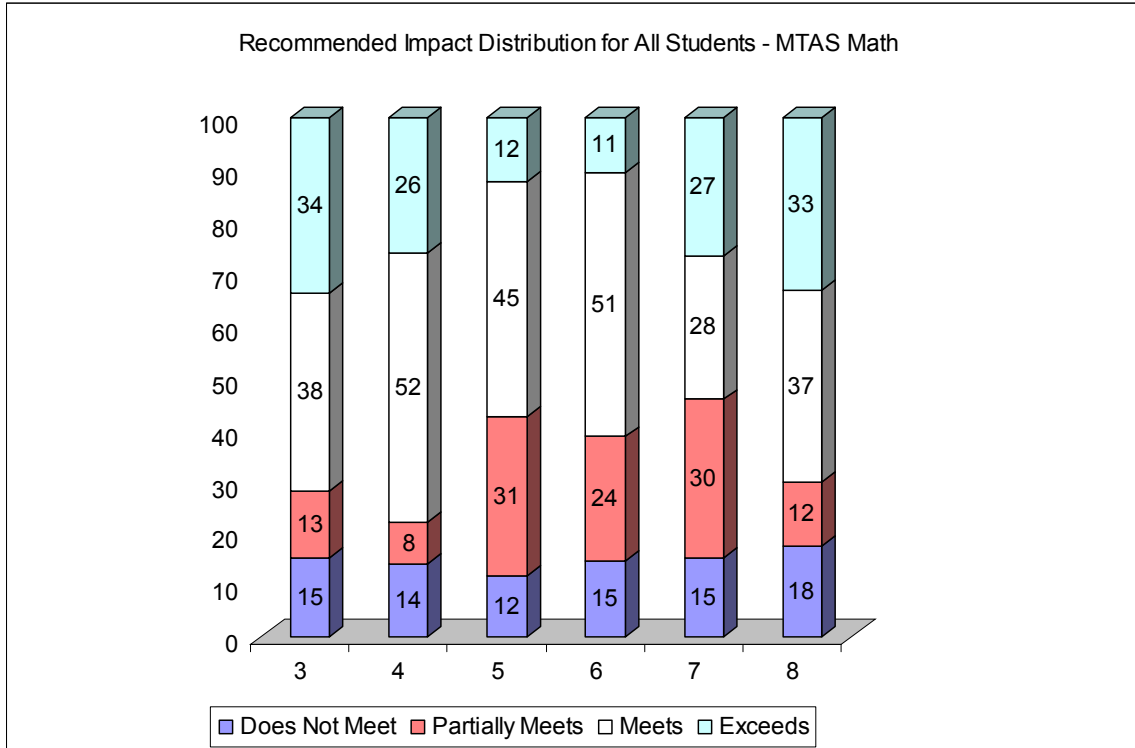
Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	12.00	17.75	20.75
	Maximum	13.50	18.50	22.50
	Mean	12.63	18.13	21.81
	<b>Median</b>	<b>13</b>	<b>18</b>	<b>22</b>
2	Minimum	6.75	12.50	16.00
	Maximum	10.25	13.75	18.75
	Mean	8.81	13.13	17.75
	<b>Median</b>	<b>9</b>	<b>13</b>	<b>18</b>
3	Minimum	12.50	16.00	21.00
	Maximum	13.00	17.50	21.50
	Mean	12.69	16.56	21.13
	<b>Median</b>	<b>13</b>	<b>16</b>	<b>21</b>
Total	Minimum	6.75	12.50	16.00
	Maximum	13.50	18.50	22.50
	Mean	11.38	15.94	20.23
	<b>Median</b>	<b>12</b>	<b>16</b>	<b>21</b>

**Mathematics, Grade 8, Round 3 Overall**

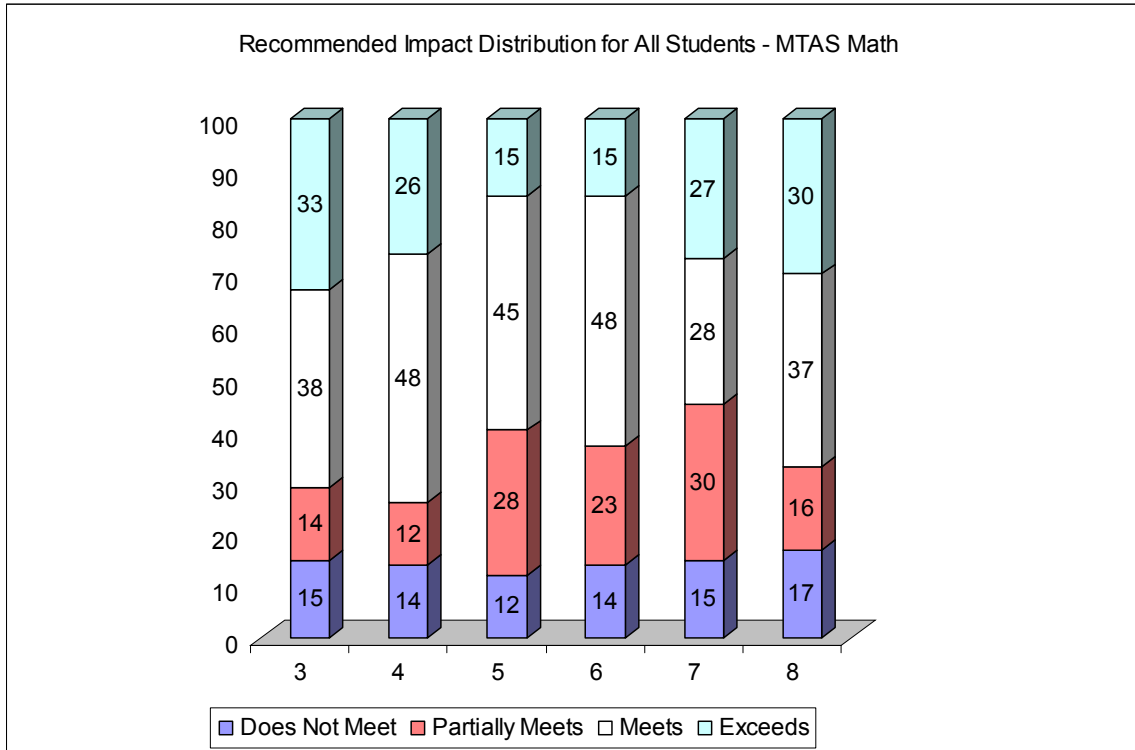
Table		Cut Score Level		
		Partially Meets	Meets	Exceeds
1	Minimum	11	17	21
	Maximum	12	17	22
	Mean	11.75	17.00	21.75
	<b>Median</b>	<b>12</b>	<b>17</b>	<b>22</b>
2	Minimum	11	14	19
	Maximum	13	16	20
	Mean	12.00	15.25	19.75
	<b>Median</b>	<b>12</b>	<b>16</b>	<b>20</b>
3	Minimum	12	16	21
	Maximum	12	17	21
	Mean	12.00	16.25	21.00
	<b>Median</b>	<b>12</b>	<b>16</b>	<b>21</b>
Total	Minimum	11	14	19
	Maximum	13	17	22
	Mean	11.92	16.17	20.83
	<b>Median</b>	<b>12</b>	<b>16</b>	<b>21</b>

**Raw Score Theta Cuts and Impact Data Based on Round 3**

	<b>Partially Meets the Standards</b>	<b>Meets the Standards</b>	<b>Exceeds the Standards</b>
<b>Grade 3</b>	13	17	24
<b>Grade 4</b>	14	17	24
<b>Grade 5</b>	12	19	25
<b>Grade 6</b>	11	17	24
<b>Grade 7</b>	12	18	21
<b>Grade 8</b>	12	16	21



### Vertical Articulation !



**Attachment A**  
**Minnesota Assessment System**  
**Scope of Work**

Task ID	Work Task
<b>1</b>	<b>PROJECT PLANNING AND COMMUNICATION</b>
<b>1.1</b>	<b>Major Project Activities</b>
1.1.1	The vendor will meet the MDE-agreed upon and approved time lines and requirements for the implementation of the Minnesota Assessments.
1.1.2	The vendor will follow principles set forth in the <i>Standards for Educational and Psychological Testing, American Psychological Association, National Council on Measurement in Education</i> and <i>Code of Professional Responsibilities in Educational Measurement</i> .
1.1.3	The vendor will work with MDE to adopt applicable principles set forth in the <i>Operational Best Practices for Statewide Large Scale Assessment Programs</i> developed by CCSSO and ATP.
1.1.4	The vendor will adhere to the federal Family Educational Rights and Privacy Act Regulations Title 34, Part 99.
1.1.5	The vendor employees and temporary staff are expected to adhere to strict security and confidentiality requirements—and will be enforced at all phases—from item development and test construction through forms construction, proofreading, and printing to distribution, collection, scoring and reporting.
1.1.6	The vendor will maintain the MDE/Vendor Directory and Communication Guidelines. The vendor will notify MDE of any staff changes and include name, title, and contact information. MDE retains the right to approve any changes to leads assigned to the project. A change in scope that necessitates additional staff or reduction in staff will require approval of staff by MDE.
1.1.7	The vendor will develop and deliver final risk analysis: 1) specific to administration, scoring, and reporting a minimum of three weeks prior to an administration window opening and 2) specific to personnel and budget by January 1st of each year.
1.1.8	The vendor will develop and maintain an issues log that all project members have easy access to. An issues log details all open and closed questions for cross-project (and individual projects where appropriate) systems.
1.1.9	The vendor will provide a process for escalating issues of potential late deliverables or quality issues to avoid either.
1.1.10	The vendor will provide cost options estimates as quickly as an hour from request for a variety of scenarios for legislative requests and MDE planning purposes.
<b>1.1.11</b>	<b>Schedules</b>
1.1.11.1	Beginning 30 days after contract award, the vendor will produce a milestone schedule / project overview no less than a month before a project (e.g., MCA Reading/Math, MCA Science, MCA-Modified, MTAS, GRAD) begins that concentrates on the sequence of major events that are dependent within a project to determine if there are any obstacles to successfully completing the project with high quality.
1.1.11.2	The vendor will create a detailed project schedule in a common software and using MDE terminology to be provided to MDE for input and final approval before the start of any tasks for a project year (e.g., For a spring paper administration - February for test construction, April for Administration and July for reporting). Schedules will be complete and address all phases of the projects and be maintained throughout the project year.
1.1.11.3	Schedules will be developed by the vendor so resource overlap is not experienced at MDE or justification of why overlap cannot be avoided is provided to MDE. Schedules must sort by resource tasks, incomplete tasks, by date ranges, or other configurations that make the schedule usable for all users. Individual project schedules must roll up into a master project schedule.

**Attachment A**  
**Minnesota Assessment System**  
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1.1.11.4	The vendor and MDE will review schedules weekly to confirm handoff and deliverable dates agree and are on target for completion. The schedules will have indicators noting any slippage or any change to a task that causes slippage to MDE or a change in deliverables to districts. Vendor will provide reason for slippage and resolution for correction. The weekly review will also identify if changes need to be made for the next year's schedule for these tasks and be recorded within the schedule.
<b>1.1.12</b>	<b>Meetings and Conference Calls</b>
1.1.12.1	The vendor will facilitate weekly project and across-project conference calls. An agenda with upcoming deliverables and status information will be provided by the vendor no later than 48 hours before the call asking for MDE review and additional topics. Minutes will be provided in writing by the vendor within 24 hours of the call. The project conference calls will include any open issues and status. Leads from functional areas that are active during the course of a project should attend the conference call so issues can be resolved expeditiously. Vendor should use the agenda/minutes as one input that helps to direct future and ongoing activities. Agendas and minutes will use the same format across all projects.
1.1.12.2	The vendor will write draft minutes in a format determined by MDE for all face-to-face meetings and submit them to MDE within five business days. In the case of meetings with multiple vendors, vendors will alternate between a primary and secondary minute taker. Secondary will provide their notes to the primary and primary will consolidate for delivery to MDE. MDE will provide edits and/or approval before minutes are considered final.
1.1.12.3	The vendor will produce minutes that concisely capture and summarize the discussion, decisions, action items and due dates.
1.1.12.4	The vendor will solicit feedback from districts via debrief meetings or other method and incorporate suggestions that improve the program and are agreed upon by MDE.
1.1.12.5	The vendor will plan and facilitate debrief meetings following an activity such as test development/construction, administration and reporting to identify areas of improvement. Suggestions for changes will be documented in a method (e.g., status calls) that does not allow the improvement to be missed in the coming year.
1.1.12.6	The vendor staff will work collaboratively to build and maintain consistency across projects This may also include quarterly meetings with MDE to review existing processes and development of products.
<b>1.2</b>	<b>Customer Service</b>
1.2.1	The vendor will respond to MDE requests and questions via email or voicemail in the same day or by timeline requested. If an answer is not available the vendor will provide an acknowledgment and estimated date an answer will be provided to MDE.
1.2.2	The vendor will have Customer Service Representatives (CSRs), trained specifically by Vendor program staff knowledgeable about the Minnesota Assessments to respond to MN school and district phone calls, e-mail, and correspondence. The CSR will be able to identify questions that are policy and belong to MDE and those that are to be answered by vendor. Accurate information needs to be readily and quickly available to CSR staff. Changing information needs to be provided to CSR immediately. The vendor will have a documented process in place to keep CSR staff informed of Minnesota specific information.
1.2.3	The vendor will monitor the accuracy of responses by CSR through supervisory monitoring, district or state feedback or other method and provide retraining as necessary. Vendor will provide weekly reports to MDE during peak times. Reports will include volume, wait time and instances of incorrect responses by CSR.
1.2.4	Toll-free telephone lines will be staffed by the vendor Monday – Friday from 7 a.m. to 4:30 p.m. Central Time and on Saturday over the weekends of GRAD retesting windows from 7:00 AM – noon Central Time.



**Attachment A**  
**Minnesota Assessment System**  
**Scope of Work**

1.2.5	Calls will be answered by vendor with an average wait time of no more than 20 seconds. Any voice mail messages left for Customer Service before or after regular hours will be returned within two business hours.
1.2.6	Online issues that cannot be resolved by vendor CSR immediately will be transferred to vendor's technical support. Technical support will work with the district until resolution is identified. If a district is calling with a technical issue and students are in the classroom unable to test, the call is to be moved to technical support immediately for resolution or provide recommendation to have students test at a later time if problem can't be resolved. Students should not be kept in a classroom for more than 15 minutes waiting for resolution if not agreed upon by the district.
1.2.7	The vendor will respond to calls that are transferred to internal staff (e.g., Project Management) within 2 hours. Vendor will respond to caller requests and questions within one business day with a resolution or notification that the vendor is still working on the issue. If an answer is not available, status will be provided periodically until an answer is provided.
1.2.8	When the vendor experiences difficulties with online system (i.e., server down), the vendor shall notify MDE, and a voice mail blast and/or an email notice will be sent to districts alerting them to the issue as soon as directed by MDE. The Vendor shall draft template messages to be available for this purpose. Vendor will provide a URL for a system status webpage that must reflect current status. Vendor will also provide a list serve for users to register that will provide an auto e-mail notification when there are system issues. Updates will occur as system status changes.
1.2.9	The vendor will have staff knowledgeable about online testing to support districts experiencing technical difficulties. If situation warrants and MDE and Vendor agree a site visit by vendor will occur within twenty-four hours or as agreed by district. In cases where the onsite staff is unable to resolve the issue within 48 hours vendor will arrange for a higher skilled staff to visit and resolve the issue.
1.2.10	The vendor will provide one email address for districts to make inquiries and will respond to district emails same day if received by 4 PM with response or acknowledgement of receiving email.
1.2.11	The vendor will maintain a database/log of emails and calls with the questions. This database will provide historical information regarding who called or emailed and the topic. Summaries of numbers and types of contacts and responses will be sent to the MDE at the end of each project cycle, or upon request.
1.2.12	The vendor will develop and maintain a Frequently Asked Questions document or database that will be available for reference by project staff and CSR – and will be available to MDE and districts in an easily searchable format. The FAQs must be finalized three months before the scheduled activity, except through February 2012 when they must be available to MDE during UAT and finalized within 10 days after UAT. These FAQs will be cross-project, succinct, easy to read and be grammatically correct.
1.2.13	The vendor will maintain email addresses for various groups such as the District Assessment Coordinator and Technology Coordinators to allow for quick dissemination of information.
1.2.14	The vendor will mail, fax, email, or ship other correspondence, such as reminder memos, to district assessment coordinators and MDE. The vendor will receive MDE approval prior to distribution to districts. The vendor will inform MDE which district contact group or groups the correspondence is being sent. For the reminder emails to districts about key dates such as windows closing or ordering materials the vendor will provide MDE the schedule for creating correspondence, receiving MDE approval, and distribution time.

**Attachment A  
Minnesota Assessment System  
Scope of Work**

<b>1.3 Miscellaneous Support</b>	
1.3.1	The vendor will provide toll-free call in numbers for Minnesota assessment use. Call in numbers will be used for meetings between MDE, vendor and districts. Some numbers will be provided for use between MDE and vendor only. This will provide security when using these numbers.
1.3.2	The vendor will provide and maintain a secure FTP site, or equivalent approved by MDE, for use of posting secure information between MDE and the vendor and other parties as requested by MDE. This site will be maintained so that it is used for file transfer and not file storage.
1.3.3	The vendor will provide a limited access site for shared documents such as the issues log(s). The vendor shall provide logons to all persons identified by MDE. The site should have a check out feature so a document is not being edited by more than one person at a time.
1.3.4	The vendor will provide MDE with an account number and shipping materials for the shipping company of its choice to provide for overnight shipment of secure materials for the Minnesota Assessment System.
1.3.5	The vendor will <b>not</b> send student data via email. Student data will be password protected and posted on the ftp site.
1.3.6	The vendor will make available and use the online registration system such as Cvent as described under Advisory Panel Meetings for other meetings such as workshops and training sessions. To facilitate startup and avoid data transfer errors, MDE will arrange for the transfer of the current Cvent data to vendor.
1.3.7	The vendor will hire and reimburse state-approved American Sign Language interpreters as requested for advisory panels or training meetings averaging no more than three times a year for one day each.
1.3.8	The vendor will provide input to and review of the weekly Assessment Update distributed by MDE.
1.3.9	The vendor will have electronic means (not faxing) to collect information from districts such as signing up for training or when soliciting information.
1.3.10	Vendor will invoice districts/schools for ABE, home schooled and private school students using the assessments. A report of the number invoiced will be provided to MDE before the final invoice of the year. GRAD requires a report quarterly. Vendor will collect payment and subtract total from final payment.
1.3.11	At the start of the contract the vendor will develop and maintain a transitional plan in the event that the incumbent does not retain the contract and work is transferred to another vendor. Deliverables on this plan will be provided September 1 of each year.
1.3.12	The vendor will provide upon request a student's score information and actual response (image of answer document or replication of online assessment) within five business days for parent review requests.
<b>1.4 Training</b>	
1.4.1	The vendor will work closely with MDE staff and any advisory committees or educators to ensure the materials are appropriate for the intended audience and approved by MDE.
1.4.2	All training materials will be first prepared by the vendor and then reviewed collaboratively by the vendor and MDE staff for any necessary revisions unless specified differently by MDE.

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1.4.3	The vendor is responsible for both preparing and presenting 10 annual live presentations/trainings (1.4.4) and 20 e-learning modules (1.4.5) over the course of the contract. The vendor must have staff that is effective and experienced at presenting to adult learners. It is important to MDE that a professional and competent image is developed and maintained through the vendor.
1.4.4	The vendor will conduct up to ten distinct sets of live training sessions (face-to-face, Webinar, video conferencing) annually. Training will address specific processes that are identified by MDE as training needs for districts (e.g., packaging of materials, on-line session set ups, etc.). Repeated offerings of a given training set are not considered separate sessions. A recording will be available with the same information.
1.4.5	<p>The vendor will use e-learning technology for training to allow flexibility access to districts.</p> <ul style="list-style-type: none"> <li>• The vendor will create interactive, multi-media modules in commercially available software.</li> <li>• All materials will be posted to the vendor website and will be available to MDE for posting on its website. Trainings hosted by the vendor are accessible to school district staff.</li> <li>• All recorded materials, including video clips, will be accompanied by a transcription or closed captioning, as required by MDE.</li> <li>• The trainings are managed through a learning management system (LMS) that is able to track who took the training as well as other variables such as time spent in training, performance on quizzes, administer surveys to participants, etc.</li> <li>• Information collected by the LMS must be accessible to MDE and districts to track participation; districts can only access information related to their own staff.</li> <li>• The software will allow for printing of certificates and resources for training.</li> <li>• The software will be easily edited to adjust to changes without recreating. Training will be reviewed periodically, minimally annually and updated as necessary.</li> <li>• Estimate 20 trainings will be created and maintained. <ul style="list-style-type: none"> <li>○ Estimate one-fourth of trainings will require video clips which are recorded and processed by the vendor. Videotaping will be conducted with Minnesota educators and students and may require travel to different district locations within the state. Assume five trips for videotaping at two days each.</li> <li>○ For MTAS, videos of test administrations will be planned to ensure that the range of eligible students are represented (i.e., disability category, level of severity, communication mode, need for assistive technology, gender, ethnicity) in the trainings. A pool of 25-30 viable videos will be created and maintained so training sets of video clips can be randomly selected and rotated on an annual basis for use in training test administrators and field auditors.</li> </ul> </li> </ul> <p>The vendor will provide source files to MDE of all trainings created.</p>
1.4.6	The vendor will provide computers for workshops, training, advisory panels, etc as needed for short-term use. The vendor will provide up to 100 computers needed for a meeting up to three times a year. Additionally, computers shall be available for all participants at Science meetings, and approximately 6-7 for each other grade/subject advisory group meeting.
1.4.7	<b>Workshops/Conferences</b>
1.4.7.1	The vendor's staff will be present for workshops, conferences and district meetings as requested by MDE.

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1.4.7.2	Annually the vendor will develop workshop materials and have an active role in workshop presentations including arranging and paying for facilities and food expenses. The workshops could be in at least 6 regional sites, plus 3 hosted in the metro area. Up to 600 total participants are anticipated. Additional training on computer-delivered test for technical coordinators will take place in at least 4 regional sites, plus the metro and be available via Webinar. Up to 250 participants are anticipated. Vendor will use Cvent or similar meeting invitation software for registration. Vendor will provide materials at the training sites.
1.4.7.3	The vendor will participate in MDE's Assessment Conference held in August of each year. For August 2012, 2013, 2014, and 2015, this involvement includes contracting with an agreed-upon meeting organizer, presentations or interactive labs, set-up support, and other agreed-upon tasks that contribute to the success of this conference. Detail can be found in the 2009 MDE Annual Assessment Conference Scope of Work and the 2009 MDE Annual Assessment Conference Program.
<b>1.5</b>	<b>Final Administration Report</b>
1.5.1	At the conclusion of each operational assessment or stand-alone field test cycle, the vendor will produce a professionally written Final Administration Report in the format agreed by MDE. The Final Administration Report must be written or reviewed by staff familiar with the project. Included in the Final Administration Report will be: <ul style="list-style-type: none"> <li>• a brief description of each phase of the project</li> <li>• a summary of online test engine performance and any administration issues</li> <li>• tables listing the number of items developed, items field tested, materials ordered, materials scanned, accommodated materials, reports produced, etc.</li> <li>• all development documentation related to schedules, questions, suggestions, issues, and resolutions</li> <li>• verbatim, specific written comments and suggestion from each of the groups, organized by topic</li> <li>• the various types of problems districts and/or the vendor encountered during the shipping/receiving process</li> </ul>
1.5.2	The Final Administration Report will be due by the vendor no later than 40 days from the time of delivery of reports to the districts or in the case of standalone field tests that do not report 40 days from the end of the test administration.
1.5.3	The vendor will use the Final Administration Report to inform debrief and/or kick off meetings.
<b>2.0</b>	<b>TEST DESIGN</b>
<b>2.1</b>	<b>Test Design General</b>
2.1.1	The vendor will follow Test Specifications so the correct operational assessments are developed.
2.1.2	As a cost option, the vendor will be responsible for arrangement of and the costs for test specification committee meetings to write test specifications based on revised academic standards.
2.1.3	The vendor will propose a test design, in consultation with MDE, for all high school math assessment (general education and alternate assessment) to be operational 2014.
2.1.4	RESERVE
2.1.5	As a cost option, the vendor will appropriately involve consultants at an FTE level appropriate to the task and approved by MDE to design an assessment that will meet federal review policies if there is a change in Standards, law, or other circumstance requiring us to redesign our MN assessments (e.g., alternate assessment, usability, accessibility).
2.1.6	The vendor will document and adhere to a plan for version control across the phases of all test development.

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<b>2.2</b>	<b>Test Design MCA-II and III Mathematics Grades 3 – 8 and 11</b>
2.2.1	The vendor will maintain the established horizontal linking design for the Mathematics MCA-III in grades 3-8 to support year-to-year form comparability and measure AYP, under constraint of item release.
2.2.2	The vendor will maintain the established horizontal linking design for the Mathematics MCA-II in grade 11 (based on 2003 Academic Standards) to support year-to-year form comparability and measure AYP, under constraint of item release.
2.2.3	The vendor will design a linking plan to support the transition from Mathematics MCA-II to the new high school mathematics assessment in 2014.
2.2.4	In 2014 and beyond, the vendor will implement and maintain a horizontal linking design for the new high school mathematics assessment to support year-to-year form comparability and measure AYP for NCLB accurately, under constraint of item release.
2.2.5	The vendor will maintain a vertical scale-with appropriate technical support and quality to measure individual student growth in mathematics and report across multiple years.
2.2.6	The vendor will administer and implement the MCA-III Mathematics using an adaptive algorithm beginning early in academic year 2011-2012 (anticipated for November 2011).
<b>2.3</b>	<b>Test Design MCA-II and III Reading Grades 3 – 8 and 10</b>
2.3.1	The vendor will maintain the established horizontal linking design for the Reading MCA-II based on the 2003 Academic Standards to support year-to-year form comparability and measure AYP for NCLB accurately, under constraint of item release.
2.3.2	The vendor will design a linking plan to support the transition from the MCA-II to the MCA-III in 2013.
2.3.3	In 2013 and beyond, the vendor will implement and maintain a horizontal linking design for the MCA-III to support year-to-year form comparability and measure AYP, under constraint of item release.
2.3.4	The vendor will maintain the established vertical scale for the Reading MCA-II based on the 2003 Academic Standards in grades 3 through 8 to measure individual student growth in reading and to report across multiple years.
2.3.5	In 2013 and beyond, the vendor will implement and maintain a vertical scale-to measure individual student growth in reading and report across multiple years.
2.3.6	The vendor will implement the field test and operational adaptive algorithms approved by MDE. Field test items will go through data review.
2.3.7	The MDE expects the vendor to report Lexiles based on contracted research with MetaMetrics after the 2011 administration of the MCA-II for Reading and after the inaugural 2013 administration of the MCA-III for Reading. The vendor will interact with such a third-party to maintain this link and subsequently report these results. MDE and vendor received a quote of an “annual cost for MetaMetrics services is \$.48 per student within the tested cohort.” Vendor’s contract includes reporting Lexiles for 420,000 students (60,000 students in each of Grades 3-8 and 10)
<b>2.4</b>	<b>Test Design MCA-III Science Grades 5, 8 and High School</b>
2.4.1	The vendor will maintain the established horizontal linking design for the Science MCA-II to support year-to-year form comparability and measure AYP, under constraint of item release.

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2.4.2	In 2012, the vendor will design a linking plan to support transition from Science MCA-II to MCA-III. MDE may consider an online adaptive science test (if the field test item pool is increased as the vendor has proposed). If MDE chooses the adaptive option, the horizontal linking plan will be similar to the plan proposed for reading.
2.4.3	In 2012 and beyond, the vendor will implement and maintain a horizontal linking design for the Science MCA-III to support year-to-year form comparability and measure AYP, under constraint of item release.
2.4.4	The vendor will develop two forms for high school starting with the Science MCA-III.
<b>2.5</b>	<b>Test Design MCA-Modified in Mathematics Grades 5 – 8 and 11</b>
2.5.1	Each year there will be one Mathematics MCA-Modified form for each grade. Grades 5 – 8 online forms will be appropriately resequenced to create multiple forms for security reason.
2.5.2	The Mathematics MCA-Modified will have two field test forms per grade. MDE may decide to move the modified assessments to an adaptive framework that utilizes items from both the modified and MCA banks, and adopts a common underlying scale to allow educators to monitor when students are ready to shift to the MCA.
2.5.3	The vendor will maintain the established horizontal linking design for the Mathematics MCA-III Modified in grades 5-8 to support year-to-year form comparability and measure AYP, under constraint of item release.
2.5.4	The vendor will maintain the established horizontal linking design for the Mathematics MCA-Modified in grade 11 (based on 2003 Academic Standards) to support year-to-year form comparability and measure AYP, under constraint of item release.
2.5.5	The vendor will design a linking plan to support transition from Mathematics MCA-Modified to the new alternate assessment based on modified achievement standards in grade 11 in 2014.
2.5.6	In 2014 (and beyond), the vendor will implement and maintain a horizontal linking design for the new alternate assessment based on modified achievement standards in grade 11 to support year-to-year form comparability and measure AYP, under constraint of item release.
<b>2.6</b>	<b>Test Design MCA-Modified Reading Grades 5 – 8 and 10</b>
2.6.1	The vendor will create two equated static MCA-Modified forms for each grade. MDE may decide to move the modified assessments to an adaptive framework that utilizes items from both the modified and MCA banks, and adopts a common underlying scale to allow educators to monitor when students are ready to shift to the MCA.
2.6.2	The vendor will maintain the established horizontal linking design for the Reading MCA-II Modified to support year-to-year form comparability and measure AYP under constraint of item release.
2.6.3	The vendor will design a linking plan to support transition from MCA-II Modified to MCA-III Modified in 2013.
2.6.4	In 2013 and beyond, the vendor will implement and maintain a horizontal linking design for the MCA-III Modified to support year-to-year form comparability and measure AYP, under constraint of item release
2.6.5	The vendor will establish and implement, as technically appropriate, a vertical scale-with appropriate technical support and quality to measure individual student growth in reading and report across multiple years.
<b>2.7</b>	<b>Test Design MTAS in Mathematics Grades 3 – 8 and 11</b>
2.7.1	The vendor will maintain the established horizontal linking design for the Mathematics MTAS-III in grades 3-8 to support year-to-year form comparability and measure AYP under constraint of item release.



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2.7.2	The vendor will maintain the established horizontal linking design for the Mathematics MTAS in grade 11 (based on 2003 Academic Standards) to support year-to-year form comparability and measure AYP under constraint of item release.
2.7.3	The vendor will design a linking plan to support transition from Mathematics MTAS to the new alternate assessment (1% test) in grade 11 in 2014.
2.7.4	In 2014 and beyond, the vendor will implement and maintain a horizontal linking design for the new alternate assessment (1% test) in grade 11 to support year-to-year form comparability and measure AYP under constraint of item release.
2.7.5	If MN adopts Common Core Standards in Math during this contract, MN may elect to join a consortium to develop an alternate assessment based on alternate achievement standards and would modify this contract if vendor support is needed.
2.7.6	There will be a minimum of two equated static test forms containing unique items for each grade. With limited ability to field test new tasks, it will take 3-4 years to build a sufficient pool from which to construct static forms.
<b>2.8</b>	<b>Test Design MTAS Reading Grades 3 – 8 and 10</b>
2.8.1	The vendor will maintain the established horizontal linking design for the MTAS based on 2003 Academic Standards to support year-to-year form comparability and measure AYP under constraint of item release. As a cost option, MDE may direct the vendor to develop and implement a vertical scale to facilitate measuring and reporting student growth over time.
2.8.2	The vendor will design a linking plan to support transition from MTAS to MTAS-III in 2013.
2.8.3	In 2013 and beyond, the vendor will implement and maintain a horizontal linking design for the MTAS-III to support year-to-year form comparability and measure AYP under constraint of item release
2.8.4	Two static operational forms will be maintained by the vendor until first operational MTAS-III administration in 2013; embedded field test items in 2011 and 2012 will be based on new ELA/reading standards and may reflect a new test design.
2.8.5	Two equated static test forms containing unique items for each grade will be developed by the vendor for MTAS-III. With limited ability to field test new tasks, it will take 3-4 years to build a sufficient pool from which to construct static forms.
<b>2.9</b>	<b>Test Design MTAS in Science Grades 5, 8 and High School</b>
2.9.1	The vendor will maintain the established horizontal linking design for the Science MTAS based on 2003 Academic Standards to support year-to-year form comparability and measure AYP under constraint of item release.
2.9.2	The vendor will design linking plan to support transition from Science MTAS to MTAS-III in 2012.
2.9.3	In 2012 and beyond, the vendor will implement and maintain a horizontal linking design to support year-to-year form comparability of the Science MTAS-III, under constraint of item release.
2.9.4	There will be a minimum of two equated static test forms containing unique items for each grade. With limited ability to field test new tasks, it will take 3-4 years to build a sufficient pool from which to construct static forms.
<b>2.10</b>	<b>Test Design GRAD Mathematics, Reading, &amp; Writing</b>
2.10.1	The vendor will follow Test Specifications approved by the Commissioner of Education in August 2005, dated August 11, 2005 (clarified 2009) so the correct operational assessments are developed.
2.10.2	MDE will select a prompt and make-up prompts from the available prompts for the GRAD Test of Written Composition for the census spring administration and winter and summer retests. When writing is administered online the prompts will be selected through an algorithm that delivers them in a random fashion, tracking which prompt has been administered to individual students.

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2.10.3	RESERVED
<b>2.11</b>	<b>MCA-III Reading Independent Field Test</b>
2.11.1	The vendor will administer the online MCA-III Reading Field Test during the 2011-12 school year. The vendor shall propose, and MDE shall approve, the field test plan.
<b>2.12</b>	<b>High School Mathematics MCA-III Field Test</b>
2.12.1	The vendor will administer High School Mathematics MCA-III Field Test to field test high school technology-enhanced items and increase the high school item pool.
<b>2.13</b>	<b>High School Writing Assessment Aligned to 2010 Academic Standards</b>
2.13.1	Beginning spring 2013, the vendor will administer the new, online High School Writing assessment aligned to 2010 Academic Standards which will be continuously available statewide. MDE and the vendor may mutually agree to deliver the online High School Writing beginning in Fall 2012 for GRAD retests.
2.13.2	On the schedule approved by MDE, field test prompts will be administered to students in a manner approved by MDE. The test delivery engine will monitor the number of administrations per prompt and refresh with new field test prompts, as available.
2.13.3	After a prompt has a sufficient number of responses, the automated scoring engine will be trained for that prompt and the prompt will be ready for operational use. The vendor will reserve a sample of prompt responses for an independent validation of the resulting machine rubric.
<b>3.0</b>	<b>ITEM DEVELOPMENT</b>
<b>3.1</b>	<b>Review of the Academic Standards, Test Specifications and Item Pool</b>
3.1.1	The vendor's content teams will meet with MDE content at the beginning of each development cycle to review and discuss objectives; review test specifications; articulate development needs; discuss development strategies and timelines and identify ways for eliminating potential problems. Content team staff will acquire the requisite understanding and be prepared to demonstrate this understanding to MDE. Vendor will be responsible for meeting arrangements and the costs. MDE prefers for these meetings to be face-to-face and may be scheduled in conjunction with other meetings when possible.
3.1.2	The vendor will establish and then maintain consistency and coherence among item quality, cognitive levels, item format, test structure, and other aspects of the assessment programs to ensure the reliability and validity of the assessments. This consistency will be important in measuring growth, reporting adequate yearly progress, and providing useful information to students, parents, teachers, schools, districts, and the state as to how well Minnesota is educating its children with respect to the expectations set forth in the Minnesota Academic Standards.
3.1.3	The vendor will be responsible for the transition of recoding/updating of items when they are prepared for use with the next version of the test (e.g., MCA-III). Vendor will recode these items according to the new test specifications for each content area within three months of the initial draft being available. Vendor may need to temporarily increase staff to meet this timeline. Vendor will establish a workflow process in which vendor does recoding and content limit verification to new test specifications and the current version of the <i>Guidelines to Test Construction</i> and MDE verifies electronically.



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3.1.4	The vendor will have new test Specifications reviewed by national Braille experts and inform MDE how to address problematic standards for Brailing in item development.
<b>3.2</b>	<b>Item Inventory, Item Banking, and Content Management</b>
3.2.1	The vendor will store and manage MDE items in the vendor's electronic item management system which allows MDE real-time access to all current versions of the items and all online review/viewing process, queries, sorting, and associated reporting tools.
3.2.2	The vendor's electronic item management system will be a dynamic tool that allows MDE to search for, filter, sort, preview, and print questions, as well as explore the details of any individual question and view response data. MDE's review/viewing, queries, sorting etc. will not impede the vendor's workflow. The vendor will help MDE create individualized lists of filters, sorts, and searches to be conducted in electronic item management system.
3.2.3	The vendor's electronic item management system will allow MDE to search on any data element associated with an item (e.g., find questions according to assessment type, item type, subject, grade, and year). MDE will be able to further refine the search by benchmark, cognitive level, and difficulty. This system will be able to perform multiple filter searches. The vendor will place the ability to search by item statistics on its development schedule for 2011/2012 for expected implementation by March 2012.
3.2.4	MDE will provide the vendor a list of all properties to be included with each item. (e.g., Item ID, benchmark, distracter rationales that remain with item for life of item, cognitive levels, key, passage ID, vision concerns, etc) The electronic item management system will contain item attributes, item data, item images, and stimulus objects, such as swf files, graphics, animations, audio files, simulations, etc., as determined by MDE. These properties and any combinations will be searchable.
3.2.5	Items, all item information, and all item assets will be maintained by the vendor so that the most current version of items is accessible by MDE within one month of requested edits.
3.2.6	Flash/HTML5 or other MDE-approved code for all programmed assets associated with item content belongs to MDE and will be provided by September 1 of each year by the vendor to MDE in a format editable by other parties. All existing item delivery code, scoring engines, and other existing intellectual property, as well as enhancements to existing intellectual property, will remain the property of the vendor. All item content, including electronic representations of items, stimuli, simulations, and scenarios, will belong to MDE and be delivered annually by September 1 of each year.
3.2.7	MDE will have secure internet access to the electronic item management system as agreed upon by the MDE and the vendor.
3.2.8	The vendor will use the appropriate formatting features from the <i>Guidelines for Test Construction</i> . Output from the item management system will be consistent with the MDE's formatting requirements.
3.2.9	Source documentation, copyright permissions information, and related documentation will travel with the science scenarios, reading passages, graphics and all items if applicable.
3.2.10	The vendor's electronic item management system will provide an audit trail/record showing who has accessed the system and what changes that person performed at the item level. This is organized by item.
3.2.11	The vendor will load item parameters and all other item data into the item management system, and QA the accuracy of input and output.
3.2.12	The vendor's item management system will allow MDE to construct customized item cards with the most current item information and assets. Vendor may design templates for commonly used reports and item cards. These customized item cards will be printable.

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3.2.13	The vendor's electronic item management system will allow batch manipulation of items (e.g., printing, downloading, etc.)
3.2.14	The vendor's electronic item management system will articulate with other technical processes such as publications/production software to increase quality and efficiency.
3.2.15	Test Maps will be generated directly from the vendor's item management system.
3.2.16	MDE will have access to the items and their assets at all times within the vendor's item management system. Annually (September 1), upon request, and when required for transition to a new contractor, the vendor will provide MDE with all items and all their assets in XML according to Accessible Portable Item Protocol (APIP) standards.  Annually, MDE and the vendor will review the APIP standards and determine implementation of applicable standards. If APIP calls for changes to <i>other than the format of the XML export</i> in this task, MDE and the vendor will identify associated increases in contractor tasks and prices, if any, required to implement any APIP standards desired by MDE. For example, if the APIP standards allow for field(s) to support sign language content, the actual creation of sign language content is not included in this SOW unless modified.
3.2.17	The vendor will provide annual professional development workshops by September 1 each year for MDE staff to learn how to use the system and allied software.
3.2.18	The vendor's staff will make preliminary selections of operational items for administration using data stored in the electronic item management system.
3.2.19	Once the vendor integrates its item management system and test construction tools, the vendor will utilize its electronic item management system in the development of the tests so all test construction capabilities will be available through a browser interface to allow for real-time item exchanges during test construction.
3.2.20	The vendor will load all legacy items and their assets into their management system at the start of the contract, quality checking that the integrity of the items, their associated metadata, art and item statistics is maintained. Vendor will provide reports of quality checks to MDE. This shall be accomplished on an agreed upon schedule between MDE and the vendor not to exceed three months from the receipt of complete item deliveries per subject and per test from MDE.
3.2.21	RESERVED
<b>3.3</b>	<b>Item Development All Assessments</b>
3.3.1	All item development by the vendor will follow the most current version of the <i>Guidelines for Test Construction</i> and Test Specifications. Significant changes to these Guidelines and Specifications from the version available at contract signature that require additional or rework by the vendor will increase contract prices.
3.3.2	The vendor's copyeditors and publication staff will be well versed in the requirements specified in the <i>Guidelines for Test Construction</i> .
3.3.3	All item development will follow and be tagged according to Accessible Portable Item Protocol (APIP) standards once established. Tagging for new accommodations will result in an increase in vendor prices.
3.3.4	If unable to meet quality expectations of the MDE, the vendor will be responsible for costs associated with additional onsite training of their staff in the <i>Guidelines for Test Construction</i> as delivered by MDE. This may be required up to once per year.

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3.3.5	An Annual Item Report for applicable tests for each content area and grade will be provided to MDE by the vendor by dates established in each assessment's development schedule. This report will be reviewed and updated at least once a year. The Annual Item Report contains the Pool Evaluation and a Recommended Item Development Plan.
3.3.6	The Pool Evaluation is a content review reporting on the quality and coverage of the content area's existing item bank.
3.3.7	The Recommended Item Development Plan is informed by the pool evaluation and provides a recommended annual item development order to address identified gaps for the respective test, content area, and grade.
3.3.8	The vendor content specialists will attend a meeting in Minnesota to present the Annual Item Report to discuss item development, item alignment, item pool, and design philosophies prior to beginning item development efforts. These meetings will occur as needed, no more frequently than once per development cycle.
3.3.9	All item development will follow the FINAL Item Development Order approved and placed by MDE on an annual basis. The vendor's prices are based on Attachment 11.7 of the RFP (Item Development Plan).
3.3.10	The vendor will develop all passages, scenarios, simulations and items specifically for Minnesota, and these shall remain the property of the state of Minnesota. Passages, scenarios, simulations and items should not be previously used or rejected from another test.
3.3.11	The vendor will require all item writers to sign a confidentiality agreement. These documents shall be kept on file with the vendor for the term of the contract.
3.3.12	The vendor will hire qualified test item and passage writers. The vendor will use criteria in <i>Guidelines to Test Construction</i> (most recent version). Science storyboards and items are written by Minnesota educators. Storyboard and Item writers who wrote items for Minnesota are not allowed to serve on MDE Advisory Panels.
3.3.13	The vendor's content specialists will develop, with MDE content input, an item writer's manual that will include content-specific training materials. This manual shall be submitted to MDE Content for review at least one month prior to distribution and training.
3.3.14	The vendor's content specialists will train content area passage and item writers by providing specific training on the Minnesota Academic Standards, test specifications, and achievement level descriptors. The vendor will include MDE staff in training, preparation and presentation. The vendor may train passage and item writers in sessions covering vendor's standards for passage and item development to focus on state curriculum standards and for different item types. The MN-specific training for writers may include face-to-face sessions and self-study and conference calls for previously experienced writers. Training will be scheduled at least 30 days in advance so MDE can make travel arrangements if desired.
3.3.15	For subjects other than science, at least 4 item writers will be assigned by the vendor to a grade level. Item writers may be assigned to more than one grade but no more than two grades, (e.g., an item writer may write for both grade 3 and grade 4 math).
3.3.16	Science item writers will be assigned by the vendor only to one grade and should have teaching experience in the grade band (e.g., grade 5 item writers will have experience in grades 3, 4 or 5).
3.3.17	Passage and item writers will be assigned by the vendor a specific item-writing task only after they have completed and passed the training and qualifying.
3.3.18	Items may also be developed by current Minnesota educators in an Item Writer Workshop. The vendor will be responsible for attending this workshop and costs associated with meetings and independent item development efforts of these educators. MDE will approve the educators participating in the Item Writer Workshop and will collaborate in the development of the workshop content.

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3.3.19	The vendor will provide all items with a written rationale for each of the distracters in a format determined by MDE.
3.3.20	The vendor will develop items that are clear and appropriate for the target populations. The concept of Universal Design and linguistic simplification will guide inclusion as described in the <i>Guidelines for Test Construction</i> .
3.3.21	The vendor's content specialists will review all items to make certain that the stimulus materials satisfy all specifications and are free from bias or stereotyping.
3.3.22	The vendor will have all passages reviewed by a recognized, qualified and authoritative vision specialist group separate from the vendor (e.g., American Publishing House for the Blind) prior to submission for New Item Review. All items shall be reviewed by a qualified and authoritative vision specialist group separate from the vendor following New Item Review. Vendor content provides to MDE a list of recommendations informed by the vision specialist group that can be considered for implementation.
3.3.23	All items shall be reviewed by a recognized, qualified and authoritative deaf/hard of hearing specialist group separate from the vendor following New Item Review. Vendor content provides to MDE a list of recommendations informed by the deaf/hard of hearing specialist group that can be considered for implementation. The vendor may recommend alternative processes to ensuring items are appropriate for D/HH students.
3.3.24	The vendor's content specialists will review the items for grade-level appropriate cognitive complexity prior to New Item Review.
3.3.25	The vendor will provide biannual training in 2011-12 and 2013-14 in Minnesota on Depth of Knowledge to be attended by the vendor and MDE Content staff. Minnesota prefers this training be offered by Norm Webb or associates.
3.3.26	The vendor's content specialists and copyeditor will review the items for format/style, grammar, spelling, punctuation, and grade-level appropriateness of vocabulary and structure according to the <i>Guidelines for Test Construction</i> prior to New Item Review and while preparing for publication.
3.3.27	The vendor will conduct extensive internal bias and sensitivity reviews of the items. Only after all items have passed the internal reviews for content validity and fairness will the items be presented for external Advisory Panel review.
3.3.28	Before submission to MDE, after MDE pre-review, and after Committee Review, the vendor will have two grade level content experts and editorial staff review the items and make the required revisions.
3.3.29	A team of vendor content specialists who were not involved with the initial development of the items will review all newly-developed items and suggest edits to internal vendor content team prior to Advisory Panel meetings.
3.3.30	In the first year of the development cycle, the vendor will send at least 20 items per grade per subject in a genre and benchmark distribution determined by MDE to MDE for quality review. MDE will review in a timely manner. If items do not meet MDE requirements, the vendor will meet face-to-face with MDE in Roseville, MN to revisit MDE requirements. MDE will provide specific and comprehensive feedback on the items. This option may be extended in future years at the discretion of MDE.
3.3.31	The vendor's content specialists will revise the items from the preceding scope line and will submit items to MDE for final approval within 8 business days of receiving feedback from MDE.
3.3.32	Prior to new item review, MDE, the vendor and sub-contractor (if applicable) and content specialists will meet to review and discuss all items. This will be done such that edits can be incorporated in time for new item review. Vendor will be responsible for arrangement of and cost for these pre-review meetings.

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3.3.33	When approving final edits to simulations, scenarios, and the like where TTS is not applicable, MDE will review audio files for accuracy and quality and vendor will re-record if necessary.
3.3.34	All constructed-response items will include a sample answer for each score point as described in the <i>Guidelines for Test Construction</i> .
3.3.35	All constructed response (CR) rubrics are reviewed and revised by a table leader named in the proposal (one per content) from the vendor's scoring center prior to the items being presented to MDE and New Item Review panels. This review will be done in the process such that table leader's edits and concerns can be incorporated and addressed prior to being presented to MDE and panels.
3.3.36	All CR rubrics are written by the vendor using the MDE format that identifies score point descriptions, designators, and sample student responses for each score point.
3.3.37	For MDE Final Content Review, MDE and the vendor will agree on a schedule that, to the greatest extent possible, allows for a minimum of 10 days per grade (without other tasks on the schedule being double booked). For high school, time frame should be treated as 2 grades.
3.3.38	At the conclusion of the development cycle for each test, the vendor and MDE will participate in a debrief meeting preferably on site in Roseville, MN.
<b>3.4</b>	<b>Passage Development &amp; Asset Permissions</b>
3.4.1	Passage procurement will be conducted in a manner that will result in rich passages with content enabling the development of high quality items. Passage sources are diverse and of high quality. Passages will represent the ethnic diversity of the population of Minnesota.
3.4.2	Passage quality will support robust item development per passage.
3.4.3	Passages chosen by the vendor for each grade level will be coded for genre, readability, word length, and ethnicity and will be reviewed for content, quality, and bias.
3.4.4	Permissioned passages will be procured by the vendor on behalf of MDE.
3.4.5	Permissions to use the passage or excerpts of passages from the publisher and/or author will be acquired by the vendor for both paper-based and electronic publication before the material is used on any test forms. Electronic permission will be required to allow for use of released items on a non-secure (publicly accessible) web site, and this permission must be gathered at the time of release. Permission will be required to cover the life of the contract obligation between MDE and vendor. The vendor will be named on the permission contract as the licensee on MDE's behalf. The vendor will provide a sample of how permissions will appear on the Acknowledgement Page as outlined in the <i>Guidelines for Test Construction</i> document.
3.4.6	Where appropriate and with necessary permissions, screens or data tables will be used from copyrighted sources. The vendor will acknowledge these appropriately on the computer-delivered testing system.
3.4.7	The vendor will confirm all legacy passages that will carry over have permissions. Total number will be determined as contract proceeds and the number of legacy passages required by grade can be determined based on content needs.
3.4.8	Permissions obtained by the vendor are required for released passages.
3.4.9	Vendor will acquire permissions sufficiently prior to on-site test construction to allow for field testing, operational usage, and possible release as a sampler item.

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3.4.10	Items based on copyrighted materials will not be included in the final number of items submitted to the MDE by the vendor if the copyright owner cannot be located or if the copyright owner will not grant permission.
3.4.11	Vendor will be responsible for the cost of the individual copyright permission and any associated costs in obtaining it.
<b>3.5</b>	<b>Item Development Science Grades 5, 8 and High School</b>
3.5.1	The vendor and MDE will collaborate to train Minnesota educators to develop and write storyboards. The vendor will provide storyboard writing templates, training materials and resources, aligned to Minnesota’s Academic Standards in science, for initiating development of the storyboards.
3.5.2	Storyboards developed by the vendor will include the proposed placement of items along with the benchmark to be addressed, scripts seen on screen by students, description of media or stimuli for development, any necessary characters and content references.
3.5.3	The vendor will field test each scenario with two different sets of approved items.
3.5.4	MDE will review Science MCA-III storyboards at the following points 1) writing templates, 2) updated storyboards from writing panel meeting, 3) storyboard selection for storyboard review panel meeting, 4) edited storyboards from storyboard review panel meeting, and 5) storyboard selection for item development purposes.
3.5.5	For Science MCA-III, vendor will develop and update as necessary a cast of age-appropriate male and female characters representing a range of ethnicities to appear in animations and graphics where human figures are required.
<b>3.6</b>	<b>Item Development GRAD Mathematics, Reading, and Writing</b>
3.6.1	At this time, MDE does not anticipate further item development unless legislation requires administrative changes.
3.6.2	RESERVED
<b>3.7</b>	<b>Item Development MTAS Mathematics, Reading and Science</b>
3.7.1	The vendor will write the number of MTAS-III reading tasks and passages identified in the Item Development Plan referenced in 3.3.9 to build a pool of reading passages and items. The balance of fiction and nonfiction passage development for reading should be based on balance identified in the test specifications.
3.7.2	The vendor will write the number of tasks identified in the Item Development Plan referenced in 3.3.9. for MTAS-III math and science.
3.7.3	The vendor will write MTAS task administration scripts following the current design templates.
3.7.4	The vendor will illustrate the MTAS reading passages following the current picture book and Symbolic Content templates.
3.7.5	The vendor will design MTAS presentation pages in picture book format to visually represent the tasks scripted at score points 3 and 2-0. For reading, presentation pages are developed in two formats: picture book and symbolic format.
3.7.6	The vendor will design MTAS response option cards to visually represent each task’s response options. Each math and science task has one set of response option cards. For reading, two sets of response option cards are developed: one in picture book format and one in symbolic format.
3.7.7	The vendor will develop the number of items identified in the Item Development Plan referenced in 3.3.9.
<b>3.8</b>	<b>Item Development MCA-Modified Mathematics and Reading</b>
3.8.1	The vendor will commission reading passages for the MCA-Modified.

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3.8.2	The pool of MCA-Modified item/passages presented at item and passage review for each grade/subject combination will be in accordance with the Item Development Plan referenced in 3.3.9 and the item development plan presented by the vendor to and approved by MDE at the beginning of the development cycle.
<b>3.9</b>	<b>Advisory Panel Meetings</b>
3.9.1	The vendor will follow all requirements provided in the <i>Vendors Guide to Advisory Panels (VGAP)</i> .
3.9.2	The vendor will enter into a contract with CVENT (or similar planning meeting software) and provide access to MDE at no additional charge. Programs other than CVENT must allow for the loading of existing panelist information, which shall be provided by MDE.
3.9.3	The vendor will register and invite panelists through CVENT online program or comparable online system. Online invitation program will allow for hotel registration, meal requirements, and assorted attachments required prior to the meeting. Vetting invitee lists will be done by MDE staff after the vendor seeds the panel in the software program. Online system will allow for tracking of attendance of panelists' history by panel.
3.9.4	Vendor will maintain a current and accurate master calendar of all advisory panels and related internal meetings. This master calendar will be kept current and on a collaborative Share Point (or equivalent) site for access by all parties.
3.9.5	The vendor will append Advisory Panel meetings for MCA-Modified to existing MCA meetings when possible or as necessary. Panelists for MCA-Modified meetings will consist of one half general educators and one half special educators.
3.9.6	For special purposes beyond those identified in the VGAP, the vendor will convene up to 3 panels with 15 members over 3 days per year of Minnesota educators. The vendor will be responsible for inviting panelists through CVENT or comparable software and covering all expenses related to the meeting including reimbursement of substitute pay, honoraria, food, mileage, lodging, and meeting room expenses.
3.9.7	The vendor will be responsible for all expenses related to the review meetings including reimbursement of substitute pay, honoraria, food, mileage, lodging, and meeting room expenses.
3.9.8	Appropriate vendor staff will serve as the lead facilitator at the meetings. If there is a sub-contractor, a person for that company for each content area and grade level will also attend.
3.9.9	The vendor's psychometric staff will attend in-person all data review meetings and provide training on statistical analysis for each subject and grade level in Minnesota. The vendor will provide facilitators for each grade and subject that understands the content under review.
3.9.10	For subject areas with items requiring performance scoring, vendor test development specialists will review and discuss anchor papers/sets and scorer comments with the vendor's performance scoring staff after rangefinding or rubric validation. The vendor content staff will then arrange conference calls between MDE, performance scoring and content specialists to discuss any lessons learned that may be useful for the next round of item development.
3.9.11	A named vendor lead performance scoring director for each content area and grade level will attend New Item Review when constructed-response items are addressed.
3.9.12	The vendor will work with MDE to develop a training program for the content review Advisory Panel to include rationale for content, how items were written, roles and responsibilities of Advisory Panel members and procedures to be followed for the meeting.
3.9.13	The vendor staff will prepare a set of materials (e.g., agenda, handouts, item-review forms) for use in the Advisory Panel sessions available for MDE review one week before sessions.



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3.9.14	All changes may be captured electronically and in writing. During or at the end of a panel, the vendor will make the approved MDE edits to all the items in its electronic item management system. All committee edits will be reflected accurately during the next phase of development when MDE reviews.
3.9.15	The vendor will provide high-quality items and therefore will ensure MDE item review panels will extensively edit less than 10% of the items. An extensively edited item is defined as an individual item that requires rewrite of the stem, rewrite of the distracters, and rewrite of the context.
3.9.16	For online tests, the vendor will provide an electronic version of all final test items and images incorporating any changes made as a result of suggestions and comments from electronic review panels.
3.9.17	For computer-delivered, scenario-based tests, Advisory Panel members will review the storyboards/scenarios and then the items. The vendor and MDE will determine when the video format or electronic review will be reviewed and what that review will look like. At each step, reviewers' comments will be incorporated (pending MDE approval).
<b>4.0</b>	<b>TEST CONSTRUCTION</b>
<b>4.1</b>	<b>Test Construction for all Assessments with Development</b>
4.1.1	Consistent with 3.1.1., the vendor will follow MDE's Test Construction Process and the current version of the <i>Guidelines for Test Construction</i> .
4.1.2	Annual operational forms constructed by the vendor will be statistically equivalent from year to year.
4.1.3	The vendor will construct all operational forms to match the target test response functions.
4.1.4	The vendor should allow a minimum of 3 days for review of each initial operational selection in the schedule (without other tasks on the schedule being double booked).
4.1.5	Operational items will be reviewed for technical adequacy (fit psychometric targets) by the vendor's psychometric team and MDE psychometric team prior to publication. The vendor and MDE will determine format in which this psychometric information is provided.
4.1.6	Test maps in the format and naming convention established by MDE will be sent by the vendor with each submission of items and forms.
4.1.7	The vendor will have psychometric and content staff knowledgeable of the Minnesota test design in attendance during on-site test construction meetings. MDE may also choose to be in attendance on-site at the vendor's location during the configuration file simulations.
4.1.8	The vendor will submit psychometric guidelines for test construction of operational forms to MDE for review and approval.
4.1.9	The vendor will be responsible for arrangement of and the costs for on-site test construction meetings.
4.1.10	Pre-equating will take place simultaneously with forms development using both test characteristic curve and information function matching.
4.1.11	The vendor test development specialist will make preliminary selection of field test items for the test forms they develop.
4.1.12	MDE will review and approve all field test items selected for inclusion in a form. Items should be presented to MDE as stated in <i>Guidelines for Test Construction</i> .
4.1.13	MDE will review programming for correct scoring and functionality and provide approval before the test is approved to publish.



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4.1.14	MDE will review science forms development at the following points 1) clip images/graphics of storyboards upon request 2) onsite review of animation and items, and 3) audio files.
4.1.15	The vendor will reimburse MDE-selected content contractors who will receive work direction from MDE and be located on site at MDE to provide independent review of test materials on an as-needed basis. These contractors are not to take the place of vendor's content specialists. Assume a total of 1,500 hours per year.
4.1.16	The vendor will reimburse at market rates MDE-approved copy editors who will receive work direction from MDE and be located on site at MDE to provide independent review of test materials on an as-needed basis. These copy editors are not to take the place of vendor's proofing. Assume a total of 3,000 hours per year. (This scope is changed from the RFP Q&A.)
4.1.17	At the conclusion of the Test Construction cycle for each test, the vendor and MDE will participate in a debrief meeting at MDE or via conference call.
<b>4.2</b>	<b>Item Samplers and Released Items</b>
4.2.1	Item Samplers and released items will be updated by the vendor as requested by MDE for all tests, but not more than annually. MDE anticipates having new Item Sampler for each grade every other year for the MCA in math, reading and science using 30 newly released items. For static form assessments (MCA-Modified Math, MCA-Modified Reading, MTAS Math, MTAS Science, MTAS Reading), anticipates producing two Item Samplers over the course of the contract, using approximately 15 released MCA-Modified items per sampler and 6-8 released MTAS items per sampler. MDE anticipates for GRAD to produce a new Item Sampler every third year in math and reading, using 30 newly released items (math and reading) and 2 prompts per year including scoring rubric and scored sample papers.
4.2.2	Item Samplers will follow the <i>Guidelines for Test Construction</i> .
4.2.3	The vendor will create online item samplers that generate a score for items that are machine scored.
4.2.4	The vendor will make available item samplers to district staff three months prior to the opening of the test window.
4.2.5	The vendor will transition existing released items to the most current delivery mode (including updates to reflect online testing engine).
4.2.6	The vendor will provide item samplers for each assessment that will mirror the operational forms and accommodated forms, although they may not be complete forms.
4.2.7	The vendor will develop and prepare a Writing Handbook (Item Sampler) for the Written Composition GRAD. The Handbook will contain exemplar papers with annotations at each score point. Writing handbooks (Item Samplers) will be posted on the web. The vendor will provide a PDF of the Writing Handbook to MDE annually following the spring test administration.
4.2.8	Prior to the first MCA-III science administration in spring 2012, item samplers will be updated by the vendor to include new benchmarks and one simulation per grade from the MDE item bank.
4.2.9	Items will be released by the vendor on an annual basis as appropriate to the item pool and determined by MDE. The test and linking designs must be established in a timely manner to allow for item release at least 3 months prior to the first operational administration.
4.2.10	The vendor will provide a tool for teachers to access the released items that will be searchable by content alignment and item type. This tool will allow teachers to identify released items and administer to students in a manner that replicates the administration mode and testing experience.

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4.2.11	The vendor will have the most current Item Samplers produced for accommodations by assessment, grade and subject - Large Print, Scripts, full accommodated audio and Braille.
4.2.12	The vendor will deliver an item release bank allowing teachers to access specific items to build their own sample tests. MDE envisions this release tool to have similar functionality to the NAEP Questions Tool, which may include useful data for teachers (e.g., student selection of distracters).
<b>5.0</b>	<b>Online Administrative System &amp; Test Engine</b>
<b>5.1</b>	<b>Administration System</b>
5.1.1	The vendor will provide administration systems, with one userid and password (via single signon with Minnesota upon MDE request) for each user, that integrate with MDE data sources to perform all required functions to administer and report online and paper and pencil tests. Specifically, this includes registering students, setting up online testing sessions, The vendor and MDE will establish data flows between vendor and MDE systems, including daily updates of administration information from MDE to vendor, and flows of student data from vendor to MDE on a schedule to be determined by MDE at the beginning of each testing cycle. The vendor also will support the immediate registration of students not provided in the MDE data flows, and work with MDE to establish and implement business rules to reconcile/update MDE systems. MDE will add required data elements to support online and paper administration to MDE systems, such as accommodations.
5.1.2	The vendor will update their system with MDE-provided organizational unit file (official roster of schools and districts) as needed via an automated data flow.
5.1.3	The vendor's system will be capable of receiving supplemental information, including overage rules, delivery date options, delivery to school or district, label options, and other information such as indicated in the current Procedures Manual for the Minnesota Assessment 2009-10.
5.1.4	To the greatest extent possible, the data flows in Section 5.1.1 and 5.1.2 will support registration and ordering testing materials including accommodated materials. .
5.1.5	Outside of the data flows in 5.1.1 and 5.1.2, the vendor will also provide a system to support the immediate registration of students for testing, ordering additional materials by districts, registering non-public schools and others not resident in MDE systems, and any other services that cannot be accommodated by data flows from MDE.
5.1.6	All vendor systems accessed by MDE will allow the establishment of customized user roles, This customization is configured by the vendor, and appropriately authorized users can assign these roles to other users for whom they are responsible. The vendor will work with the MDE to ensure that a sufficiently broad and flexible set of user roles is available from which users may select.
5.1.7	The vendor's system will capture data flows from MDE on students (e.g., MARSS number, gender and birth date) to register as eligible for testing. The vendor's system will provide a workflow that makes pre-registration for specific testing sessions unnecessary. The test administrator (TA) establishes a testing session with as few as two mouse clicks, adding students to the session dynamically. Demographic information shall remain attached to the student record.
5.1.8	RESERVED
5.1.9	The vendor's system must include an "approval all" function to allow all students in a session to begin testing.
5.1.10	RESERVED

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5.1.11	Vendor's system will track students movement from one school to another within their district or across districts.
5.1.12	The vendors system will show online testing status immediately upon inquiry by assessment and district. This status is available to MDE and districts (for example, number of students testing by district and total tested, average time tested). Daily status reports will be available for viewing.
5.1.13	The system will allow to access summary reports that indicated student status by administration (e.g., not complete, test code indicated, etc.) The vendor's system will provide the MDE, district, and school level a report generated on demand to identify students' testing status.
5.1.14	The vendor will collect and be the source for the approved list of District Assessment Coordinators (DACs), School Assessment Coordinators and Technology Coordinators.
5.1.15	The vendor will check web enrollment orders when received from MDE systems (e.g., accommodated materials) for reasonableness. Contact with the district requesting an explanation of unusual order (using criteria mutually agreed to by MDE and vendor) will be made before materials are shipped.
5.1.16	The vendor will follow up at least twice with any public district if the requested information including supplemental information is not received by a specified cut-off date. A list of districts not responding will be provided to MDE.
5.1.17	The vendor will prepare a database from which required print quantities, packing lists, inventory forms, materials control forms, test book security ID numbers, and related forms are generated.
5.1.18	RESERVED
5.1.19	The vendor will have a resource site for manuals, software, item samplers, training materials etc. that does not require a userid or password. The vendor will also have the ability to post secure materials for approved users. The vendor will provide usability and timely maintenance of the Website. When requested, resources must be posted within 24 hours.
5.1.20	The vendor will provide a comprehensive training platform that includes "demonstration" users in a demonstration district within the live production site so that users can experience first-hand the test administration system functionality.
5.1.21	RESERVED
5.1.22	The vendor will deliver immediate, online, and printed reports as described in Task 12 below.
5.1.23	The vendor's system will collect test codes, accommodation codes and other demographic information by administration for online assessments before, during and after testing via data flows from MDE.
5.1.24	<p>The vendor's system will allow for entry of student data and scores if required by an assessment without a separate system or test engine for collection of MTAS and Alternate Assessment Writing). For the Alternate Assessment of Writing,</p> <ul style="list-style-type: none"> <li>• Teachers score the writing</li> <li>• Students are pre-id in the MARSS system the same way as MTAS or other students</li> <li>• The vendor will make available a data entry page during the MTAS window for AA-Writing</li> <li>• The vendor will produce an ISR similar to the report issued in 2010. The results are not put into the online reporting system and there are no district reports.</li> <li>• The vendor will provide a final data file</li> </ul>

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<b>5.2</b>	<b>Online Support</b>
5.2.1	The vendor will provide a technology staff member to serve on the State Assessments Technology Work Group (SATWG) as needed.
5.2.2	The vendor will provide requirements and User Guide documents including screen shots that provide instructions for all users.
5.2.3	The vendor will provide customer service specific to online as outlined under Project Planning and Communication, Customer Service.
5.2.4	The vendor will create training materials for personnel in district performing the various functions required to successfully deliver online assessment. Online assessments will have manuals, user guides, available through 24/7 e-Learning modules (Refer to task 1.4.5).
<b>5.3</b>	<b>Online Assessment Design and Delivery</b>
5.3.1	<p>The vendor's assessment user interface and delivery will be designed to run on Windows 2000, XP, Vista, 7; Mac OS X (10.3, 10.4, 10.5, 10.6); and Linux K12LTSP. All aspects of the system must be accessible for districts that use either Macs or PCs (running these operating systems or future versions of same). Each summer, the vendor shall issue a secure browser update to incorporate important changes and deliver it for testing the following school year. Technology requirements for the current testing year must be established four months prior to main testing window and any updates must be seamless and transparent to the district through the testing cycle.</p> <p>The vendor understands that several districts in Minnesota use an NComputing platform running Windows XP. The vendor will make every reasonable effort to support it starting in Fall 2011 by adding this platform to its test lab and including it in all testing protocols.</p>
5.3.2	The Vendor's solution must have only minimal dependence on third-party software, except for the operating system. When operating system versions are updated, the vendor shall support the update within no more than 45 days of release. Other than operating systems, the browser shall be installed with an independent deployment of Flash (which does not interfere with the version already running on the client machine). The Browser shall access only the Flash version that ships with the browser, and this version shall be immune from third-party updates. Every machine used for testing will have the appropriate version of Flash and that this version will remain stable throughout the testing window.
5.3.3	If needed for testing, the vendor will verify most recently released versions of critical third-party software will be compatible at the time of each administration of an online test. Support for previous versions of third-party software will continue until MDE approves discontinuing support.
5.3.4	Vendor's system must allow test delivery on wireless networks with comparable performance to wired networks.
5.3.5	The vendor will adhere to highest-level industry standards for delivery of online tests and security of student data.
5.3.6	Support for versions of operating systems will be continued until MDE approves discontinuing support for a particular version.
5.3.7	The vendor's test engine will be designed for installation on student machines
5.3.8	The vendor's test engine will require minimal bandwidth per user during administration.
5.3.9	The vendor's test engine will ensure that student responses will be securely maintained and recoverable.
5.3.10	The vendor's test engine will continuously update temporary answer files so no work is lost during a service interruption, including student-saved partial responses to items such as constructed response items.

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5.3.11	The vendor will provide user friendly tools for districts to test and verify the technology, hardware, and software to ensure the computer delivery method can be implemented. The tools should test the speed of Internet connection from student machine after Secure Browser is installed.
5.3.12	The vendor will send districts a notification as soon as the system is available.
5.3.13	Vendor will develop a database of administration that will monitor test and item exposure, prohibit administration of particular tests and items to individual students or student groups and track that students are not repeating a test or item in a duration specified by MDE.
5.3.14	The vendor's online writing assessment will present the prompt or material the student will respond to. The presentation may include stimulus materials, including color photographs, newspaper articles, poems, and multimedia stimuli such as short videos and audio.
5.3.15	The vendor's online writing assessment will include the opportunity for students to pre-write online through the student-save function. Students can then edit their pre-writing before submitting for final scoring. Cut and paste capabilities will be available, although it may require non-traditional keystrokes (ctrl-x, ctrl-v) as those are used for students who rely on keyboard navigation.
5.3.16	The writing online test engine will include the option for MDE to select the specific tools that will be included on a writing assessment. These tools may include, but are not limited to cut, paste, copy, bold, underline, undo, redo, spell check, print and paragraph format (indent, outdent), input special characters (operators, functions, Spanish symbols) among other basic word processing functionalities.
5.3.17	The vendor will provide an online test engine to administer an online writing assessment that can be stand alone or administered within another assessment, such as reading.
<b>5.3.18</b>	<b>Tools and Accommodations</b>
5.3.18.1	Vendor's test engine has tools available from which MDE will select those appropriate for each test. At a minimum the tools will include: highlighter, notepad, cross-out wrong answer, reset, customizable exhibit window (formula sheet and periodic table), calculator, audio functionality. Vendor will place ruler and compass on its development schedule for 2012/2013 and available operational no later than the end of 2013; however, specific requirements will need to be determined. Keyboard navigation and scaling will be considerations.
5.3.18.2	Vendor's test engine has navigation buttons from which MDE will select those appropriate for each test. At a minimum the navigation will include: next, back, skip to, mark for review.
5.3.18.3	The vendor will make available basic four function, scientific, and graphing calculators in the online assessment. MDE will be able to determine which calculators will be available in which subjects, tests and grade levels.
5.3.18.4	The vendor's engine will have calculator availability determined by overall test or by test segment. The vendor will work with MDE on future deployment of a system enhancement that will allow for calculator availability depending on each item's specifications.
5.3.18.5	All calculators within the vendor's test engine will function in a manner consistent with calculators commonly used in classrooms.
5.3.18.6	The vendor will have audio functions integrated in the test delivery interface. Students adjust volume before starting the secure browser.
5.3.18.7	The vendor will have a comprehensive, student-centered help function available throughout all online assessments
5.3.18.8	The vendor's test delivery interface will include the information and resources required to make a test item accessible for the greatest possible number of students with a variety of disabilities and special needs. The currently available accommodations built into the test delivery interface include text-to-speech with ability to highlight text in items or stem on the screen to be read aloud, alternate text tags, magnification, selection of foreground and background colors, color overlay, adjustable font face (State to define at the test level), and

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	<p>virtual keyboards. The vendor will consult with MDE on the need for specific additional features such as delivery of sign language, captioning, masking, and voice recognition for possible insertion into the vendor’s annual development schedule.</p> <ul style="list-style-type: none"> <li>• The vendor will begin research in 2011 on an indicator for what is being read by text-to-speech and voice recognition for expected implementation in 2012 and 2013. Final implementation dates will be dependent on research findings.</li> <li>• The ability to adjust audio volume after the test is started will be available in 2011/2012.</li> <li>• The vendor will place sign language and captioning on the development schedule for 2012/2013 for expected implementation in 2013. The cost of signing the items will increase contract prices and will be negotiated as a scope change.</li> <li>• As more detailed specifications and requirements are developed, schedules may need to be adjusted.</li> </ul>
5.3.18.9	For accommodations that cannot be built into the test administration software, the vendor’s software will be compatible with third-party devices and software that allow accommodations to be offered to students with disabilities. Devices that can be used with the test delivery interface include alternate keyboard, alternate mouse, refreshable Braille displays, Braille note takers, keyboard emulators, alternative and augmentative communication devices. Refreshable Braille displays and Braille note takers will be available starting fall 2011.
5.3.18.10	The test delivery interface will test administrators to select accessibility features to be available to individual students based upon their needs.
<b>5.4</b>	<b>On-line Forms Development</b>
5.4.1	The <i>Guidelines to Test Construction</i> will be followed by the vendor and MDE.
5.4.2	<p>The vendor will provide audio for all text on screen in science and mathematics online assessments via text-to-speech technology. The exact text-to-speech text read for an item may be altered by MDE to eliminate cuing. For science and math, the vendor will provide audio either via existing pre-recorded audio files (provided by MDE) or via text-to-speech (TTS). For existing pre-recorded audio files, the vendor will migrate all files from MDE. For TTS, the vendor will alter the text that is read by text-to-speech by tagging items per MDE-approved tagging guidelines that address all rules. These rules address, for example, reading math operators and equations, describing tables, graphs, pictures, figures, and other images, and reading text features such as dashes, ellipses, line and paragraph numbers, quotes, and Roman Numerals.</p> <p>MDE currently uses recorded audio for science simulations and in any place where animations are used, and the vendor recognizes that recorded audio may continue to be required and used in this instance. The vendor also must be able to deliver the science simulations with TTS to reduce bandwidth requirements.</p> <p>Audio and TTS may be mixed within the same test and should follow the same MDE-approved guidelines.</p>
5.4.3	The vendor systems will allow text within a graphic or table to be read using text to speech. With TTS, students may highlight specific portions of passage or all options to be read independently. With audio, the only option is to read the entire file.



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5.4.4	After the initial year, MDE will do a quality assurance review of the operational administration of the test engine four weeks prior to the system opening live or made public to school districts. During the initial year, the vendor and MDE will mutually agree on a review schedule. Any mandatory changes identified by MDE will be incorporated by the vendor before the start of administration.
5.4.5	After the initial year, final, approved forms and items will be available in the vendor test engine a minimum of two weeks prior to the opening of the test window. During the initial year, the vendor and MDE will mutually agree on a review schedule.
5.4.6	Updates to the vendor's test delivery system that will impact a district will not be made without discussion with MDE.
5.4.7	The vendor will provide MDE with Quality Control (QC) verification information for online administrations annually. The objective is to ensure that the adaptive online system is working as expected, for example, the algorithm is pulling the correct image, test specifications are met, the correct audio is with the image. The vendor and MDE will agree to what verification information is sufficient and when the results of the QC verification will be reviewed during planning for the next administration. The vendor will assist MDE in planning for independent QC verifications to be done by MDE.
5.4.8	Online standalone tutorials will be developed by the vendor. These will be used to familiarize the student with the system and the item types prior to the opening of the testing window. Tutorials will be available and accurate with the same timeline as item samplers.
5.4.9	In-test tutorials will be developed by the vendor. Tutorials will be reviewed and approved prior to MDE's scheduled review of test forms.
5.4.10	The vendor will document and adhere to a plan for version control across the phases of online test development.
5.4.11	Online standalone and in-test tutorials will be updated before each testing cycle by the vendor as appropriate and requested by MDE.
5.4.12	The vendor will translate the MDE approved storyboards to interoperable, media-rich, computer-delivered formats using a stand-alone, secure, cross-platform application (the Secure Browser) that is compatible with operating systems and third-party software. Hardware, software and bandwidth specifications required to deliver this media-rich format must be sensitive to the current infrastructure of Minnesota districts.
5.4.13	The vendor will post to the data entry/test delivery online interface any portions of the MTAS Task Administration Manuals and task presentation materials that MDE requests.
5.4.14	The vendor will develop contingency plans in collaboration with MDE to address if system is inoperable during the testing window.
5.4.15	A full-length sample test made up of released items will be maintained by the vendor for districts to use as a system check of the online testing engine, if not sufficiently addressed with utilities package.
<b>5.5</b>	<b>Computer Adaptive Testing (CAT)</b>
5.5.1	The vendor will provide technical advice in developing a computer adaptive test in math and reading.
5.5.2	The vendor will implement an algorithm for administering CAT items that interfaces with the online engine.
5.5.3	The vendor's system has capabilities that can limit the co-occurrence of items within an identified common set of operational items (e.g., similar items or cuing items). The number of sets supported is not unlimited.
5.5.4	The vendor's adaptive algorithm has the ability to impose constraints, including but not limited to item type, benchmark designation, calculator status, passage identification, text sets, enemies, item exposure tolerance, multiple administrations at student level.
5.5.5	The vendor's algorithm will select the field test items. This separate field test algorithm interfaces with the operational adaptive algorithm for the purposes of balancing item types and benchmarks.

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5.5.6	The vendor's field test algorithm will insert field test items in a manner that caps the number of administrations by item to allow for the appropriate replenishment of the item pool.
<b>5.6</b>	<b>Cut Over and / or Parallel Processing</b>
5.6.1	The vendor will be responsible for comprehensively testing its applications and ensuring its services provide a stable platform for assessment.
5.6.2	Each system component must be made accessible to MDE staff in a non production environment that comprehensively mimics the production (i.e. pre-production) environment such that MDE is able to conduct its own application tests and be assured that the application test responses represent the exact behavior that will be expected of the application in the production environment.
5.6.3	Prior to implementation, the vendor will provide MDE access to the pre-production environment to conduct end-to-end systems testing.
5.6.4	MDE will be allowed no fewer than 5 business days to conduct testing of any system component and 10 days to conduct any system-wide tests. The vendor may request shorter MDE User Acceptance Testing windows during Fall 2011 if contract transition issues arise.
5.6.5	The vendor must provide application testing opportunities far enough in advance that failure to meet approved specifications can be corrected in time for deployment based on the outcomes of MDE application tests.
5.6.6	The vendor must provide comprehensive simulations of the adaptive test-delivery application that considers all variables that would impact the performance of the test-delivery application (e.g. pool size, test specifications, grade level restrictions, cognitive demand as appropriate)
5.6.7	The vendor must document the plan for application testing and the results of the application tests. Both the testing plan and the subsequent results of the testing plan must be provided to MDE with sufficient time such that MDE can ensure the approved system specifications are met.
5.6.8	The vendor will notify MDE within four (4) hours of any material change to the pre-production environment that might affect application testing being conducted by MDE.
5.6.9	The vendor shall produce ad hoc reports to address specific management questions as requested by MDE.
<b>6.0</b>	<b>MATERIALS PRODUCTION</b>
<b>6.1</b>	<b>Materials Development/Production</b>
6.1.1	The vendor will be responsible for the development, design, formatting, proofing and editing of all test materials (paper and online) required for the administration of the assessments.
6.1.2	The vendor will develop and design materials according to specifications provided by MDE and in the <i>Guidelines for Test Construction</i> .
6.1.3	The vendor will produce materials according to specifications in the Materials List identified in Attachment 11.12 of the RFP. In addition to this Materials List, the vendor shall support the Additional Senior Reading MCA Retest Opportunity for up to 2000 students. Seniors who were not proficient on the Reading MCA or have not yet passed the online Reading GRAD retest will have an additional paper retest opportunity in April. These students may take the Reading MCA-II on the same days in April that the grade 10 students take it. As with other paper testing on the Materials List, the vendor shall provide all materials production (including labels), appropriate manual sections, distribution, collection, processing, typical early reports and shall, upon MDE direction, invoice districts for each answer document returned.
6.1.4	The vendor will document and adhere to a plan for version control across all materials development.



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6.1.5	The vendor will provide prior to formatting any forms, sample layouts and type styles and sizes to MDE for selection and approval.
6.1.6	Allowance will be made by the vendor for MDE to review and approve materials at all appropriate stages of production as negotiated in the schedule.
6.1.7	The vendor will obtain permission from MDE in electronic or hard copy to produce the final printer's proofs or before publishing electronic tests.
6.1.8	The vendor will design answer documents and computer-delivered assessments that are psychometrically sound, that allow items and student responses to remain secure during test administration, and that provide students with the best opportunity to respond to each test item and accurately collects responses. The vendor will also develop materials to maintain student anonymity during the entire performance scoring process.
6.1.9	The vendor will design answer documents with space for over printing or applying student identification pre-code/pre-ID barcode label containing student demographic information and for recording all student demographic data for new students or in the event that demographic information is not correct. The answer document will collect test codes and accommodation codes.
6.1.10	All versions of materials produced by vendor will be proofread for consistency, grammatical correctness and typographical error before submitting to MDE. At least two prime vendor staff members will thoroughly proof the materials at each stage of the process. Proofers must have copy editing/proofing expertise, be familiar with Minnesota style/guidelines and demonstration of high accuracy.
6.1.11	In the case of extensive errors (errors are egregious and obvious to casual reader) discovered by MDE, MDE will discontinue its review and request the vendor conduct a thorough review and make corrections before MDE continues reviewing. The vendor will be responsible for making up the time lost in the schedule for making corrections.
6.1.12	The vendor will document all proofreading rounds. MDE requires at least one round of proofreading be conducted by the vendor staff other than those in test development however test development must be involved in final review.
6.1.13	The vendor will have independent content expert reviewer (who has not seen items before) take each test at printer proof stage or prior to publishing and compare to answer key. Any discrepancies will be reported to MDE.
6.1.14	Should corrections be required to the final version (printer's proof for paper), the vendor will provide MDE with documentation of corrections and await final approval to print or load to production. If major corrections or changes are required to final version, a second (corrected) version will be provided to MDE.
6.1.15	In the case MDE project personnel ask for non-critical changes at the final version stage (i.e., those changes not affecting student ability to answer a question), the approval of the MDE Director or the Assistant Commissioner or their designee will be required before the vendor proceeds with changes. MDE will accept the consequences of any rescheduling or printing delays this action may incur.
6.1.16	The vendor has the ultimate responsibility for error-free production of materials. The vendor at no additional cost to the MDE shall reproduce any materials produced with any error. Problems with the production of materials will be documented and included in the final project report. The number and percentage of documents meeting and not meeting specifications will be reported.

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6.1.17	Within the limits of the Materials List referenced in 6.1.3 , the vendor will be responsible for the printing of all test materials at quantities specified on enrollment counts, with a 10 percent school and 5 percent district coverage if requested by district for all regular print materials. Accommodated materials will be at quantity ordered. Final numbers are based on MDE enrollment file plus district accommodated orders and additional orders. MDE will communicate with the vendor early and regularly throughout the school year about District plans to minimize unexpected, large variations in the actual number of students testing on paper.
6.1.18	The vendor will have a knowledgeable staff member at the printing site during printing, gathering, trimming, and binding. MDE may request review of any forms or to be present during press checks.
6.1.19	<p>The vendor will incorporate and document the steps to maintain security during material production, including:</p> <ul style="list-style-type: none"> <li>• Unauthorized personnel will not be allowed access to electronic secure materials or allowed in the receiving, check-in, document processing, or materials assembly areas unless accompanied by authorized staff.</li> <li>• Confidentiality of individual data will be maintained at all times.</li> <li>• Client confidentiality and privacy will be maintained.</li> <li>• All electronic files will be maintained at password-protected work stations and accessible only to key personnel on the project team.</li> <li>• Vendors must guarantee adherence to security standards before assessments are submitted for production.</li> </ul>
6.1.20	The vendor will crosscheck all final materials for accuracy and consistency at the stage in which materials are close to being “finalized.” Preferably first print runs for paper. The multi-way check will be across all versions (i.e., check all test books against answer documents and Test Monitor Directions and accommodated materials, check MTAS Test Administrator Manuals, Response Option Cards, Presentation Pages and object lists against each other, etc.). Multi-way checks will be done with two people; one acting as the administrator and one acting as the student. The administrator will read the directions to the student confirming instructions align to the test instruments and the student will take the test to verify the materials align. The multi-way check will be complete before materials are shipped or available for online.
6.1.21	The vendor will make revisions to incorrect materials delivered to districts. Revised materials will be delivered no later than the date negotiated with MDE, but preferably before the first day of testing. Vendor will provide MDE frequent, detailed updates regarding delivery date.
6.1.22	Files of the final printed non-secure materials will be provided to MDE by the vendor in a PDF format for posting to MDE’s Web site upon request.
6.1.23	The vendor will send to MDE a minimum of two (2) copies of each test form and answer documents from the first print run including accommodated materials and manuals.
6.1.24	<p>Following development for an assessment within 30 days after the test window closes, the vendor will provide</p> <ol style="list-style-type: none"> <li>1. a copy of all test materials for paper-based tests in both source and published format on CD</li> <li>2. a PDF or comparable representation of all online fixed form tests</li> <li>3. test items and online blueprints for online adaptive forms viewable within the vendors online Item Bank.</li> </ol>

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<b>6.2</b>	<b>Accommodations</b>
6.2.1	Accommodated materials will be developed by the vendor according to specifications provided by MDE and in the <i>Guidelines for Test Construction</i> . Accommodations will be produced according to specifications in the Materials List.
6.2.2	The vendor will provide MDE 5 days for review at each stage for accommodated materials.
6.2.3	For accommodations, over the course of the contract, the vendor will develop two forms per grade for MCA and MCA-Modified as assessments align to revised standards and create Braille and Large Print versions of each.
6.2.4	The vendor will produce one form in contracted and uncontracted Braille for each operational assessment (except MTAS) for each grade and content. Supplemental instructions regarding transfer of student response to answer documents will be provided to test monitors as well as Test Administrator Notes which may be secure materials and require tracking. This applies to MCA and MCA-Modified until two static forms can be developed.
6.2.5	The vendor will produce Braille tests following MDE requirements. During the production of Braille two certified proofreaders will proof Braille books.
6.2.6	The vendor will assure that graphics used in large print materials use appropriate shading and are appropriately enlarged. Graphics accompanying measurement items will be given additional review to ensure lines to be measured are the appropriate length and proportionality preserved.
6.2.7	The vendor will produce Large Print books that will lay flat when opened.
6.2.8	Online accommodated tests will have audio built into the operational online assessment so a separate CD is not required.
6.2.9	Online accommodated tests will include accommodations outlined under Systems & Online Engine section of this Scope of Work.
<b>6.3</b>	<b>Manuals</b>
6.3.1	Manuals will be produced by the vendor according to specifications in the Materials List.
6.3.2	The vendor will use experienced and skilled writers to write manuals or new procedures as necessary to reflect the current testing processes that are clear and concise and of test publisher quality. This process should include input and review by the vendor's Project Management staff most familiar with the project.
6.3.3	The vendor will proofread manuals to ensure instructions and references in the manuals are aligned with the mode of test administration (e.g., test books and answer documents) and they are free of typographical and format errors before review by MDE.
6.3.4	Manuals, as well as all other materials, will be considered final only with electronic or hardcopy approval from MDE.
6.3.5	The vendor will provide Word and PDF files for manuals compatible with MDE Communications requirements for the MDE website according to the agreed upon schedule.
<b>6.4</b>	<b>Misc. Materials</b>
6.4.1	MDE produces materials for a variety of audiences including parents. Materials for parents require translating by the vendor into all languages spoken by at least 1% of the population enrolled in MN Schools (currently nine). Not to exceed an average of 600 pages per year across all languages.
6.4.2	The vendor will develop and prepare a web-based interactive Interpretive Guide to assist district and school personnel and parents in interpreting and communicating the information found in reports for Minnesota Assessments.

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<b>7.0</b>	<b>DISTRIBUTION</b>
<b>7.1</b>	<b>Pre-Code/Pre-ID Barcode Procedures</b>
7.1.1	MDE's Division of Information Technologies will provide a school level file of enrollment counts. The vendor will load this student information into the ordering system and serve as the default for quantity of materials to ship to public school districts with the exception of accommodated materials and alternate assessments which are ordered by districts. Nonpublic Schools will order all materials directly through the vendor, or through the vendor's online system.
7.1.2	For each school year, MDE will provide a file designating each Minnesota school as online or paper testing, or online by subject. MDE will provide continuous, daily updates to a student-level file to be used to provide a method for pre-coding answer documents or preloading for computer-delivered assessments. For most online administrations daily precode files will be provided and run throughout the testing window to provide the most current student data. The precode file for GRAD will include the test form assignment by MDE for each student.
7.1.3	The vendor will develop and implement efficient procedures for pre-coding and pre-identifying answer documents using "pre-code/pre-ID" barcode labels and overprinting pre-ID information directly on the answer document. Districts will have the choice of identifying a label or pre-print of student information for answer documents during the on-line ordering/registration process. Default will be printed documents.
7.1.4	The vendor will work with the MDE to determine the default order that precoded answer documents or labels will be collated and provided to each school (e.g., alphabetically by school, grade, teacher/class, and student). Districts have the option to use the sort order field in MDE's Test WES. The vendor will produce preprint answer documents and labels in the order indicated by the sort order field.
7.1.5	Districts have the option to use the precode indicator in Test WES. The vendor will use the precode indicator provided by MDE to identify which students will take which test. This informs which materials to provide and students to load for online assessments, by school or by subject by school.
7.1.6	MDE will provide the vendor a file of changes for large Minnesota districts (enrollment over 10,000- currently 15 districts) to precode between delivery of the precode file and agreed upon date for vendor to create a second round of (late) labels on a schedule that is mutually determined by vendor and MDE.
7.1.7	The vendor will use a printing process to apply the student information and any barcodes directly on the answer document or labels so scanners can accurately and completely read the information. The vendor will be responsible for pre-coding student population and for providing a five percent overage of blank answer documents to each school for students who do not have a pre-coded answer document, within the limits of the Materials List referenced in 6.1.3.
<b>7.2</b>	<b>Distribution of Minnesota Assessment</b>
7.2.1	The MCA-III in mathematics grades 3 - 8 is administered as a CAT and also in static paper form(s). MDE is estimating the 2011-2012 administration will have 75% of the students will be online and 25% will be paper and that each year five percent of schools will move to online (CAT) testing. Mathematics in grade 11 will be paper until 2014 when administered online. Some accommodations for the online assessment are paper based.
7.2.2	The MCA-II in reading is a paper-based until 2012. In 2012-2013 MCA-III Reading will be administered online and also in static paper form(s). The test is scheduled to be administered as a CAT no later than 2013-2014 with a static paper option continuing.

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7.2.3	Science is an online assessment. Some accommodations for the online assessment are paper based.
7.2.4	The GRAD retests for reading and mathematics will be available via online once per month for a one week window. November 2011 will begin the first administration under a new contract. Paper based accommodated forms will be sent by vendor upon district request.
7.2.5	The GRAD Writing is currently paper-based. Census administration is in spring for grade 9. There are three retest opportunities for grades 10 -12 (November, April and July). Paper will continue in the near term even when test moves to online.
7.2.6	The GRAD Writing will be available online in 2012-2013. It will be available online once per month for a one week window. It will be primarily scored using artificial intelligence. The vendor should budget for a second, human read for all students not passing. (Current pass rate is about 90%.)
7.2.7	The MCA-Modified mathematics in grades 5 - 8 is online only. Some accommodations for the online assessment are paper based. Grade 11 will be paper until 2014.
7.2.8	The MCA-Modified reading is paper until 2013 when MCA-III is administered online and then will be online only. Some accommodations for the online assessment are paper based.
7.2.9	The MTAS is paper based with teacher scores entered online by teacher or district.
<b>7.3</b>	<b>Paper-Based Distribution</b>
7.3.1	Quantities of materials provided for each school will be calculated by the vendor based on enrollment plus a 10% overage. Accommodated and alternate assessment materials will be distributed at actual requested quantities. Packing lists will indicate the number of test materials being packaged, the number of shrink wrapped packages, and the security ID numbers of secure materials being shipped to the school, as well as all other non-secure materials being shipped to the district or school. Packing lists will also serve as inventory lists on which District and School Assessment Coordinators can check off materials they have received.
7.3.2	The vendor will work with MDE to create security procedures that are consistent across projects to maintain confidentiality.
7.3.3	The vendor will pre-assign test materials and will produce school-level test materials security forms, which list the range of security numbers and each security number of test materials assigned to each school.
7.3.4	File will be loaded to the vendor's electronic system for use by districts to track materials electronically. A security check list will also be provided to both district and schools.
7.3.5	The vendor will produce check in kits by assessment that will contain instructions for inventorying, administering and storing material and all the necessary control forms and manuals.
7.3.6	The vendor will provide return kits by assessment that will contain instructions for preparing completed materials for shipment to the vendor and all of the necessary control forms, materials identification labels, and shipping labels and/or bills of lading.
<b>7.4</b>	<b>Paper-Based Packaging/Shipping</b>
7.4.1	The vendor will verify there are no errors in the packaging by matching the starting and ending security numbers to the packing list and ensuring there are no gaps to the numbering sequence between packages. Vendor will have an individual familiar with MN materials pull one district out of every 50 districts, selecting minimally one school to verify materials packaged are correct and match packing list.
7.4.2	The vendor will provide MDE upon request a report that summarizes the number of test books (and their corresponding test book security numbers), answer documents (where applicable), and other test materials distributed to each school and district.

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7.4.3	The vendor will ship materials in one complete shipment to arrive no later than two weeks (10 business days) prior to the beginning of the testing window and will take into consideration districts closed for spring break. Vendor will work with districts that need materials delivered on an earlier schedule because of spring break. Delivery to a district should be made in one shipment and not spread over the day or days.
7.4.4	The vendor will package each school's materials separately and in quantities indicated on the packing list. A list will be provided in box 1 identifying contents of all boxes. The district box will contain a copy of each school's packing list. Each package will be properly sealed and will weigh no more than 30 pounds. Vendor will package boxes so least amount of box filler is required. The vendor will provide Minnesota with environmentally sensitive methods for prepacking and packaging.
7.4.5	The vendor will place a label on the end of each box that will identify the school for which the materials were packed. This label will be placed in a visible location. This label will also identify the box number within the consecutive range of boxes packaged for a site. The last box packaged for a site will be identified with "Box Y of Y" (where "Y" represents the total number of boxes for the site) and will include a "packing list enclosed" stamp. A color-coded label identifying the assessment will also be included on the box.
7.4.6	In the event that errors or problems are encountered, the vendor will take the following actions: 1) the problem will be corrected immediately, 2) the problem will be recorded on a Quality Control Sheet (developed by the vendor), and 3) the cause of the error will be addressed immediately. MDE will be notified.
7.4.7	Contracted freight carriers will be used to ship test materials to the Minnesota districts; all shipping costs will be assumed by the vendor. The shipping contractor will be identified and all shipping, receiving, and packaging details must be complete so that the manuals and directions that require this information can be completed as scheduled.
7.4.8	MDE requires shipment tracking numbers for couriers to assist in communications with districts available in the administration system. This would include proof (i.e., signature, date and time) of delivery to district.
7.4.9	The vendor will provide the option to deliver to and return from the individual school, or deliver to and return from a central district location. Or a combination as determined by the district. The vendor will collect deliver/return option during the registration verification process.
7.4.10	The vendor will arrange for deliveries to be made during normal district hours. All shipments will be designated as "inside delivery required" and require a signature of receipt.
7.4.11	When materials are picked up from the vendor, the shipper will notify the district/school offices via e-mail. The e-mail communication will contain the ship-to address, number of packages sent, total weight, scheduled delivery date, and tracking numbers.
7.4.12	The vendor will track and monitor outbound package delivery via online tracking system, and the vendor will obtain proof of delivery at the time materials are received by the districts and schools. In the event of delays or shipping errors, the vendor will work closely with the shipper and the district/school office to deliver the packages the fastest available method available from UPS or FedEx. For any shipments not delivered according to pre-determined timelines, the vendor will make every effort to locate and deliver within 24 hours after discovery of the delay. The vendor will monitor each package's progress until all materials have been delivered. MDE will be notified immediately if there are variances from scheduled deliveries and a status report will be provided.

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7.4.13	If there are packaging irregularities or if a district is in need of more materials, the Districts will be able to order online or call the vendor's Minnesota Customer Service representatives who will document all communication to fill the orders. Replacements for mispackaged materials will be shipped to arrive in district fastest available method available from UPS or FedEx. The vendor will be responsible for any costs related to shipping and delivery of additional or missing material. Additional orders will be delivered per MDE specified timeline. Back orders are to be avoided but if necessary MDE will be notified and back orders will be filled per MDE specified timelines.
<b>8.0</b>	<b>COLLECTION AND PROCESSING</b>
<b>8.1</b>	<b>Procedures of Data Identification, Receipt Control, Scoring and Editing</b>
8.1.1	The vendor will work with MDE to develop methods to accurately identify test results by student, grade, subject, school, and district.
8.1.2	The vendor will prepare and provide to MDE thorough processes and documentation related to each of the key phases of student identification, assessment processing and reporting.
8.1.3	The vendor's staff will work with the MDE to gather requirements for both paper and online administrations, document and design the processing rules, edit specifications, data analysis, and reporting (paper and online). ISR report designs will be reviewed and approved by MDE prior to development. All documentation will be in MDE agreed upon format.
8.1.4	The vendor will track and compile the types of errors occurring during the implementation of the assessments and return of materials for scoring, including incorrect coding of demographic, failures to return materials according to instructions, failure to set up online administration properly, missing secure materials, etc. This information will be provided to MDE upon request and will be included in the Final Administration Report.
8.1.5	The vendor staff will document any instance of a suspected breach of test security and will immediately notify MDE, providing as much documentation as possible.
8.1.6	MDE and the vendor will agree on the schedule for processing results for embedded field test and operational items.
<b>8.2</b>	<b>Quality Control Procedures for Data Capture, Editing, and Scoring</b>
8.2.1	The vendor will provide MDE answer documents gridded or online assessments populated per specifications provided for use in MDE control district process. Control district documents or online assessments will be processed just like any other district materials. The control district will also be used to QC all steps from materials ordering and online setup through reporting.
8.2.2	The vendor will verify the accuracy and quality of the reporting software by creating a mock set (test decks) of answer documents gridded to cover an expansive set of grid values, blanks, and double grids in each scanned field as directed by MDE for a state control district. A similar process for verification of online will be performed by vendor. Vendor will send confirmation in writing to MDE with results before any scoring begins.
8.2.3	The vendor will provide a plan to verify the accuracy and quality of the adaptive algorithm for MDE's approval at the beginning of the contract period and to be reviewed annually. The vendor will submit an annual report to MDE with the results of the verification procedure prior to the opening of the test window.
8.2.4	As part of field testing, the vendor will implement an adjudication process for technology-enhanced items and gridded response to verify all correct responses are identified. The process will include a frequency of early responses to help identify answers that should be included as correct in operational testing



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8.2.5	To ensure reasonably expected statewide data, the vendor will compute frequency distributions for all fields within the statewide population. This includes all organizational unit information, all student identification information fields, all student demographic fields, all accommodation and special codes for assessments or growth and all scores with accompanying fields. The vendor will send these results to the MDE for review. The vendor will review expected data against actual data at least once during processing and again after all records.
8.2.6	To ensure the data are complete, the vendor will analyze each record to identify the absence of critical and/or mandatory data. The absence of certain data will either cause subsequent processing to abort and/or detrimentally affect the integrity of scoring results and aggregation totals. The vendor will work with the MDE to agree upon the fields that must contain data and those allowed to be blank.
8.2.7	Following any data verification and quality control procedures, the vendor and the MDE will collaboratively judge the reasonableness of the results and distributions. The vendor will make corrections as necessary for unreasonable data and repeat the quality check procedures until the data is judged to be clean and accurate.
8.2.8	All scoring and report files will be tested by the vendor's QA staff according to pre-defined, structured test plans, which ensure the scoring and reporting software is thoroughly tested and working correctly. The test plans as well as data files will be provided to the MDE for additional review. Early files will be exchanged to verify systems are operational before live data is available.
<b>8.3</b>	<b>MTAS Field Auditors</b>
8.3.1	The vendor will hire up to ten auditors recruited by MDE who are paid a daily rate of \$200 plus reimbursed for all travel expenses to visit districts and observe MTAS administrations. Five days of observations and one day for logistics and scheduling observations are paid for each region audited. The MTAS Field Auditors Procedures Manual contains training and other information for auditors.
8.3.2	The vendor will select school sites eligible for an audit following the sampling procedures defined by MDE. The vendor will maintain a list of districts that are required for an audit and track which districts were audited in previous years. These lists will be provided to MDE for notification of schools.
8.3.3	The vendor will assign auditors in an efficient manner to audit selected school sites.
8.3.4	The vendor will prepare auditor materials, such as a list of schools sites by region, school communication tracking forms, and the auditor procedures manual. MDE will provide materials used in prior years.
8.3.5	The vendor will collect auditors' data, including school sites visited, and reports of findings electronically during the auditor observations and hard copy once observations are completed. The vendor will provide access to the information entered electronically during the observations and compile all data in a comprehensive spreadsheet. This information will be provided to MDE annually in a format consistent with the technical manual yearbook.
8.3.6	The vendor will provide MDE a comprehensive report that will be used to improve future administrations.
8.3.7	The vendor will reimburse auditors for time and travel to MDE for one day of auditor training prior to observations and one day of debriefing following test administration. If in-person training will not be held, the vendor will create interactive, multi-media training modules in commercially available software as described in the Communications, Training section.
8.3.8	The vendor will ship sample copies of MTAS testing materials for the auditors to reference while observing and print and ship all auditor materials needed for each region.



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8.3.9	The vendor will provide pre-paid postage, boxes, etc for MTAS auditors to send back their materials, score sheets, and reimbursement forms.
<b>8.4</b>	<b>Collection and Check in Answer Documents, Online Test Records and Secure Materials</b>
8.4.1	The vendor will collect answer documents and secure materials in separate returns per MDE agreement. Writing will be one collection of answer documents only.
8.4.2	The vendor will create control forms for School and District Assessment Coordinators to complete as they prepare materials for return.
8.4.3	The vendor will use return labels color coded by secure vs. non-secure and will include the name of the assessment, the school name and address, and any other pertinent information in a consistent manner for all assessments that the MDE deems necessary.
8.4.4	As answer documents are received, boxes will be counted by the vendor to ensure the same number of boxes are received at the vendor as the shipper indicated were picked up from the districts. The vendor will immediately follow up on any discrepancies.
8.4.5	After boxes have been received and all packages for the district have been accounted for, the boxes will be opened and answer documents will be checked in by the vendor following procedures documented and agreed upon by MDE.
8.4.6	The vendor will collect student responses for all online assessments. Responses from students who have started an assessment online but have not completed or closed out will also be collected.
8.4.7	The vendor will contact districts to resolve materials discrepancies as soon as discovered. MDE and the vendor will agree on a list of discrepancies that will automatically trigger notification and follow-up, but the vendor should identify other discrepancies that indicate significant variance from expected returns. The vendor will provide a list of districts to MDE no later than one week after the district return date should the vendor and the district be unable to resolve discrepancies,
8.4.8	Test Administration Reports will be scanned and forwarded to MDE by the vendor as a sortable electronic file or a PDF file in alpha order by district and school within district no later than two weeks from processing materials. The PDF will contain both Test Administration Reports submitted online and those sent back with test materials.
8.4.9	The vendor will develop and implement receipt control procedures ensuring 100% accounting for all secure material including used and unused test materials distributed to and collected from school districts.
8.4.10	Within 30 days after testing window closes or before the end of the school year whichever is earlier a Secure Missing Document Report that identifies missing secure materials by district, school, and grade will be produced by the vendor. For GRAD retests this occurs monthly within 15 days after the testing window for the accommodated materials. All secure documents that are not returned by a district or school will be listed on the report and appropriate follow-up will be made by the vendor, including two letters and a phone call, asking that secure materials are accounted for and/or appropriate documentation has been provided. Secure materials reported by the district as missing from their original shipment or reported to MDE as being lost or destroyed will not be included on the missing materials report. The list of districts with missing documents will be reported to MDE for additional follow up. The vendor will provide MDE with complete documentation of the steps that were taken by the vendor and the district or school to locate secure materials. The final report will be provided electronically in alpha order by district and school within district.

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<b>8.5</b>	<b>Scan Answer Documents</b>
8.5.1	The vendor will distinguish at least sixteen levels of mark intensity to evaluate paper quality, ink levels, and the intensity of marked responses for each book processed. The vendor will distinguish and recognize light marks versus erasures or smudges and intended responses versus poor erasures on an item. Books that are lightly marked or marked inconsistently are flagged for clerical editing and correction, if necessary.
8.5.2	The vendor will run quality control reports upon completion of editing to ensure all detected errors have been reviewed and a final disposition has been determined.
8.5.3	The vendor will perform a validation before batches can be extracted for scoring. This ensures that all requirements for final processing have been met.
8.5.4	The vendor will provide MDE with documentation of scanner tests as requested.
8.5.5	If requested, the vendor will deliver the scan file to MDE including scanned multiple-choice responses and the associated answer documents.
<b>8.6</b>	<b>Storage</b>
8.6.1	The vendor will store all scored answer documents at a secure facility until securely destroyed based on the MDE retention schedule even when the dates are beyond the contract dates. This will include all materials used to capture student responses for scoring. Scannable test books will be classified as answer documents for the purpose of this section. The vendor shall follow the current MDE retention schedule. If an update to the MDE retention schedule changes from the MDE retention schedule dated 9/26/2005, MDE and the vendor will agree on changes to the vendor's prices.
8.6.2	The vendor will store student responses to online assessments based on the MDE retention schedule even when the dates are beyond the contract dates.
8.6.3	The vendor will retain documentation of returned materials after each administration for the duration of the contract.
8.6.4	The vendor will ship or destroy all forms, student response records and other materials returned by the districts in accordance with MDE's retention schedule.
8.6.5	The vendor will not supply any materials connected with this project to anyone without prior written approval of MDE.
<b>9.0</b>	<b>PERFORMANCE SCORING</b>
<b>9.1</b>	<b>Performance Scoring of Written Composition</b>
9.1.1	In the GRAD Written Composition each writing composition will be scored by the vendor using a holistic scoring model. Student responses will be scored using a 6-point scale (1-6). Two readers will independently score each essay, and a third reader will resolve the scores of the first two readers when their scores are <i>not</i> adjacent.
9.1.2	Non-passing GRAD Written Composition (holistic scores of 1 or 2) will be scored by the vendor using an analytical scoring model. One reader will score each composition on a satisfactory/nonsatisfactory dichotomous scale in each domain: Composition, Style, Sentence Formation, Usage/Grammar, and Mechanics/Spelling.

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9.1.3	The vendor's performance scoring training staff will participate, in conjunction with development staff, in rubric development so the item-specific rubrics are fairly well finalized at new item review. Minor revisions to rubrics may be made as they are being used to score sample responses during rangefinding. Responses with consensus scores from rangefinding, and those that illustrate important concepts of the scoring rubrics, will be used to create the scoring guides and training, qualifying, and recalibration sets used to train and monitor readers.
9.1.4	The vendor's scoring site will be a secure facility with access limited to staff and to visitors accompanied by authorized staff. If distributed scoring is used appropriate security measures will be taken to ensure confidentiality of Minnesota students' responses.
<b>9.2</b>	<b>Artificial Intelligence Scoring</b>
9.2.1	The vendor will use automated scoring engines that use explicit or statistical rubrics to score all operational constructed response items. The number of constructed-response items by subject are outlined in the Test Development Plan. Field test responses are used to train the scoring engine.
9.2.2	The vendor will provide an automated scoring engine that uses statistical rubrics for the online writing assessment.
<b>9.3</b>	<b>Rangefinding (GRAD Writing) and Rubric Validation (Machine-Scored Constructed Reponse Items) Requirements</b>
9.3.1	The vendor's scoring specialists will prepare for rangefinding by "pre-scoring" a large sample of responses to each constructed-response item. This pool of responses will include borderline responses – papers that do not fit neatly into one of the score levels and that represent some of the decision-making problems faced by scorers.
9.3.2	Rangefinding will occur at MDE or another site agreed upon by MDE and the vendor. The rangefinding Advisory Panels will consist of current or recently retired educators. The results of rangefinding will be scored responses to be used to construct the scoring guides (containing annotated responses at each score point) and training, and retraining/recalibration sets. The final scoring guides, training papers, and recalibration sets will all be approved by MDE prior to their use.
9.3.3	For writing, vendor will develop one anchor set of 20 compositions, three practice sets of 10 compositions and three qualifying sets of 10 compositions.
9.3.4	Test development specialists will review and discuss anchor papers/sets and scorer comments with the vendor's performance scoring staff after rangefinding. Content staff will then arrange conference calls between MDE, vendor performance scoring and content staff to discuss any lessons learned that may be useful for the next round of item development.
9.3.5	The vendor will be responsible for monitoring and noting group discussions and annotating their copies of the student responses. The notes will be used to support the training of scorers, helping to ensure that scorers understand and implement the panel's wishes, and to provide benchmark points for discussions in subsequent year's rangefinding meetings, helping guarantee longitudinal consistency of scoring protocol.
9.3.6	RESERVED
9.3.7	Field test rangefinding and scoring activities will be on a slightly delayed timeline compared to the operational scoring if agreed upon by MDE and the vendor.
<b>9.4</b>	<b>GRAD Writing Readers</b>
9.4.1	The scoring guides, training sets, and qualifying sets will be used in the initial training of readers. Recalibration sets will be given daily for the first week, (1-2 per day) and as needed thereafter (or at other intervals at MDE's request) for the duration of human scoring.

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9.4.2	Copies of the scoring guides, training sets, qualifying sets and scoring reports will be provided to MDE in PDF format.
9.4.3	MDE will oversee the training process through visits, conference calls, and review of status reports.
9.4.4	Readers will have at least a four-year college degree, and be comprised of a cross section of age, ethnicity, and gender targeted to be representative of Minnesota demographics. Readers' college degree will be in English, language arts, education, mathematics, science, or related field. The Technical Report is to include a summary of reader qualifications.
9.4.5	Readers are required to sign confidentiality agreements stating they are aware of the secure nature of the work.
9.4.6	Readers, like team leaders, must demonstrate accuracy in their scoring before they can begin assigning scores to live responses by qualifying (meeting an acceptable agreement rate [usually 70-80% exact agreement plus 90% adjacent agreement] with the true scores on at least one of the qualifying sets). The second set may have no lower than 60% exact agreement. Any reader who does not meet the qualifying standard will be dismissed.
9.4.7	Writing will be scored with Inter-rater Reliability and a Validity of at least 65%.
<b>9.5</b>	<b>GRAD Writing Performance Scoring Reports</b>
9.5.1	At a minimum, performance scoring reports will be run by the vendor twice each day of human scoring so project leadership can study the day's scoring and plan the following day's retraining activities. All the reports will be submitted upon request to MDE.
9.5.2	Daily and Cumulative Inter-rater Reliability Reports by Item and Scorer: These reports provide information about how many times scorers were in exact agreement, assigned adjacent scores or required resolutions. The reliability is computed and can be monitored daily and cumulatively for the project. These reports produced by the vendor will be provided to MDE upon request.
9.5.3	Daily and Cumulative Frequency Distributions: These reports show how many times each score point has been assigned to the item being scored. They are produced both on a daily basis and cumulatively for the entire scoring project. This report allows scoring directors and scoring supervisors to see if scorers have a tendency to score consistently high or low. These reports produced by the vendor will be provided to MDE upon request.
9.5.4	At the conclusion of each scoring session, the vendor will provide a final report summarizing all procedures used to score the responses. The vendor will document all problems encountered, scoring decisions made, and suggestions for process improvement. Appended to the report will be copies of all training materials; reader training, qualifying, and recalibration reports; cumulative reader reliability reports; and score point distribution statistics for each item.
9.5.5	The summary report, which includes the field test item evaluations, will be provided by the vendor to MDE in an agreed upon format at Data Review Advisory Panels to inform discussions.
<b>9.6</b>	<b>Alerts</b>
9.6.1	Readers will "alert" responses that need to be brought to the attention of the Scoring Directors and/or Project Leaders. Copies of the alert and non-secure item response will be forwarded to districts. The vendor will provide a summary at the end of scoring of total number and by reason of alerts by district. Student names should not be sent to MDE. The MDE may require the vendor to void student test scores.

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<b>9.7</b>	<b>Machine-scored Constructed Response Items</b>
9.7.1	<p>The vendor will offer a process for developing high-quality operational rubrics for machine scored constructed response items. After initial development, which is done by item developers, rubrics are field-tested. Field-test responses go through a Rubric Evaluation and Verification for Items Scored Electronically (REVISE) process. This process is very similar to rangefinding, with the following differences:</p> <ul style="list-style-type: none"> <li>• Responses are selected through a stratified sampling mechanism designed to overrepresent anomalous responses.</li> <li>• Reviews are typically completed by a smaller committee.</li> <li>• Refinements to the rubrics can be tested against the entire field-test bank of responses to detect unintended effects of the changes.</li> </ul> <p>Reading, math, and science constructed response items will go through the REVISE process to validate machine-scored rubrics, covering approximately 45 responses to each item reviewed by committees over 8-10 days each year. MDE may choose to structure the science constructed-response items as a rangefinding within these constraints.</p>
<b>10.0</b>	<b>SCORING</b>
<b>10.1</b>	<b>Test Maps (Answer Keys)</b>
10.1.1	The vendor will use the MDE-approved test maps layout for form-based assessments.
10.1.2	For fixed form tests, the vendor will submit final test maps (answer keys and item-standards assignments) to the MDE for independent verification of all test maps prior to approval of forms to go to print or published to production. Discrepancies between MDE and the vendor will be noted and resolved, and vendor will verify in writing the corrections made. The vendor is ultimately responsible for the accuracy of the test maps.
10.1.3	To ensure 100% accuracy in scoring responses to multiple-choice and technology-enhanced test items, the vendor will verify test maps are correct by having vendor staff actually take all available fixed-form tests and compare staff responses against the test maps prior to the test administration window opening.
10.1.4	The vendor will score the multiple-choice, gridded responses and computer scored technology-enhanced items using the production keys or rubrics. The production keys or rubrics being used in the scoring programs will be finalized with the MDE.
10.1.5	For post-equated tests, a second type of answer key verification will be done using live student responses. When there have been a significant (pre-agreed upon) number of responses collected, the vendor will produce, in report and/or data file form, item-total correlation and item frequency distributions for all multiple-choice responses within the collected population. This data will be compared to the test maps in order to identify possible errors in the production keys or errors in the response data. The report provided to MDE will include, item-by-item, the total number of responses along with the number and percent of students for each response, including students omitting the item. Final decisions concerning acceptable responses for machine scorable items (e.g., gridded response and technology enhanced items) will be based on the review of the frequency report by MDE staff. If test items are mis-keyed, they will be corrected before processing continues. The vendor will provide a document indicating the analysis results and the process of verification of production keys

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<b>10.2</b>	<b>Verification of Student Scores</b>
10.2.1	For post-equated tests, the vendor will provide MDE the preliminary score file to run early checks on the data. File formats will be determined by the Book of File Formats (BOFF) from MDE.
10.2.2	The vendor will provide a score file to MDE for verification of results by MDE's Quality Vendor upon completion of corrections and updating of the master files. A detailed description of the scaling and equating process will also be provided, complete with all supporting data, including graphs and associated statistical data at both the item and scale level.
10.2.3	The vendor will collaborate with MDE and Quality Control Vendor to conduct a review to validate all vendor-generated scores for each test administration for the length of the contract, either in advance for tests delivering immediate scores, or during processing of other tests.
10.2.4	The vendor will provide data files to MDE in an agreed-upon format on an agreed upon schedule, and upon five days notice unless it impacts other deliverables.
<b>10.3</b>	<b>Equating and Scaling</b>
10.3.1	Vendor will determine an appropriate reporting scale with MDE on newly developed assessments.
10.3.2	MDE and the vendor will agree on the use of pre-equating and post-equating for establishing the final scale.
10.3.3	The vendor will use 3PL/GPC methodologies to construct pre-equated base forms based on existing item parameter estimates.
10.3.4	The vendor will use appropriate measurement models and methods for alternate assessments to construct pre-equated base forms based on the existing item statistics.
10.3.5	The vendor will calibrate 3PL/GPC items with marginal maximum likelihood (MML) estimation using the software approved by MDE and agreed upon in discussion with all vendors and TAC.
10.3.6	The vendor will calibrate items using models and software approved by MDE and agreed upon in discussion with all vendors and TAC for alternate assessments.
10.3.7	The vendor will analyze items for overall model fit by examining the residuals of the test model, investigating the patterns of item co-variation within the scale.
10.3.8	The vendor will estimate scores on a logistic metric and then transform them to scaled scores using a linear transformation.
10.3.9	The vendor will perform a secondary calibration on the embedded field-test items, and then equate them back to the operational scale through the operational item parameters.
10.3.10	The vendor will implement generally accepted Quality Control steps in this phase related to test maps, production keys, Item Calibration and Equating, Student and School Level Scaled Score Computation, and Investigation of Scale Drift.
10.3.11	The vendor will implement vertical scaling for MCA math and reading grades 3 - 8 and monitor vertical scale drift.
10.3.12	Any scaling, equating, or other software required to replicate vendor's results will be made available to the MDE at no cost.
10.3.13	Vendor in consultation with MDE and Minnesota TAC will develop and implement scaling and equating procedures for newly developed assessments that satisfy federal technical requirements.



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<b>11.0</b>	<b>Standard Setting</b>
<b>11.1</b>	<b>Achievement Level Descriptors</b>
11.1.1	Achievement Level Descriptors will become part of the training implemented for all item development and test construction staff and will be applied to the design of the item development and test construction plan.
11.1.2	Achievement Level Descriptors (ALDs) will be revised by the vendor to reflect changes in test specifications at time of development after revisions to Minnesota Academic Standards are completed. This revision will follow a cycle of revisions for content as stated in Minnesota statute 120.B.23.
11.1.3	Prior to standard setting the vendor will develop ALDs in consultation with MDE.
11.1.4	The vendor will be responsible for teacher panels and associated costs to revise Achievement Level Descriptors following revisions of Minnesota Academic Standards. MDE plans to have these meetings the year the test specifications are revised for the appropriate tests.
11.1.5	Revisions stemming from the Achievement Level Descriptors meeting will be incorporated by the vendor into ALDS in consultation with MDE.
<b>11.2</b>	<b>Standard Setting</b>
11.2.1	<p>Vendor will conduct standard setting using a proven and reliable method as agreed by MDE for the following assessments:</p> <ul style="list-style-type: none"> <li>2012: MCA-III Science (grades 5, 8, HS)</li> <li>2012: MTAS-III Science (grades 5, 8, HS)</li> <li>2013: MCA-III Reading (grades 3 - 8, 10)</li> <li>2013: MCA-Modified Reading (grades 5-8, 10)</li> <li>2013: MTAS-III Reading (grades 3-8, 10)</li> <li>2013: GRAD Reading (grade 10)</li> <li>2013: GRAD Writing (grade 9)</li> <li>2014: MCA-III Math (grade 11)</li> <li>2014: MCA-Modified Math (grade 11)</li> <li>2014: MTAS-III Math (grade 11)</li> <li>2014: GRAD Math (grade 11)</li> </ul> <p>These dates may change if MDE decides to conduct standard setting based on field test data and then revisit those provisional standards after the first operational year. The vendor will present a plan for setting college- and career-readiness international benchmarks on the high school MCA-III in science, reading, and mathematics by embedding secure PISA items in the MCA assessment. The vendor will implement the approved plan.</p>
11.2.3	Vendor is responsible for all costs associated with the Standard Setting including facilities, stipends, etc as described for other panel meetings in the <i>Vendor Guide to Advisory Panels</i> .
11.2.4	Vendor will be responsible for developing materials and training plan for MDE approval.
11.2.5	Vendor will work with panelists to develop and refine achievement level descriptors.
11.2.6	Vendor will work with panelists to develop familiarity with the test materials (events).

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11.2.7	Vendor will work with panelists to develop consensus-based definition of cut points to differentiate the prescribed achievement and proficiency levels.
11.2.8	Vendor will convene an articulation panel of stakeholders from outside the educator community at the conclusion of standard setting to smooth cut scores across grade levels.
11.2.9	All vendor facilitators and their credentials will be reviewed and approved by MDE two months prior to the meeting.
11.2.10	Vendor will have sufficient staff on site for the entire meeting to address logistics.
11.2.11	All vendor facilitators must remain in attendance for the entire panel meeting including articulation.
11.2.12	Vendor will assist MDE with presentation of results for peer review and other accountability purposes.
11.2.13	Vendor will provide a final comprehensive report.
<b>12.0</b>	<b>REPORTING</b>
<b>12.1</b>	<b>Report Development</b>
12.1.1	The vendor shall develop reports consistent with the overall reporting design for the Minnesota Assessment System approved by MDE. Major development of variable text content for score reports shall be developed when the new Series III tests are reported for the first time under this contract. Otherwise reports are expected to remain consistent with only possible minor changes from year to year and have a similar look across tests. The vendor will make any report changes based on academic standards changes and legislation changes. The vendor will take its direction from MDE for the development and quality review of reports.
12.1.2	The vendor will work with MDE and designated educators and stakeholders in the design of printed reports, as MDE deems appropriate.
12.1.3	For Printed ISRs, the vendor will produce report mock-ups that will be identical to final production reports and be publish ready for report interpretive materials. These mock ups will be representative of various test conditions as directed by MDE. After mockups and report function specifications have been reviewed and approved by the MDE, the vendor will develop and test the programs to produce them.
12.1.4	Vendor will produce reports based on a publishing Student Data File (SDF) that will be provided by MDE after posttest editing is complete in Test WES. This includes invalidating tests identified by MDE. GRAD and early reports will be produced from the publishing SDF that is approved by MDE after each administration.
12.1.5	The vendor will provide MDE with report functional specifications that describe data, calculations, formats, reporting levels and reports to be produced. These will be part of the documentation the vendor is responsible for producing. The documentation will provide enough detail in these areas to ensure a common understanding among all parties responsible for producing and verifying quality results.
12.1.6	The vendor will produce review materials and plan for MDE involvement for each report phase that includes activities, timelines, personnel and facilities. For each phase, the vendor will include MDE in the process as follows: <ol style="list-style-type: none"> <li>1. The vendor's quality assurance group(s) will conduct rigorous review of flow of data from online or paper testing to the online and print reports. Quality Assurance documentation will be provided to MDE. The vendor also will work with MDE-provided data for testing.</li> <li>2. The vendor will produce a live data file and paper/electronic reports with sample districts as chosen by MDE and control district for MDE review. Retests will be the complete file containing all students who tested.</li> <li>3. The vendor will work closely with MDE to resolve questions and correct problems.</li> <li>4. The vendor will post and/or ship reports after review and approval of QC process by MDE.</li> </ol>



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12.1.7	The vendor will provide field test results to MDE. If requested by MDE a field test summary report at the school level with state, district and school data will be produced for stand-alone field tests.
12.1.8	The vendor will laser-quality print all home copies of individual student reports (ISRs) and deliver as directed in 12.2.9. Printable student reports will be retrievable through the electronic reporting system and educators will be able to access the reports by student.
12.1.9	The vendor will produce MCA ISRs as a four-page color document printed on an 11"x17" paper, folded and laser quality printed for all home copies.
12.1.10	If the Alternate Assessment (MTAS and Modified) individual student results cannot be integrated into the MCA ISRs, the vendor will produce a stand-alone, four-sided color document printed on an 11"x17" paper, folded and printed for all home copies.
12.1.11	The vendor will produce GRAD Writing and Alternate Assessment Writing as a one-page, stand alone ISR which is a two-sided, color document.
12.1.12	The vendor will provide GRAD printable individual student reports for retests electronically in a secure format to the district for distribution within two weeks of each testing window. Paper reports will follow at quarterly intervals.
12.1.13	The vendor will meet reporting timelines for spring assessments as early as possible with public release of assessment results no later than June 30 when standard setting is not required. MDE will work with the vendor to set a mutually agreeable testing and reporting schedule each year.
12.1.14	The vendor will develop methodology for providing instant preliminary results for online, pre-equated and electronically-scored assessments. In this context, "preliminary" means the final score, but not necessarily that the score will be used in AYP reporting.
12.1.15	The MDE expects the vendor to report Lexiles based on contracted research with MetaMetrics on the MCA for Reading. The vendor will interact with such a third-party to report these results.
<b>12.2</b>	<b>Report Production/Distribution</b>
12.2.1	During the course of this contract the vendor will be ready to implement a new file structure that complies with School Interoperability Framework (SIF) requirements and is highly flexible such as XML.
12.2.2	The vendor will provide reporting that eliminates paper reports and yet still makes results accessible to all stakeholders. As all families do not have equal access to online reports, the vendor will produce printed Individual Student Reports (ISRs). For all other reports, the vendor will deliver powerful, easy-to-use analytic tools for educators and pre-determined data files and reports to educators through the vendor's online reporting system, rather than on paper and CD.
12.2.3	Electronic reports will be maintained by the vendor for all test administrations for the life of the contract and can easily be used for reference and reprinting purposes.
12.2.4	Electronic reports shall be delivered through a browser in HTML format and may be downloaded in a spreadsheet readable format. Printable student reports will be retrievable through the electronic reporting system and educators will be able to access the reports by student.

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12.2.5	Following authenticated sign-on, the vendor's system will present the user with a secure Web page using industry standards security protocol. The system interface will be designed to be flexible and easy to use. The reporting system shall enable nontechnical users to navigate intuitively. Rather than organizing around specific reports, the vendor system shall begin by showing each user relevant, high-level summary data—essentially aggregate scores for the user's (teacher-level, school-level, district-level, etc.) own students for each grade and subject available. All users of the system will be required to log in for access.
12.2.6	The vendor staff will conduct quality assurance checks of print quality and alignment, correct number of copies, accurate printing of school and district names and numbers, printing and correct assembly of all reports for all schools within the district and accurate production of shipping labels. Vendor will provide documentation of established quality checks.
12.2.7	The vendor will use the packaging organization established by MDE.
12.2.8	Printed Individual Student Reports will be boxed together and labeled accordingly by the vendor. The vendor will produce a "report packing list," which will identify the reports and their packaging sequence within the box. Student labels will be provided, if requested by District.
12.2.9	The vendor will ship all printed Individual Student Reports to the district or school offices as selected by the district, based on recipient/address information provided by MDE.
12.2.10	Districts can contract with the vendor at reasonable cost to have the vendor send hard copy reports directly to parent/guardians using protocol the vendor establishes. This option would be between vendor and district without MDE involvement. MDE will determine if the ISRs are self-mailers in the initial design stage.
12.2.11	The vendor will enter data for up to 100 MTAS missed opportunity students that are approved by MDE.  Early reporting graduation letters, final individual reports, and student labels (if district requested) will be generated and provided for the districts.
<b>12.3</b>	<b>Reports</b>
12.3.1	The vendor will provide MDE a Student Detail File (SDF) for equating/scaling after receipt of materials for all applicable administrations.
12.3.2	<b>Early Reports applies to Grade 9 Writing GRAD census test; Grade 10 Reading MCA/GRAD, MTAS and Modified; Grade 11 Math MCA/GRAD, MTAS and Modified; and Alternate Assessment Writing</b>  The vendor shall develop and implement an appropriate quality assurance process to ensure all student responses are flowing from testing on paper or online to the reporting system. The vendor shall present MDE and its QC vendor documentation of the process for MDE approval, and will provide documentation/data using test/simulated data to allow MDE to verify accurate processing prior to deployment for each test.  The vendor will provide Districts the ability to download the following within 3 weeks after the close of the testing window: <ul style="list-style-type: none"> <li>Graduation letters</li> <li>Printable Rosters</li> <li>Excel Rosters</li> </ul>

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12.3.3	<p><b>Timely Electronic Assessment Results applies to all online and paper assessments</b></p> <p>For pre-equated online tests, the vendor will develop methodology for providing real-time results for online, pre-equated and electronically-scored assessments. Online versions are printable by district.</p> <p>For paper and online post-equated tests, the vendor will transfer data to the online reporting system after MDE approval of equating (and standards if necessary).</p>
12.3.4	<p><b>Final Electronic Assessment Results applies to all assessments</b></p> <p>The vendor shall deliver student data files (agreed upon record for each test taken) on a schedule (up to nightly) or on demand. This service shall be available to the state as well as to individual districts. These data flows and associated formats shall be established before the start of each school year.</p>
12.3.5	<p><b>Final Hardcopy Assessment Results applies to all assessments</b></p> <p><u>Individual Student Reports (only)</u> <u>Reports to deliver to Districts</u></p> <p><b><i>Paper to District</i></b> ISRs (home copy if directed in 12.2.9) Score of record for accountability is provided for online assessments Student Labels, district option</p> <p><b><i>Data to District</i></b> Final School Alpha Rosters, printable and downloadable through online reporting system or data files in 12.3.4</p> <p><b><i>Data to School</i></b> Final School Alpha Rosters, printable and downloadable through online reporting system or data files in 12.3.4 ISR (hard copy if so directed in 12.2.9 and not sent to District)  student writing images available in online reporting system</p> <p><u>Final Reports to MDE (in online reporting system)</u> Districts and School Alpha Rosters , printable and downloadable through the online reporting system or data files in 12.3.4 All Individual Student Reports printable through the online reporting system</p>

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12.3.6	<p><b>Final Reports for Writing GRAD Retests</b></p> <p><u>Materials sent to MDE by Vendor to QC</u> SDF with all students who participated in retest ISR Labels</p> <p><u>Reports available to districts in online reporting system</u> Student Report Rosters</p> <p><u>Reports printed and shipped to districts (or schools if directed in 12.2.9 and not sent to Districts)</u> ISR</p> <p><u>Reports available to districts in online reporting system</u> Roster Labels student essays</p> <p>Note: When Writing is offered as an online assessment, reporting will be similar to GRAD reading and math retests.</p>
12.3.7	<p><b>Final Reports for Reading and Mathematics GRAD Retests</b></p> <p><u>Monthly - Materials sent to MDE by Vendor to QC</u> SDF with all students who participated in retest ISR Roster (alpha), printable or downloadable from the online reporting system</p> <p><u>Monthly - Reports available to districts in online reporting system</u> ISR Roster , printable or downloadable</p> <p><u>Quarterly—reports printed and shipped to district</u> ISR Roster PDF (alpha) Labels, if requested</p>

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<b>12.4</b>	<b>Score Appeals</b>
12.4.1	The vendor will rescore any response coming through an official appeals process, managed through the vendor system. Score changes will result in new individual student reports being generated and sent to district. Responses to a rescore request require review by MDE before communication is made to the district. The vendor will turn around appeals within three days, with paper reports to follow the close of the appeals window.
12.4.2	The vendor will provide MDE with a summary of score appeals and outcomes in an agreed upon electronic format.
12.4.3	The vendor is allowed to charge the district for each score appeal, returning the fee if there is a score change. This fee will also apply to district requests to search for and score answer documents that (a) were returned improperly and (b) such requests are made after the regular scoring window.
12.4.4	The vendor will enter scores not entered or process student responses that are submitted in a rescore or late entry process to be included with MDE data clean up system (Test WES) or straggler file. Vendor will produce and send individual student reports and labels to the district. An updated SDF if provided to MDE. The vendor is allowed to charge the district a reasonable rate agreed by MDE. This will be honored up to the final rescore date printed in the Important Dates of the annual Minnesota Assessments Procedures Manual.
12.4.5	Vendor will send to MDE results of GRAD rescore request that result in a not pass status change for MDE approval before sending to the district.
<b>13.0</b>	<b>Psychometric Analysis and Support</b>
<b>13.1</b>	<b>Psychometric Analysis and Support for Assessments</b>
13.1.1	In consultation with and with the consensus of the Minnesota TAC, the vendor will provide the following research and technical support (or equivalent vendor effort) necessary for USED Peer Review. Alignment studies and comparability studies include: <ol style="list-style-type: none"> <li>1. Construct validity studies commonly using a factor analysis method for each grade and subject</li> <li>2. Convergent and discriminant validity studies commonly using a multi-trait multi-method matrix (MTMM)</li> <li>3. Documentation of test reliability using classical item statistics, including classification consistency</li> <li>4. Consequential validity study using focus groups with teachers, administrators, parents, and students</li> <li>5. Support for independent alignment studies using Webb alignment of items and statistical analysis that shows each student sees an appropriate range of content and across all students the full set of testable standards are covered</li> <li>6. A study to examine the comparability of online versus paper/pencil test administrations</li> </ol>
13.1.2	Vendor will implement comparability studies for online and paper assessments described in 13.1.1.
13.1.3	The vendor's psychometricians will implement guidelines for vertical and horizontal linking sets for MCA-II.
13.1.4	The vendor's psychometricians will develop guidelines and implement the analysis for vertical and horizontal linking of MCA-II to MCA-III.
13.1.5	The vendor will compute classical item statistics using SAS, SPSS, or other commercial software that also applies logic to flag inconsistencies or other statistical values that may be out of range. The procedure should compute raw and adjusted $p$ -values, point biserial and item-total correlations, percent of students responding at each score point, reliability statistics, etc.
13.1.6	The vendor will provide MDE with a detailed plan for the calculation and reporting of DIF statistics.

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13.1.7	Scaling design will be determined by MDE in discussions with the vendor when implementing new test specifications.
13.1.8	Subsequent to each operational administration, the vendor will provide a report containing the following information: <ul style="list-style-type: none"> <li>• The reliability of the scale scores</li> <li>• The test information function and comparisons to information functions for previously developed forms</li> <li>• The validity of the test form as indicated by: 1) estimated correlation between scale score and latent proficiency (construct validity evidence); 2) judgments concerning the consonance between the test items and test specifications (content validity evidence); and 3) statistical and graphical summaries of the accuracy of the form equating.</li> </ul>
13.1.9	The vendor will load item parameters into the item management system.
13.1.10	The vendor will submit psychometric guidelines for test construction of operational forms to MDE for review and approval.
13.1.11	The vendor will analyze, calibrate/vertically scale reading & math operational tests.
13.1.12	The vendor will analyze, calibrate, scale and equate science assessments.
13.1.13	All technical analysis will be appropriately reported in the technical manual.
13.1.14	The vendor will provide state-of-the-art data forensics annually. The vendor will work with MDE to define the specific forensic analyses to be conducted.
13.1.15	The Vendor will provide additional Peer Review and online migration support. MDE will request the specific, individual tasks as they arise, within the overall scope of approximately 1500 AIR staff hours (or equivalent) plus some limited travel and other direct expenses.
<b>13.2</b>	<b>Psychometric Analysis and Support for Census GRAD Assessments</b>
13.2.1	Scaling design will be determined by MDE in discussions with the vendor when implementing new test specifications.
13.2.2	Subsequent to each operational census administration, the vendor will provide a report containing the following information: <ul style="list-style-type: none"> <li>• The reliability of the scale scores</li> <li>• The test information function and comparisons to information functions for previously developed forms</li> <li>• The validity of the test form as indicated by: 1) estimated correlation between scale score and latent proficiency (construct validity evidence); 2) judgments concerning the consonance between the test items and test specifications (content validity evidence); and 3) statistical and graphical summaries of the accuracy of the form equating.</li> </ul>
<b>13.3</b>	<b>Technical Manual and Yearbook</b>
13.3.1	At the conclusion of each operational assessment or stand-alone field test cycle, vendor's Lead Psychometrician will work collaboratively with operational, psychometric, and development and technical staffs and MDE Quality Vendor to produce a Technical Manual and Yearbook outlining the statistical analysis and psychometric quality of the items, standards, and tests, including item development for that year.
13.3.2	Technical documentation will also include procedures and processes used to develop, administer, score, and report. MDE will approve the format and list of tables and/or information to be included by the vendor.
13.3.3	The vendor will deliver a Technical Manual and Yearbook no later than 30 days from the time of delivery of hardcopy student reports to the districts.

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13.3.4	MDE, MDE's Quality Vendor and the Technical Advisory Committee (TAC) will review the annual Technical Manual and Yearbook before the vendor produces the copy for publication.
<b>13.4</b>	<b>Minnesota Technical Advisory Committee (TAC)</b>
13.4.1	Vendor will arrange meeting logistics and reimburse TAC members for their service to MDE. An additional twenty five (25) hours of phone consultation and conference calls per TAC member will be included. In addition vendor will cover expense for one TAC member to attend all standard setting workshops.
13.4.2	MDE requires vendor participation at the TAC meetings. MDE holds three, two-day TAC meetings annually. In addition the vendor will participate in ad hoc TAC conference calls.
13.4.3	The vendor will collaborate with MDE on setting the agenda for the TAC meeting.
13.4.4	Vendor will prepare any materials for the TAC necessary to support agenda topics as requested by the MDE. They will be available for distribution no later than one week before the meeting.
<b>14.0</b>	<b>Benchmark Assessments</b>
<b>14.1</b>	<b>Benchmark Assessments</b>
14.1.1	Vendor will provide an online multi-platform Benchmark Assessment for grades 2 - 11 in mathematics, reading, science and writing that assesses student achievement and growth.
14.1.2	Vendor will field-test and calibrate the items for the benchmark assessments concurrently with the items for the summative assessment and implement the same (or a slightly extended) blueprint used for the summative assessment. This approach will allow the summative and benchmark scores to be compared and plotted together over time. MDE and the vendor will agree on a methodology for the grade two benchmark assessment.
14.1.3	Vendor will demonstrate item alignment to content standards for both MCA-II and MCA-III (when operational) if appropriate. MDE will work with the vendor to determine the approach for the GRAD.
14.1.4	Benchmark assessment will be delivered securely through exactly the same system as the online summative assessments. Hence, the benchmark assessments will not require any additional software, training, or in-school support beyond what is required for the summative assessment, and will offer the same look and feel, the tools, and the broad range of accommodations available in the summative assessments.
14.1.5	Results will be delivered through the same reporting system, so no additional training will be required for teachers to access, explore, and use the results. Similarly, users will have immediate access to the same system of teaching and learning supports, as described in Section 15.
14.1.6	Benchmark assessment will allow teachers to track individual student performance over multiple formative test administrations of the same subject. The Benchmark assessment will track over years and by subject.
14.1.7	RESERVED
14.1.8	RESERVED
14.1.9	RESERVED
14.1.10	RESERVED
14.1.11	The vendor will include the same types of items in the benchmark assessment as the summative assessment.

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14.1.12	For Math, Reading, and Science, the items on the test will be drawn from one of three sources: (1) Items developed specifically for the MCA (excess items from existing pools or newly developed items) from Task 3; (2) Items shared from other States; and (3) Items from the TerraNova.
14.1.13	For Writing, the vendor will develop and field-test 15 to 20 writing prompts per grade in Minnesota, gather and score responses, and train the writing engine. The vendor will maintain ownership of the prompts and rubrics, and will bear the development and analysis costs. MDE will provide support in attaining cooperation and participation of Minnesota schools during the field test and vendor will provide human scores to all scored responses. MDE will maintain a perpetual, royalty-free license to use the prompts in the state of Minnesota, along with scoring documentation such as training sets and anchor papers. The benchmark writing assessment will be scored by the same engine as the GRAD writing assessment.
14.1.14	Once during the contract, MDE and the vendor will develop a set of blueprints for the use of the benchmark assessments. These blueprints may be to deliver the Benchmark Assessments as independent assessment (separate, additional opportunities) with blueprints identical or very similar to that of the summative assessment. Alternatively, using the same item pool, MDE may work with the vendor to create alternative blueprints that combine features of summative and benchmark assessments.
14.1.15	The vendor shall field-test the items during 2011-12 school year within the embedded and independent field tests used for the summative assessments, and the items to the same scale as the summative assessments.
14.1.16	The vendor will work with MDE content experts to design benchmark assessment blueprints that accurately reflect the content and contain a sufficient number of items to measure a typical school year of growth at the MDE's desired confidence level. The vendor will report the precision of scores and change scores and conduct simulation studies to validate the accuracy of those estimates given the real item bank.
14.1.17	The vendor will work with MDE to balance benchmark assessment length with acceptable standard error of measurement, with the minimum being the minimum number of items required to cover the academic content standards (the construct being measured).
14.1.18	All benchmark assessments shall be operational for the 2012-13 school year, and will be fully integrated with the Online Reporting System (Task 12) and Learning Supports (Task 15).
14.1.19	Schools will have substantial control in administering the benchmark assessments, including the ability to determine when assessments are administered; assign students to take specific assessments; assign specific accommodations to students; receive immediate reports by individual, subgroup, and school-defined groupings, and follow any desired grouping longitudinally; and track student progress over the year and across years, including tracking individual students, cohorts, and school-defined groupings of students.
14.1.20	Once the tests are established, the vendor will provide correlational evidence that performance on the benchmark assessment opportunities predict subsequent performance on summative assessment opportunities.



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<b>15.0</b>	<b>Teaching &amp; Learning Supports</b>
<b>15.1</b>	<b>Teaching &amp; Learning Supports</b>
15.1.1	Vendor will provide teaching and learning supports that are a companion to the information derived from the Minnesota Assessment System in reading, mathematics, science and writing. The system will be initially populated with activities in mathematics and English language arts (ELA). Additional vendor provided activities will be added to build up the bank of resources at no additional cost. SciMath Minnesota activities will be added to the system via direct “parameterized” web links (links in a structured format that can be automatically generated by the vendor from the grade, subject, standard, and benchmark). Other MDE-developed activities may be added to the system; the cost to integrate these other MDE-developed materials to be negotiated as a scope change.
15.1.2	The vendor will provide to classroom teachers, a system that is web-based and informative with easy-to-use features to enable educators to navigate the system in order to identify and learn to deliver effective, research-based instruction strategies in the classroom for each benchmark in the Minnesota Academic Standards. The system must be capable of being utilized effectively by all stakeholders within the school, district, and MDE.
15.1.3	The vendor will provide to parent and student, a system that is web-based and provide student activities that could be used in school or at home. Activities are aligned to summative or formative assessment and are intended to improve students' performance in areas of weakness or accelerate their learning in areas of strength.

**Functional Requirements  
for the  
2011  
No Child Left Behind  
Adequate Yearly Progress  
Calculations**



***2011 NCLB – AYP Calculations  
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## 1 Introduction

### 1.1 Overview

The purpose of this document is to describe the No Child Left Behind (NCLB) calculation as it relates to measuring schools and districts for Adequate Yearly Progress (AYP). This document is designed to be used by those who wish to understand the details of Minnesota's accountability system. This includes developers, district accountability coordinators, Title I and Title III coordinators, and many others. Items highlighted in yellow are new for 2011.

### 1.2 Context (place in the system)

The AYP computational software (the calculation “engine”) interacts with the following systems and databases:

- Assessment systems to acquire current and historical results
- Organizational Unit database and the NCLB ID system to identify school/district entities
- NCLB databases to store current and acquire historical AYP data
- MARSS systems for student demographics and enrollment information
- SERVS systems to determine Title I entities

The results are made available using Educator Portal and Report Card web applications.

### 1.3 Target Users

The target audience includes software developers as well as program area personnel who are expert in the requirements of the NCLB act.

## 1.4 Glossary of Terms

ADM attribute	Average Daily Membership. An attribute of a student in the MARSS database that indicates the cumulative amount of time in academic years that the student has spent in schools in Minnesota.
AYP	Adequate Yearly Progress. A set of measurements of schools and districts to comply with the federal No Child Left Behind act (NCLB).
AYP Cell	One of up to 54 disaggregated group measurements for any AYP entity
AYP Cell Mark	The result of each cell measurement – either A (At/Above target) or B (Below target). Other codes are used to indicate altered measurements or limitations of measurement.
AYP Component	One of three AYP Indicator summaries used to determine the overall AYP Status for an entity (school or district): Academic Math, Academic Reading, and the Secondary Indicator (Graduation and/or Attendance). All three used to determine the AYP Status.
AYP Component Mark	The result of each component measurement – either A (no cell below target) or B (at least one cell below target) or X (component does not exist).
AYP Consequence	Renamed ‘In Need of Improvement Status’ in 2008.
AYP Growth Score	The proportion of students showing growth from one year to the next.
AYP Growth Points	A measure of growth between two years for an individual student. Growth points are based on current and prior year achievement levels and scores. Growth points range between 0 and 1000.
AYP Index Point	The representation of the measure of a student at or near proficiency. Students fully proficient earn 1 index point. Students partially proficient earn 0.5 index points.
AYP Indicator	One of four measurement indicators for each student group – Participation, Proficiency, Attendance, or Graduation
AYP Status	The annual result of the AYP measurement applied to an entity. An entity is identified as either ‘Making AYP’ or ‘Not Making AYP’ based on the three AYP components.
AYP Year	The fiscal year in which the AYP measurement is determined. AYP Year 2011 will use assessment data from the 2010/2011 school year (fiscal year 2011). AYP Year 2011 will use Attendance and Graduation data from the 2009/2010 school year (fiscal year 2010).
Census Test	An assessment given to all students in a particular grade throughout the state.
Confidence Interval	A statistical adjustment when comparing measured results to targets.

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Feeder School	A school that does not serve students in the assessed grades but promotes the majority of students into another school in the same district that does serve students in the assessed grades.
In Need of Improvement Status	The defined status for entities not making AYP in 2 consecutive years.
In Need of Improvement Implementation	The defined implementation based on the status for school and districts planning to receive Title I funds in the following year.
LEP	Limited English Proficiency. This is a designation given to students with a home primary language other than English who have been identified by district staff as having Limited English Proficiency (LEP) within the testing district during the testing window.  Expanded LEP subgroup: Students who, at any time in the past two years or the current year, were designated as LEP in the MARSS database.
MARSS	Minnesota Automated Reporting Student System. A database maintained by MDE for the purpose of recording attendance and demographic information about all students. MARSS is mainly used for allocating funds to schools, but it is used for multiple reporting purposes. It uses a 13-character identifier to track a student over time.
MCA	1998 – 2005 Minnesota Comprehensive Assessment. A reading and math census test annually given to selected grades throughout the state.
MCA-II	Minnesota Comprehensive Assessment – Series II. Beginning in 2006, a census test given annually to grades 3-8 and 10 for Reading and grades 3-8 and 11 for Math.
MCA-III	Minnesota Comprehensive Assessment – Series III. Beginning in 2011, a census test given annually to grades 3-8 for Math.
MDE	Minnesota Department of Education
MOD-II	MCA-II Modified Assessment. Begun in 2011, offered for Reading and grade 11 in Math.
MOD-III	MCA-III Modified Assessment. Begun in 2011, offered for grades 3-8 in Math.
MN SOLOM	Minnesota Student Oral Language Observation Matrix. A test given in Minnesota to assess a student's listening and speaking language skills.
MTAS	Minnesota Test of Academic Skills. An alternate assessment given in Minnesota for Special Education students with the most significant cognitive disabilities. Beginning in 2011, only offered for Reading and grade 11 in Math.

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MTAS-III	Minnesota Test of Academic Skills – Series III. An alternate assessment given in Minnesota for Special Education students with the most significant cognitive disabilities. Begun in 2011, only offered for grades 3-8 in Math.
MTELL	Math Test for English Language Learners. A math test given in Minnesota for LEP students. This test is no longer administered and was last offered in 2010.
NCLB	No Child Left Behind. A federal act ensuring accountability (among other things) for schools designated as Title I and Title III.
NCLBID	No Child Left Behind Identification Number. A unique number identifying a school or district over multiple years, regardless of the current or previous MDE district or school number found in ORGUNIT.
NCLBID system	An application and set of tables identifying certain schools and districts to be included in the AYP calculations.
ORGUNIT	A database maintained by MDE for the purpose of identifying various educational delivery organizations and their attributes. For example, this database holds information about schools and school districts.
Safe Harbor	An alternate target used in the Proficiency measurement based on results from previous years.
SLS	The MDE Student Linking System that uses a probabilistic matching algorithm to ensure student records are linked correctly.
TEAE	Test of Emerging Academic English. Tests given in Minnesota to LEP students to assess their reading and writing English language skills.
TestWES	The Assessment Web Edit System where districts have the ability to update and verify assessment data as well as view the MARSS demographics assigned to each record

## 1.5 References

No Child Left Behind Act of 2001:

<http://www.ed.gov/policy/elsec/leg/esea02/107-110.pdf>

Minnesota Consolidated State Application September 1, 2003 Submission (an AMAO reference):

AYP 2011 Calculations Illustrated.XLS

This Excel file includes the basic computations including formulas designed to aid in both visualizing the computations and to check individual results:

[http://education.state.mn.us/MDE/Data/Data\\_Downloads/Accountability\\_Data/NCLB\\_AYP/index.html](http://education.state.mn.us/MDE/Data/Data_Downloads/Accountability_Data/NCLB_AYP/index.html)



## 2 Functional Description

### 2.1 AYP (NCLB Title I Calculations)

MDE measures schools and districts annually for the purpose of evaluating them in terms of student participation in standardized testing, proficiency as measured on the standard tests, attendance, and graduation rates. Standard tests consist of instruments such as the MCA-II and MCA-III. Generally, all public school students enrolled in an applicable grade during the testing window are included in this calculation.

The output of the calculation is commonly known as the Adequate Yearly Progress (AYP) measure that is reported to the general public. An example of a report that shows the results of the calculation follows in Appendix 5 - *Example AYP Verification Report*

The sections that follow explain the AYP calculation in detail.

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#### 2.1.1 NCLBID system - Student Record Selection for School, District and State Aggregations

The state is divided into about 400 districts. Each district must have at least one school. All schools belong to a district – all students are reported at a school within a district. School measurements aggregate students reported at the school. District measurements aggregate students reported at eligible schools within the district. State measurements aggregate students reported at eligible schools within the state. District and State measurements are based on the student aggregations. State results are not based on the aggregation of district results. District results are not based on the aggregation of school results.

All districts reporting students are included in AYP measurements. These schools and districts (known as AYP entities) are identified using the NCLBID system. The NCLBID application extracts the appropriate schools and districts from ORGUNIT for a particular year before the AYP calculation is set to run. Adjustments to the AYP entity designations can be made by the MDE administrator with approval within the NCLBID system, independent of ORGUNIT.

The calculation uses the NCLBID system exclusively when selecting students for aggregation into school, district and state measurements. The calculation does not use ORGUNIT to determine which schools to include in the measurements.

***AYP Entity Status***

The NCLBID system classifies schools into three groups (NCLBID School table: Field name is called *i s AYP*).

*i s AYP* = Y (Yes): the school is an AYP entity – students should be aggregated to the school, district and state entities.

*i s AYP* = S (State): students reported at these schools should only be aggregated at the state level.

*i s AYP* = N (No): the school is not an AYP entity – students should not be aggregated to any entity.

When aggregation is required at the school or district level, select records where *i s AYP* =Y. When aggregation is required at the state level, select records where *i s AYP* = Y or S. Students who are reported at schools where *i s AYP* = N are not included in the AYP calculation.

Schools are measured over multiple years. Schools are designated as being an AYP entity if they are *currently* an AYP entity. The AYP calculation does not consider AYP entity status from previous years when calculating previous year measurements.

Districts are considered an AYP entity if they have at least one school designated as an AYP entity for the current year. If no school within the district has *i s AYP*=Y, the district is not considered an AYP entity.

***District Types***

The NCLBID system designates schools belonging to districts permitted to enroll students as eligible for AYP entity designation. If a school does not belong to one of these districts, the school is not an AYP entity (for example, district type 02 students are exclusively enrolled out of state).

Schools with these District Types are eligible to be included in the AYP measurement	
01 – Independent Districts	52 – Special Education Coops
03 – Special Districts	53 – Vocational and Special Education Coops
06 – Intermediate Districts	61 – Education Districts
07 – Charter Schools	62 – Secondary Facilities Cooperatives
34 – Bureau of Indian Education (BIE) Schools	70 – State Operatives Schools
50 – Miscellaneous Coops	83 – Service Cooperatives
51 – Vocational Coops	

***School Classifications***

Schools within the eligible districts are then evaluated. The NCLBID system designates the following school classifications within each district as AYP entities to be aggregated at the school, district and state levels (*i s AYP* = Y):

School Classifications included at the school, district and state levels		
10 – Elementary Schools	41 – Public Area Learning Center	60 – Secondary Vocational
20 – Middle Schools	42 – Secondary Alternative Program	70 – Correctional School
31 – Public Junior Highs	43 – Private Contract Alternatives	71 – Miscellaneous Program or Center
32 – Public Senior Highs	46 – Distance Learning Program	72 – Neglected/Delinquent School
33 – Public Secondary Schools	50 – Special Education Program	73 – Homeless School/Program
40 – Elementary/Secondary Combined	55 – Special Education / Secondary Vocational Combination	77 – Provides Oversight – Public Residential Care/Treatment
		79 - Provides Oversight – Public Day Treatment

Furthermore, NCLBID system designates the following school classifications within each district as AYP entities to be aggregated at the state level only ( $i_{SAYP} = S$ ):

School Classifications included at the state level only	
74 – Hospital/Medical Program	78 - Provides Oversight – Private Day Treatment
76 – Provides Oversight – Private Residential Care/Treatment	

In all cases, the NCLBID MDE administrator with approval may alter the AYP entity status using the NCLBID application, adding or removing schools from consideration or changing the aggregation level.

***Individual Student Record Selection***

Student record selection within each school is based on the context of the measurement. Each type of measurement includes certain types of students. For example, students not enrolled for the full academic year are excluded from the AYP Proficiency measurement while they are included in the AYP Participation measurement. Student record inclusion rules are stated within the description of each measurement.

Enrollment within an entity is based on the MARSS system. Associating the appropriate assessment document with the student enrollment record is based on a matching algorithm to ensure the correct student is linked to the correct document. This matching algorithm and other selection criteria are described in the Participation Measurement section.

***2.1.2 AYP Calculation: Students Disaggregated***

Student demographics are required to disaggregate into the following nine groups for each AYP entity. Each group earns a separate AYP measurement:

- A. All students
- B. American Indian / Alaskan Native Students
- C. Asian / Pacific Islander Students
- D. Hispanic Students
- E. Black Students, not of Hispanic Origin
- F. White Students, not of Hispanic Origin
- G. Limited English Proficient Students
- H. Special Education Students
- I. Students Eligible for Free or Reduced Price Meals

The Assessments and the MARSS records have these demographics set as code values or as Y/N indicators. These demographics are obtained directly from the matching MARSS enrollment record that spans the testing window for each test. For students with multiple records in the same district, the ethnic code is obtained from the later record. The LEP, Special Ed and FRP indicators are set to Y if any of the multiple records within the district are indicated as LEP, Special Ed or FRP.

<i>SubGroup</i>	<i>Test Results Codes/Indicator</i>	<i>MARSS Codes/Indicators</i>
B. Indian	Ethnic Code = 1	Ethnic Code = 1
C. Asian	Ethnic Code = 2	Ethnic Code = 2
D. Hispanic	Ethnic Code = 3	Ethnic Code = 3
E. Black	Ethnic Code = 4	Ethnic Code = 4
F. White	Ethnic Code = 5	Ethnic Code = 5
G. LEP	LEP Indicator = Y	LEP Participation = Y
H. Special Ed	Special Ed Indicator = Y	Special Ed Status = 4 or 6 or 9
I. FRP	FRP Indicator = Y	Economic Indicator = 1, 2, 4 or 5

The calculation disaggregates records by using the correct value or positive indicator. For example, the group ‘Students Eligible for Free or Reduced Priced Meals’ is found by selecting the records with FRP indicator equal to ‘Y’. It is *not* found by selecting records with FRP Indicator not equal to ‘N’. In some cases, two indicators are used to determine the constituents of a group. These indicators are described below.

***Expanded subgroups for the Proficiency measurement***

Two subgroups are expanded to include students who were in the subgroup at any time in the prior two years or the current year. These two additional demographic elements (called Prior Two Year Indicators) are set with the other demographics during the initial editing/validation period.

- **LEP Group**  
For the Proficiency measure only, include records where LEP Indicator = Y or LEP Prior Two Year Indicator = Y
- **Special Education Group**  
For the Proficiency measure only, include records where Special Education Indicator = Y or Special Education Prior Two Year Indicator = Y

In cases where the entire subgroup only has members of the expanded subgroup, the proficiency measurement will not be made. This occurs when a few LEP or Special Education students are found to be participating (where the expanded subgroups are not included) but none of them are included in the proficiency measurement (because they were not enrolled for the full academic year).

### 2.1.3 AYP Calculation: Computational Comparisons

The measurements often compare a computed proportion to a target proportion. When computing and storing these proportions, the computation uses FLOAT values (floating decimal points). However, when comparing to the target values, the numbers are converted to a decimal figure rounded to four points.

For example:

The target for participation is 95%.

The school reports 488 out of 514 students participating.

Target proportion: 0.9500.

Computed proportion: 0.94941634241245136186770

Comparison of computed proportion to target: 0.9494 is less than 0.9500

Result: School did not meet participation target. The AYP Mark is set to 'B' (below target).

---

### 2.1.4 AYP Calculation: AYP Marks for Cells

The calculation assigns an AYP Mark to the various measurements within each cell. These AYP Cell Marks are defined as follows:

A: Measured result is at/above target

B: Measured result is below target

Z: Result was calculated, but the group cell size falls under minimum required for measurement

X: Group does not exist within entity

S: Measured result is below target, but results are still at/above the Safe Harbor target

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### 2.1.5 AYP Calculation: Determining AYP Marks for Cells

The measurements are divided into four AYP Indicators: Participation, Proficiency, Attendance and Graduation. The Participation and Proficiency indicators (referred to as the Academic Indicators) are further divided into subjects: Math and Reading. The Attendance and Graduation indicators (referred to as the Secondary Indicators) are sometimes combined or used alone depending on the entity being measured. The calculation evaluates all student records and then computes the totals, targets and proportions for each of the four main groupings. Generally, there are 54 AYP Marks computed and assigned to each entity; 18 for Participation, 18 for Proficiency, 9 for Attendance and 9 for Graduation. The example below illustrates the various AYP marks computed for an individual entity.

<i>District Example: AYP Marks for Cells</i>			Academic Indicators		Secondary Indicators	
	<b>Student Group</b>	<b>Subject</b>	<b>Participation</b>	<b>Proficiency</b>	<b>Attendance</b>	<b>Graduation</b>
A	All Students	Math	A	B	A	B
		Reading	B	A		
B	Am. Indian/Alaskan Native	Math	A	A	A	A
		Reading	A	A		
C	Asian/Pacific Islander	Math	B	A	A	A
		Reading	A	B		
D	Hispanic	Math	A	A	A	A
		Reading	A	A		
E	Black	Math	B	A	A	A
		Reading	A	A		
F	White	Math	A	A	A	A
		Reading	B	A		
G	Limited English Proficient	Math	A	A	A	A
		Reading	A	A		
H	Special Education	Math	A	A	A	A
		Reading	A	A		
I	Free/Reduced Priced Meals	Math	A	A	A	A
		Reading	A	A		

### 2.1.6 AYP Calculation: AYP Marks for Components

To determine the entity's final AYP status, there are three AYP components for each entity; Academic Math, Academic Reading, and the Secondary Indicator. The calculation assigns an AYP Mark to each component. These AYP Component Marks are defined as follows:

- A: No cell within the component is below the target
- B: At least one cell within the component is below target
- X. Component does not exist within entity

2.1.7 AYP Calculation: Determining AYP Component Mark

Generally, when calculating the Academic AYP Component marks, the following rules should be applied.

- If any of the 18 AYP marks equal B, set the component to B.
- If no AYP Mark equals B, but at least one AYP marks equals A or S, set the component to A
- If all AYP Marks = X, set the component to X.

To determine the Secondary Indicator component, only the All Student group measure is used. When measuring a school, the single required Secondary Indicator is used (either Attendance or Graduation). When measuring a district or the state, both Secondary Indicators are used (both Attendance and Graduation). When using both Attendance and Graduation, if either mark equals B, the Final AYP component is set to B. However, if all of the marks are set to X (no data) the component mark is set to X.

The example below illustrates the Academic Math, Academic Reading, and Secondary Indicator AYP Marks and the resulting Final AYP component result.

<i>Example: Component AYP Marks for a District</i>		<b>Academic Indicator</b>	<b>Math AYP Cell Marks</b>	<b>Reading AYP Cell Marks</b>	<b>Secondary Indicator</b>	<b>AYP Cell Marks</b>
	<b>Student Group</b>	Participation	A	A	Attendance	<b>B</b>
A	All Students	Participation	A	A		
B	Am. Indian/Alaskan Native	Participation	A	A		
C	Asian/Pacific Islander	Participation	<b>B</b>	S		
D	Hispanic	Participation	Z	Z		
E	Black	Participation	<b>B</b>	X		
F	White	Participation	A	A		
G	Limited English Proficient	Participation	S	A		
H	Special Education	Participation	S	A		
I	Free/Reduced Priced Meals	Participation	A	A		
A	All Students	Proficiency	A	A	Graduation	A
B	Am. Indian/Alaskan Native	Proficiency	A	A		
C	Asian/Pacific Islander	Proficiency	<b>B</b>	S		
D	Hispanic	Proficiency	Z	Z		
E	Black	Proficiency	<b>B</b>	X		
F	White	Proficiency	A	A		
G	Limited English Proficient	Proficiency	A	A		
H	Special Education	Proficiency	A	A		
I	Free/Reduced Priced Meals	Proficiency	A	A		
	<b>Final AYP Component Marks</b>		<b>B</b>	<b>A</b>		<b>B</b>

**2.1.8 AYP Calculation: Determining Required Indicators for AYP Components**

Not all AYP Indicator Marks are used when evaluating the AYP Components for certain entities. In some instances, both attendance and graduation measures are used to determine the Secondary Indicator component, in other instances, only one of the measures is used. The following chart illustrates which AYP Indicator Marks are required to be used in computing the three AYP components.

<b>Determining AYP Required Marks</b>	
Participation:	Required when at least one qualifying student is enrolled in an entity during the testing window as reported on MARSS.
Proficiency:	Required when at least one qualifying student is enrolled in an entity during the testing window as reported on MARSS and at least one associated test document qualifies for the measurement.
Graduation:	Required for schools with school classifications of 32, 33, 40 and 46. These schools must also have at least one student enrolled in grade 12 of the current AYP year. These schools must also have the ‘All Students’ group meet or exceed the cell size minimum required for Graduation measurement. Required for all district and state measurements.
Attendance:	Required for all other schools that are not required to have a Graduation indicator. Required for all district and state measurements.

**2.1.9 AYP Calculation: Determining Overall AYP Status from AYP Components**

The three Final AYP Components are evaluated to determine the overall AYP Status of the entity. The overall AYP Status either evaluates to ‘Making AYP’, ‘Not Making AYP’, or ‘No Data’.

**1. Not Making AYP**

If any of the three Final AYP component marks equal B, resulting overall AYP Status is set to B: Not Making AYP

**2. Making AYP**

If at least one AYP Component is set to A and there are no Bs, the AYP Status is set to A: Making AYP.

**3. No Data**

If all the AYP Components are set to X, the AYP Status is set to X: No Data

The example below illustrates how the three final AYP components are used to arrive at the AYP Status.

<b>Component</b>	<b>Component Mark</b>
Final Academic Math Component	B
Final Academic Reading Component	A
Final Secondary Indicator Component	B
<b>Resulting overall AYP Status</b>	<b>B –Not Making AYP</b>



**2.1.10 AYP Calculation: MTAS Assessment Record Substitution for the MCA-II or MCA-III**

When available, the MTAS assessment results for Math or Reading for a student (as validated through the TestWES system) will substitute for the corresponding MCA-II/MCA-III results.

AYP Index Points are assigned using Achievement Level. Partially Meeting the Standard generates 0.5 index points while Meeting or Exceeding the Standard generates 1.0 index points. However, there is a limit on the number of index points generated from MTAS substitutions.

**1% cap on allowable index points contributed from MTAS records for special education students**

When the district Proficiency measurement is calculated, only 1 % of the total number of student records for the cell may contribute index points from MTAS records. If a student's index points are excluded at the district level due to this 1% cap, the student's index points cannot be used when measuring the school or state entities.

Choosing which records to include is important as the corresponding demographics and index points affect more than just one cell and one entity. The formula for selecting which records may contribute to the proficiency total is described below. The description and examples are also included in the companion Excel file *AYP 2011 Computations Illustrated*.

Student records with the highest rankings are included until the limit of allowable points has been reached. Rankings might be the same for multiple student records. If so, the student's MARSS Number will serve as the tie breaking when assigning the final allowable point to a cell.

**Computing number of enrollment records (Ncount) to determine the 1% figure**

The count of unique students enrolled over the testing window within a district is used to compute the Ncount. Uniqueness is defined as a student with the same MARSS Number, Grade, and Student Linking System (SLS) identification number (AliasGroupID). This is equal to the denominator of the participation measurement with one exception: Students with linked assessment records with the test code of ME are included in this Ncount. (These records are normally excluded from the denominator of the participation measure.)

The maximum number of allowable index points contributed by MTAS is the ceiling of 1% of the Ncount of all linked documents included.

$$\text{CEILING}(\text{Ncount} * 0.01)$$

Districts may apply for a waiver of the 1% cap if they serve an unusually high proportion of students taking the MTAS. Depending on individual circumstances, the waiver process may provide for an increased percentage or count of MTAS records allowed. For these districts, the formula changes to use a different percentage or count when determining the maximum allowable MTAS contribution.

***Ranking student records when MTAS contribution exceeds maximum at District entity***

When the index points contributed by an entity exceed the maximum, records to be included are ranked in the following order. Those records with the highest rankings are included until the limit is reached. Rankings are determined by a combination of the following:

- Index Point value assigned to the record
- October 1 School flag
- Number of selected subgroups the record contributes to (LEP, Special Education, and FRP)
- MARSS Number

If the October 1 School Flag set to Y, the ranking is set to:

- $(\text{Index points} * 10) + \text{Number of subgroup cells the record contributes to}$

If October 1 School Flag set to N or is blank, the ranking is set to:

- Number of subgroup cells the record contributes to  
(Index points are not considered when October 1 school flag = N since the record will not be used in the proficiency measure for the school, but may be used for the district.)

Order the records from highest to lowest (descending order) according to ranking. For students whose rankings are the same, order their records by MARSS Number from lowest to highest (ascending order). If the allowable limit is reached for students with the same rankings, the students with the lower MARSS Numbers will be included.

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***2.1.11 AYP Calculation: MCA-Modified Assessment Record Substitution for the MCA-II or MCA-III***

When available, the MOD-II or the MOD-III assessment results for a student (as validated through the TestWES system) will substitute for the MCA-II or the MCA-III results.

AYP Index Points are assigned using Achievement Level. Partially Meeting the Standard generates 0.5 index points while Meeting or Exceeding the Standard generates 1.0 index points. However, there is a limit on the number of index points generated from MOD-II or MOD-III substitutions.

***2% cap on allowable index points contributed from MOD-II or MOD-III records for special education students designated as persistently low performing.***

When the district Proficiency measurement is calculated, only 2% of the total number of student records for the cell may contribute index points from MOD-II or MOD-III records. If a student's index points are excluded at the district level due to this 2% cap, the student's index points cannot be used when measuring the school or state entities.

Under certain conditions, a district may exceed the 2% cap for MCA-Modified proficiency points if they have fewer than 1% of their proficiency points coming from MTAS records. But the district is limited to an overall 3% of proficiency points being contributed from the MCA-Modified records.

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The same methods used in the 1% cap for the MTAS/MTAS-III limit to choose enrollments and computing counts are used in the 2% cap for the MOD-II/MOD-III.

**2.1.12 AYP Calculation: 3% overall cap on MCA-Modified proficiency points**

Generally, districts contributing more than 2% of their proficiency points from the MCA-Modified assessments will have their proficiency index reduced. However, any excess space allocated for 1% of the MTAS records can be shared with MCA-Modified records. This occurs when there are fewer than 1% of the MTAS records and more than 2% of the MCA-Modified records.

Any additional space that may be allocated to the 1% cap via the MTAS waiver process cannot be shared with MCA-Modified records.

The following example illustrates how this allocation and reduction will occur. Several other scenarios are presented in the companion Excel workbook called *AYP 2011 Calculations Illustrated*.

A district has 532 students included in the MATH Enrollment count. This district will be allowed to contribute a total of 16 proficiency points – 6 points from MTAS records and 10 points from MCA-Modified records. However, the district only has 4 MTAS records but 14 MCA-Modified records. Since there was additional room in the 1% allocation for MTAS, 12 of the 14 MCA-Modified records can be used.

		Name	Test	Index Points	Use in calculation
1% MTAS allocation	1	Bill	MTAS	1.0	YES
	2	Dave	MTAS	1.0	
	3	Ahmed	MTAS	1.0	
	4	Clarie	MTAS	1.0	
	5	James	MOD	1.0	
	6	Farod	MOD	1.0	
2% MCA-Modified allocation	7	Liza	MOD	1.0	YES
	8	William	MOD	1.0	
	9	Wallace	MOD	1.0	
	10	Keri	MOD	1.0	
	11	Jamie	MOD	1.0	
	12	Lyn	MOD	1.0	
	13	Raj	MOD	1.0	
	14	Steve	MOD	1.0	
	15	Sharon	MOD	1.0	
	16	Barb	MOD	1.0	
	17	Becky	MOD	1.0	NO
	18	Joe	MOD	1.0	

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Functional Requirements

**2.1.13 AYP Calculation: Index Points Assigned Using Achievement Level**

AYP Index Points are assigned using Achievement Level. Partially Meeting the Standard generates 0.5 index points while Meeting or Exceeding the Standard generates 1.0 index points.

**2.1.14 AYP Calculation: Statewide Proportion Proficiency Targets for Each Grade and Subject**

The targets were recomputed using the results from the new 2006 MCA-II assessments. The targets were constant for 2006 and 2007 and will gradually increase in equal increments until 100% is reached in 2014. In 2011, the Math grade 3-8 targets were recomputed using the new MCA-III, MOD-III and MTAS-III assessments. These targets will increase in equal steps each year until the proportion proficient = 1.0 (100%) in 2014. The method used to arrive at the targets is described in Appendix – ‘Computation of Statewide Percent Proficient Starting Points’.

MATH									
Statewide Targets expressed as Proportion Proficient									
Grade	2006	2007	2008	2009	2010	2011	2012	2013	2014
3	0.7895	0.7895	0.8196	0.8496	0.8797	.6975	.7983	.8992	1.0000
4	0.6964	0.6964	0.7398	0.7831	0.8265	.6538	.7692	.8846	1.0000
5	0.5979	0.5979	0.6553	0.7128	0.7702	.5559	.7039	.8520	1.0000
6	0.5989	0.5989	0.6562	0.7135	0.7708	.5280	.6853	.8427	1.0000
7	0.5880	0.5880	0.6469	0.7057	0.7646	.5754	.7169	.8585	1.0000
8	0.5839	0.5839	0.6433	0.7028	0.7622	.5699	.7133	.8566	1.0000
11	0.2813	0.2813	0.3840	0.4866	0.5893	0.6920	0.7947	0.8973	1.0000

READING									
Statewide Targets expressed as Proportion Proficient									
Grade	2006	2007	2008	2009	2010	2011	2012	2013	2014
3	0.7222	0.7222	0.7619	0.8016	0.8413	0.8809	0.9206	0.9603	1.0000
4	0.6948	0.6948	0.7384	0.7820	0.8256	0.8692	0.9128	0.9564	1.0000
5	0.7193	0.7193	0.7594	0.7995	0.8396	0.8797	0.9198	0.9599	1.0000
6	0.7027	0.7027	0.7452	0.7876	0.8301	0.8726	0.9151	0.9575	1.0000
7	0.6563	0.6563	0.7054	0.7545	0.8036	0.8527	0.9018	0.9509	1.0000
8	0.6404	0.6404	0.6918	0.7431	0.7945	0.8459	0.8973	0.9486	1.0000
10	0.6477	0.6477	0.6980	0.7484	0.7987	0.8490	0.8993	0.9497	1.0000

*2.1.15 AYP Calculation: Confidence Interval Applied to Proficiency Targets*

Computed proficiency targets for each cell are computed based on the number of students being evaluated (the Ncount) and the number of cells being measured for the entity. Formulas are described below and fully illustrated in the companion Excel file called *AYP 2011 Calculations Illustrated*. These calculations adjust the target; significantly when the cell Ncount is very small.

The Confidence Interval ranges between 95% and 99% depending on the number of cells included in the measurement. The sliding scale is computed using the formula below. Entities having fewer than five measured cells use the 95% value. Entities with all 18 cells use the 99% value.

- Proficiency Target Index With Confidence Interval  
Target - Critical Value \* Standard Error  
T - CV\*SE
- Degrees of Freedom  
Number of students included - Number of grades evaluated
- Confidence Interval Critical Value  
95% Confidence Critical Value = TINV(2\*(1-0.95),(Degrees of Freedom))  
99% Confidence Critical Value = TINV(2\*(1-0.99),(Degrees of Freedom))

*Sliding Scale for 14 equal steps*

If number of cells above threshold > 4

$$CV = (99\% \text{ CV} * (\text{Cells}-4) + 95\% \text{ CV} * (18-\text{Cells}))/14$$

Else

$$CV = 95\% \text{ CV}$$

- Variance  
The Variance for the Median Condition (given Target, T) is  
 $-T^2 + 1.25*T - 0.25$
  - Standard error  
Square Root (Variance / N)
-

### ***2.1.16 AYP Calculation: Safe Harbor Calculation (an Alternate Proportion Proficiency Target)***

For those disaggregated groups (cells) not meeting the initial proportion proficient target an alternate target, Safe Harbor, is computed based on the cell's prior year Proficiency measurement. Use of the Safe Harbor target is dependent on the entity's required Secondary Indicator measure. If the cell did not meet the required Secondary Indicator target specific to the cell, Safe Harbor cannot be used.

The Safe Harbor target is determined by taking the cell's prior year proficiency measure and computing a 10% decrease in non-proficiency. Generally, if the current year result meets or exceeds this Safe Harbor target, and the required Secondary Indicator target is met, the cell is considered to be at/above the target.

#### ***Minimum Cell Size for Measurement***

There is no minimum cell size to determine the prior year Proficiency measure. A single student in a cell from the prior year may be used to determine the Safe Harbor target.

#### ***General Formula***

Safe Harbor Target = Prior Year Proficiency Index + ((1-Prior Year Proficiency Index)\*0.10)

#### ***Use of Safe Harbor in Determining AYP Mark for Schools***

For schools the required Secondary Indicator is evaluated.

1. If the required Secondary Indicator AYP Mark equals A or Z (target was met or cell size was under minimum)  
AND
2. If the Safe Harbor Target is met  
THEN
3. The Proficiency AYP Mark for the cell is set to S (meets or exceeds Safe Harbor target).  
Otherwise, the Proficiency AYP Mark is left as B (below target).

#### ***Use of Safe Harbor in Determining AYP Mark for Districts and the State***

For districts and the state, both Graduation and Attendance marks are required, but only one of which needs to meet the threshold to allow Safe Harbor to be set.

1. If the Graduation AYP Mark equals A or Z ---OR--- the Attendance AYP Mark A or Z  
AND
2. If the Safe Harbor Target is met  
THEN
3. The Proficiency AYP Mark is set to S.

Otherwise, the Proficiency AYP Mark is left as B (below target).

***Use of Safe Harbor When Proficiency AYP Mark Based on Multiple Years of Data***

The Safe Harbor target will always be derived from scores not included in the current proficiency measure. This means that if two years of data were combined to arrive at the AYP Mark, the Safe Harbor target would come from the third year. If three years of data were used, Safe Harbor target would be derived from the fourth year. For example, if 2008 and 2007 were combined to determine the Proficiency AYP Mark, the Safe Harbor target would be computed from the 2006 assessment data.

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### ***2.1.17 AYP Calculation: Participation Measurement***

Schools are required to administer a statewide assessment to all students enrolled in grades three through eight and grades 10 and 11. Schools that do not meet the 95% participation requirement are identified as Not Making AYP. The participation requirement is applied to all disaggregated groups. Enrollment is based on the number of students enrolled over the testing window as reported on MARSS. Participation is based on the number of assessment records reported where the student was present for testing.

#### ***Target***

95% (0.9500)

#### ***Minimum Cell Size for Measurement***

40

#### ***Subgroup Measurements***

The Expanded LEP and Expanded Special Education designators *are not* used when measuring subgroups.

#### ***Student Record Selection***

All students enrolled in an entity (as reported in MARSS) are evaluated to determine enrollment during the testing window. The most current MARSS End of Year data submitted to MDE will be used up until the close of the TestWES editing window. The selection criteria are as follows:

- The grade reported must be one of the tested grades: 3, 4, 5, 6, 7, 8, 10, 11
- MARSS Status Begin Date must be *on or before* the end of the second week of the MCA-II Reading test window (4/22/2011).
- MARSS Status End Date must be *on or after* the first day of the MCA-II Reading test window (4/11/2011).
- MARSS State Aid Category must *not* be one of the following:  
14, 16, 17, 18, 24, 25, 28, 98, 46, 52
- The MARSS record must *not* have a local error (MARSS Status 1 = local error)
- The District Type must *not* equal 2 (students attending school out of state)
- The School Classification must *not* equal 45 (extended-day programs where the student is also enrolled during the day in another full-time program). These students will be included in AYP in their other full-time program.

#### ***Student Record Matching***

Once the student records are selected, the appropriate test documents must be matched to each student record. To do so, the Student Linking System (SLS) is accessed with additional checks against MARSS Number and Grade. In most cases, the Last Name, First Name, Birth Date and Gender will match in addition to the MARSS Number and Grade. However, the SLS allows for slight deviations in name (such as Mike compared to Michael) to allow additional matches.



Participation is based on the MARSS enrollment record with an associated MCA-II, MCA-III, MOD-II, MOD-III, MTAS or MTAS-III record. In a few cases where the reading assessment is designated as New to Country, the TEAE data may also be accessed to ensure participation is reported correctly.

In cases where an assessment record cannot be matched to an enrollment record, the student is considered as ‘not participating’ for the appropriate subject. If an assessment record is linked, it is allocated to the district and school as reported on the MARSS record, regardless of what school or district is indicated on the assessment record.

For students who are dual enrolled or who attend two schools during the testing window, the single test record will be allocated to both schools. When summarizing these students at the district or state level, the counts will be unduplicated. In other words, a single student in a specific grade will be counted once within the school, once within the district, and once within the state, each with the associated results of the assessment record. Since some elements come directly from the enrollment record (such as the ethnic code), choosing which record to use is important to keep the summary results deterministic. When summarizing school, district or State results, the enrollment record with the later status end date (within the AYP enrollment window described above) should be used. However, for students in different schools or districts, the status end date may be the same. If so, when summarizing district results, the record with the lower school number is used when the status end dates are the same. When summarizing state results, the record with the lower district number and district type is used when the status end dates are the same.

Student demographics are derived from the MARSS enrollment records. Additionally, elements from the assessment record will be verified using the MARSS enrollment records through the TestWES application. For example, a student marked as Foreign Exchange on the assessment document will be verified against the student status as reported on MARSS.

***A. Multiple enrollment records found for a single assessment record.***

For multiple enrollment records where an assessment record is *not* found, all schools reporting the student will show the student as ‘not participating’. For multiple enrollment records where an assessment record *is* found, all schools reporting the student in that tested grade will be allocated the assessment record with its corresponding codes and indicators for use on the AYP measures.

***B. Multiple test documents found for a single enrollment record.***

Internal checks and validations will ensure there will be only one Math document and one Reading document for each student by grade. This de-duplication process occurs within the TestWES application.

***C. Use of test record with associated enrollment record.***

Once a corresponding assessment record is associated with a MARSS record, additional factors are evaluated to determine if the records qualify for measurement. These are outlined below:

***C-1. Score Codes Excluded***

Generally, all enrollments with matched test records assigned to an entity are evaluated. However, MCA-II, MCA-III, MOD-II, MOD-III, MTAS and MTAS-III documents with certain score codes are excluded from the measurement. These records are not included in either the numerator or the denominator of the proportion measured.

- ME – Medical Excuse
- NE – Not Enrolled

***C-2. Document Characteristics Excluded***

MCA-II, MCA-III, MOD-II, MOD-III, MTAS and MTAS-III documents with certain document characteristics are also excluded from the measurement and not included in either the numerator or the denominator of the proportion measured.

- Foreign Exchange Indicator = ‘Y’
- New to Country Indicator = ‘Y’ – but only if the following conditions are met:
  1. Score code = ‘NA’ (Not Attempted)
  2. The student is LEP (Limited English Proficient)
  3. The subject = R (Reading)
  4. The student did not have an opportunity to take the TEAE Reading test. (The student’s earliest enrollment was found to be after the end second week of the TEAE testing window - after **March 20, 2011**).

***C-3. Enrollment Characteristics Excluded***

Additionally, some enrollment records with certain MARSS enrollment characteristics are also excluded from the measurement and not included in either the numerator or the denominator of the proportion measured.

- Full-Time PSEO students (except for those whose assessments are returned with Valid Scores). Full-Time PSEO is determined using the MARSS PSEO High School Hours =0
- Foreign Exchange students (except for those whose assessments are returned with Valid Scores). Foreign Exchange students are determined using the MARSS State Aid Category = 02.

***C-4. Enrollments Excluded for administrative purposes***

In rare cases, some enrollments are excluded due to computational limitations or reporting limitations. One such example is when students attend college full-time, but are not reported on MARSS as PSEO students due to reimbursement reasons with the college. In these and other rare cases, individual records will be stored in an ‘Enrollment Exclusion’ table where they will not be included in the AYP calculation.

### ***General Formula***

Proportion participating is equal to the number of matched assessments records considered participating divided by the number of students enrolled over the testing window included in the measurement.

### ***Numerator***

Students participating: MCA-II, MCA-III, MOD-II, MOD-III, MTAS and MTAS-III documents with certain score codes or document characteristics:

- Score Code VS – Valid Score: Student was present and earned a valid score
- Score Code NC – Not Completed: Student was present and answered at least 4 questions in a single section but did not answer enough questions to score the test
- Score Code INV – Invalid: Student was present but the individual test was invalidated.
- Score Code NA - Not Attempted – but only if all the following conditions are met:
  1. Document Characteristic = NTC (New To Country)
  2. The student is LEP (Limited English Proficient)
  3. Subject = R (Reading)
  4. The student had an opportunity to take the TEAE Reading test. (The student was found to be enrolled in Minnesota on or before the end of the second week of the TEAE testing window - on or before **March 20, 2011**)
  5. The TEAE Reading assessment is found for the student
  6. The TEAE Reading assessment has a score code of VS/NC/INV

### ***Denominator***

Count of all students enrolled applicable to the measurement (refer to the ‘student record selection’ section above). Generally, this is all qualifying enrollments as reported on MARSS during the first two weeks of the MCA-II **reading** testing window.

### ***Adjustments to measurement***

For any cell that earns an AYP Mark of B – below target, multiyear averaging can occur using up to three years of data to arrive at the final AYP Mark.

1. Combine two years of data together (participation totals and enrollment totals) and calculate new proportion to determine if the current participation target is met.
2. If AYP Mark remains a B, combine three years of data together (participation totals and enrollment totals) and calculate new proportion to determine if the current participation target is met.

### ***2.1.18 AYP Calculation: Proficiency Measurement***

Proficiency is measured on all disaggregated groups and is based on AYP Index Points.

Records in the Participation measurement numerator with a score code of VS are used in the Proficiency measurement. Proficiency is measured by summing the *allowable* AYP Index Points generated and dividing by the number of students enrolled with valid assessment record. Students must be enrolled for the full academic year to be included in the Proficiency measurement. The demographics referred to as the October 1 Flags serve as a proxy for ‘full academic year’. The October 1 Flags are generated from the MARSS enrollment records. The *October 1 School Flag* indicates the student was enrolled in the same school on October 1 as well as during the testing window. The *October 1 District Flag* indicates the student was enrolled in the same district on October 1 as well as during the testing window. Schools must have their proficiency proportion at or above the statewide target. If the measurement is below the statewide target, an alternate target (Safe Harbor) may be used.

If there are no students participating in a group for a subject, there will not be a proficiency measurement. If there are students participating in a group for a subject, there may or may not be a proficiency measure and it might include fewer or more students than those participating. This is due to limiting the group to students enrolled for the full academic year while expanding the LEP and Special Education groups to students who have exited these programs.

#### ***Target***

Statewide ‘Proportion Proficient’ targets for each grade and subject are set based on a formula that gradually increases to 100% by 2014. Targets are shown in the table in the previous section ‘Statewide Targets for Proportion Proficient’. Targets have a statistical adjustment (the Confidence Interval) applied as described in a previous section.

#### ***Minimum Cell Size for Measurement***

20

#### ***Subgroup Measurements***

The Expanded LEP and Expanded Special Education designators *are* used when measuring subgroups.

#### ***Student record selection***

- Include only those enrollment records where an associated assessment record indicated the student was ‘Participating’ (refer to participation numerator criteria)
- Include only those students with a Valid Score (score code = ‘VS’).

There are additional selection criteria when measuring all schools, districts and the State for proficiency. For the remaining enrollment records and associated documents, the indicators for October 1, Foreign Exchange, New to Country, and Significant Gap must be set to the following values to be included in the proportion proficient.

- The MARSS October 1 School indicator must equal ‘Y’ when measuring school entities

- The MARSS October 1 District indicator must equal ‘Y’ when measuring district entities
- The MARSS October 1 State indicator must equal ‘Y’ when measuring State entities
- New to Country indicator must not equal ‘Y’
- Significant Gap indicator must not equal ‘Y’
- Foreign Exchange indicator must not equal ‘Y’

One final selection criteria in determining *allowable* index points is to ensure the points contributed by Special Education students with MTAS or MCA-Modified contributions do not exceed a certain percentages (refer to sections 2.1.10 – 2.1.12 above). Records are evaluated and if the district total exceeds the allowable limit, certain records are marked to have their index points excluded from the AYP calculation. These index points are then also excluded when calculating proficiency at the school and state level.

### ***General Formula***

Proportion proficient is computed by summing the *allowable* index points generated from the selected documents and dividing by the total number of students. A statistical adjustment (called the confidence interval) is calculated based on the number included in the proficiency measure and applied to the target.

### ***Numerator***

Sum of the Index Points generated from the following records:

- Assessment records with Score Code = VS using the *allowable* index points (only limited by the cap on MTAS and MCA-Modified contributions).

### ***Denominator***

Count of all enrollment records with associated assessment records applicable to the measurement (refer to the ‘student record selection’ section).

### ***Adjustments to measurement***

There are potentially six adjustments to the Proficiency measurement that may be used for any entity that did not meet or exceed the target. These are described in the following section. Since many of these adjustments may occur on the same Proficiency cell, the adjustments should be done in the following order where applicable.

1. Safe Harbor
  2. Small Cell Size Adjustment
  3. For AYP Entities not reaching the target, data from two years is combined to determine if target has been met. For those still not reaching the target, data from three years is combined to determine if target has been met.
  4. Expanded LEP reduction
  5. Expanded SPE reduction
  6. AYP Growth Score Adjustment
-

### *2.1.19 AYP Calculation: Adjustments to Proficiency Measurement*

#### **1. Safe Harbor:**

A secondary target is computed for entities not meeting the initial target and is computed by comparing AYP Proficiency results from the prior year. The secondary target computation is described in the previous section ‘Safe Harbor Calculation’. If Safe Harbor is met and the required secondary indicator is met, the Proficiency AYP Mark is set to S - Met Safe Harbor Target.

#### **2. Small Cell Size Adjustment:**

All AYP entities earn at least one AYP Academic mark if test results were reported. Up to four adjustments are attempted to arrive at the final AYP Mark for entities where:

- Category A (All Group) and
- AYP Mark equals Z (cell size under minimum)

The adjustment sequence is:

1. Set the AYP Mark using the existing result for the 1-19 students included in the measure.
2. If the AYP Mark is now a B, evaluate the result using the Safe Harbor target based in the prior year data.
3. Multiple year adjustments are made in the Rolling Averages Proficiency Adjustment.

#### **3. Rolling Averages Proficiency Adjustment:**

For any cell that earns an AYP Mark of B – Below Target, multiyear averaging can occur using up to three years of data. Up to four adjustments are attempted to arrive at the final AYP Mark for entities where:

- AYP Mark equals B

The adjustment sequence is:

1. Combine two years of data together (index point totals and enrollment totals). Calculate new index and new target to determine if the current year proficiency targets (see previous table) for each grade and subject are met. The new computed target uses the current year cells above threshold to determine CI.
2. If AYP Mark remains a B, evaluate the result using the Safe Harbor target based on prior year data.
3. If AYP Mark remains a B, combine three years of data together (index point totals and document totals) excluding grades not tested statewide in both years. (In 2005, grades 4, 6 and 8 were not tested). Calculate new index and new target to determine if the current year proficiency targets (see previous table) for each grade and subject are met. The new computed target should use the current year cells above threshold to determine CI.
4. If AYP Mark remains a B, evaluate the result using the Safe Harbor target based on prior year data.

#### **4. Expanded LEP Group Adjustment:**

The Limited English Proficient subgroup has an additional adjustment. There is a single adjustment for entities where:

- Category = G (LEP) and
- AYP Mark equals B

Adjustment:

1. Evaluate the number of students included in the measurement.
2. Subtract from this number those that had the LEP Prior Two Year indicator set to Y and current year LEP flag = N.
3. If the resulting number is 0, set the AYP Mark to X.
4. If the resulting number is greater than 0, but less than the cell size minimum, set the AYP Mark to Z.

#### **5. Expanded Special Education Group Adjustment:**

The Special Education subgroup has an additional adjustment. There is a single adjustment for entities where:

- Category = H (Special Ed)
- AYP Mark equals B

Adjustment:

1. Evaluate the number of students included in the measurement.
2. Subtract from this number those that had the SPE Prior Two Year indicator set to Y and current year SPE flag = N.
3. If the resulting number is 0, set the AYP Mark to X.
4. If the resulting number is greater than 0 but less than the cell size minimum, set the AYP Mark to Z.

#### **6. AYP Growth Score Adjustment:**

For any cell that still has an AYP Mark of B – Below Target, an adjustment is attempted to determine if the school or district met the AYP Growth Target. If the AYP Growth Score (representing a proportion of students designated as achieving high growth) is equal to or greater than the AYP Growth Target (without confidence interval applied), set the Proficiency AYP Mark to ‘A’ – Making AYP. The methods and formulas used to determine the AYP Growth Score is described in Appendix 10 – AYP Growth Score Computation.

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### *2.1.20 AYP Calculation: Feeder school adjustments for Participation and Proficiency*

A feeder school is a school that does not serve students in the assessed grades but promotes the majority of students into another school in the same district the following year that does serve students in the assessed grades.

Primary elementary schools exclusively serving students in those grades that are not assessed in reading and math (grades 1 and/or 2) will have AYP determinations based on the reading and math AYP status of the intermediate elementary school into which the majority of their students enroll. The primary elementary schools will continue to generate and be measured with their own attendance data.

Schools exclusively serving grade nine students will have AYP determinations based on the reading and math AYP status of the high school into which the majority of their students enroll. Schools exclusively serving grade nine students will continue to generate and be measured with their own attendance data.

Determining which schools are feeder schools is based on MARSS Fall Enrollment data. Schools that only serve grades 1, 2, or 9 over October 1 of the current school year are evaluated. (Schools that only serve kindergarten students are not considered AYP entities). There must be at least 20 students enrolled over October 1 of the current school year.

The programming seeks out the highest grade served in the feeder school for these students in the current year. It then scans the prior year MARSS data for students who had previously attended that school in that grade in the prior year. Once found, the programming determines where these prior year students are now being served (the destination school) over October 1 in the current year. The programming calculates a percentage of students promoted into the new school in the current year from the old school in the prior year. If the percentage exceeds 50%, the school is designated as a feeder school linked to the destination school.

The AYP calculation assigns the destination school's Participation and Proficiency results to the feeder school. In cases where a school was initially designated as a feeder school, but subsequently serves students in a tested grade during the first two weeks of the testing window, this adjustment will not occur.

A listing of feeder schools with their destination school and percentages for the current year is found in Appendix 9 – *Current Feeder Schools*.

### *2.1.21 Assigning points to schools for proficiency*

For ESEA Flexibility, Minnesota has proposed assigning points to schools for proficiency in order to rank schools across Multiple Measures. The first step involves calculating a weighted percentage of the number of groups making AYP. The groups are listed in section 2.1.2. Each group receives a weight equal to the square root of the number of students in the AYP calculation. Schools then receive percentile ranks corresponding to their weighted percentage. Ranking is done within each



school type (i.e., elementary, middle, high school, and other). After calculating percentile ranks within school types, the ranks are divided by 100 and multiplied by 25 points. The Focus school proficiency ranking uses the same procedure for assigning points, but the "All Students" and "White" groups are excluded from the calculation of each school's weighted percentage in order to rank schools based on the percentage of disadvantaged groups making AYP.

### *2.1.22 AYP Calculation: Attendance Measurement*

The Attendance measurement is a Secondary Indicator. The Attendance computation is based on MARSS End of Year attendance figures reported from the previous two years. The attendance measure is computed for all disaggregated groups, but is only used as an AYP Secondary Indicator measure for the 'All' group where required. The disaggregated group AYP marks are only used when determining Safe Harbor status.

#### ***Target***

90% (0.9000) or 0.1% (0.0010) improvement over the prior year.

#### ***Minimum Cell Size for Measurement***

40

#### ***Subgroup Measurements***

The Expanded LEP and Expanded Special Education designators are not used when measuring subgroups.

#### ***Student Record Selection***

Only schools designated as AYP Entities are evaluated. Generally, all students within a school are included in the attendance measurement using MARSS End of Year data (MARSS Submission Code equals E). Records with the following MARSS characteristics are excluded from the Attendance measurement:

- MARSS Status equals 1 (records with errors are excluded)
- Grades other than 1-12. Grades EC or HK or KA-KZ or PS (Early Childhood, Preschool Screening, and all Kindergarten grades excluded)
- School Classification equals to 45 (Targeted Services excluded)

Additionally, students with the following State Aid Categories are excluded from the Attendance measurement:

- 14 – Attending in Another State
- 16 – Shared Time
- 17 – Shared Time
- 18 – Shared Time/Tuition
- 24 – Early Graduate
- 25 – Adult Student
- 28 – Resident Attending Non-Public School
- 98 – Summer Graduate or Dropout

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Functional Requirements

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- 46 – Extended School Year
- 52 – South Dakota Reciprocity

***Average Daily Attendance (ADA) and Average Daily Membership (ADM)***

The calculation computes the ADA and ADM on each record included in the measurement. ADA is the portion of the year that a student actually attended school. ADM is the portion of the year that a student was enrolled in school. To compute the individual ADA and ADM for selected records, the computation uses the following MARSS elements:

From the student table:

- Membership Days
- Attendance Days
- Percent Enrolled
- School Program Classification
- Grade
- Homebound Indicator
- Independent Study Indicator

From the school table linked by fiscal year, submission cycle, school and grade

- Instructional Days
- Length of School Day

The Percent Enrolled field on certain records may contain special figures (999 or 998) which indicate that the Membership and Attendance figures are reported in terms of hours instead of days.

To compute the individual record ADA and ADM, the following set of formulas are used:

1. Traditional schools with attendance and membership expressed in days where:

- Percent Enrolled  $\leq 100$  AND
- School Program Classification  $\in \{41, 42, 43, 44, 45\}$  AND
- Instructional Days  $> 0$

Then

- $ADA = ((\text{attendance} * (\text{percent enrolled} / 100)) / \text{instructional days})$
- $ADM = ((\text{membership} * (\text{percent enrolled} / 100)) / \text{instructional days})$

2. Traditional schools with attendance and membership expressed in hours where:

- Percent Enrolled = 999 AND
- School Program Classification  $\in \{41, 42, 43, 44, 45\}$

Then

- $ADA = (\text{attendance} / (\text{instructional days} * (\text{length of day} / 60)))$
- $ADM = (\text{membership} / (\text{instructional days} * (\text{length of day} / 60)))$

3. Alternative programs *with* calendar information where:

- Percent Enrolled > 997 AND
- Instructional Days > 0 AND
- Length of Day > 0 AND
- School Program Classification = 41, 42, 43, 44, 45

Then

- $ADA = (\text{attendance} / (\text{instructional days} * (\text{length of day} / 60)))$
- $ADM = (\text{membership} / (\text{instructional days} * (\text{length of day} / 60)))$

4. Alternative programs *without* calendar information (Grades 1-6) where:

- Grade = 01, 02, 03, 04, 05, 06 AND
- Percent Enrolled > 997 AND
- Instructional Days = 0 OR Length of Day = 0 AND
- School Program Classification = 41, 42, 43, 44, 45

Then

- $ADA = (\text{attendance} / 935)$
- $ADM = (\text{membership} / 935)$

5. Alternative programs *without* calendar information (Grades 7-12) where:

- Grade = 07, 08, 09, 10, 11, 12 AND
- Percent Enrolled > 997 AND
- Instructional Days = 0 OR Length of Day = 0 AND
- School Program Classification = 41, 42, 43, 44, 45

Then

- $ADA = (\text{attendance} / 1020)$
- $ADM = (\text{membership} / 1020)$

Once all records have the respective ADA and ADM computed above, the following adjustments are made.

6. Homebound Adjustment:

- Set the ADA to be equal to the ADM where Homebound Indicator = Y

7. Independent Study Adjustment where:

- Set the ADA to be equal to the ADM where Independent Study Indicator = Y AND School Program classification = 41, 42, 43

***General Formula***

To compute the entity's attendance rate, sum the ADA for all records and then divide by the sum of the ADM for all records. Multiply this by 100 to provide the percentage where applicable. (Entity ADA / Entity ADM)\*100

***Numerator***

Sum of ADA for records included in measurement.

***Denominator***

Sum of ADM for records included in measurement.

***Adjustments to Measurement***

None

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### ***2.1.23 AYP Calculation: Graduation Measurement***

The Graduation measurement is a Secondary Indicator. The Graduation computation is based on MARSS enrollment data reported over a five-year period; End of Year data from the previous four years and Fall data from the current year. The graduation measure is computed for all disaggregated groups, but is only used as an AYP Secondary Indicator measure for the ‘All’ group where required. The disaggregated group AYP marks are only used when determining Safe Harbor status.

#### ***Target***

85% (0.8500) or 2.0% (0.0200) improvement over the prior year.

#### ***Minimum Cell Size for Measurement***

40

#### ***Subgroup Measurements***

The Expanded LEP and Expanded Special Education designators are not used when measuring subgroups.

#### ***Student Records Selection***

Students in grades 8-12 within a school are evaluated to compute the Graduation measurement.

Records with the following MARSS characteristics are excluded from the Graduation measurement:

- MARSS Status equals 1 (MARSS records in error)
- Grade not equal to 08, 09, 10, 11, 12

Additionally, students with the following State Aid Categories are excluded from the Graduation measurement:

- 14 – Attending in another State
- 15 – Attending in Minnesota but tuition paid by another State
- 16 – Shared Time
- 17 – Shared Time
- 18 – Shared Time/Tuition
- 25 – Adult Student
- 28 – Resident Attending Non-Public School
- 46 – Extended School Year
- 52 – South Dakota Reciprocity

#### ***Determining the Unduplicated Count (using the last reported student record in the MARSS system)***

An unduplicated count of student records over multiple years is required. To do so, only the last record reported for any particular MARSS Number is selected. All other records are ignored in the Graduation measurement.

To find the last reported record for an individual MARSS Number, the selected records are evaluated in order by Fiscal Year and then the Status End Date. If two records for the same

MARSS Number end on the same date, the lower Status End code is used. If both have the same status end code, the record with the higher record number (SQL StudentID) is used. Only that final record is included in the computation with its corresponding demographics and status end code (graduate or dropout code). The computation uses the following MARSS elements when selecting records:

From the student table:

- Submission Code
- Fiscal Year
- Status End Date
- MARSS Number
- Grade
- Status End Code

Once the last record is determined, the status end codes are then evaluated. Only those records with a graduation or dropout code are retained. All other records are ignored.

Graduate Status End Codes

- 08, 09

Dropout Status End Codes

- 06, 07, 14, 15, 16, 17, 18, 19, 31, 32, 33, 34, 35, 37

Definitions:

08	Graduated - not IEP
09	Graduated - IEP
06	Compulsory Age/Drop
07	Written Election/Drop
14	Fifteen Day Rule/Drop
15	Student Married/Drop
16	Expelled - No Inst/Drop
17	Student Pregnant/Drop
18	Student withdrew no transcript issued/Drop
19	Enlisted-Armed Services/Drop
31	Due to Social Reasons/Drop
32	Due to Finance Reasons/Drop
33	Due to Family Reasons/Drop
34	No Reason Specified/Drop
35	Reached Max Age/Drop
37	To Pursue a GED/Drop

### ***General Formula***

To compute the entity's Graduation rate for a particular year, the count of graduates in that year is divided by the count of graduates plus selected dropouts from that year and previous three years.

Multiply this by 100 to provide the percentage where applicable. The most recent fiscal year is referred to as Year 4 while the previous fiscal years are referred to as Years 3, 2 and 1.

***Numerator***

The count of students graduating in Year 4.

The computation uses the Fiscal Year in each selected MARSS record to determine if it should be included in the count. If computing the Graduation Rate for 2007, the count of graduates reported in 2007 is used as the numerator. Graduates from any other year are not included.

***Denominator***

- Count of grade 9 students dropping out in Year 1
- + Count of grade 10 students dropping out in Year 2
- + Count of grade 11 students dropping out in Year 3
- + Count of grade 12 students dropping out in Year 4
- + Count of students graduating in Year 4

Only those dropouts reported in certain grades in certain years are included in the denominator with the graduates. Dropouts or graduates from any other year are not included.

***Formula Example***

This example illustrates how the Graduation rate for 2007 is computed.

- MARSS EOY data 2004 through 2007 is evaluated with MARSS Fall data from 2008.
- Only grade 8 – 12 records are evaluated eliminating certain conditions and state aid categories described above.
- The last record for a MARSS number is found by using Fiscal Year and Status End Date – all other records for that MARSS number are removed.
- Only records where the Status End Code is either a graduate code or a dropout code are used – all other records are removed.
- The remaining records are evaluated counting the graduates and dropouts within each entity.

Count of Students Graduating in 2007

- Count of grade 9 students dropping out in 2004
- + Count of grade 10 students dropping out in 2005
- + Count of grade 11 students dropping out in 2006
- + Count of grade 12 students dropping out in 2007
- + Count of students graduating in 2007

***Adjustments to measurement***

None

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**2.1.24 AYP Calculation: AYP Schools and Districts ‘In Need of Improvement’ Status**

The AYP Components and AYP Status are used over multiple years to determine the AYP ‘In Need of Improvement’ status for Title I entities. The ‘In Need of Improvement’ status is *designated* based on results from the current year, but is only *implemented* during the following year for those entities scheduled to receive Title I funds in the following year.

**Assignment of the AYP ‘In Need of Improvement’ Status**

Being ‘In Need of Improvement’ initially begins when a Title I entity is identified as Not Making AYP for two consecutive years caused by a single AYP Component. In other words, at least one of the AYP Components has been assigned two consecutive marks of B and the entity was designated as Title I both years.

Schools and districts (regardless of their subsequent Title I Status) remain ‘In Need of Improvement’ until the AYP Component causing the identification has met the target for two consecutive years. In other words, schools and districts are no longer identified when the AYP component causing the initial identification has two consecutive marks of A (and no other component is causing identification).

**Advancement of the AYP ‘In Need of Improvement’ Status**

Once a school or district is identified as ‘In Need of Improvement’, the following year’s ‘In Need of Improvement’ status is dependent on:

1. The AYP Component marks earned in the following year and
2. The Title I Status of the school or district in the following year.

The ‘In Need of Improvement’ status advances and accumulates over time for Title I entities if the same AYP Component does not meet the target in the following year. In other words, an AYP Component with consecutive Bs will advance as each B is added over time as long as the entity continues to receive Title I funding. The ‘In Need of Improvement’ status is applied in the following order:

Phase	Number of qualifying AYP Component Marks = B	Status for Schools ‘In Need of Improvement’	Status for Districts ‘In Need of Improvement’
1	2	School Choice	Needs Improvement
2	3	Supplemental Educational Service	Needs Improvement
3	4	Corrective Action	Corrective Action
4	5	Prepare For Restructuring	Corrective Action
5	6	Restructuring	Corrective Action

**‘In Need of Improvement’ Status Examples:**

AYP Components can be viewed historically as a string of AYP Component Marks – either A (above target) or B (below target). For example, the string BBAAA for Academic Math represents a five-year period where the first two years the Math component fell below the target followed by three years where the Math component met the target.

The Title I Status of a school is represented in this string as upper case letters. Lower case letters indicate the years when the school was not receiving Title I funding. For example, the string BbbAA represents a five-year period where the school was not receiving Title 1 funds in the second and third years.

**Example A**

School continuously receiving Title 1 funding

<i>Example A</i>									
<i>8 years of AYP Components for a school continuously receiving Title I funding</i>									
AYP Year	Phase	# of Q Bs	AYP Status	Academic Math Component	Academic Reading Component	Secondary Indicator Component	‘In Need of Improvement’ Status	Next Year	
								Title I	Implement Status
2001	--	--	Not Making AYP	B	B	A	<i>Not identified</i>	Yes	
2002	1	2	Not Making AYP	BB	BA	AA	School Choice	Yes	Yes
2003	2	3	Not Making AYP	BBB	BAB	AAA	Supplemental Service	Yes	Yes
2004	2	3	Not Making AYP	BBBA	BABB	AAAA	Supplemental Service	Yes	Yes
2005	3	4	Not Making AYP	BBBAB	BABBA	AAAAA	Corrective Action	Yes	Yes
2006	3	4	Making AYP	BBBABA	BABBAA	AAAAAA	Corrective Action	Yes	Yes
2007	--	--	Not Making AYP	BBBABAA	BABB AAB	AAAAAAA	<i>No longer identified</i>	Yes	
2008	--	--	Not Making AYP	BBBAB AAB	BABB AABA	AAAAAAA	<i>Not identified</i>	Yes	

# of Q Bs:

- Indicates the maximum number of Qualifying AYP Component Marks equal to B in any component string without an intervening string of AA.

Phase:

- Indicates the sequence of different statuses once an entity has been initially identified as ‘In Need of Improvement’.

**Title I History**

Once a school or district is identified, the ‘In Need of Improvement’ status is not dependent on the entity’s Title 1 Status in subsequent years. Schools and districts that no longer receive Title 1 funding will still remain ‘In Need of Improvement’ status, although may not be implementing the status the following year. A school or district must have the AYP Component causing identification meeting the target for two consecutive years before the ‘In Need of Improvement’ designation is removed.

**Example B**

School with Title 1 Status changing over time

<i>Example B</i>									
<i>AYP Components for a school receiving Title I funding 6 out of 8 years</i>									
AYP Year	Phase	# of Q Bs	AYP Status	Academic Math Component	Academic Reading Component	Secondary Indicator Component	‘In Need of Improvement’ Status	Next Year	
								Title I	Implement Status
2001	--	--	Not Making AYP	B	B	A	<i>Not identified</i>	Yes	
2002	1	2	Not Making AYP	BB	BA	AA	School Choice	Yes	Yes
2003	2	3	Not Making AYP	BBB	BAB	AAA	Supplemental Service	No	No
2004	2	3	Not Making AYP	BBBb	BABa	AAAa	Supplemental Service	No	No
2005	2	3	Not Making AYP	BBBbb	BABaa	AAAaa	Supplemental Service	Yes	Yes
2006	3	4	Not Making AYP	BBBbbB	BABaaA	AAAaaA	Corrective Action	Yes	Yes
2007	3	4	Making AYP	BBBbbBA	BABaaAA	AAAaaAA	Corrective Action	Yes	Yes
2008	--	--	Not Making AYP	BBBbbBAA	BABaaAAB	AAAaaAAA	<i>Not identified</i>	Yes	

# of Q Bs:

- Indicates the maximum number of Qualifying AYP Component Marks equal to B in any component string without an intervening string of AA.

Phase:

- Indicates the sequence of different statuses once an entity has been initially identified as ‘In Need of Improvement’.

### *2.1.25 AYP Calculation: AYP Schools and Districts ‘In Need of Improvement’ Implementation*

AYP measurements and designations of ‘In Need of Improvement’ status are made in the summer of each year after assessment results are made available. If identified as ‘In Need of Improvement’, schools and districts begin implementing the ‘In Need of Improvement’ status when school year begins in September.

However, schools and districts only need to implement if they plan on receiving Title I funding for the new school year. Schools and districts that will not receive Title I funding the following year retain their ‘In Need of Improvement’ status, even though not implementing.

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### *2.1.26 AYP Calculation: History of Changes to the Calculation*

The AYP Calculation has evolved over time. The following is a brief description of major changes made to the calculation from the prior year’s calculation.

#### **AYP Year 2011**

The MCA-III, MOD-II, MOD-III, and MTAS-III assessments were added.

The MCA-Modified series cannot contribute more than 2% of the proficiency index points unless the MTAS series contributes less than the allowable 1% of the proficiency index points.

The MCA-Modified series and the MTAS series combined cannot contribute more than 3% of the proficiency points.

The MTELL assessment was not offered in 2011.

The starting points for grades 3-8 for Math were recomputed using the new MCA-III, MOD-III, and MTAS-III assessments.

#### **AYP Year 2010**

Student attending school in South Dakota (but reported in MARSS for financial reimbursement) are not included in the AYP Calculation (MARSS State Aid Category 52).

The graduation rate target was increased from 80% to 85%. The rate of improvement over the prior year was increased from 0.1% to 2.0%.

The Two Percent Proxy Adjustment for the proficiency calculation was removed.

**AYP Year 2009**

Additional School Measurements:

Reference: <http://education.state.mn.us/super/K-2SpecEdAYPMemo10-22-08.doc>

*AYP Feeder schools:*

School that do not serve students in the assessed grades have the academic components (participation and proficiency) assigned from the school in which the majority of students attend the following year.

*Schools designated as Special Programs or Care/Treatment/Correctional facilities:*

50 – Special Education Program	72 – Neglected/Delinquent School
55 – Special Education / Secondary Vocational Combination	73 – Homeless School/Program
70 – Correctional School	77 – Provides Oversight – Public Residential Care/Treatment
71 – Miscellaneous Program or Center	79 - Provides Oversight – Public Day Treatment

**AYP Growth Component Adjustment:**

For cells that fall below the proficiency target, a computation is made to determine if individual students in the cell showed growth from one year to the next. An AYP Growth Score is assigned to each cell and compared to an AYP Growth Target (based on the same statewide starting points for proficiency). The AYP Growth Target does not include an adjustment for a confidence interval. If the AYP Growth Score meets or exceeds the AYP Growth Target, the AYP Mark for the cell is set to ‘A’ – above target.

**AYP Year 2008**

AYP General Use:

- MARSS enrollment records submitted up through June 18, 2008, are used as the basis for the Participation denominator. Districts may refresh this data through the MARSS WES submission system and verify the data through the Test WES system through June 18 and review results through June 20.
- Matching criteria to link MARSS with ASSESSMENTS changed from the 6 exact criteria (MARSS Number, last name, first name, birth date, grade and gender) to MARSS Number, grade and the Student Linking System (SLS) identification number (AliasGroupID).
- Student demographics are derived solely from MARSS enrollments during the testing window. LEP, Special Ed and FRP demographics are derived from the enrolling district if at anytime during the testing window the student was LEP, Special Ed or FRP.
- Document characteristics (such as New to Country Indicator) are verified through the Test WES system linked to MARSS system.

**Participation**

- LEP students with New to Country indicated on the MCA-II test document are now included in the participation calculation with checks against enrollment and TEAE participation.
- The Expanded Special Ed and LEP designations are not used in the subgroup measurements.
- Full-time PSEO students (as reported on MARSS) are now excluded from the participation calculation unless they have a valid score on the assessment.

- Foreign Exchange students (as reported on MARSS) are now excluded from the participation calculation unless they have a valid score on the assessment.

Proficiency

- Computation of the state-wide measurement now only includes students enrolled over October 1.
- State-wide measurements now also exclude records marked as New To Country, Significant Gap and Foreign Exchange Students.

Attendance

- The Expanded Special Ed and LEP designations are not used in the subgroup measurements.
- State Aid Category 46 (Extended School Year) records are excluded.

Graduation

- The Expanded Special Ed and LEP designations are not used in the subgroup measurements.
- State Aid Category 46 (Extended School Year) records are excluded.

In Need of Improvement Status

- The AYP Consequence was renamed ‘In Need of Improvement’ Status
- Entities initially identified as ‘In Need of Improvement’ retain their status in the subsequent year, even if no longer receiving Title 1 funding. Entities must have their AYP Component (which caused the identification) to be above the target for two consecutive years before the ‘In Need of Improvement’ designation is removed (as long as no other component is causing identification).

***AYP Year 2007***

AYP General Use:

- MARSS enrollment records from the July submission are to be used as the Participation denominator. Students who are not reported on MARSS (or reported with errors) are not included in the calculation. Students for whom a test record cannot be matched are included as ‘not participating’. Matching algorithm is based on six criteria described earlier in the functional.
- Student demographics will come from the assessment record, but in cases where the demographic is missing, the associated MARSS demographic will be used.
- Changes in the calculation for 2007 will not be applied to prior years to determine ‘Improvement’ or ‘Rolling Averages’. Prior year figures for AYP Entities will be contained in historical files.
- The calculation will use three types of tests (MCA-II, MTAS and MTELL) to determine results.
- An MCA-II record will not be created for each student, but instead, other test records will be supplied and used in lieu of the MCA-II records.
- School classification 74 is removed as an AYP entity and school classification 78 and 79 are now added as AYP Entities.

Participation:

- Assessment records with score code of NA (not attempted) are no longer considered ‘Participating’.

Proficiency:

- Proficiency measure only uses records considered as participating and only those records with valid scores.
- A 2% Proxy adjustment has been added as the final Proficiency adjustment for the Special Education grouping.
- LEP and Special Education subgroup size reduced from 40 to 20 to meet USDOE uniform cell size requirement.

Graduation:

- New Dropout code was added in 2006 (Code 07).

In Need of Improvement Phase:

- Districts stay in “Needs Improvement” for a second year and do not advance to Corrective Action until the third year.

Appeals:

- When appeals are granted, AYP results are recalculated and changes applied only when underlying numbers warrant a change.

***AYP Year 2006***

Student Subgroups:

- LEP - The minimum cell size for the proficiency measurement is now 20 for all subgroups. Different cell sizes for LEP and Special Education have been eliminated.
- SPE - Special Education subgroup was expanded to include students who had been identified at any time during the past two years as Special Education.

Participation and Proficiency:

- Students who take the TEAE test in lieu of the MCA-II may have their participation and proficiency based on the results of the TEAE test.
- Index Points (current year and prior year) are based on score instead of level.
- Starting points are recomputed using the results from the 2006 MCA-II.
- 1% Cap on the number of index points contributing to proficiency rating is based on the count of students participating rather than the count of tests used to calculate proficiency.

BIA Schools and Districts (District Type 34) are now included in the statewide calculation. Results by district and school are prepared for internal use.

Non-merged records (NM as the score code) are no longer created by the testing vendor and are no longer referenced in the documentation.

***AYP Year 2005***

In Need of Improvement Phase

- Schools have the history of Title I status used in determining the current In Need of Improvement Phase

Student Subgroups

- LEP - The minimum cell size for the LEP subgroup in proficiency is changed from 20 to 40 students.



- LEP - In the case where the LEP subgroup does not make AYP and the subgroup is larger than the minimum cell size an appeal is no longer necessary to remove test scores provided by students who qualify for as expanded LEP. This will be automatically included in the computation.

#### Proficiency Ratings

- If sites do not meet index target requirements on the current year data, data will be averaged for up to three years to determine AYP status.
- Schools that have no data of any kind will be given a status of “Insufficient Data.”

#### *AYP Year 2004*

##### Schools

- School Classification 50, 55 Special Education Cooperatives will be excluded from the AYP system, however, students must test and the results will be reported at the state level
- School Classifications 70, 72, 73, 74, 76,77 are to be excluded from the AYP system as they provide care and treatment to medically fragile, neglected and homeless students. Student results will be reported at the state level.
- A new NCLB ID stem will track school and district AYP status over time.

##### Student Subgroups

- LEP - LEP subgroup was expanded to include students who had been identified at any time during the past two years as LEP.
- LEP - LEP students who are new to the country may be removed from the reading proficiency calculation.
- Mobility - Students with significant gaps, 15 consecutive days, in enrollment may be removed from the proficiency calculation.
- Special Education - There is a percent cap at the district and state level on the number of alternate assessments that can be used to contribute towards a proficiency rating. If the state or districts exceed the cap, the students’ index point will also be removed at the school level.
- Medical Excuses – students with valid medical excuses may be removed from both participation and proficiency calculations.
- Decision rules were delineated for students who are Dual Enrolled, Open Enrolled, PSEO, Shared Time, Expelled or Suspended.

##### Participation Rate

- If sites do not meet 95% requirements on the current year data, data will be averaged for up to three years to determine AYP status.

##### Proficiency Ratings

- Proficiency was modified in two areas: small cell size limitation was removed at the all group level and those students not tested were removed from the denominator.

##### Incorporation of Changes in to Current Year Calculations

- Changes will always be incorporated into the rules for the current year calculations and previous year calculations when needed to establish growth indices.
- Changes will not be applied retroactively to change AYP status determined under previous rules.



### 3 Interface Requirements

The AYP calculation “engines” have no user interfaces. They are either invoked manually or via a scheduling process.

Their only operational interfaces are to SQL Server data bases and tables.

## 4 Limitations

### 4.1 Dependencies

Assessment data (in the published format) and MARSS data must be available for the current year in order for the calculations to take place.

Consistent ORGUNIT and NCLBID data must also be available.

Title I application information for the following school year (the EMAP system) must be available.

### 4.2 Critical Assumptions

### 4.3 Constraints

None identified.

### 4.4 Dimensional Limitations

#### **MARSS Records**

Each year the MARSS submission cycle has about one million records. The calculation requires five sets of data for the Graduation measurement for a total of approximately five million records. Five sets of data for the 2010 graduation rate: 2011F, 2010E, 2009E, 2008E, 2007E.

The 2010 attendance rate calculation requires only one set of MARSS data: 2010E.

#### **MCA Records**

Approximately 70,000 students in each grade contribute about one million assessment records per year. Grades 3, 4, 5, 6, 7, and 8 take Math and Reading assessments (70,000 x 2 subjects x 6 grades = 840,000 records)

Grade 10 takes a Reading assessment and Grade 11 takes a Math assessment (70,000 x 1 subject x 2 grades = 140,000 records)

#### **TEAE/SOLOM Records**

Approximately 50,000 LEP students taking the TEAE and SOLOM contribute about 150,000 records per year. Grades 3 - 12 take the TEAE Reading and Writing \ (45,000 x 2 subjects = 90,000 records). Grades K-12 take the SOLOM Listening/Speaking (50,000 records).

#### **MTAS / MCA-Modified Records**

No more than 50,000 Special Education students will substitute the Reading and/or Math MTAS / MCA-Modified for the MCA series.

#### 4.5 Performance Characteristics

The SQL programming steps through a series of procedures computing various totals and percentages for all applicable years. Previous years results will not be re-computed, but simply referenced in look-up tables from the previous AYP calculations.

2011 NCLB – AYP Calculations  
Functional Requirements

5 Appendix – Example AYP Verification Report

2009 Preliminary AYP Results

Minnesota  
Department of  
Education

District/Nclbid: 0031-01/137 PUBLIC SCHOOL DISTRICT 000 All Schools											Special Ed Alternate Assessment cap increased to 1.50 percent Not Making AYP									
PARTICIPATION				PROFICIENCY							ATTENDANCE				GRADUATION					
Number of Tests Matched to Enrollment	Test Window Marss Enrollment	% of Students Participating	AYP Status	Total Index Points	Number of Oct. 1 Valid Scores	2009 Index Rate	Blended Index Target	SH Index Target	AYP Status	# of Students	Att. Rate	Att. Targ	AYP Status	Drops	Grads	Total	Grad Rate	Grad Target	AYP Status	
<b>A All Students</b>																				
Math	2,477	2,500	99.08	A	1657.6	2,326	71.26	68.99		A	5,073	93.00	90.00	A	37	360	397	60.68	80.00	A
Reading	2,484	2,478	99.44	A	1905.0	2,329	81.79	75.84		A										
<b>B American Indian/Alaskan Native</b>																				
Math	450	486	96.57	A	200.6	383	52.35	68.82	57.42	A-SH2	1,026	89.09	88.24	A-IMP	11	31	42	73.81	67.24	A-IMP
Reading	453	462	98.05	A	243.0	383	63.45	73.54	70.44	B										
<b>C Asian/Pacific Islander</b>																				
Math	28	26	100.00	Z	20.0	25	80.00	50.12		A	45	94.59	90.00	A	0	6	6	100.00	80.00	Z
Reading	22	22	100.00	Z	20.0	21	66.24	58.86		A										
<b>D Hispanic</b>																				
Math	25	25	100.00	Z	15.0	23	66.22	49.25		A	80	93.07	90.00	A	0	7	7	100.00	80.00	Z
Reading	28	29	96.55	Z	19.0	24	79.17	59.39		A										
<b>E Black, not of Hispanic origin</b>																				
Math	45	45	100.00	A	17.5	32	54.69	56.83	53.27	A-SH1	74	93.71	90.00	A	0	6	6	100.00	80.00	Z
Reading	42	42	100.00	A	16.5	29	56.90	62.38	65.88	B										
<b>F White, not of Hispanic origin</b>																				
Math	1,931	1,938	99.64	A	1404.6	1,863	75.39	68.76		A	3,868	93.75	90.00	A	26	310	336	62.26	80.00	A
Reading	1,919	1,923	99.79	A	1606.5	1,872	85.82	75.66		A										
<b>G Limited English Proficient</b>																				
											11	94.62	90.00	Z						
<b>H Special Education</b>																				
Math	379	385	98.44	A	185.0	388	47.63	67.64	52.68	A-SH2	875	90.83	90.00	A	6	57	63	90.48	80.00	A
Reading	371	374	99.20	A	228.0	388	58.25	73.70	56.67	A-SH2										
<b>I Free/Reduced Priced Lunch</b>																				
Math	454	456	99.13	A	243.0	364	63.28	66.84	65.97	A-SH2	2,397	91.28	90.00	A	22	80	102	78.43	77.42	A-IMP
Reading	457	461	99.13	A	292.0	389	75.06	73.56		A										

## 6 Appendix – Computation of Statewide Starting Points for AYP

The statewide targets were set by rank ordering the school results and finding the school representing the 20<sup>th</sup> percentile of the statewide population.

The following method was used to compute the 2011 grade 3-8 statewide starting points for Math.

1. MCA-III, MTAS-III and MOD-III assessments from 2011 were evaluated. Only records with valid scores were included. Assessments from nonpublic schools and those not normally summarized were excluded (such as home school students or foreign exchange students).
2. An **index point value** was assigned to each record based on the achievement level for each record: D=0.0, P=0.5, M and E = 1.0.
3. Records were then summarized by grade and subject within each school summing the index points to determine the **index point total** for the school and counting the document records as the **enrollment total** for the school.
4. The **proportion proficient** was then computed for each grade and subject by dividing the index point total by the enrollment total.
5. The total number of document records for each grade and subject within the state was computed resulting in a **statewide enrollment total**.
6. The statewide enrollment total for each grade and subject is multiplied by 0.20 to determine the 20<sup>th</sup> percentile number.
7. For each grade and subject, the schools were ranked based on the proportion proficient from low (proportion proficient = 0.0000) to high (proportion proficient = 1.0000).
8. Based on this ranking, a **cumulative enrollment total** is written to each school record in order from 0.0 to 1.00. For example, the first school (at 0.0000 proportion proficient) has an 'enrollment total' of 40. The cumulative enrollment total is set to 40. The second school (at 0.0100 proportion proficient) has an enrollment total of 55. The cumulative enrollment total is set to 95 (40 + 55). The third school (at 0.0200 proportion proficient) has an enrollment total of 73. The cumulative enrollment total is set to 168 (40 + 55 +73).
9. The first school having a cumulative enrollment total equal to or exceeding 0.20 of the state enrollment total has their proportion proficient set as the statewide starting point for that subject and grade.

The previous method used in 2006 for reading and math is described below:

1. Public school MCA-II scores are evaluated excluding records with score codes of NE. (Nonpublic schools and the control districts are removed as well as home schooled students).
2. Index points (0.0, 0.5 or 1.0) are assigned to each record based on the levels assigned to each record: D=0.0, P=0.5, M and E = 1.0.
3. Records are then summarized by grade and subject within each school summing the index points to determine the 'index point total' and counting the document records as the 'enrollment total'.
4. 'Proportion Proficient' is then computed for each grade and subject by dividing the 'index point total' by the 'enrollment total'.
5. The total number of document records for each grade and subject within the state is computed resulting in a 'statewide enrollment total'.
6. The 'statewide enrollment total' for each grade and subject is multiplied by 0.20 to determine the 20<sup>th</sup> percentile number.
7. For each grade and subject, the schools are ranked based on the Proportion Proficient from low (0 proportion proficient) to high (100 proportion proficient).
8. Based on this ranking, a 'cumulative enrollment total' is written to each school record in order from 0.0 to 1.00. For example, the first school (at 0 proportion proficient) has an 'enrollment total' of 40. The 'cumulative enrollment total' is set to 40. The second school (at 0.01 proportion proficient) has an 'enrollment total' of 55. The 'cumulative enrollment total' is set to  $40 + 55 = 95$ . The third school (at .02 proportion proficient) has 'enrollment total' at 73. The 'cumulative enrollment total' is set to  $40 + 55 + 73 = 168$ .
9. The first school that has the 'cumulative enrollment total' equal or exceed the 0.20 of the 'state enrollment total' has the 'Proportion proficient' set as the statewide starting point for that subject and grade.

## 7 Appendix – MARSS Status End Code Definitions

Full definitions of the MARSS Status End Codes can be found on the Web at:

[http://education.state.mn.us/MDE/Accountability\\_Programs/Program\\_Finance/MARSS\\_Student\\_Accounting/MARSS\\_Instruction\\_Manual/Data\\_Elements-Definitions/index.html](http://education.state.mn.us/MDE/Accountability_Programs/Program_Finance/MARSS_Student_Accounting/MARSS_Instruction_Manual/Data_Elements-Definitions/index.html)

- 01 - Change in students' grade level.
  - 02 - Transferred to another public school in the same district.
  - 03 - Transferred to an approved nonpublic school.
  - 04 - Students moved outside of the district.
  - 05 - Students moved outside of the state or country.
  - \*06 - Students left school after reaching compulsory attendance age without written election
  - \*07 - Students left school after reaching compulsory attendance age with written election.
  - 08 - Students graduated.
  - 09 - Students graduated after meeting IEP/IFSP requirements.
  - 10 – Received a Certificate of Completion (no longer valid - last used in 1996/1997 school year)
  - 11 - Died.
  - 12 - Students excused from attending school for a physical or mental disability; does not include treatment centers if instruction is provided.
  - 13 - Students committed to a correctional facility.
  - \*14 - Students withdrawn after 15 consecutive days absence - expected back.
  - \*15 - Students left school because of marriage.
  - \*16 - Students were expelled and did not return to school during the year.
  - \*17 - Students leave school due to pregnancy.
  - \*18 - Students withdrew, no transcript requested, or transferred to a non-approved nonpublic school.
  - \* 19 Enlisted-Armed Services (no longer valid - last used in 2003/2004 school year)
  - 20 - Students transferred to another district or state but did not move.
  - 21 - Early Childhood withdrawal; IEP, IFSP or IIP objectives were met.
  - 22 - Students withdrew to enter a care and/or treatment program; instruction is provided.
  - 23 - Kindergarten withdrawal, expected back next year.
  - 24 - Withdrew to Receive Homebound Services.
  - 25 – EC (early childhood) students evaluated only.
  - 26 – EC students withdrawn by parents.
  - 27 – EC students that transition at age three.
  - \*31 - Students left school for social reasons.
  - \*32 - Students left school for financial reasons.
  - \*33 - Students left school for family environment reasons.
  - \*34 - Students left school for reasons unknown.
  - \*35 - Students left school after attaining age 21 and did not graduate.
  - 36 - Students enrolled in a postsecondary institution (baccalaureate credit) without receiving a high school diploma.
  - \*37 - Students left school to attend a GED program or withdrew after taking the GED Exam.
  - 40 - End-of-year, students were enrolled the last day of school.
  - 41 - Students dropped out of school during the current school year but re-enrolled somewhere by the following Oct 1.
  - 42 - Students met the district's graduation requirements but did not pass one of the required basic standards tests.
  - 50 - Students special education data has changed
  - 99 - Students' enrollment status has changed necessitating the closing of one status record and the opening of a new one.
- \*Dropout Codes*

## 8 Appendix – MARSS State Aid Category Definitions

Full definitions of the MARSS State Aid Categories can be found on the Web at:

[http://education.state.mn.us/MDE/Accountability\\_Programs/Program\\_Finance/MARSS\\_Student\\_Accounting/MARSS\\_Instruction\\_Manual/Data\\_Elements-Definitions/index.html](http://education.state.mn.us/MDE/Accountability_Programs/Program_Finance/MARSS_Student_Accounting/MARSS_Instruction_Manual/Data_Elements-Definitions/index.html)

- 00 - Regular; resident enrolled at the resident district
- 01 - Enrollment Options/Open
- 02 - Foreign Exchange
- 03 - Graduation Incentives
- 04 - Enrollment Choice for 11th and 12th Grade Students
- 05 - Inter-district Cooperative Agreement
- 06 - Cooperative Facilities
- 07 - Homeless ((No longer valid - last used in 2003/2004 school year)
- 08 - Charter School
- 10 - Joint Powers Cooperatives for Special Education and/or Secondary Vocational Programs
- 11 - Parent Initiated Agreements Between School Boards
- 12 - Grandfather Clause/40 Acre Law/Previous Enrollment
- 13 - State Board Approved (No longer valid - last used in 2003/2004 school year)
- 14 - Enrollment in another State
- 15 - Non-Minnesota resident, tuition paid by entity in another state or country
- 16 – Shared-Time Aid is paid to the resident district
- 17 – Shared-Time Aid paid to the serving district
- 18 – Shared-Time - Parent/guardian pays
- 19 - Tuition Agreement with Resident District
- 20 - Tuition Agreement with Parent/Guardian,
- 21 - Ineligible Nonresident Student.
- 22 - Residents
- 24 - Early Graduate
- 25 – Adult (No longer valid - last used in 2002/2003 school year)
- 26 - Contract Alternative School/Graduation Incentives,
- 27 - Temporary Placement for Non-handicapped Students for Care and Treatment
- 28 - Resident student attending a nonpublic school through either an IEP/IFSP/IIP or for care and treatment.
- 34 - TRIBAL CONTRACT/GRANT meeting criteria
- 35 - TRIBAL CONTRACT/GRANT not meeting criteria
- 41 – Early Childhood Screening - Screening by school district.
- 42 – Early Childhood Screening - Child & Teen Checkups/EPSTDT
- 43 – Early Childhood Screening – Head Start.
- 44 – Early Childhood Screening - Private Provider
- 45 – Early Childhood Screening - Conscientious Objector
- 46 – Extended School Year
- 51 – SD Reciprocity – attending Minnesota school
- 52 – SD Reciprocity – attending South Dakota school
- 97 – Students displaced due to natural disaster (Flood / Hurricane)
- 98 - Summer Graduate, Late Graduate or Dropout.



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9 Appendix – Current Feeder Schools

District Number	District Type	District Name	School Number	Feeder School / Destination School	Percent Promoted Last Year
0001	03	MINNEAPOLIS PUBLIC SCHOOL DIST.	104	LAKE HARRIET LOWER ELEMENTARY	84.62
			121	LAKE HARRIET UPPER SCHOOL	
0256	01	RED WING PUBLIC SCHOOL DISTRICT	541	SUNNYSIDE ELEMENTARY	97.09
			537	BURNSIDE ELEMENTARY.	
0278	01	ORONO PUBLIC SCHOOL DISTRICT	661	SCHUMANN ELEMENTARY	96.77
			662	ORONO INTERMEDIATE ELEMENTARY	
0332	01	MORA PUBLIC SCHOOL DISTRICT	020	FAIRVIEW ELEMENTARY	89.39
			030	TRAILVIEW ELEMENTARY	
0413	01	MARSHALL PUBLIC SCHOOL DISTRICT	002	PARK SIDE ELEMENTARY	91.56
			003	WEST SIDE ELEMENTARY	
0423	01	HUTCHINSON PUBLIC SCHOOL DISTRICT	060	HUTCHINSON WEST ELEMENTARY	90.45
			010	HUTCHINSON PARK ELEMENTARY	
0441	01	MARSHALL COUNTY CENTRAL SCHOOLS	030	VIKING ELEMENTARY	96.15
			010	NEWFOLDEN ELEMENTARY	
0477	01	PRINCETON PUBLIC SCHOOL DISTRICT	001	SOUTH ELEMENTARY	91.51
			010	NORTH ELEMENTARY	
0508	01	ST. PETER PUBLIC SCHOOL DISTRICT	050	SOUTH ELEMENTARY	93.2
			030	NORTH INTERMEDIATE ELEMENTARY	
0535	01	ROCHESTER PUBLIC SCHOOL DISTRICT	116	CHURCHILL ELEMENTARY	89.53
			134	HOOVER ELEMENTARY	
0544	01	FERGUS FALLS PUBLIC SCHOOL DISTRICT	130	ADAMS ELEMENTARY	91.08
			140	CLEVELAND ELEMENTARY	
0593	01	CROOKSTON PUBLIC SCHOOL DISTRICT	010	WASHINGTON ELEMENTARY	85.71
			080	HIGHLAND ELEMENTARY	
0595	01	EAST GRAND FORKS PUBLIC SCHOOL DIST	120	NEW HEIGHTS ELEMENTARY	87.07
			110	SOUTH POINT ELEMENTARY	
0690	01	WARROAD PUBLIC SCHOOL DISTRICT	010	WARROAD ELEMENTARY	97.33
			060	WARROAD UPPER ELEMENTARY (3-6)	
0701	01	HIBBING PUBLIC SCHOOL DISTRICT	140	GREENHAVEN ELEMENTARY	90.77
			310	LINCOLN ELEMENTARY	
0701	01	HIBBING PUBLIC SCHOOL DISTRICT	160	WASHINGTON ELEMENTARY	92.11
			310	LINCOLN ELEMENTARY	
0709	01	DULUTH PUBLIC SCHOOL DISTRICT	560	ROCKRIDGE ELEMENTARY	86.05
			510	LESTER PARK ELEMENTARY	
0716	01	BELLE PLAINE PUBLIC SCHOOL DISTRICT	010	CHATFIELD ELEMENTARY	88.39
			011	OAK CREST ELEMENTARY	
0726	01	BECKER PUBLIC SCHOOL DISTRICT	040	BECKER PRIMARY	95.98
			010	BECKER INTERMEDIATE ELEMENTARY	
0728	01	ELK RIVER PUBLIC SCHOOL DISTRICT	200	ZIMMERMAN ELEMENTARY	88.17
			210	WESTWOOD ELEMENTARY	

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District Number	District Type	District Name	School Number	Feeder School / Destination School	Percent Promoted Last Year
0832	01	MAHTOMEDI PUBLIC SCHOOL DISTRICT	020	WILDWOOD ELEMENTARY	96.06
			010	O.H. ANDERSON ELEMENTARY	
0911	01	CAMBRIDGE-ISANTI PUBLIC SCHOOL DIST	101	CAMBRIDGE PRIMARY SCHOOL	91.41
			201	CAMBRIDGE INTERMEDIATE SCHOOL	
0911	01	CAMBRIDGE-ISANTI PUBLIC SCHOOL DIST	102	ISANTI PRIMARY SCHOOL	87.23
			202	ISANTI INTERMEDIATE SCHOOL	
2689	01	PIPESTONE AREA SCHOOL DISTRICT	002	BROWN ELEMENTARY	94.05
			003	HILL ELEMENTARY	
2752	01	FAIRMONT AREA SCHOOL DISTRICT	020	BUDD ELEMENTARY	91.34
			050	FIVE LAKES ELELMENTARY	
2859	01	GLENCOE-SILVER LAKE SCHOOL DISTRICT	010	BAKER ELEMENTARY	95.61
			030	LAKESIDE ELEMENTARY	

## 10 Appendix – AYP Growth Score Computation

A more detailed explanation of the AYP Growth Score Computation and application for approval can be found at the ed.gov Website: Minnesota Growth Model Application and Information <http://www.ed.gov/admins/lead/account/growthmodel/mn/index.html>

Excerpt from application:

*The growth model is a new AYP calculation using a value table approach where all students with at least two years of assessment data will be included in the denominator for the growth calculation for the school and each eligible subgroup. The numerator will include any student in the school and subgroup who is proficient or “on track to be proficient.” A school or district will meet AYP for that subgroup if the proportion of students meets or exceeds the current state annual measurable objective (AMO).*

*Student growth will be measured in grades 4-8, 10, and 11. For AYP calculations in 2009, the data from 2008-09, 2007-08, 2006-07 and 2005-06 will be used in determining each student’s growth. All third-grade students, who do not have a prior year score, will be included in the growth model and considered “on track to be proficient” if they are currently proficient in third grade. If the third grade student is not proficient and does not have prior year data, then the student will be included in the growth model as NOT “on track to be proficient.”*

*Minnesota will implement its growth model for reading and math grades 3-8 and high school. Growth model decisions are possible in third grade for retained students and students in third grade with no prior year data will be considered “on track to be proficient” if they are currently proficient on the third grade assessment.*

### Overview:

A student is assigned ‘AYP Growth Points’ based on the current assessment compared to the prior year assessment. Schools and districts generate an ‘AYP Growth Score’ based on the total points divided by the number of students included in the measure.

### A. Assign AYP Growth Points to student records

1. Assign the previous year score and achievement level for each student included in the current year proficiency measurement for each subject. Linking prior year data uses any of the three prior year assessments (MCA-II, MTELL, or MTAS) that match the subject from the current year assessment. The MARSS Number and the Student Linking System (SLS) Alias Group ID must match for the linking to occur.
  - For grades 3-8, 10 and 11, the data from the previous year is assigned if available. For example, if the current year is 2009, the 2008 prior scores and achievement levels are assigned.
  - For students in grades 10 and 11, (who would normally not take an assessment in the matching subject in the prior year), data from two years ago is assigned if scores are not already found for the student. For example, if the current year is 2009, and the grade 10 or 11 student did not take an assessment in 2008, the 2007 data is scanned to find the student’s prior score and achievement level.
  - For students in grade 11, (who would normally not take an assessment in either of the prior two years in the matching subject), data from three years ago is assigned if scores are not already found for the student. For example, if the current year is 2009, and the

grade 11 student did not take an assessment in 2008 or 2007, the 2006 data is scanned to find the student's prior score and achievement level.

2. Assign a marker 'Include in Growth Measure' which indicates whether the student is eligible for a growth score and should be included in the AYP Growth Score computation.
  - For students in grades 3-8, 10 and 11, the marker is set to 'Y' if they have a valid score (VS) in the current year and a valid score (VS) in the prior year.
  - For students in grade 3 who have a valid score (VS) in the current year but who do not have a prior year record, set the marker to 'Y'.
3. Assign a Low score designation (L) or High score designation (H) for those records marked 'Include in Growth Measure'. Only assign the L/H designation on records where the student is not proficient or is partially proficient (Achievement Level = D or P). The L/H designations are assigned for both the current year score and the prior year score. The L/H designations are based on a previously determined range of scores for each year, subject and grade for each test. These ranges are updated each year and are held in a reference table – *Score Ranges for Achievement Levels*. For the 2011 AYP Computation, the range of scores for 2011 is dependent on the individual student's standard error of measurement. These values would not be stored in a reference table but would be computed individually on each assessment for the student. If the student's score plus standard error of measurement is greater than or equal to the next level cut score in table *AYPGrowthUpdate\_CutScore* set the value to H else L.
4. Once the L/H designations have been determined, assign the AYP Growth Points to each record where the 'Include in Growth Measure' marker = Y. The assignment is based on the combination of proficiency level (D, P, M, or E) and L/H designations. These combinations and associated AYP Growth Points are held in a reference table – *AYP Growth Point Definitions*. All possible combinations of proficiency level and L/H designations are held in this table. AYP Growth Points range from 0 to 1000 depending on the combination.

Students in grade 3 who have a valid score (VS) in the current year but who do not have a prior year record have their AYP Growth Points assigned in the following manner:

Score Code E or M = 1000

Score Code P = 500

Score Code D = 0

## **B. Summarize AYP Growth Points and records included in AYP Growth Score**

Just as the AYP Index Points for each student are summed by cell (for each grade and subject within each school and district), the AYP Growth Points are also summed in the same fashion. The same student population is used as in the AYP Proficiency calculation denominator, but only if the record was marked as 'Include in Growth Measure'. The AYP Growth Score denominator will always be less than or equal to the AYP Proficiency denominator since not all students have valid scores over two years.

## **C. Establishing AYP Growth Targets**

The AYP Growth Target uses the same statewide starting points as the AYP Proficiency calculation and the targets are computed in the similar fashion. Since starting points are by grade, a weighted target is computed by the number of records per grade per subject included in the growth measure. However, the AYP Growth Target does *not* use a confidence interval.

**D. Compute AYP Growth Score**

The AYP Growth Points for a cell (the numerator) is divided by the number of records included in the growth measure for that cell (the denominator). It is then divided by 1000 to generate the AYP Growth Score. The AYP Growth Score represents the proportion of students showing growth. The AYP Growth Score is compared to the AYP Growth Target.

***Functional Requirements  
for the  
2011  
Minnesota Growth  
Calculations***

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## 1 Overview

The purpose of this document is to describe how Minnesota calculates grade-to-grade changes in students' achievement (i.e., growth) and how growth scores are aggregated at the school level for reporting and accountability purposes.

### 1.1 Background on growth modeling

Parents, teachers, administrators, and policy makers have valid questions about the relative progress of students over time.<sup>1</sup> For example, parents often ask, "Is my child making a year's worth of progress in one year?" Administrators ask the same question about students who attend their school. In accordance with the federal Elementary and Secondary Education Act (a.k.a. No Child Left Behind), the Minnesota Assessment System develops and administers criterion-referenced tests aligned to grade-level academic standards. The tests are primarily designed to enable a determination of each student's proficiency level within their grade. Secondly, Minnesota's tests can provide information about students' relative achievement growth over time. Growth modeling represents a cost-effective way to maximize the return on Minnesota's investment in criterion-referenced testing by providing growth information to those who care about students.

### 1.2 Background on the Minnesota Growth Model

With the announcement of ESEA Flexibility, Minnesota has the opportunity to improve student outcomes by blending a well-established and meaningful state accountability measure with proficiency standards required under NCLB. In 2008, Minnesota established a School Improvement Reporting System and designed methods to measure individual student growth for students taking the Minnesota Comprehensive Assessments (MCA Series II) of math and reading and the Mathematics Test for English Language Learners. In 2011, the growth calculation procedure was updated to accommodate the transition to MCA-III, standard setting, and the inclusion of students with special needs who take the Minnesota Test of Academic Skills (alternate assessment). Additionally, a kernel density smoothing step was added to strengthen the statistical methodology.

### 1.3 Purpose and validity of the Minnesota Growth methodology

The purpose of the Minnesota Growth calculation is to compute a standardized growth score for each students who took the same test in two consecutive administrations (e.g., students who took the reading MCA in grades 3 and 4). The Minnesota Growth methodology qualifies as a "grade-to-grade" growth model.<sup>2</sup> Grade-to-grade growth models possess some of the same features that make vertical scaling, student growth percentiles, and value-added modeling useful, but grade-to-grade growth models are simpler and more defensible. In particular, by basing growth scores on two years' of matched data and using nonparametric smoothing, the Minnesota Growth model largely rules out the following validity threats:

1 Smith, R., & Yen, W. (2006). Models for evaluating grade-to-grade growth. In R. W. Lissitz (Ed.), *Longitudinal and Value Added Modeling of Student Performance* (pp. 82-94), Maple Grove, MN: JAM Press.

2 Ibid.



1. falsely assuming unidimensionality across grades
2. confounding the influence of two or more schools on a student's most recent growth score
3. misspecifying functional forms
4. making conclusions biased by student attrition and/or exclusion of students with special needs.

Minnesota's Technical Advisory (TAC) committee has reviewed the Minnesota Growth methodology and found it appropriate. Even though Minnesota has developed a vertical scale for reporting purposes, it does not include students with special needs who took the Minnesota Test of Academic Skills (alternate assessment); nor does it accommodate standard setting changes. Members of the TAC agreed that updated Minnesota Growth Model methodology is inclusive and flexible. Additionally, they felt that Minnesota's growth methodology would yield results that are comparable to those from the student growth percentile and value-added methodologies implemented in other states. The local TAC member participated fully in the stakeholder advisory meetings that helped shape Minnesota's ESEA Flexibility request.

#### 1.4 Minnesota's growth gap measure

Coinciding with ESEA Flexibility, Minnesota has begun using growth scores to focus attention on closing achievement gaps. According to the National Assessment of Educational Progress (NAEP), Minnesota students exhibit high levels of achievement compared to other states, but our achievement gaps are among the worst in the nation.<sup>3</sup> Students who have economic and other educational advantages exhibit both higher achievement and higher growth than their less advantaged peers (see Table 1). Therefore, closing an achievement gap would require a disadvantaged group to grow at a faster rate than their advantaged peers. Minnesota's growth gap measure focuses attention on the need to accelerate the growth of disadvantaged subgroups in order to close achievement gaps. Growth gaps are calculated at the school level and are intended to help distinguish between schools that are reducing achievement gaps and those that are not.

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3 Weber, T. (2009, July 15). Study: Achievement gap persists in Minnesota, rest of U.S. *Minnesota Public Radio*. Retrieved from [http://minnesota.publicradio.org/display/web/2009/07/14/achievement\\_gap/](http://minnesota.publicradio.org/display/web/2009/07/14/achievement_gap/)

**Table 1. Achievement and growth of student groups: Statewide by subject<sup>4</sup>**

	Students	Mean prior score (grade adjusted)	Mean current score (grade adjusted)	Growth expectation	Mean growth z- score
<b>Math</b>					
<b>Eligible for free or reduced price lunch</b>					
No	219316	59.64	54.38	53.54	0.1
Yes	120747	50.01	43.87	45.05	-0.14
<b>English learner</b>					
No	318158	57.05	51.45	51.26	0.02
Yes	21905	44.48	39.44	40.25	-0.11
<b>Special education</b>					
No	297102	57.68	52.24	51.8	0.05
Yes	42961	45.17	38.6	40.86	-0.24
<b>Race/ethnicity</b>					
American Indian	6938	48.63	41.42	43.88	-0.29
Asian	21572	55.32	50.69	49.54	0.13
Hispanic	21469	48.2	42.02	43.38	-0.17
Black	30431	45.91	39.72	41.49	-0.2
White	259653	58.38	52.9	52.45	0.05
<b>Reading</b>					
<b>Eligible for free or reduced price lunch</b>					
No	218632	62.01	61.12	60.32	0.09
Yes	121944	51.43	51.41	52.44	-0.12
<b>English learner</b>					
No	318707	59.31	58.55	58.32	0.02
Yes	21869	42.77	44.84	45.79	-0.11
<b>Special education</b>					
No	297948	59.85	59.19	58.72	0.05
Yes	42628	45.76	45.72	48.13	-0.26
<b>Race/ethnicity</b>					
American Indian	7067	50.45	49.96	51.68	-0.2
Asian	21416	54.61	55.14	54.71	0.04
Hispanic	21599	49.42	50.01	50.89	-0.1
Black	30647	48.69	49.57	50.41	-0.1
White	259847	60.6	59.66	59.28	0.04

<sup>4</sup> Mean scale scores and expectations are limited to MCA scores in the table due to incompatibility with the MTAS scale. Student counts and z-scores do include both MCA and MTAS takers.

### **1.5 Context (place in the system)**

The Minnesota Growth computation uses multiple years of data extracted from the existing ASSESSMENT and Assessment Transaction databases. It also interacts with the NCLB2004 database to acquire information on which students to include. Final calculation results are placed in the NCLB2004 database. Working tables and reference tables also reside in the NCLB2004 database or the ORGUNIT database.

The results are made available using Accountability Gateway and Report Card web applications.

### **1.6 Target Users**

The target audience for this document includes software developers as well as program area personnel familiar with assessment data and NCLB-AYP data.

### 1.7 Glossary of Terms

AYP Record	The student enrollment record linked with the appropriate assessment record created during Adequate Yearly Progress (AYP) processing.
Growth Component Percentage	One of six computed percentages based on Growth Records summarized by <i>Proficient</i> - low, medium or high growth and <i>Not Proficient</i> - low, medium or high growth.
Growth Level	A designator (Low, Medium or High) assigned to AYP Records based on the previous scale score compared to the current scale score.
Growth Gap	The difference between an advantaged group's statewide mean z-score and the school mean z-score of the corresponding disadvantaged group. The advantaged group's mean is subtracted from the disadvantaged group's mean, yielding a negative value if the disadvantaged group is outpacing the advantaged group (i.e., negative values are favorable, indicating an achievement gap reduction).
Growth Expectation	The smoothed current score mean at a given prior score.
Growth Record	An AYP record which satisfies all the requirements to be included in the growth calculation.
Growth Target	For each subject, the cut score used to classify growth scores into low, medium, and high growth levels.
MCA	Minnesota Comprehensive Assessment. Beginning in 2006, a census test given annually to grades 3-8 and 10 for Reading and grades 3-8 and 11 for Math.
MDE	Minnesota Department of Education
MTAS	Minnesota Test of Academic Skills (alternate assessment administered to students with special needs)
NCLB	No Child Left Behind. A federal act ensuring accountability (among other things) for schools designated as Title I and Title III.
ORGUNIT	A database maintained by MDE for the purpose of identifying various educational delivery organizations and their attributes. For example, this database holds information about schools and school districts.
TestWES	The Assessment Web Edit System where districts have the ability to update and verify assessment data as well as view the MARSS demographics assigned to each record
Z-scores	A standardized score representing standard deviations from the mean. Converting scale scores to z-scores allows student scores to be averaged across tests and grades.

### 1.8 References

#### 2011 NCLB – AYP Calculations - Functional Requirements

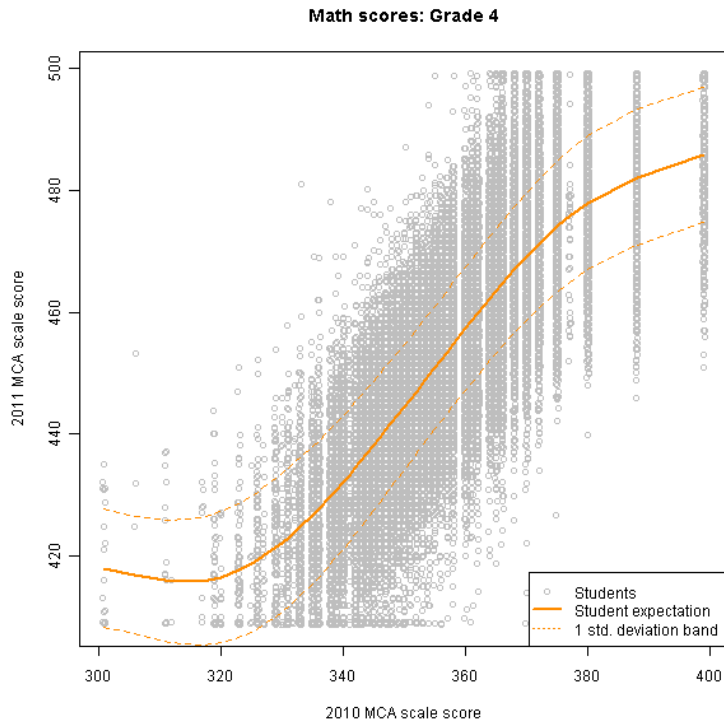
[http://education.state.mn.us/MDE/Data/Data\\_Downloads/Accountability\\_Data/NCLB\\_AYP/index.html](http://education.state.mn.us/MDE/Data/Data_Downloads/Accountability_Data/NCLB_AYP/index.html)

## 2 Functional Description

### 2.1 Calculating student growth for state and federal accountability

Growth is based on each student's current test score and their score from the prior administration (see Figure 1). Statewide means are calculated for each prior score and subtracted from each student's current score to determine the degree to which each student exceeded expected/predicted growth. First, statewide means and standard deviations of students' current-year scale scores are calculated for each prior scale score. Second, nonparametric, kernel density methods are used to smooth and interpolate the conditional means and standard deviations across the prior scale score range. When possible, two cohorts of student test scores are used to calculate conditional means and standard deviations for better accuracy and precision. Third, at each prior scale score, the conditional mean is subtracted from each student's current score, yielding an unstandardized conditional growth score. Lastly, the conditional growth scores are standardized (i.e., converted to z-scores) by dividing by the conditional standard deviation. The formula for calculating student growth z-scores is  $z_i = \frac{x_{ij} - \bar{x}_{.j}}{\sigma_{.j}}$ , where  $x_{ij}$  is student  $i$ 's current-year scale score indexed by their prior scale score  $j$  on the the test aligned to grade- and subject-specific standards,  $\bar{x}_{.j}$  is the smoothed mean of current-year scores of all students statewide with prior score  $j$ , and  $\sigma_{.j}$  is the smoothed standard deviation of current-year scores of all students statewide with prior score  $j$ . Note that after standardizing, each student's growth z-score is no longer specific to the the prior score on the grade-level test.

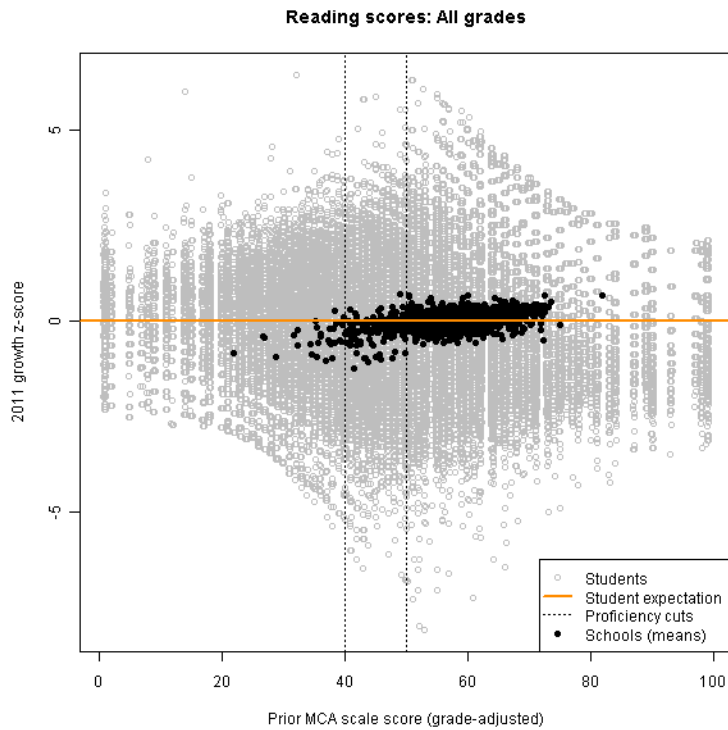
**Figure 1. Illustration of student growth calculation: Smoothed conditional means and standard deviations**



### 2.1.1 Aggregating student growth at the school level

A major advantage of student growth z-scores is that they can be averaged across tests and grades to achieve reliable measures of school-level growth. The Minnesota Assessment System develops criterion-referenced tests aligned to the state's grade-specific academic standards. As such, scores from different grades and tests do not share a common scale. In order to appropriately aggregate scores across tests and grades, scores must be standardized (i.e., converted to z-scores). Figure 2 illustrates how student growth z-scores are averaged across tests and grades within schools. Each school's mean z-score represents the degree to which students in that school grew faster (or slower) than expected. School means of student growth z-scores exhibit good overall reliability (0.86 for math and 0.74 for reading; see Tables 2 and 3).

**Figure 2. Illustration of averaging student growth across grades within schools to identify high- and low-growth schools**



Note: Plot limited to MCA takers only for illustration purposes.

**Table 2. Results of hierarchical linear model of student growth z-scores: Math**

Fixed effects			
	Estimate	Std. Error	t value
(Intercept)	-0.08	0.01	-9.11

Random effects			
Level	Variance	Percentage of total variation	Reliability of means
Schools	0.133	11.253	0.857
Students within schools (residual)	0.915	77.494	

**Table 3. Results of hierarchical linear model of student growth z-scores: Reading**

Fixed effects			
	Estimate	Std. Error	t value
(Intercept)	-0.03	0.01	-5.39

Random effects			
Level	Variance	Percentage of total variation	Reliability of means
Schools	0.048	4.597	0.744
Students within schools (residual)	0.947	90.807	

### 2.1.2 Smoothing conditional means and standard deviations

Conditional means and standard deviations are smoothed using nonparametric kernel density estimation.<sup>5</sup> In the past, growth targets were established using an ad hoc method of collapsing scale score values until reaching an adequate number of students for calculating means and standard deviations. That approach yielded jagged student growth expectation over the prior scale score range and sometimes grouped students together from a wide range of abilities. Nonparametric regression estimates are made from observed data consisting of a single response variable (i.e., current year score), one covariate (i.e., prior test score), and the smoothing parameter. Normal kernel function associated with prior score groups receive different weights. Specifically, growth mean smoothing involves weighting by the inverse of the standard error of the current year mean; standard deviation smoothing involves weighting by the number of students.

### 2.1.3 Assigning points to schools for growth

For ESEA Flexibility, Minnesota has proposed assigning points to schools for average student growth in order to rank schools across Multiple Measures. This is accomplished by calculating the percentile rank of each mean growth z-score. Ranking is done within each school type (i.e., elementary, middle, high school, and other). After calculating percentile ranks within school types, the ranks are divided by 100 and multiplied by 25 points.

## 2.2 Calculating growth gaps for state and federal accountability

Growth gaps are a school-level measure of the degree to which disadvantaged students in a given school are growing faster than their more advantaged peers in the state. Within each school, student growth score means are calculated for each of seven, lower-performing subgroups: students eligible for free or reduced price lunch, English learners, special education students, and students identifying as American Indian, Asian, Black, or Hispanic. The growth of each of these groups is compared to the statewide average growth of their higher-performing counterparts. The Free/Reduced Price Lunch subgroup is compared to students who do not qualify for free or reduced price lunch. The Limited English Proficient subgroup is compared to students who are not Limited English Proficient. The Special Education subgroup is compared to students who are not in Special Education. The four racial and ethnic minority groups are compared to the White subgroup. For each school, the statewide mean growth of each higher-performing group is subtracted from the school's mean growth exhibited by the corresponding lower-performing

<sup>5</sup> Bowman, A. W., & Azzalini, A. (1997). *Applied smoothing techniques for data analysis: The kernel approach with S-plus illustrations*. Oxford University Press.



group. This yields a standardized effect size measure of the degree to which a given school closed the achievement gap, with negative values indicating closure and positive values indicating a widening gap. Growth gap sizes of -0.3 standard deviation represent a small achievement gap reduction, -0.5 medium, and -0.8 large.<sup>6</sup> A weighted average of growth gap effect sizes is calculated to determine each schools overall growth gap z-score. The square root of the number of students in each group is used to weight the average.

**Table 4. Illustration of economic growth gap calculation**

School	Statewide mean of advantaged students' growth z-scores	School mean of disadvantaged students' growth z-scores	Gap (statewide advantaged z-score minus school's disadvantaged z-score)	Gap interpretation
1	0.09	0.21	-0.12	Favors disadvantaged group (closing achievement gap)
2	0.09	-0.20	0.29	Favors advantaged group (increasing achievement gap)

### 2.2.1 Assigning points to schools for achievement gap reduction

For ESEA Flexibility, Minnesota has proposed assigning points to schools for reducing achievement gaps in order to rank schools across Multiple Measures. This is accomplished by calculating the percentile rank of the weighted mean growth gap z-score. Ranking is done within each school type (i.e., elementary, middle, high school, and other). After calculating percentile ranks within school types, the ranks are divided by 100 and multiplied by 25 points.

### 2.3 Classifying growth as low, medium, and high for state accountability

For state accountability and reporting, Minnesota Growth scores are classified into low, medium, and high growth. Growth scores less than one half standard deviation below expectation are classified as low, growth scores within a half standard deviation above or below expectation are classified as medium, and growth scores greater than a half standard deviation above expectation are classified as large. Growth expectations and targets are shown in *Appendix A*.

Low, medium, or high labels are assigned to each of the student's current year records. For each school, Minnesota reports the percent of proficient and not proficient students demonstrating low, medium and high rates of growth. These two values (growth level and prior proficiency level) are then summarized for schools and districts to determine the six **Growth Component Percentages** for each group included in the measurement.

<sup>6</sup> Cohen, J. (1992). Quantitative methods in psychology: A power primer. *Psychological Bulletin*, 112(1), 155-159.

### 3 Processing of student records

#### 3.1 AYP Records

##### 3.1.1 Student Record Selection from AYP<sup>7</sup>

The Minnesota Growth calculation only uses student records included in the Minnesota Adequate Yearly Progress (AYP) Proficiency calculation. During AYP processing, current year assessment records are combined with MARSS enrollment records to create an **AYP Record** used in the AYP Proficiency calculation.

The AYP Proficiency calculation limits AYP Records to include only those students that participated in the assessment and received a valid score. Other criteria are also used to exclude AYP Records from the proficiency calculation. For example, assessments from students who were new to the country are excluded. Assessments from students who were not enrolled for the full academic year are also excluded from certain summaries. The full description of the AYP Proficiency calculation is illustrated in the *2011 NCLB – AYP Calculations - Functional Requirements*.

During AYP processing, the proficiency inclusion rules are implemented and the AYP Records are marked with three separate flags. These flags indicate whether the record should be used in the proficiency denominator for the school, the proficiency denominator for the district, or the proficiency denominator for the State. The proficiency denominator flag must equal ‘Y’ to be included in the summarization for the respective aggregation (school, district or State).

##### 3.1.2 Linking Current AYP Records to Prior Assessments

During the TestWES processing, the Student Linking System (SLS) assigns an Alias Group ID to current year and previous year assessment records. The prior scores for the current year assessments are stored for later processing in a Prior Score reference table. To link prior assessments to current assessment, the MARSS Number, Alias Group ID and subject must match between assessments.

The Prior Score reference table holds the following information which is used in the Minnesota Growth calculation:

- Prior Test Name
- Prior Grade
- Prior Score Code
- Prior Achievement Level
- Prior Scale Score

Prior score information is then linked to the AYP Record for each student. For current year Grade 4 through 8 AYP Records, prior score information is obtained from the prior year's

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<sup>7</sup> Note that for Minnesota's ESEA Flexibility application, growth calculations were based on all students with valid scores (i.e., the calculations were not limited to AYP Records). Final growth expectation and score calculations will be recalculated with AYP Records.

administration. Minnesota does not administer tests in grade 9. Only the reading MCA is administered in grade 10, and only the math MCA is administered in grade 11. As such, for the current year Grade 10 AYP Records, prior score information is obtained from two years ago. For current year Grade 11 AYP Records, prior score information is obtained from the assessments from three years ago. Current year Grade 3 AYP Records are not used in the Minnesota Growth Calculation.

### 3.1.3 Limiting AYP Records used in Growth Calculation

The Minnesota Growth calculation only uses AYP Records included in the AYP Proficiency calculation and further limits these records to ensure:

- there is an appropriate assessment in a previous year
- there is a normal grade progression from the previous assessment
- the previous assessment has a valid score

Once the prior score information is assigned to each of the AYP Records, additional checks are performed to determine if the record could be used in the Minnesota Growth calculation. The records are only eligible to be included when:

- The current year AYP Record test name is MCA-II or MTELL.
- The Prior Test Name is MCA-II or MTELL.
- For grades 4-8, the grade minus one equals the Prior Grade.
- For grade 10 and 11, the Prior Grade is 08.
- The current year AYP Record Score Code is 'VS' (Valid Score).
- The Prior Score Code is 'VS'.
- The current year AYP Record has the 'UseInSchoolSummary' flag = 'Y' (this eliminates potential duplicates when a single student is reported more than once in a school).

Eligible AYP Records are referred to as **Growth Records**.

### 3.1.4 Assigning Proficiency to Growth Records

Records that are eligible to be included in the Minnesota Growth calculation have Proficiency designators assigned.

- PROFICIENT: Prior year Achievement Level equal to M or E (meets or exceeds)
- NOT PROFICIENT: Prior year Achievement Level equal to D or P (does not meet or partially meets)

### 3.1.5 Use of Growth Targets

Prior scores for each subject have two **Growth Targets** (High and Medium). The Growth Targets are standardized cut scores for classifying growth as high, medium, or low. For example, the first row of the first table in Appendix A shows that a third grader who scored 301 on the math MCA would be expected to score 418 in grade 4. The high growth target is set at 423 (i.e., one half standard deviation above the mean, rounded), and the low growth target is set at 413 (one

half standard deviation below the mean, rounded). The complete set of targets is listed in *Appendix A – Minnesota Growth expectations and targets*.

### 3.1.6 Assigning Growth Levels to Growth Records

Growth Levels are assigned in the following manner.

- **HIGH GROWTH:** Current score meets or exceeds the High Growth target set for the prior grade and prior score.
- **MEDIUM GROWTH:** Current score falls below the target for High Growth, but meets or exceeds the Medium Growth target.
- **LOW GROWTH:** Current score falls below the target for the Medium Growth.

### 3.1.7 Summarizing Growth Records

Growth Records are summarized for each grade in a school, the school as a whole, each grade in a district, the district as a whole, each grade in the State, and the state as a whole. The number of Growth Records is totaled and is called the growth denominator. Additional summaries are made using the Growth Records to calculate growth numerators for the six Growth Component Percentages. These are:

1. Proficient with Low Growth
2. Proficient with Medium Growth
3. Proficient with High Growth
4. Not Proficient with Low Growth
5. Not Proficient with Medium Growth
6. Not Proficient with High Growth

Schools and districts that have fewer than 20 Growth Records as a whole are not included in the Minnesota Growth calculation. This can occur when a school only serves a small number of students or only serves students not eligible for a growth measurement (such as K-3 school).

### 3.1.8 Computing Growth Component Percentages

For schools and districts with 20 or more Growth Records, the Growth Component Percentages are computed to one decimal point from the six growth numerators created above divided by the growth denominator.

These charts illustrate a typical set of Growth Component Percentages for two subjects:

MATH	Percentage of students included in growth measure	
	Low Growth	Medium Growth
Proficient	19.0	27.9
Not Proficient	8.1	13.9

READING	Percentage of students included in growth measure	
	Low Growth	Medium Growth
Proficient	19.3	29.7
Not Proficient	7.0	12.0

### 3.1.9 Disaggregated Student Groups

All of these summaries listed above contain the same disaggregated student groups as computed in the AYP calculation. Growth Component Percentages are also computed for each of these student groups:

- A. All students
- B. American Indian / Alaskan Native Students
- C. Asian / Pacific Islander Students
- D. Hispanic Students
- E. Black Students, not of Hispanic Origin
- F. White Students, not of Hispanic Origin
- G. Limited English Proficient Students
- H. Special Education Students
- I. Students Eligible for Free or Reduced Price Meals.

The full description of how demographics are assigned to AYP Records is included in the *2011 NCLB – AYP Calculations - Functional Requirements*.

## 3.2 Student assessment record processing steps

Step 1: Select the appropriate assessment records.

- Subject = M or R
- Score Code = 'VS' (valid score)
- MARSS Number = 13 digit numeric value greater than 0
- Exclude district 5555 (the control district) or MARSS number beginning with 5555 or 9999

Step 2: Assign the Alias Group ID using the Student Linking System (SLS).

Step 3: Remove any duplicated records within a single year.

Records are considered duplicated if the Fiscal Year, MARSS Number and Alias Group ID have multiple records for a single subject. Both records would be removed from the calculation.

Step 4: Determine if there is a qualifying linked record in the following year.

Records are linked if the MARSS Number, Alias Group ID and Subject match on both assessments from the two years. Qualifying records must have a normal grade progression

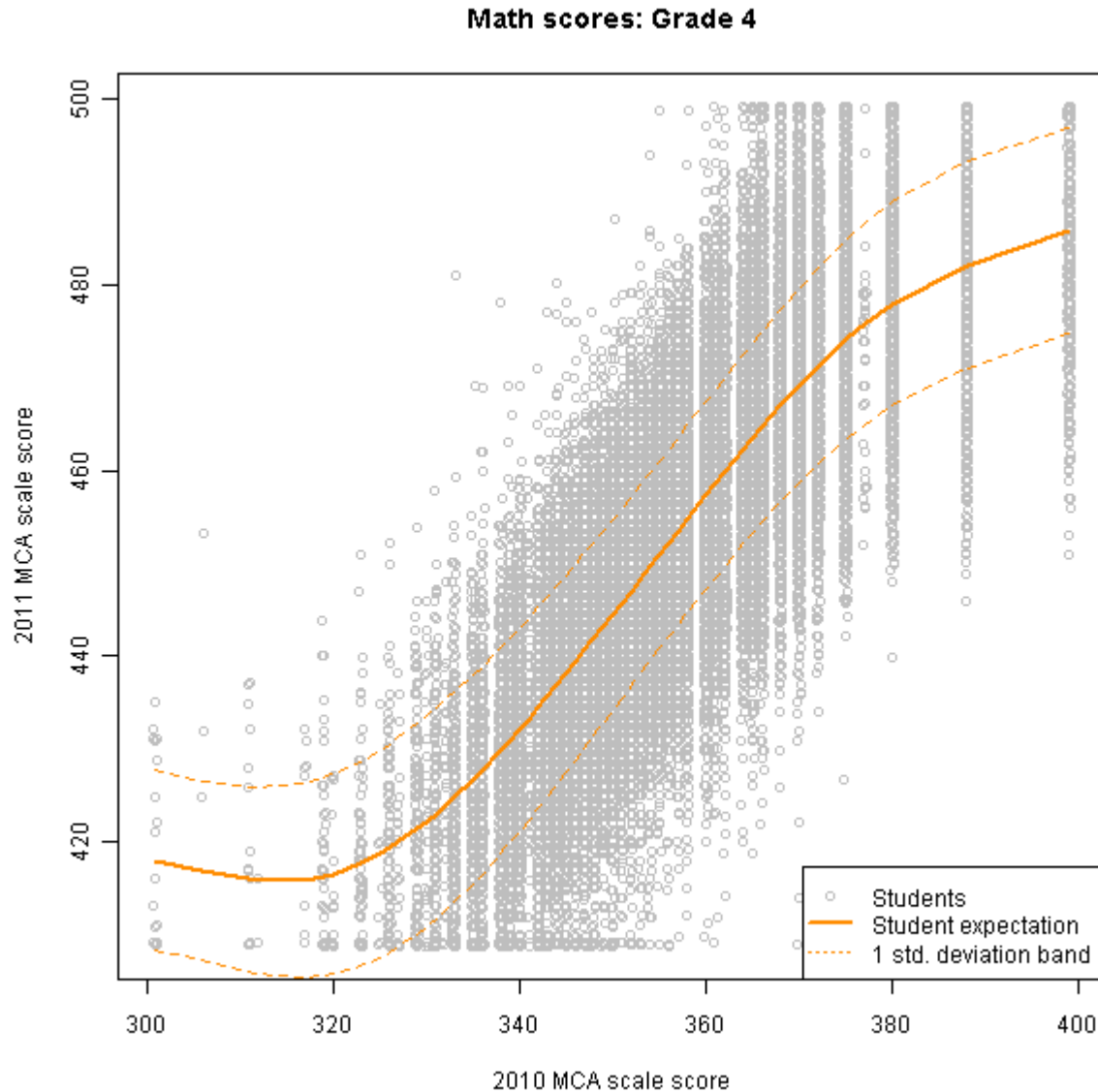
between the years. For example, a student with two consecutive grade 3 records (i.e, a student who was retained) would be excluded.

Step 5: Link records together.

Using the MARSS Number, Alias Group ID and subject, link the records together.

The results of these computations are shown in *Appendix A – Minnesota Growth expectations and targets*.

4 Appendix A – Minnesota Growth expectations and targets<sup>8</sup>



Growth expectations: Grade 4 MCA math

Prior scale score	Mean of current scale scores	Standard deviation of current scores	High growth target (cut score)	Medium growth target (cut score)
301	418.00	9.72	423.00	413.00
302	417.78	9.70	423.00	413.00

<sup>8</sup> Note that for Minnesota's ESEA Flexibility application, growth calculations were based on all students with valid scores (i.e., the calculations were not limited to AYP Records). Final growth expectation and score calculations will be recalculated with AYP Records.

## 2011 Minnesota Growth Calculations Functional Requirements

303	417.55	9.68	422.00	413.00
304	417.33	9.67	422.00	412.00
305	417.10	9.66	422.00	412.00
306	416.88	9.67	422.00	412.00
307	416.67	9.69	422.00	412.00
308	416.47	9.71	421.00	412.00
309	416.28	9.75	421.00	411.00
310	416.11	9.80	421.00	411.00
311	415.96	9.87	421.00	411.00
312	415.85	9.95	421.00	411.00
313	415.77	10.03	421.00	411.00
314	415.73	10.13	421.00	411.00
315	415.73	10.23	421.00	411.00
316	415.78	10.33	421.00	411.00
317	415.88	10.44	421.00	411.00
318	416.03	10.55	421.00	411.00
319	416.24	10.66	422.00	411.00
320	416.51	10.76	422.00	411.00
321	416.84	10.86	422.00	411.00
322	417.22	10.95	423.00	412.00
323	417.66	11.03	423.00	412.00
324	418.15	11.11	424.00	413.00
325	418.70	11.17	424.00	413.00
326	419.30	11.22	425.00	414.00
327	419.95	11.26	426.00	414.00
328	420.65	11.29	426.00	415.00
329	421.39	11.31	427.00	416.00
330	422.18	11.32	428.00	417.00
331	423.01	11.32	429.00	417.00
332	423.88	11.31	430.00	418.00
333	424.79	11.29	430.00	419.00
334	425.74	11.26	431.00	420.00
335	426.72	11.22	432.00	421.00
336	427.74	11.18	433.00	422.00
337	428.79	11.12	434.00	423.00
338	429.87	11.07	435.00	424.00



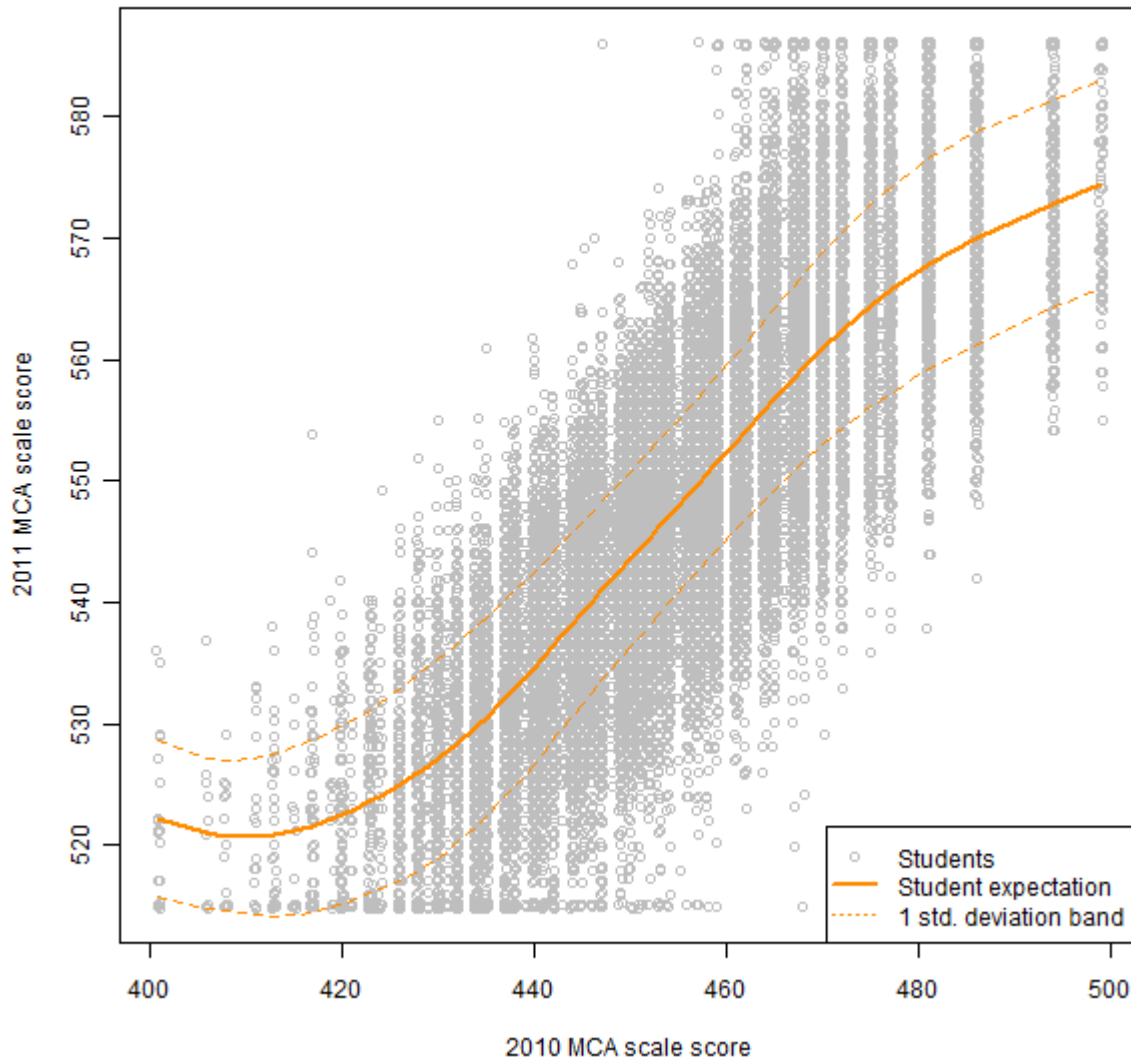
## 2011 Minnesota Growth Calculations Functional Requirements

339	430.97	11.00	436.00	425.00
340	432.11	10.94	438.00	427.00
341	433.26	10.87	439.00	428.00
342	434.44	10.80	440.00	429.00
343	435.64	10.73	441.00	430.00
344	436.86	10.66	442.00	432.00
345	438.09	10.59	443.00	433.00
346	439.34	10.52	445.00	434.00
347	440.60	10.45	446.00	435.00
348	441.87	10.39	447.00	437.00
349	443.15	10.33	448.00	438.00
350	444.44	10.28	450.00	439.00
351	445.73	10.23	451.00	441.00
352	447.02	10.18	452.00	442.00
353	448.32	10.15	453.00	443.00
354	449.62	10.11	455.00	445.00
355	450.91	10.09	456.00	446.00
356	452.20	10.07	457.00	447.00
357	453.49	10.06	459.00	448.00
358	454.77	10.05	460.00	450.00
359	456.05	10.05	461.00	451.00
360	457.32	10.06	462.00	452.00
361	458.58	10.08	464.00	454.00
362	459.82	10.10	465.00	455.00
363	461.06	10.12	466.00	456.00
364	462.27	10.16	467.00	457.00
365	463.48	10.19	469.00	458.00
366	464.66	10.24	470.00	460.00
367	465.82	10.28	471.00	461.00
368	466.96	10.33	472.00	462.00
369	468.07	10.38	473.00	463.00
370	469.15	10.44	474.00	464.00
371	470.20	10.50	475.00	465.00
372	471.22	10.55	476.00	466.00
373	472.20	10.61	478.00	467.00
374	473.14	10.67	478.00	468.00

2011 Minnesota Growth Calculations  
Functional Requirements

375	474.05	10.72	479.00	469.00
376	474.91	10.77	480.00	470.00
377	475.73	10.82	481.00	470.00
378	476.50	10.87	482.00	471.00
379	477.24	10.92	483.00	472.00
380	477.93	10.96	483.00	472.00
381	478.57	10.99	484.00	473.00
382	479.18	11.02	485.00	474.00
383	479.75	11.05	485.00	474.00
384	480.29	11.07	486.00	475.00
385	480.79	11.10	486.00	475.00
386	481.26	11.11	487.00	476.00
387	481.71	11.12	487.00	476.00
388	482.13	11.14	488.00	477.00
389	482.53	11.14	488.00	477.00
390	482.91	11.15	488.00	477.00
391	483.27	11.15	489.00	478.00
392	483.63	11.16	489.00	478.00
393	483.96	11.16	490.00	478.00
394	484.29	11.16	490.00	479.00
395	484.60	11.16	490.00	479.00
396	484.91	11.16	490.00	479.00
397	485.21	11.15	491.00	480.00
398	485.50	11.15	491.00	480.00
399	485.78	11.15	491.00	480.00

Math scores: Grade 5



Growth expectations: Grade 5 MCA math

Prior scale score	Mean of current scale scores	Standard deviation of current scores	High growth target (cut score)	Medium growth target (cut score)
401	522.17	6.41	525.00	519.00
402	521.89	6.34	525.00	519.00
403	521.62	6.28	525.00	518.00
404	521.38	6.22	524.00	518.00
405	521.16	6.18	524.00	518.00
406	520.98	6.15	524.00	518.00
407	520.83	6.14	524.00	518.00

**2011 Minnesota Growth Calculations  
Functional Requirements**

408	520.72	6.16	524.00	518.00
409	520.66	6.21	524.00	518.00
410	520.64	6.30	524.00	517.00
411	520.67	6.41	524.00	517.00
412	520.73	6.54	524.00	517.00
413	520.83	6.68	524.00	517.00
414	520.97	6.80	524.00	518.00
415	521.14	6.92	525.00	518.00
416	521.34	7.02	525.00	518.00
417	521.57	7.10	525.00	518.00
418	521.84	7.17	525.00	518.00
419	522.13	7.24	526.00	519.00
420	522.45	7.31	526.00	519.00
421	522.81	7.39	527.00	519.00
422	523.19	7.48	527.00	519.00
423	523.60	7.57	527.00	520.00
424	524.03	7.67	528.00	520.00
425	524.49	7.77	528.00	521.00
426	524.97	7.88	529.00	521.00
427	525.47	7.97	529.00	521.00
428	526.00	8.05	530.00	522.00
429	526.55	8.12	531.00	522.00
430	527.12	8.17	531.00	523.00
431	527.73	8.21	532.00	524.00
432	528.36	8.23	532.00	524.00
433	529.03	8.23	533.00	525.00
434	529.72	8.22	534.00	526.00
435	530.46	8.19	535.00	526.00
436	531.23	8.16	535.00	527.00
437	532.03	8.11	536.00	528.00
438	532.86	8.05	537.00	529.00
439	533.71	7.99	538.00	530.00
440	534.59	7.92	539.00	531.00
441	535.49	7.84	539.00	532.00
442	536.39	7.76	540.00	533.00
443	537.30	7.69	541.00	533.00

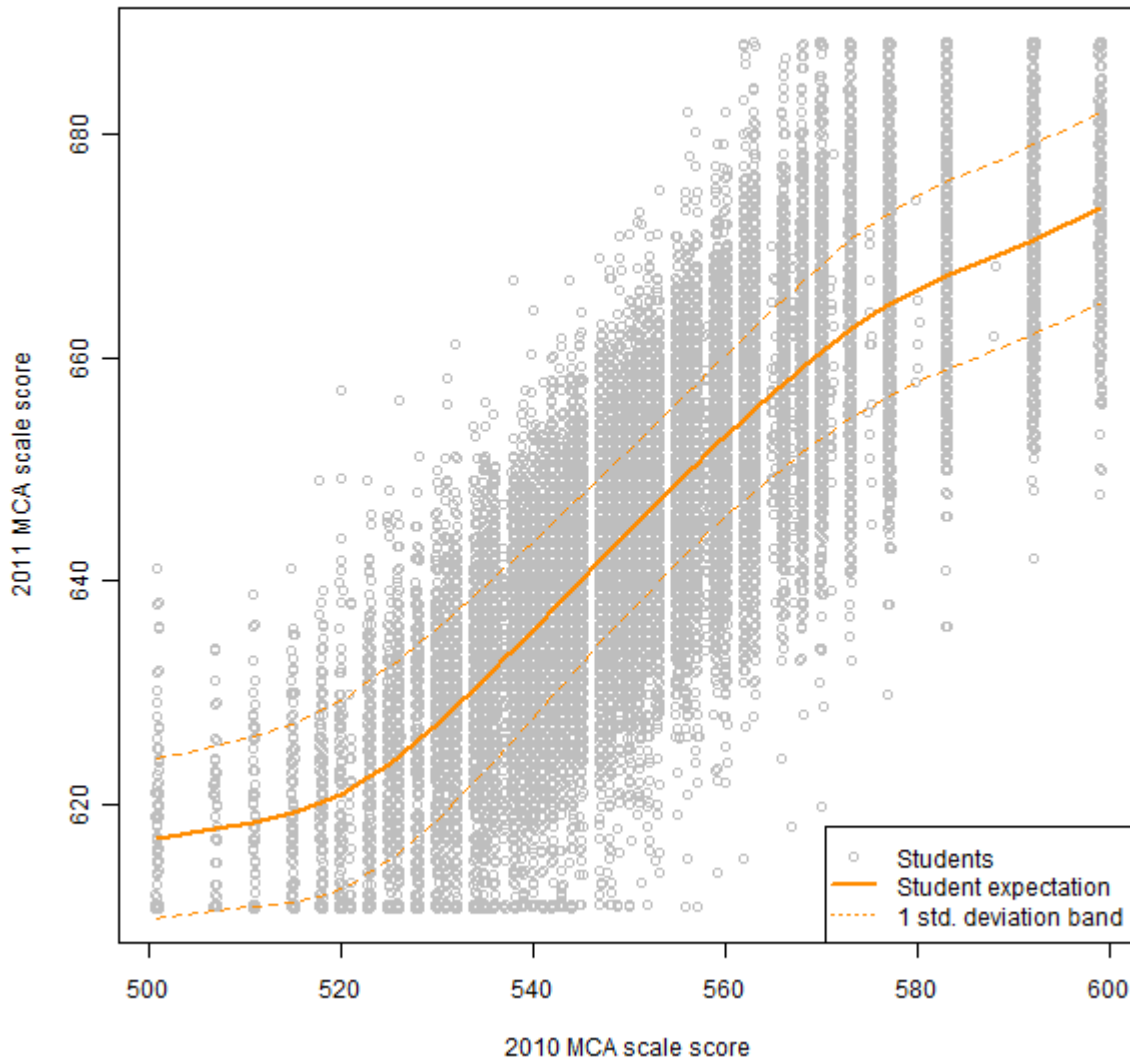
## 2011 Minnesota Growth Calculations Functional Requirements

444	538.21	7.61	542.00	534.00
445	539.12	7.54	543.00	535.00
446	540.02	7.47	544.00	536.00
447	540.91	7.40	545.00	537.00
448	541.80	7.34	545.00	538.00
449	542.68	7.28	546.00	539.00
450	543.56	7.22	547.00	540.00
451	544.44	7.18	548.00	541.00
452	545.32	7.14	549.00	542.00
453	546.20	7.11	550.00	543.00
454	547.08	7.09	551.00	544.00
455	547.96	7.08	552.00	544.00
456	548.85	7.09	552.00	545.00
457	549.73	7.10	553.00	546.00
458	550.62	7.12	554.00	547.00
459	551.50	7.15	555.00	548.00
460	552.38	7.19	556.00	549.00
461	553.27	7.23	557.00	550.00
462	554.14	7.29	558.00	551.00
463	555.02	7.35	559.00	551.00
464	555.89	7.42	560.00	552.00
465	556.76	7.49	561.00	553.00
466	557.62	7.57	561.00	554.00
467	558.46	7.65	562.00	555.00
468	559.29	7.73	563.00	555.00
469	560.10	7.82	564.00	556.00
470	560.88	7.91	565.00	557.00
471	561.64	7.99	566.00	558.00
472	562.37	8.08	566.00	558.00
473	563.08	8.16	567.00	559.00
474	563.76	8.24	568.00	560.00
475	564.42	8.32	569.00	560.00
476	565.07	8.40	569.00	561.00
477	565.69	8.47	570.00	561.00
478	566.30	8.53	571.00	562.00
479	566.87	8.59	571.00	563.00

**2011 Minnesota Growth Calculations  
Functional Requirements**

480	567.42	8.64	572.00	563.00
481	567.93	8.67	572.00	564.00
482	568.41	8.69	573.00	564.00
483	568.85	8.70	573.00	565.00
484	569.27	8.71	574.00	565.00
485	569.65	8.70	574.00	565.00
486	570.02	8.69	574.00	566.00
487	570.37	8.67	575.00	566.00
488	570.72	8.66	575.00	566.00
489	571.08	8.65	575.00	567.00
490	571.43	8.64	576.00	567.00
491	571.79	8.63	576.00	567.00
492	572.14	8.63	576.00	568.00
493	572.49	8.63	577.00	568.00
494	572.84	8.62	577.00	569.00
495	573.18	8.62	577.00	569.00
496	573.51	8.61	578.00	569.00
497	573.84	8.60	578.00	570.00
498	574.15	8.59	578.00	570.00
499	574.45	8.58	579.00	570.00

Math scores: Grade 6



Growth expectations: Grade 6 MCA math

Prior scale score	Mean of current scale scores	Standard deviation of current scores	High growth target (cut score)	Medium growth target (cut score)
501	616.99	7.15	621.00	613.00
502	617.14	7.16	621.00	614.00
503	617.30	7.17	621.00	614.00
504	617.45	7.20	621.00	614.00
505	617.60	7.23	621.00	614.00
506	617.75	7.26	621.00	614.00
507	617.89	7.31	622.00	614.00

**2011 Minnesota Growth Calculations  
Functional Requirements**

508	618.04	7.36	622.00	614.00
509	618.19	7.42	622.00	614.00
510	618.35	7.49	622.00	615.00
511	618.50	7.56	622.00	615.00
512	618.67	7.65	622.00	615.00
513	618.86	7.75	623.00	615.00
514	619.06	7.85	623.00	615.00
515	619.29	7.95	623.00	615.00
516	619.54	8.06	624.00	616.00
517	619.84	8.16	624.00	616.00
518	620.18	8.26	624.00	616.00
519	620.55	8.35	625.00	616.00
520	620.97	8.43	625.00	617.00
521	621.44	8.49	626.00	617.00
522	621.95	8.55	626.00	618.00
523	622.49	8.59	627.00	618.00
524	623.08	8.62	627.00	619.00
525	623.70	8.63	628.00	619.00
526	624.36	8.64	629.00	620.00
527	625.04	8.63	629.00	621.00
528	625.75	8.62	630.00	621.00
529	626.49	8.59	631.00	622.00
530	627.25	8.55	632.00	623.00
531	628.03	8.51	632.00	624.00
532	628.82	8.46	633.00	625.00
533	629.64	8.40	634.00	625.00
534	630.47	8.33	635.00	626.00
535	631.31	8.26	635.00	627.00
536	632.16	8.19	636.00	628.00
537	633.03	8.12	637.00	629.00
538	633.90	8.04	638.00	630.00
539	634.78	7.96	639.00	631.00
540	635.66	7.88	640.00	632.00
541	636.55	7.80	640.00	633.00
542	637.44	7.73	641.00	634.00
543	638.33	7.65	642.00	635.00



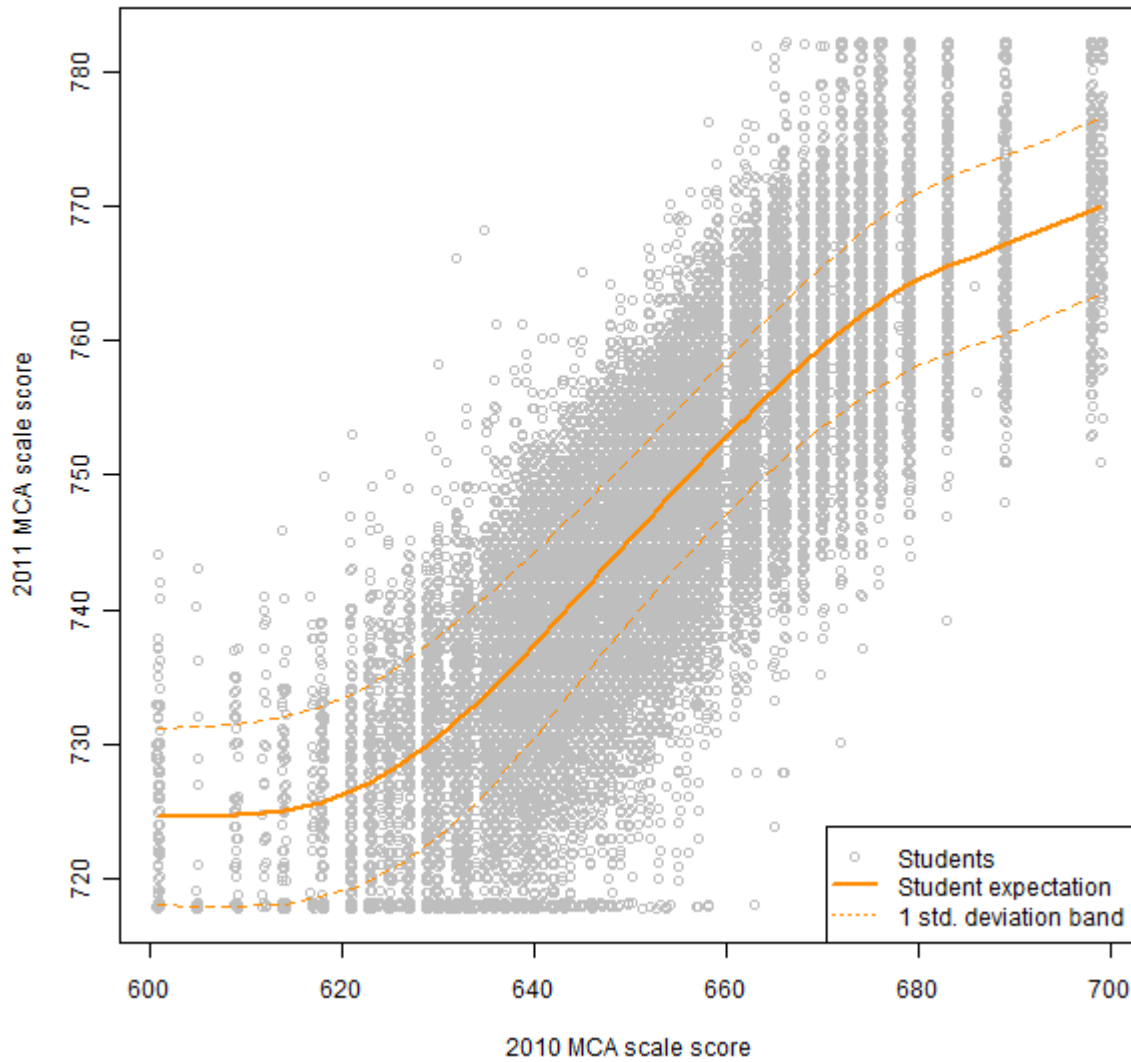
## 2011 Minnesota Growth Calculations Functional Requirements

544	639.22	7.58	643.00	635.00
545	640.11	7.51	644.00	636.00
546	641.00	7.45	645.00	637.00
547	641.88	7.39	646.00	638.00
548	642.76	7.34	646.00	639.00
549	643.64	7.29	647.00	640.00
550	644.52	7.25	648.00	641.00
551	645.39	7.22	649.00	642.00
552	646.25	7.19	650.00	643.00
553	647.11	7.17	651.00	644.00
554	647.97	7.15	652.00	644.00
555	648.82	7.15	652.00	645.00
556	649.66	7.15	653.00	646.00
557	650.50	7.16	654.00	647.00
558	651.32	7.17	655.00	648.00
559	652.15	7.19	656.00	649.00
560	652.96	7.22	657.00	649.00
561	653.77	7.25	657.00	650.00
562	654.56	7.29	658.00	651.00
563	655.35	7.33	659.00	652.00
564	656.12	7.37	660.00	652.00
565	656.89	7.42	661.00	653.00
566	657.64	7.48	661.00	654.00
567	658.38	7.54	662.00	655.00
568	659.10	7.60	663.00	655.00
569	659.81	7.66	664.00	656.00
570	660.50	7.73	664.00	657.00
571	661.17	7.80	665.00	657.00
572	661.82	7.87	666.00	658.00
573	662.44	7.94	666.00	658.00
574	663.04	8.01	667.00	659.00
575	663.61	8.08	668.00	660.00
576	664.16	8.14	668.00	660.00
577	664.67	8.20	669.00	661.00
578	665.16	8.25	669.00	661.00
579	665.62	8.30	670.00	661.00

**2011 Minnesota Growth Calculations  
Functional Requirements**

580	666.05	8.34	670.00	662.00
581	666.47	8.37	671.00	662.00
582	666.86	8.40	671.00	663.00
583	667.25	8.42	671.00	663.00
584	667.62	8.43	672.00	663.00
585	667.99	8.44	672.00	664.00
586	668.35	8.45	673.00	664.00
587	668.71	8.46	673.00	664.00
588	669.07	8.46	673.00	665.00
589	669.43	8.47	674.00	665.00
590	669.79	8.47	674.00	666.00
591	670.15	8.47	674.00	666.00
592	670.52	8.48	675.00	666.00
593	670.89	8.48	675.00	667.00
594	671.27	8.49	676.00	667.00
595	671.65	8.49	676.00	667.00
596	672.04	8.50	676.00	668.00
597	672.43	8.51	677.00	668.00
598	672.84	8.52	677.00	669.00
599	673.25	8.53	678.00	669.00

Math scores: Grade 7



Growth expectations: Grade 7 MCA math

Prior scale score	Mean of current scale scores	Standard deviation of current scores	High growth target (cut score)	Medium growth target (cut score)
601	724.56	6.54	728.00	721.00
602	724.57	6.59	728.00	721.00
603	724.58	6.63	728.00	721.00
604	724.59	6.66	728.00	721.00
605	724.60	6.69	728.00	721.00
606	724.62	6.72	728.00	721.00
607	724.65	6.75	728.00	721.00

## 2011 Minnesota Growth Calculations Functional Requirements

608	724.68	6.78	728.00	721.00
609	724.71	6.81	728.00	721.00
610	724.76	6.83	728.00	721.00
611	724.82	6.86	728.00	721.00
612	724.89	6.88	728.00	721.00
613	724.97	6.91	728.00	722.00
614	725.07	6.94	729.00	722.00
615	725.19	6.97	729.00	722.00
616	725.34	7.01	729.00	722.00
617	725.51	7.05	729.00	722.00
618	725.71	7.09	729.00	722.00
619	725.94	7.13	730.00	722.00
620	726.20	7.17	730.00	723.00
621	726.50	7.22	730.00	723.00
622	726.82	7.26	730.00	723.00
623	727.18	7.30	731.00	724.00
624	727.57	7.34	731.00	724.00
625	727.99	7.37	732.00	724.00
626	728.44	7.40	732.00	725.00
627	728.92	7.42	733.00	725.00
628	729.43	7.43	733.00	726.00
629	729.96	7.44	734.00	726.00
630	730.52	7.44	734.00	727.00
631	731.10	7.42	735.00	727.00
632	731.71	7.40	735.00	728.00
633	732.34	7.37	736.00	729.00
634	732.99	7.32	737.00	729.00
635	733.67	7.26	737.00	730.00
636	734.37	7.20	738.00	731.00
637	735.08	7.12	739.00	732.00
638	735.82	7.04	739.00	732.00
639	736.57	6.95	740.00	733.00
640	737.33	6.86	741.00	734.00
641	738.10	6.77	741.00	735.00
642	738.88	6.67	742.00	736.00
643	739.67	6.58	743.00	736.00

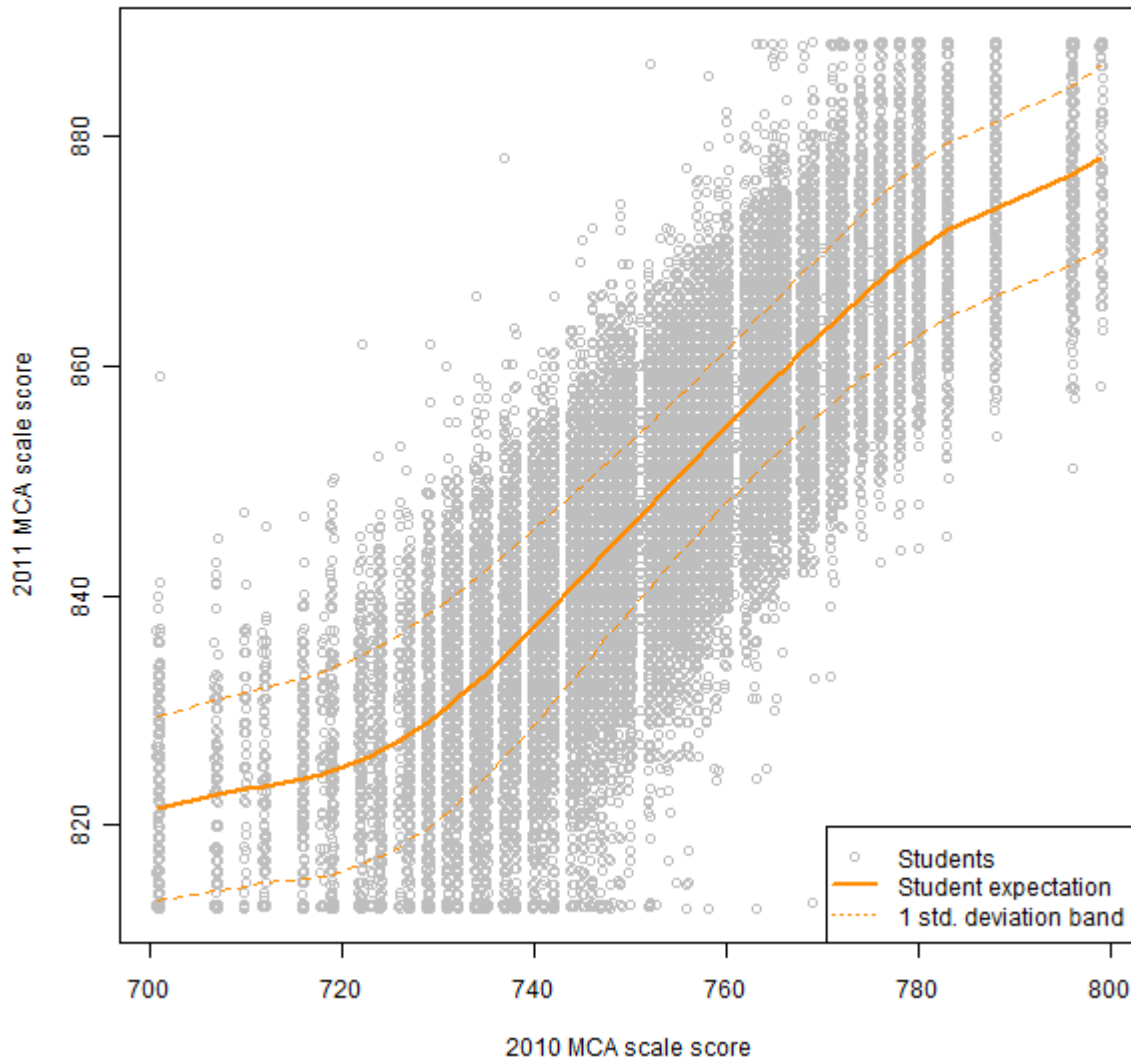
## 2011 Minnesota Growth Calculations Functional Requirements

644	740.46	6.49	744.00	737.00
645	741.26	6.41	744.00	738.00
646	742.05	6.33	745.00	739.00
647	742.85	6.25	746.00	740.00
648	743.64	6.17	747.00	741.00
649	744.44	6.11	747.00	741.00
650	745.23	6.04	748.00	742.00
651	746.02	5.98	749.00	743.00
652	746.80	5.93	750.00	744.00
653	747.59	5.88	751.00	745.00
654	748.36	5.84	751.00	745.00
655	749.13	5.81	752.00	746.00
656	749.89	5.78	753.00	747.00
657	750.65	5.75	754.00	748.00
658	751.39	5.74	754.00	749.00
659	752.13	5.72	755.00	749.00
660	752.85	5.72	756.00	750.00
661	753.57	5.72	756.00	751.00
662	754.27	5.72	757.00	751.00
663	754.96	5.74	758.00	752.00
664	755.65	5.75	759.00	753.00
665	756.32	5.78	759.00	753.00
666	756.98	5.80	760.00	754.00
667	757.63	5.84	761.00	755.00
668	758.27	5.87	761.00	755.00
669	758.90	5.91	762.00	756.00
670	759.52	5.96	762.00	757.00
671	760.12	6.01	763.00	757.00
672	760.71	6.06	764.00	758.00
673	761.28	6.11	764.00	758.00
674	761.83	6.16	765.00	759.00
675	762.36	6.22	765.00	759.00
676	762.86	6.27	766.00	760.00
677	763.33	6.32	766.00	760.00
678	763.77	6.37	767.00	761.00
679	764.18	6.41	767.00	761.00

**2011 Minnesota Growth Calculations**  
Functional Requirements

680	764.56	6.45	768.00	761.00
681	764.90	6.49	768.00	762.00
682	765.22	6.52	768.00	762.00
683	765.51	6.54	769.00	762.00
684	765.79	6.56	769.00	763.00
685	766.06	6.58	769.00	763.00
686	766.32	6.59	770.00	763.00
687	766.58	6.60	770.00	763.00
688	766.85	6.61	770.00	764.00
689	767.12	6.61	770.00	764.00
690	767.39	6.61	771.00	764.00
691	767.67	6.61	771.00	764.00
692	767.95	6.61	771.00	765.00
693	768.23	6.61	772.00	765.00
694	768.52	6.61	772.00	765.00
695	768.81	6.61	772.00	766.00
696	769.10	6.61	772.00	766.00
697	769.39	6.61	773.00	766.00
698	769.69	6.61	773.00	766.00
699	770.00	6.60	773.00	767.00

Math scores: Grade 8



Growth expectations: Grade 8 MCA math

Prior scale score	Mean of current scale scores	Standard deviation of current scores	High growth target (cut score)	Medium growth target (cut score)
701	821.43	7.99	825.00	817.00
702	821.64	8.03	826.00	818.00
703	821.85	8.08	826.00	818.00
704	822.05	8.12	826.00	818.00
705	822.25	8.17	826.00	818.00
706	822.45	8.21	827.00	818.00
707	822.64	8.25	827.00	819.00

**2011 Minnesota Growth Calculations  
Functional Requirements**

708	822.81	8.30	827.00	819.00
709	822.98	8.34	827.00	819.00
710	823.13	8.38	827.00	819.00
711	823.28	8.42	827.00	819.00
712	823.42	8.47	828.00	819.00
713	823.56	8.52	828.00	819.00
714	823.71	8.57	828.00	819.00
715	823.86	8.63	828.00	820.00
716	824.03	8.69	828.00	820.00
717	824.23	8.76	829.00	820.00
718	824.45	8.84	829.00	820.00
719	824.70	8.91	829.00	820.00
720	824.98	8.98	829.00	820.00
721	825.29	9.05	830.00	821.00
722	825.64	9.11	830.00	821.00
723	826.02	9.16	831.00	821.00
724	826.44	9.20	831.00	822.00
725	826.89	9.24	832.00	822.00
726	827.38	9.26	832.00	823.00
727	827.89	9.28	833.00	823.00
728	828.45	9.28	833.00	824.00
729	829.04	9.27	834.00	824.00
730	829.66	9.26	834.00	825.00
731	830.31	9.23	835.00	826.00
732	831.00	9.19	836.00	826.00
733	831.71	9.13	836.00	827.00
734	832.45	9.07	837.00	828.00
735	833.21	9.00	838.00	829.00
736	833.99	8.92	838.00	830.00
737	834.78	8.83	839.00	830.00
738	835.59	8.74	840.00	831.00
739	836.41	8.63	841.00	832.00
740	837.25	8.53	842.00	833.00
741	838.10	8.42	842.00	834.00
742	838.96	8.30	843.00	835.00
743	839.83	8.18	844.00	836.00



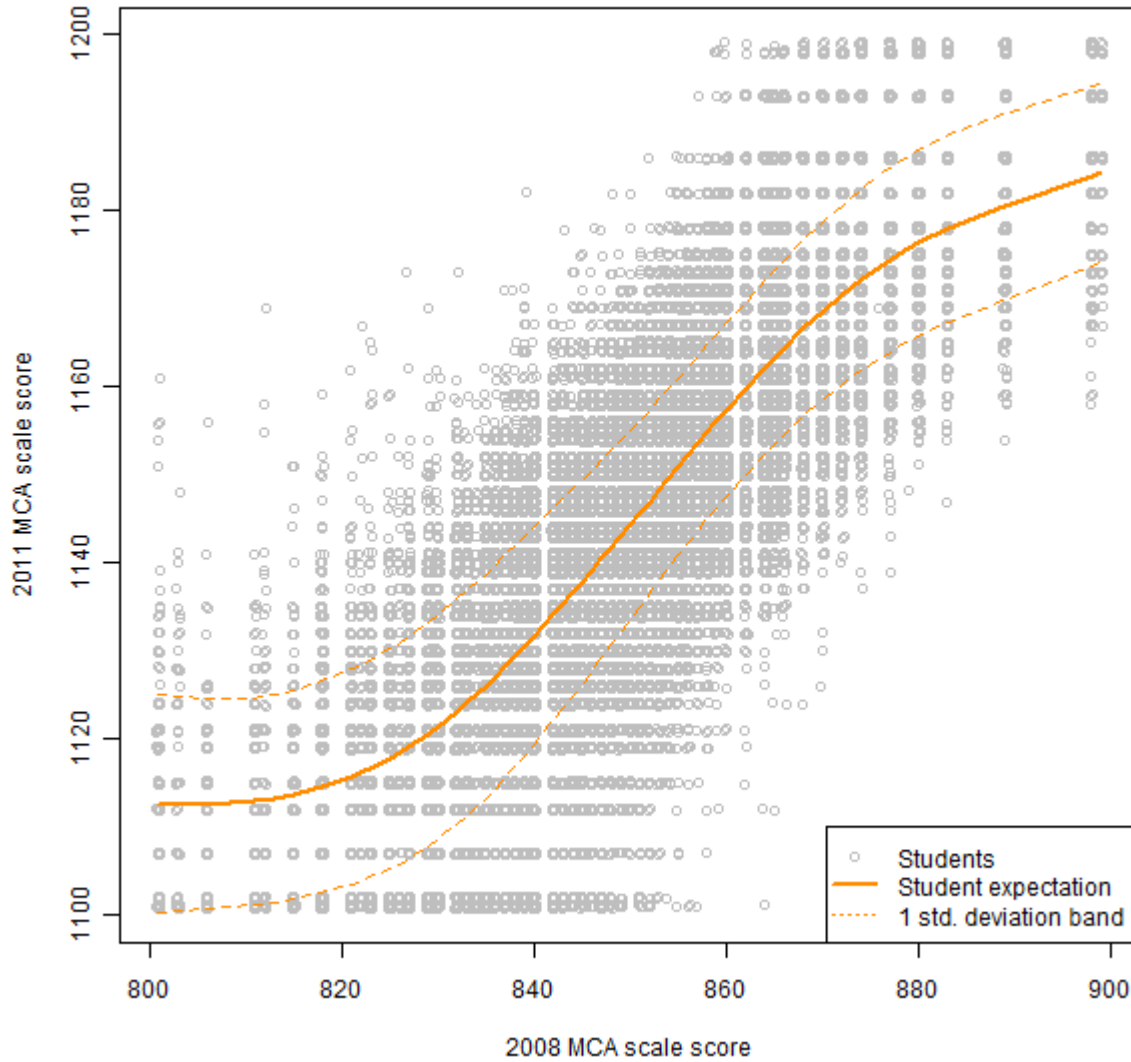
**2011 Minnesota Growth Calculations  
Functional Requirements**

744	840.71	8.06	845.00	837.00
745	841.60	7.94	846.00	838.00
746	842.49	7.81	846.00	839.00
747	843.39	7.69	847.00	840.00
748	844.28	7.57	848.00	840.00
749	845.17	7.46	849.00	841.00
750	846.06	7.34	850.00	842.00
751	846.94	7.24	851.00	843.00
752	847.82	7.14	851.00	844.00
753	848.69	7.05	852.00	845.00
754	849.56	6.96	853.00	846.00
755	850.43	6.89	854.00	847.00
756	851.30	6.83	855.00	848.00
757	852.16	6.77	856.00	849.00
758	853.01	6.73	856.00	850.00
759	853.87	6.70	857.00	851.00
760	854.71	6.68	858.00	851.00
761	855.55	6.66	859.00	852.00
762	856.39	6.66	860.00	853.00
763	857.22	6.66	861.00	854.00
764	858.04	6.68	861.00	855.00
765	858.86	6.69	862.00	856.00
766	859.68	6.72	863.00	856.00
767	860.49	6.75	864.00	857.00
768	861.29	6.79	865.00	858.00
769	862.09	6.84	866.00	859.00
770	862.88	6.88	866.00	859.00
771	863.66	6.94	867.00	860.00
772	864.43	6.99	868.00	861.00
773	865.20	7.06	869.00	862.00
774	865.96	7.12	870.00	862.00
775	866.70	7.19	870.00	863.00
776	867.43	7.26	871.00	864.00
777	868.13	7.33	872.00	864.00
778	868.82	7.39	873.00	865.00
779	869.47	7.46	873.00	866.00

**2011 Minnesota Growth Calculations  
Functional Requirements**

780	870.09	7.52	874.00	866.00
781	870.68	7.57	874.00	867.00
782	871.22	7.60	875.00	867.00
783	871.72	7.62	876.00	868.00
784	872.18	7.63	876.00	868.00
785	872.59	7.63	876.00	869.00
786	872.98	7.62	877.00	869.00
787	873.34	7.61	877.00	870.00
788	873.69	7.60	877.00	870.00
789	874.03	7.60	878.00	870.00
790	874.38	7.60	878.00	871.00
791	874.73	7.62	879.00	871.00
792	875.08	7.65	879.00	871.00
793	875.45	7.68	879.00	872.00
794	875.82	7.72	880.00	872.00
795	876.21	7.76	880.00	872.00
796	876.61	7.81	881.00	873.00
797	877.04	7.87	881.00	873.00
798	877.51	7.94	881.00	874.00
799	878.03	8.01	882.00	874.00

Math scores: Grade 11



Growth expectations: Grade 11 MCA math

Prior scale score	Mean of current scale scores	Standard deviation of current scores	High growth target (cut score)	Medium growth target (cut score)
801	1112.62	12.42	1119.00	1106.00
802	1112.64	12.30	1119.00	1106.00
803	1112.64	12.19	1119.00	1107.00
804	1112.63	12.09	1119.00	1107.00
805	1112.63	12.01	1119.00	1107.00
806	1112.63	11.94	1119.00	1107.00
807	1112.65	11.89	1119.00	1107.00

**2011 Minnesota Growth Calculations**  
Functional Requirements

808	1112.68	11.84	1119.00	1107.00
809	1112.74	11.81	1119.00	1107.00
810	1112.82	11.78	1119.00	1107.00
811	1112.92	11.77	1119.00	1107.00
812	1113.06	11.77	1119.00	1107.00
813	1113.24	11.79	1119.00	1107.00
814	1113.45	11.81	1119.00	1108.00
815	1113.70	11.85	1120.00	1108.00
816	1113.97	11.90	1120.00	1108.00
817	1114.28	11.95	1120.00	1108.00
818	1114.61	12.01	1121.00	1109.00
819	1114.96	12.07	1121.00	1109.00
820	1115.33	12.14	1121.00	1109.00
821	1115.73	12.20	1122.00	1110.00
822	1116.16	12.27	1122.00	1110.00
823	1116.64	12.34	1123.00	1110.00
824	1117.17	12.41	1123.00	1111.00
825	1117.75	12.48	1124.00	1112.00
826	1118.38	12.54	1125.00	1112.00
827	1119.06	12.60	1125.00	1113.00
828	1119.79	12.65	1126.00	1113.00
829	1120.56	12.69	1127.00	1114.00
830	1121.37	12.72	1128.00	1115.00
831	1122.22	12.74	1129.00	1116.00
832	1123.11	12.76	1129.00	1117.00
833	1124.05	12.76	1130.00	1118.00
834	1125.04	12.75	1131.00	1119.00
835	1126.07	12.73	1132.00	1120.00
836	1127.15	12.69	1133.00	1121.00
837	1128.26	12.63	1135.00	1122.00
838	1129.41	12.56	1136.00	1123.00
839	1130.58	12.46	1137.00	1124.00
840	1131.77	12.35	1138.00	1126.00
841	1132.97	12.22	1139.00	1127.00
842	1134.18	12.08	1140.00	1128.00
843	1135.40	11.93	1141.00	1129.00

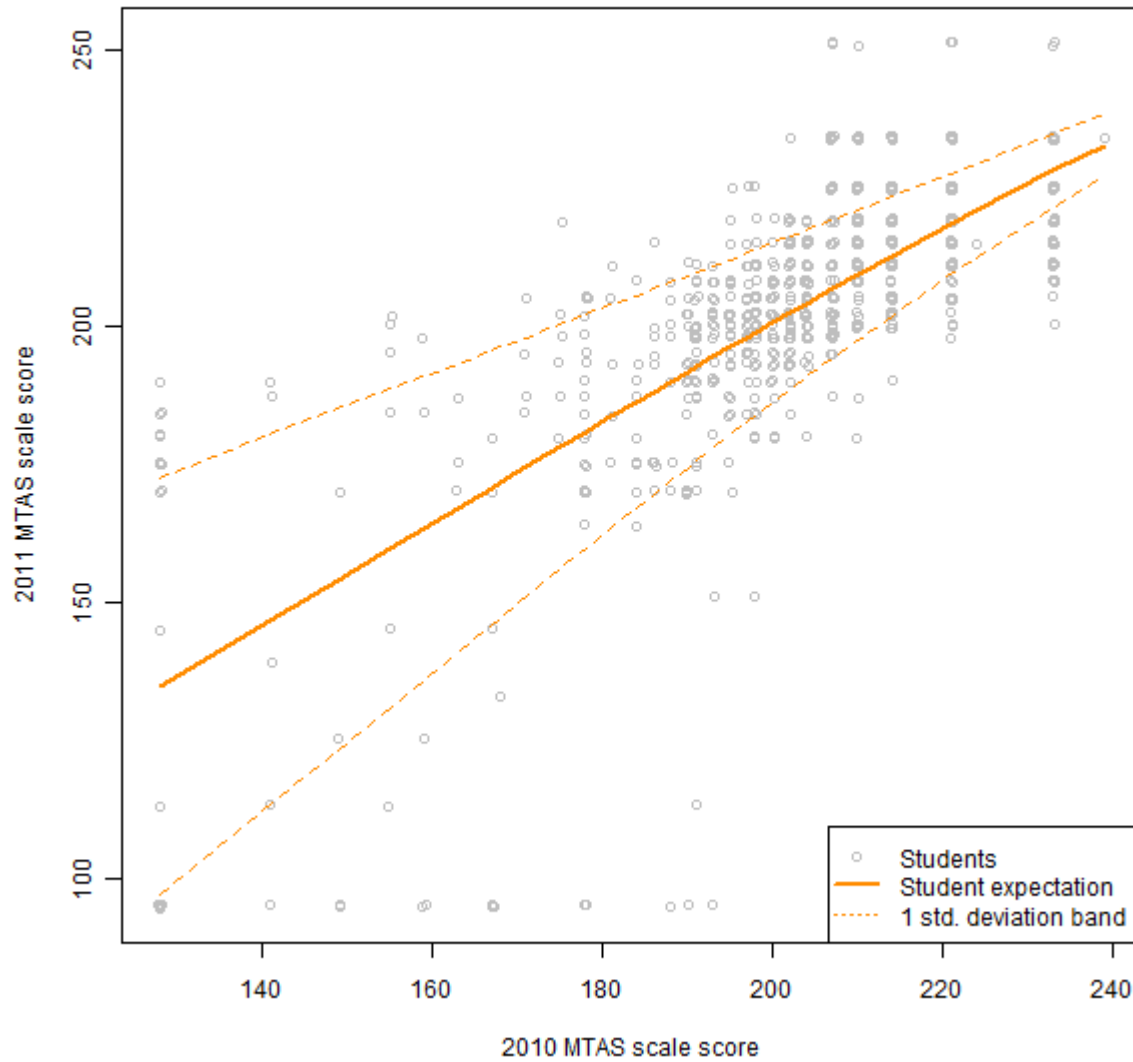
## 2011 Minnesota Growth Calculations Functional Requirements

844	1136.64	11.76	1143.00	1131.00
845	1137.88	11.59	1144.00	1132.00
846	1139.14	11.41	1145.00	1133.00
847	1140.42	11.24	1146.00	1135.00
848	1141.71	11.06	1147.00	1136.00
849	1143.01	10.89	1148.00	1138.00
850	1144.33	10.73	1150.00	1139.00
851	1145.66	10.58	1151.00	1140.00
852	1146.99	10.44	1152.00	1142.00
853	1148.32	10.31	1153.00	1143.00
854	1149.66	10.19	1155.00	1145.00
855	1150.99	10.09	1156.00	1146.00
856	1152.31	10.01	1157.00	1147.00
857	1153.62	9.94	1159.00	1149.00
858	1154.90	9.89	1160.00	1150.00
859	1156.17	9.86	1161.00	1151.00
860	1157.42	9.83	1162.00	1153.00
861	1158.64	9.83	1164.00	1154.00
862	1159.85	9.83	1165.00	1155.00
863	1161.03	9.84	1166.00	1156.00
864	1162.19	9.86	1167.00	1157.00
865	1163.33	9.89	1168.00	1158.00
866	1164.44	9.92	1169.00	1159.00
867	1165.52	9.96	1171.00	1161.00
868	1166.57	10.01	1172.00	1162.00
869	1167.59	10.06	1173.00	1163.00
870	1168.57	10.11	1174.00	1164.00
871	1169.51	10.16	1175.00	1164.00
872	1170.42	10.22	1176.00	1165.00
873	1171.29	10.27	1176.00	1166.00
874	1172.12	10.32	1177.00	1167.00
875	1172.92	10.37	1178.00	1168.00
876	1173.68	10.42	1179.00	1168.00
877	1174.41	10.46	1180.00	1169.00
878	1175.10	10.49	1180.00	1170.00
879	1175.75	10.53	1181.00	1170.00

**2011 Minnesota Growth Calculations**  
Functional Requirements

880	1176.37	10.56	1182.00	1171.00
881	1176.95	10.59	1182.00	1172.00
882	1177.49	10.61	1183.00	1172.00
883	1177.98	10.62	1183.00	1173.00
884	1178.44	10.63	1184.00	1173.00
885	1178.87	10.63	1184.00	1174.00
886	1179.28	10.62	1185.00	1174.00
887	1179.67	10.60	1185.00	1174.00
888	1180.04	10.58	1185.00	1175.00
889	1180.41	10.54	1186.00	1175.00
890	1180.78	10.50	1186.00	1176.00
891	1181.15	10.46	1186.00	1176.00
892	1181.53	10.42	1187.00	1176.00
893	1181.90	10.37	1187.00	1177.00
894	1182.29	10.33	1187.00	1177.00
895	1182.68	10.28	1188.00	1178.00
896	1183.08	10.23	1188.00	1178.00
897	1183.50	10.18	1189.00	1178.00
898	1183.93	10.12	1189.00	1179.00
899	1184.41	10.06	1189.00	1179.00

Math scores: Grade 4



Growth expectations: Grade 4 MTAS math

Prior scale score	Mean of current scale scores	Standard deviation of current scores	High growth target (cut score)	Medium growth target (cut score)
128	134.78	37.71	154.00	116.00
129	135.69	37.40	154.00	117.00
130	136.61	37.08	155.00	118.00
131	137.52	36.76	156.00	119.00
132	138.44	36.44	157.00	120.00
133	139.35	36.12	157.00	121.00
134	140.27	35.80	158.00	122.00

## 2011 Minnesota Growth Calculations Functional Requirements

135	141.19	35.48	159.00	123.00
136	142.11	35.15	160.00	125.00
137	143.03	34.83	160.00	126.00
138	143.95	34.50	161.00	127.00
139	144.87	34.18	162.00	128.00
140	145.79	33.85	163.00	129.00
141	146.71	33.52	163.00	130.00
142	147.63	33.19	164.00	131.00
143	148.55	32.86	165.00	132.00
144	149.47	32.53	166.00	133.00
145	150.40	32.20	166.00	134.00
146	151.32	31.87	167.00	135.00
147	152.24	31.54	168.00	136.00
148	153.16	31.21	169.00	138.00
149	154.09	30.87	170.00	139.00
150	155.01	30.54	170.00	140.00
151	155.94	30.20	171.00	141.00
152	156.86	29.87	172.00	142.00
153	157.78	29.53	173.00	143.00
154	158.71	29.20	173.00	144.00
155	159.63	28.86	174.00	145.00
156	160.56	28.53	175.00	146.00
157	161.48	28.19	176.00	147.00
158	162.41	27.85	176.00	148.00
159	163.33	27.52	177.00	150.00
160	164.26	27.18	178.00	151.00
161	165.18	26.84	179.00	152.00
162	166.10	26.51	179.00	153.00
163	167.03	26.17	180.00	154.00
164	167.95	25.83	181.00	155.00
165	168.87	25.50	182.00	156.00
166	169.79	25.16	182.00	157.00
167	170.72	24.82	183.00	158.00
168	171.64	24.49	184.00	159.00
169	172.56	24.16	185.00	160.00
170	173.48	23.82	185.00	162.00



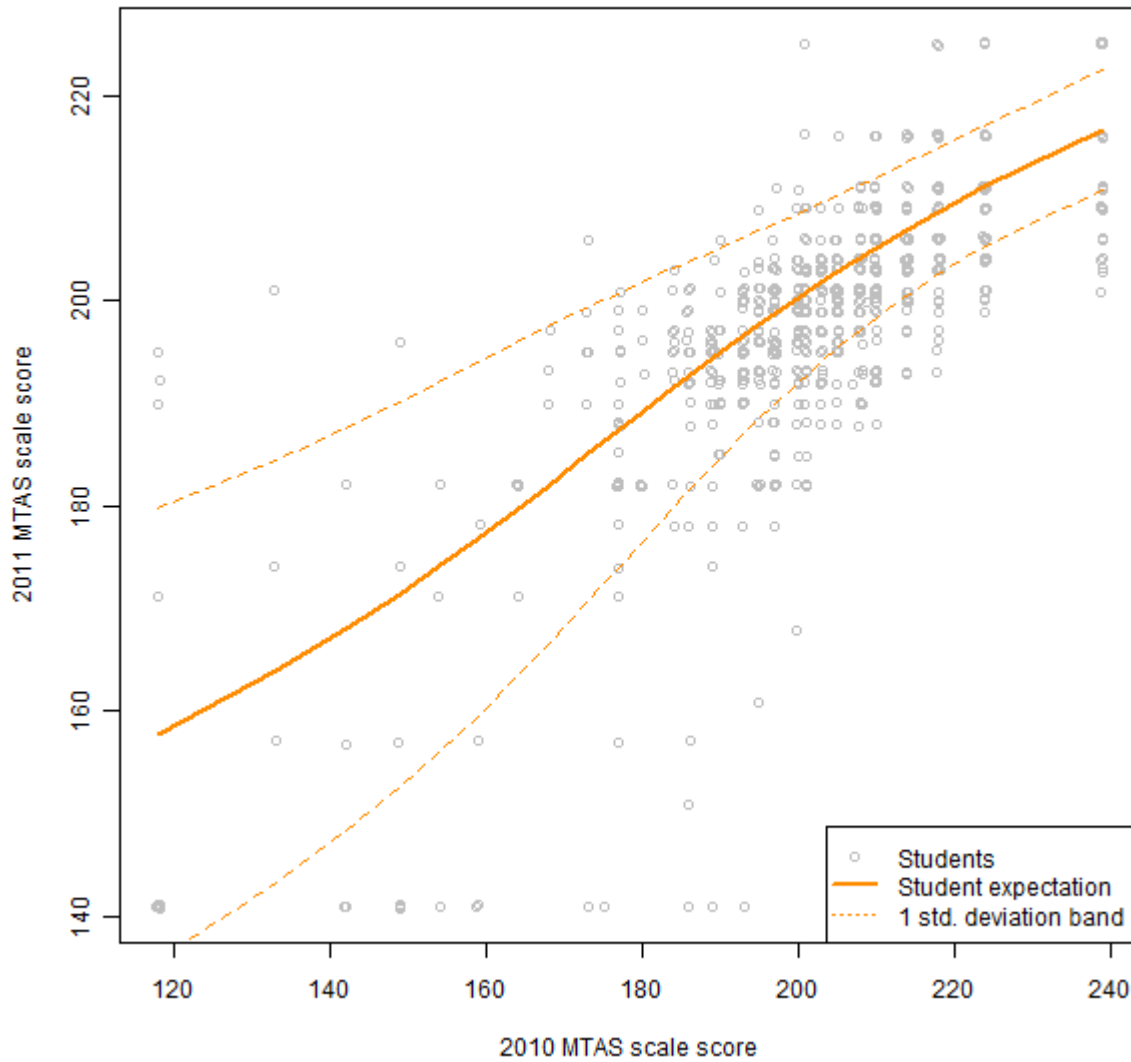
**2011 Minnesota Growth Calculations  
Functional Requirements**

171	174.40	23.49	186.00	163.00
172	175.32	23.15	187.00	164.00
173	176.23	22.82	188.00	165.00
174	177.15	22.49	188.00	166.00
175	178.07	22.16	189.00	167.00
176	178.98	21.83	190.00	168.00
177	179.90	21.50	191.00	169.00
178	180.81	21.18	191.00	170.00
179	181.72	20.85	192.00	171.00
180	182.63	20.53	193.00	172.00
181	183.54	20.20	194.00	173.00
182	184.45	19.88	194.00	175.00
183	185.36	19.56	195.00	176.00
184	186.26	19.24	196.00	177.00
185	187.17	18.93	197.00	178.00
186	188.07	18.61	197.00	179.00
187	188.97	18.30	198.00	180.00
188	189.87	17.98	199.00	181.00
189	190.77	17.67	200.00	182.00
190	191.67	17.37	200.00	183.00
191	192.56	17.06	201.00	184.00
192	193.46	16.76	202.00	185.00
193	194.35	16.45	203.00	186.00
194	195.24	16.15	203.00	187.00
195	196.12	15.86	204.00	188.00
196	197.01	15.56	205.00	189.00
197	197.89	15.27	206.00	190.00
198	198.78	14.98	206.00	191.00
199	199.66	14.69	207.00	192.00
200	200.53	14.41	208.00	193.00
201	201.41	14.12	208.00	194.00
202	202.28	13.84	209.00	195.00
203	203.15	13.57	210.00	196.00
204	204.02	13.29	211.00	197.00
205	204.89	13.02	211.00	198.00
206	205.75	12.75	212.00	199.00

**2011 Minnesota Growth Calculations  
Functional Requirements**

207	206.61	12.49	213.00	200.00
208	207.47	12.23	214.00	201.00
209	208.33	11.97	214.00	202.00
210	209.18	11.71	215.00	203.00
211	210.03	11.46	216.00	204.00
212	210.88	11.20	216.00	205.00
213	211.72	10.96	217.00	206.00
214	212.57	10.71	218.00	207.00
215	213.41	10.47	219.00	208.00
216	214.24	10.23	219.00	209.00
217	215.08	10.00	220.00	210.00
218	215.91	9.77	221.00	211.00
219	216.74	9.54	222.00	212.00
220	217.57	9.31	222.00	213.00
221	218.39	9.09	223.00	214.00
222	219.21	8.87	224.00	215.00
223	220.02	8.66	224.00	216.00
224	220.84	8.45	225.00	217.00
225	221.65	8.24	226.00	218.00
226	222.46	8.03	226.00	218.00
227	223.26	7.83	227.00	219.00
228	224.06	7.64	228.00	220.00
229	224.86	7.44	229.00	221.00
230	225.66	7.25	229.00	222.00
231	226.45	7.06	230.00	223.00
232	227.24	6.88	231.00	224.00
233	228.03	6.69	231.00	225.00
234	228.81	6.52	232.00	226.00
235	229.59	6.34	233.00	226.00
236	230.36	6.17	233.00	227.00
237	231.14	6.00	234.00	228.00
238	231.91	5.84	235.00	229.00
239	232.67	5.68	236.00	230.00

**Math scores: Grade 5**



Growth expectations: Grade 5 MTAS math

Prior scale score	Mean of current scale scores	Standard deviation of current scores	High growth target (cut score)	Medium growth target (cut score)
118	157.70	22.07	169.00	147.00
119	158.09	21.98	169.00	147.00
120	158.49	21.88	169.00	148.00
121	158.89	21.79	170.00	148.00
122	159.29	21.69	170.00	148.00
123	159.69	21.60	170.00	149.00
124	160.10	21.50	171.00	149.00

**2011 Minnesota Growth Calculations  
Functional Requirements**

125	160.51	21.40	171.00	150.00
126	160.92	21.30	172.00	150.00
127	161.34	21.19	172.00	151.00
128	161.76	21.09	172.00	151.00
129	162.18	20.98	173.00	152.00
130	162.61	20.88	173.00	152.00
131	163.04	20.77	173.00	153.00
132	163.47	20.66	174.00	153.00
133	163.91	20.56	174.00	154.00
134	164.34	20.45	175.00	154.00
135	164.79	20.34	175.00	155.00
136	165.23	20.22	175.00	155.00
137	165.68	20.11	176.00	156.00
138	166.14	20.00	176.00	156.00
139	166.59	19.89	177.00	157.00
140	167.05	19.77	177.00	157.00
141	167.52	19.66	177.00	158.00
142	167.99	19.54	178.00	158.00
143	168.46	19.42	178.00	159.00
144	168.94	19.31	179.00	159.00
145	169.42	19.19	179.00	160.00
146	169.91	19.06	179.00	160.00
147	170.41	18.94	180.00	161.00
148	170.90	18.81	180.00	161.00
149	171.41	18.69	181.00	162.00
150	171.92	18.56	181.00	163.00
151	172.43	18.42	182.00	163.00
152	172.95	18.29	182.00	164.00
153	173.48	18.15	183.00	164.00
154	174.01	18.00	183.00	165.00
155	174.55	17.85	183.00	166.00
156	175.09	17.70	184.00	166.00
157	175.64	17.55	184.00	167.00
158	176.19	17.39	185.00	167.00
159	176.75	17.22	185.00	168.00
160	177.31	17.05	186.00	169.00

## 2011 Minnesota Growth Calculations Functional Requirements

161	177.88	16.88	186.00	169.00
162	178.45	16.69	187.00	170.00
163	179.02	16.51	187.00	171.00
164	179.60	16.32	188.00	171.00
165	180.19	16.12	188.00	172.00
166	180.77	15.91	189.00	173.00
167	181.36	15.70	189.00	174.00
168	181.95	15.49	190.00	174.00
169	182.55	15.27	190.00	175.00
170	183.14	15.05	191.00	176.00
171	183.74	14.82	191.00	176.00
172	184.34	14.59	192.00	177.00
173	184.94	14.35	192.00	178.00
174	185.53	14.11	193.00	178.00
175	186.13	13.87	193.00	179.00
176	186.73	13.62	194.00	180.00
177	187.33	13.37	194.00	181.00
178	187.92	13.13	194.00	181.00
179	188.52	12.88	195.00	182.00
180	189.11	12.63	195.00	183.00
181	189.70	12.38	196.00	184.00
182	190.29	12.13	196.00	184.00
183	190.87	11.88	197.00	185.00
184	191.45	11.63	197.00	186.00
185	192.03	11.39	198.00	186.00
186	192.61	11.15	198.00	187.00
187	193.18	10.91	199.00	188.00
188	193.75	10.67	199.00	188.00
189	194.31	10.44	200.00	189.00
190	194.87	10.22	200.00	190.00
191	195.43	9.99	200.00	190.00
192	195.98	9.77	201.00	191.00
193	196.53	9.56	201.00	192.00
194	197.07	9.35	202.00	192.00
195	197.61	9.15	202.00	193.00
196	198.15	8.96	203.00	194.00

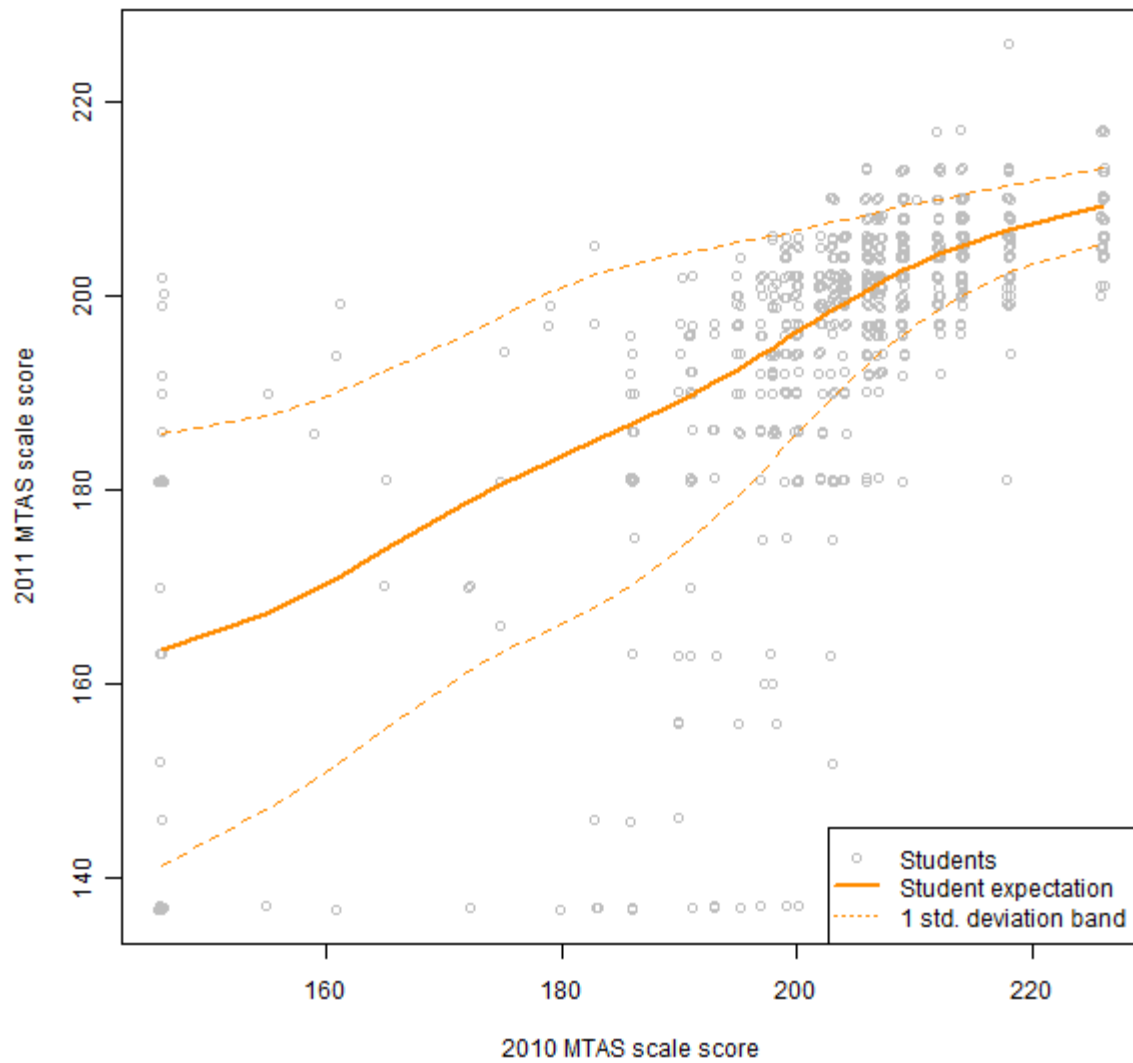
## 2011 Minnesota Growth Calculations Functional Requirements

197	198.68	8.76	203.00	194.00
198	199.20	8.58	203.00	195.00
199	199.72	8.40	204.00	196.00
200	200.24	8.23	204.00	196.00
201	200.75	8.06	205.00	197.00
202	201.25	7.90	205.00	197.00
203	201.75	7.75	206.00	198.00
204	202.25	7.60	206.00	198.00
205	202.74	7.46	206.00	199.00
206	203.23	7.32	207.00	200.00
207	203.71	7.20	207.00	200.00
208	204.18	7.07	208.00	201.00
209	204.65	6.96	208.00	201.00
210	205.12	6.85	209.00	202.00
211	205.58	6.75	209.00	202.00
212	206.04	6.65	209.00	203.00
213	206.49	6.56	210.00	203.00
214	206.93	6.47	210.00	204.00
215	207.37	6.39	211.00	204.00
216	207.81	6.32	211.00	205.00
217	208.24	6.25	211.00	205.00
218	208.67	6.19	212.00	206.00
219	209.09	6.13	212.00	206.00
220	209.51	6.08	213.00	206.00
221	209.92	6.03	213.00	207.00
222	210.33	5.99	213.00	207.00
223	210.73	5.95	214.00	208.00
224	211.13	5.92	214.00	208.00
225	211.52	5.89	214.00	209.00
226	211.91	5.87	215.00	209.00
227	212.30	5.85	215.00	209.00
228	212.68	5.83	216.00	210.00
229	213.05	5.82	216.00	210.00
230	213.43	5.81	216.00	211.00
231	213.79	5.81	217.00	211.00
232	214.16	5.81	217.00	211.00

2011 Minnesota Growth Calculations  
Functional Requirements

233	214.52	5.81	217.00	212.00
234	214.88	5.81	218.00	212.00
235	215.23	5.82	218.00	212.00
236	215.58	5.84	218.00	213.00
237	215.92	5.85	219.00	213.00
238	216.27	5.87	219.00	213.00
239	216.60	5.89	220.00	214.00

Math scores: Grade 6



Growth expectations: Grade 6 MTAS math

## 2011 Minnesota Growth Calculations Functional Requirements

Prior scale score	Mean of current scale scores	Standard deviation of current scores	High growth target (cut score)	Medium growth target (cut score)
146	163.50	22.25	175.00	152.00
147	163.81	22.03	175.00	153.00
148	164.16	21.80	175.00	153.00
149	164.53	21.58	175.00	154.00
150	164.93	21.36	176.00	154.00
151	165.35	21.15	176.00	155.00
152	165.81	20.93	176.00	155.00
153	166.28	20.72	177.00	156.00
154	166.79	20.51	177.00	157.00
155	167.32	20.31	177.00	157.00
156	167.87	20.11	178.00	158.00
157	168.45	19.91	178.00	158.00
158	169.05	19.71	179.00	159.00
159	169.67	19.52	179.00	160.00
160	170.31	19.32	180.00	161.00
161	170.97	19.13	181.00	161.00
162	171.65	18.94	181.00	162.00
163	172.34	18.75	182.00	163.00
164	173.04	18.56	182.00	164.00
165	173.75	18.38	183.00	165.00
166	174.47	18.20	184.00	165.00
167	175.18	18.03	184.00	166.00
168	175.90	17.87	185.00	167.00
169	176.61	17.73	185.00	168.00
170	177.31	17.60	186.00	169.00
171	178.00	17.50	187.00	169.00
172	178.68	17.41	187.00	170.00
173	179.35	17.36	188.00	171.00
174	180.00	17.32	189.00	171.00
175	180.63	17.31	189.00	172.00
176	181.24	17.31	190.00	173.00
177	181.84	17.33	191.00	173.00
178	182.42	17.34	191.00	174.00
179	182.99	17.35	192.00	174.00
180	183.54	17.35	192.00	175.00



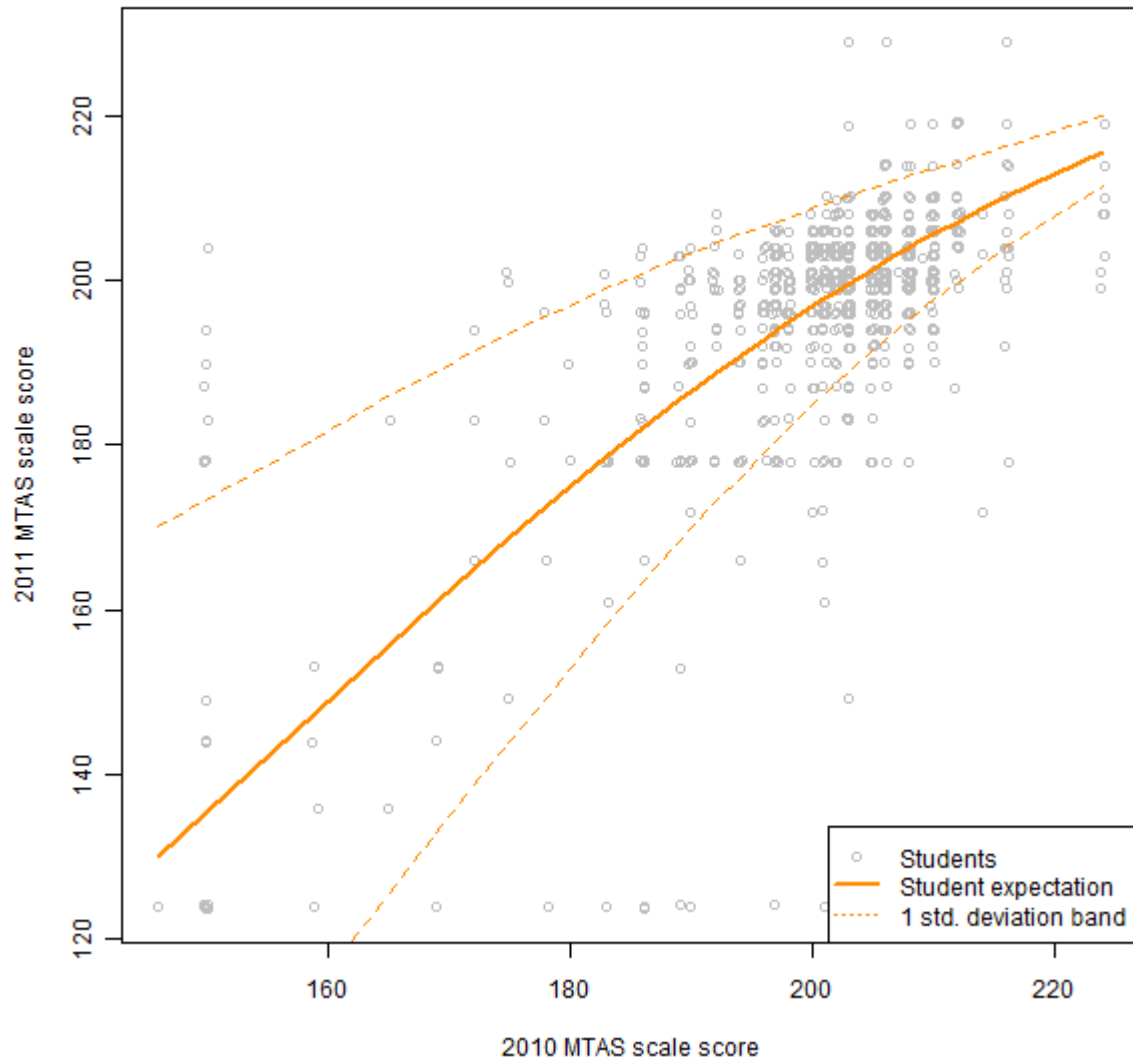
**2011 Minnesota Growth Calculations  
Functional Requirements**

181	184.09	17.32	193.00	175.00
182	184.62	17.26	193.00	176.00
183	185.16	17.16	194.00	177.00
184	185.69	17.02	194.00	177.00
185	186.23	16.83	195.00	178.00
186	186.78	16.60	195.00	178.00
187	187.33	16.33	195.00	179.00
188	187.90	16.01	196.00	180.00
189	188.49	15.66	196.00	181.00
190	189.10	15.28	197.00	181.00
191	189.73	14.86	197.00	182.00
192	190.39	14.42	198.00	183.00
193	191.06	13.96	198.00	184.00
194	191.76	13.48	199.00	185.00
195	192.48	12.99	199.00	186.00
196	193.21	12.49	199.00	187.00
197	193.96	11.99	200.00	188.00
198	194.72	11.48	200.00	189.00
199	195.48	10.98	201.00	190.00
200	196.25	10.48	201.00	191.00
201	197.01	9.99	202.00	192.00
202	197.77	9.51	203.00	193.00
203	198.51	9.04	203.00	194.00
204	199.25	8.58	204.00	195.00
205	199.96	8.15	204.00	196.00
206	200.65	7.73	205.00	197.00
207	201.32	7.33	205.00	198.00
208	201.96	6.96	205.00	198.00
209	202.58	6.60	206.00	199.00
210	203.16	6.27	206.00	200.00
211	203.72	5.97	207.00	201.00
212	204.25	5.68	207.00	201.00
213	204.75	5.42	207.00	202.00
214	205.23	5.19	208.00	203.00
215	205.68	4.97	208.00	203.00
216	206.10	4.78	208.00	204.00

2011 Minnesota Growth Calculations  
Functional Requirements

217	206.50	4.61	209.00	204.00
218	206.88	4.46	209.00	205.00
219	207.23	4.33	209.00	205.00
220	207.57	4.22	210.00	205.00
221	207.89	4.12	210.00	206.00
222	208.19	4.04	210.00	206.00
223	208.48	3.97	210.00	206.00
224	208.76	3.91	211.00	207.00
225	209.02	3.87	211.00	207.00
226	209.28	3.83	211.00	207.00

Math scores: Grade 7



Growth expectations: Grade 7 MTAS math

Prior scale score	Mean of current scale scores	Standard deviation of current scores	High growth target (cut score)	Medium growth target (cut score)
146	130.01	40.06	150.00	110.00
147	131.36	39.55	151.00	112.00
148	132.70	39.04	152.00	113.00
149	134.05	38.53	153.00	115.00
150	135.40	38.02	154.00	116.00
151	136.75	37.50	156.00	118.00
152	138.11	36.99	157.00	120.00

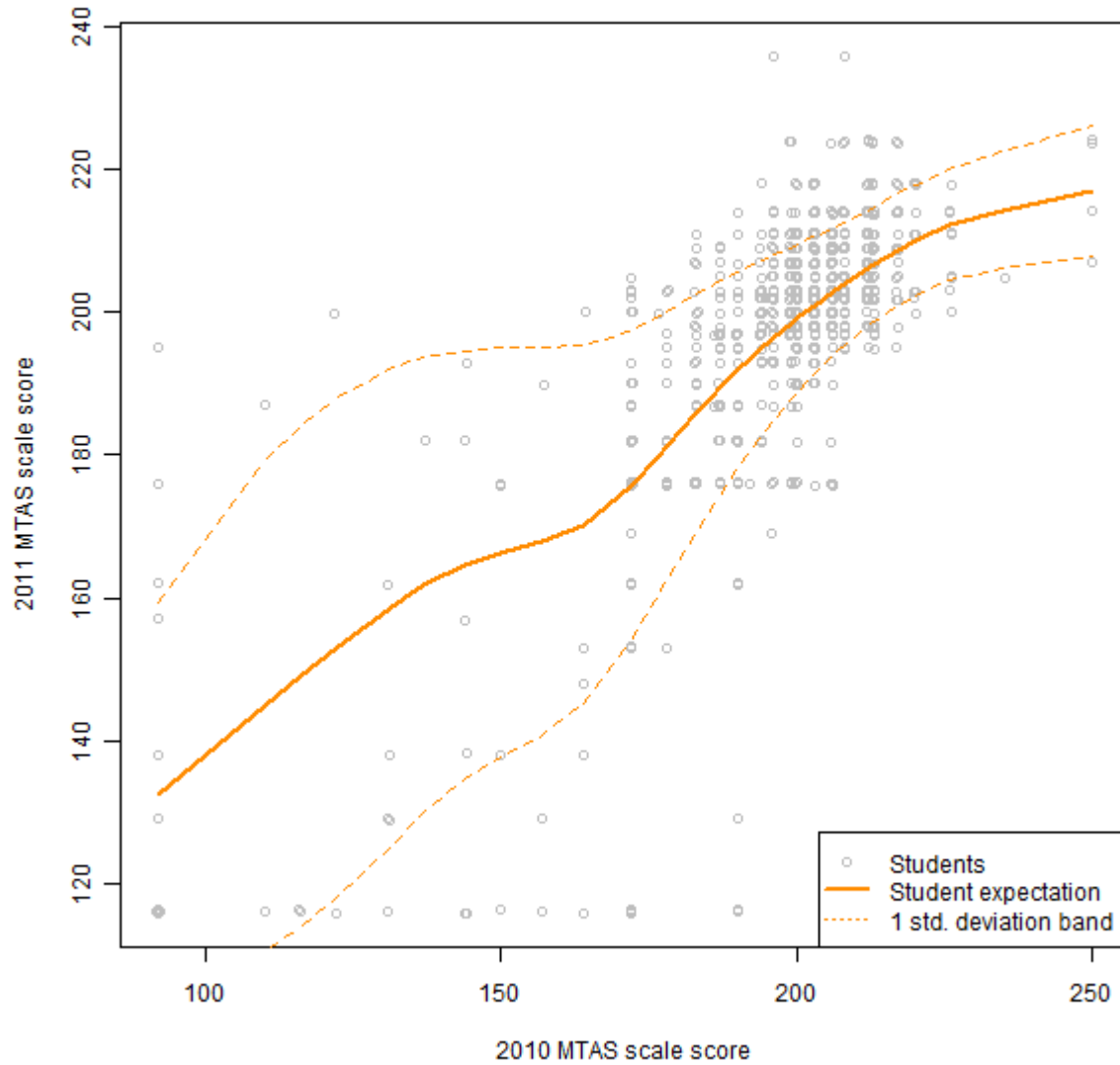
**2011 Minnesota Growth Calculations  
Functional Requirements**

153	139.46	36.47	158.00	121.00
154	140.82	35.95	159.00	123.00
155	142.17	35.44	160.00	124.00
156	143.53	34.92	161.00	126.00
157	144.88	34.39	162.00	128.00
158	146.23	33.87	163.00	129.00
159	147.59	33.34	164.00	131.00
160	148.94	32.82	165.00	133.00
161	150.29	32.29	166.00	134.00
162	151.63	31.76	168.00	136.00
163	152.98	31.23	169.00	137.00
164	154.32	30.70	170.00	139.00
165	155.65	30.16	171.00	141.00
166	156.99	29.63	172.00	142.00
167	158.31	29.09	173.00	144.00
168	159.63	28.55	174.00	145.00
169	160.95	28.01	175.00	147.00
170	162.26	27.47	176.00	149.00
171	163.57	26.93	177.00	150.00
172	164.86	26.39	178.00	152.00
173	166.15	25.85	179.00	153.00
174	167.43	25.30	180.00	155.00
175	168.71	24.76	181.00	156.00
176	169.97	24.21	182.00	158.00
177	171.23	23.67	183.00	159.00
178	172.47	23.12	184.00	161.00
179	173.71	22.58	185.00	162.00
180	174.93	22.03	186.00	164.00
181	176.15	21.49	187.00	165.00
182	177.35	20.95	188.00	167.00
183	178.54	20.41	189.00	168.00
184	179.72	19.87	190.00	170.00
185	180.89	19.34	191.00	171.00
186	182.04	18.81	191.00	173.00
187	183.19	18.28	192.00	174.00
188	184.31	17.75	193.00	175.00

## 2011 Minnesota Growth Calculations Functional Requirements

189	185.43	17.23	194.00	177.00
190	186.53	16.71	195.00	178.00
191	187.62	16.20	196.00	180.00
192	188.69	15.70	197.00	181.00
193	189.75	15.20	197.00	182.00
194	190.80	14.70	198.00	183.00
195	191.83	14.22	199.00	185.00
196	192.85	13.74	200.00	186.00
197	193.85	13.27	200.00	187.00
198	194.84	12.80	201.00	188.00
199	195.82	12.35	202.00	190.00
200	196.77	11.90	203.00	191.00
201	197.72	11.46	203.00	192.00
202	198.65	11.03	204.00	193.00
203	199.57	10.61	205.00	194.00
204	200.47	10.20	206.00	195.00
205	201.36	9.80	206.00	196.00
206	202.23	9.41	207.00	198.00
207	203.09	9.03	208.00	199.00
208	203.93	8.66	208.00	200.00
209	204.76	8.31	209.00	201.00
210	205.58	7.96	210.00	202.00
211	206.39	7.62	210.00	203.00
212	207.18	7.29	211.00	204.00
213	207.96	6.98	211.00	204.00
214	208.72	6.67	212.00	205.00
215	209.47	6.38	213.00	206.00
216	210.21	6.10	213.00	207.00
217	210.94	5.83	214.00	208.00
218	211.65	5.56	214.00	209.00
219	212.35	5.31	215.00	210.00
220	213.04	5.07	216.00	211.00
221	213.72	4.84	216.00	211.00
222	214.39	4.62	217.00	212.00
223	215.05	4.42	217.00	213.00
224	215.69	4.22	218.00	214.00

Math scores: Grade 8



Growth expectations: Grade 8 MTAS math

Prior scale score	Mean of current scale scores	Standard deviation of current scores	High growth target (cut score)	Medium growth target (cut score)
92	132.48	26.77	146.00	119.00
93	133.18	27.35	147.00	120.00
94	133.87	27.91	148.00	120.00
95	134.56	28.46	149.00	120.00
96	135.25	28.99	150.00	121.00
97	135.95	29.51	151.00	121.00
98	136.64	30.01	152.00	122.00

**2011 Minnesota Growth Calculations  
Functional Requirements**

99	137.33	30.50	153.00	122.00
100	138.03	30.97	154.00	123.00
101	138.72	31.42	154.00	123.00
102	139.42	31.85	155.00	123.00
103	140.11	32.26	156.00	124.00
104	140.81	32.65	157.00	124.00
105	141.50	33.01	158.00	125.00
106	142.19	33.34	159.00	126.00
107	142.88	33.65	160.00	126.00
108	143.57	33.93	161.00	127.00
109	144.26	34.19	161.00	127.00
110	144.94	34.41	162.00	128.00
111	145.62	34.61	163.00	128.00
112	146.30	34.77	164.00	129.00
113	146.98	34.91	164.00	130.00
114	147.65	35.02	165.00	130.00
115	148.32	35.10	166.00	131.00
116	148.99	35.16	167.00	131.00
117	149.65	35.19	167.00	132.00
118	150.31	35.19	168.00	133.00
119	150.96	35.17	169.00	133.00
120	151.62	35.13	169.00	134.00
121	152.26	35.07	170.00	135.00
122	152.91	34.99	170.00	135.00
123	153.55	34.89	171.00	136.00
124	154.18	34.77	172.00	137.00
125	154.81	34.63	172.00	137.00
126	155.44	34.47	173.00	138.00
127	156.06	34.30	173.00	139.00
128	156.68	34.11	174.00	140.00
129	157.28	33.91	174.00	140.00
130	157.89	33.69	175.00	141.00
131	158.48	33.46	175.00	142.00
132	159.06	33.21	176.00	142.00
133	159.64	32.96	176.00	143.00
134	160.20	32.70	177.00	144.00

**2011 Minnesota Growth Calculations  
Functional Requirements**

135	160.74	32.43	177.00	145.00
136	161.27	32.15	177.00	145.00
137	161.78	31.88	178.00	146.00
138	162.27	31.60	178.00	146.00
139	162.74	31.32	178.00	147.00
140	163.19	31.04	179.00	148.00
141	163.60	30.77	179.00	148.00
142	164.00	30.51	179.00	149.00
143	164.37	30.25	179.00	149.00
144	164.71	30.00	180.00	150.00
145	165.03	29.75	180.00	150.00
146	165.33	29.52	180.00	151.00
147	165.61	29.29	180.00	151.00
148	165.88	29.08	180.00	151.00
149	166.13	28.87	181.00	152.00
150	166.37	28.67	181.00	152.00
151	166.59	28.47	181.00	152.00
152	166.82	28.28	181.00	153.00
153	167.03	28.09	181.00	153.00
154	167.25	27.89	181.00	153.00
155	167.47	27.69	181.00	154.00
156	167.70	27.48	181.00	154.00
157	167.93	27.25	182.00	154.00
158	168.18	27.00	182.00	155.00
159	168.45	26.74	182.00	155.00
160	168.74	26.45	182.00	156.00
161	169.06	26.14	182.00	156.00
162	169.42	25.80	182.00	157.00
163	169.82	25.44	183.00	157.00
164	170.27	25.06	183.00	158.00
165	170.76	24.66	183.00	158.00
166	171.31	24.25	183.00	159.00
167	171.91	23.82	184.00	160.00
168	172.56	23.38	184.00	161.00
169	173.27	22.93	185.00	162.00
170	174.02	22.48	185.00	163.00



**2011 Minnesota Growth Calculations  
Functional Requirements**

171	174.81	22.03	186.00	164.00
172	175.65	21.57	186.00	165.00
173	176.52	21.12	187.00	166.00
174	177.41	20.67	188.00	167.00
175	178.33	20.22	188.00	168.00
176	179.27	19.77	189.00	169.00
177	180.22	19.32	190.00	171.00
178	181.17	18.88	191.00	172.00
179	182.12	18.45	191.00	173.00
180	183.08	18.01	192.00	174.00
181	184.02	17.58	193.00	175.00
182	184.96	17.15	194.00	176.00
183	185.89	16.72	194.00	178.00
184	186.80	16.30	195.00	179.00
185	187.70	15.88	196.00	180.00
186	188.59	15.46	196.00	181.00
187	189.45	15.05	197.00	182.00
188	190.30	14.64	198.00	183.00
189	191.13	14.23	198.00	184.00
190	191.95	13.83	199.00	185.00
191	192.74	13.44	199.00	186.00
192	193.52	13.05	200.00	187.00
193	194.28	12.67	201.00	188.00
194	195.02	12.30	201.00	189.00
195	195.75	11.94	202.00	190.00
196	196.46	11.59	202.00	191.00
197	197.15	11.25	203.00	192.00
198	197.84	10.92	203.00	192.00
199	198.50	10.62	204.00	193.00
200	199.16	10.32	204.00	194.00
201	199.81	10.05	205.00	195.00
202	200.44	9.79	205.00	196.00
203	201.06	9.55	206.00	196.00
204	201.67	9.33	206.00	197.00
205	202.28	9.12	207.00	198.00
206	202.87	8.93	207.00	198.00

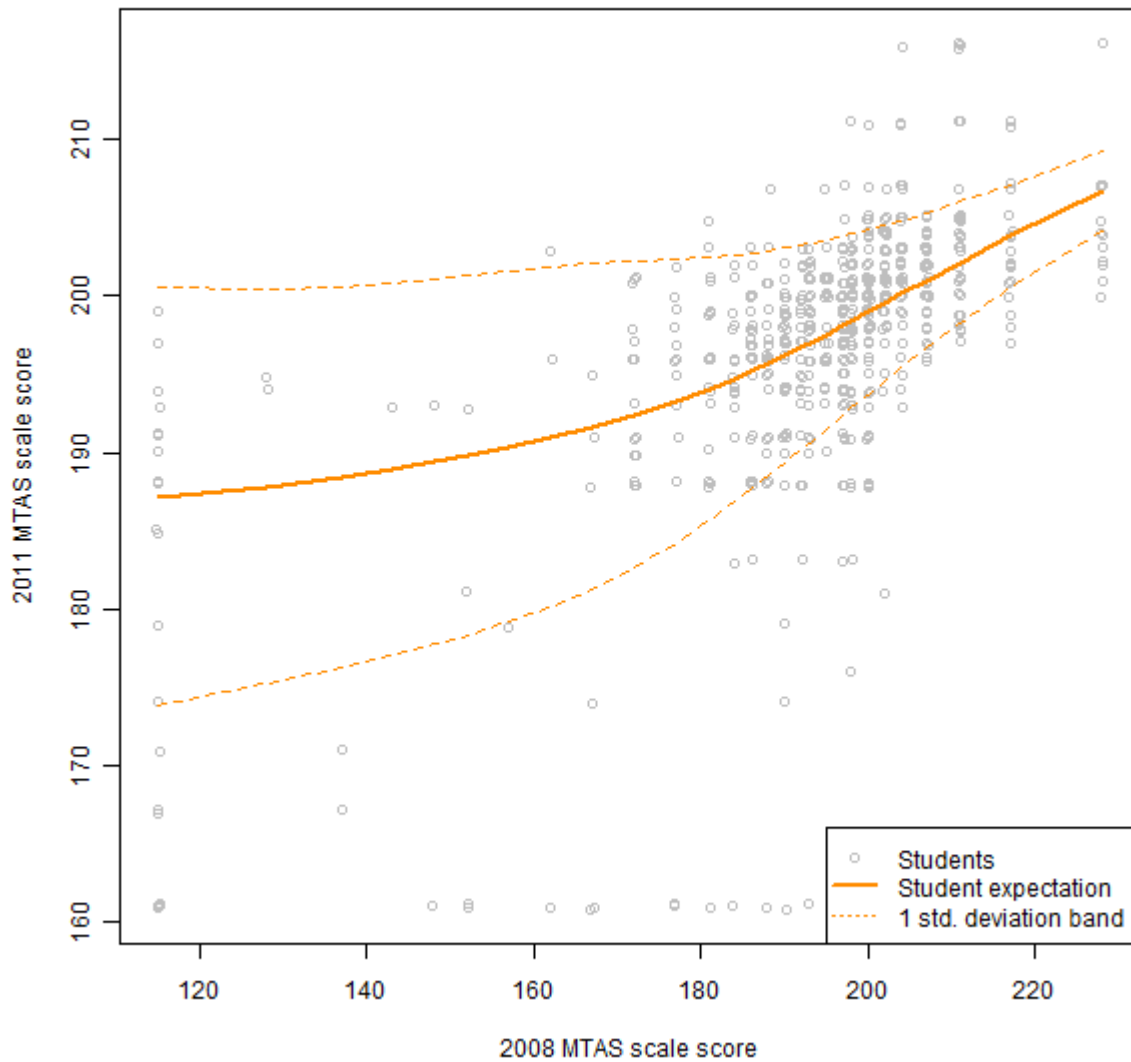
**2011 Minnesota Growth Calculations  
Functional Requirements**

207	203.46	8.77	208.00	199.00
208	204.03	8.61	208.00	200.00
209	204.60	8.48	209.00	200.00
210	205.16	8.36	209.00	201.00
211	205.71	8.26	210.00	202.00
212	206.24	8.17	210.00	202.00
213	206.77	8.09	211.00	203.00
214	207.29	8.02	211.00	203.00
215	207.80	7.96	212.00	204.00
216	208.29	7.92	212.00	204.00
217	208.77	7.88	213.00	205.00
218	209.23	7.85	213.00	205.00
219	209.68	7.82	214.00	206.00
220	210.12	7.80	214.00	206.00
221	210.53	7.79	214.00	207.00
222	210.93	7.78	215.00	207.00
223	211.31	7.78	215.00	207.00
224	211.67	7.78	216.00	208.00
225	212.01	7.79	216.00	208.00
226	212.32	7.80	216.00	208.00
227	212.62	7.82	217.00	209.00
228	212.89	7.84	217.00	209.00
229	213.14	7.86	217.00	209.00
230	213.38	7.90	217.00	209.00
231	213.59	7.93	218.00	210.00
232	213.79	7.98	218.00	210.00
233	213.98	8.03	218.00	210.00
234	214.15	8.08	218.00	210.00
235	214.32	8.15	218.00	210.00
236	214.48	8.21	219.00	210.00
237	214.64	8.28	219.00	211.00
238	214.80	8.35	219.00	211.00
239	214.96	8.43	219.00	211.00
240	215.12	8.51	219.00	211.00
241	215.28	8.58	220.00	211.00
242	215.45	8.66	220.00	211.00

2011 Minnesota Growth Calculations  
Functional Requirements

243	215.63	8.73	220.00	211.00
244	215.81	8.81	220.00	211.00
245	215.99	8.88	220.00	212.00
246	216.18	8.95	221.00	212.00
247	216.37	9.01	221.00	212.00
248	216.57	9.07	221.00	212.00
249	216.77	9.13	221.00	212.00
250	216.97	9.18	222.00	212.00

Math scores: Grade 11



Growth expectations: Grade 11 MTAS math

**2011 Minnesota Growth Calculations**  
Functional Requirements

<b>Prior scale score</b>	<b>Mean of current scale scores</b>	<b>Standard deviation of current scores</b>	<b>High growth target (cut score)</b>	<b>Medium growth target (cut score)</b>
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## 2011 Minnesota Growth Calculations Functional Requirements

115	187.17	13.36	194.00	180.00
116	187.21	13.30	194.00	181.00
117	187.25	13.24	194.00	181.00
118	187.29	13.18	194.00	181.00
119	187.34	13.12	194.00	181.00
120	187.38	13.06	194.00	181.00
121	187.43	13.00	194.00	181.00
122	187.47	12.94	194.00	181.00
123	187.53	12.89	194.00	181.00
124	187.58	12.83	194.00	181.00
125	187.63	12.77	194.00	181.00
126	187.69	12.72	194.00	181.00
127	187.75	12.67	194.00	181.00
128	187.81	12.61	194.00	182.00
129	187.88	12.56	194.00	182.00
130	187.94	12.51	194.00	182.00
131	188.01	12.46	194.00	182.00
132	188.08	12.41	194.00	182.00
133	188.15	12.36	194.00	182.00
134	188.23	12.31	194.00	182.00
135	188.31	12.26	194.00	182.00
136	188.38	12.21	194.00	182.00
137	188.46	12.17	195.00	182.00
138	188.55	12.12	195.00	182.00
139	188.63	12.08	195.00	183.00
140	188.72	12.03	195.00	183.00
141	188.80	11.99	195.00	183.00
142	188.89	11.95	195.00	183.00
143	188.98	11.90	195.00	183.00
144	189.07	11.86	195.00	183.00
145	189.17	11.82	195.00	183.00
146	189.26	11.78	195.00	183.00
147	189.36	11.73	195.00	183.00
148	189.46	11.69	195.00	184.00
149	189.55	11.65	195.00	184.00
150	189.66	11.60	195.00	184.00

## 2011 Minnesota Growth Calculations Functional Requirements

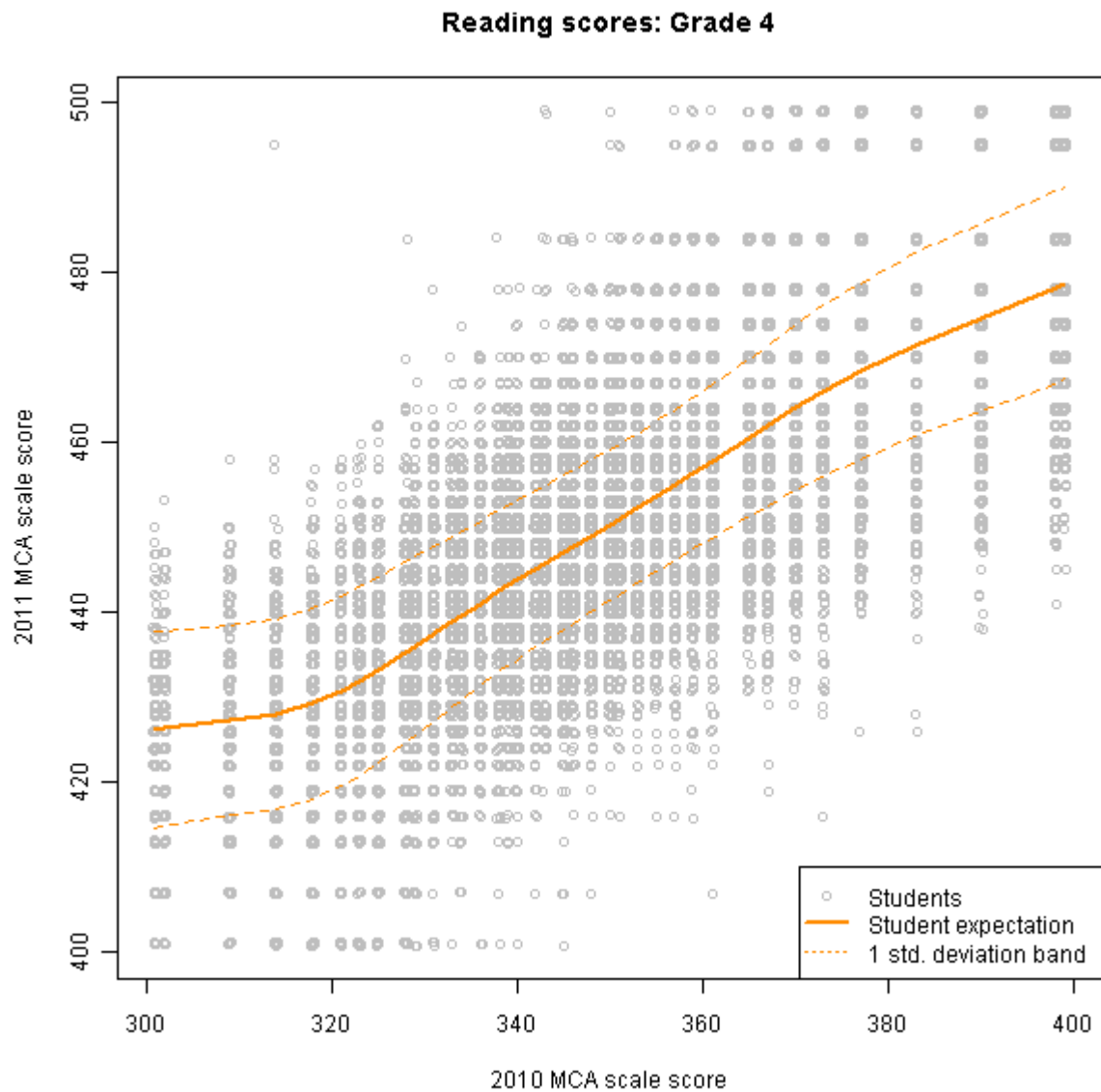
151	189.76	11.55	196.00	184.00
152	189.86	11.51	196.00	184.00
153	189.97	11.46	196.00	184.00
154	190.07	11.40	196.00	184.00
155	190.18	11.35	196.00	185.00
156	190.29	11.29	196.00	185.00
157	190.40	11.23	196.00	185.00
158	190.52	11.17	196.00	185.00
159	190.63	11.10	196.00	185.00
160	190.75	11.03	196.00	185.00
161	190.87	10.95	196.00	185.00
162	191.00	10.87	196.00	186.00
163	191.12	10.78	197.00	186.00
164	191.25	10.69	197.00	186.00
165	191.38	10.59	197.00	186.00
166	191.52	10.49	197.00	186.00
167	191.66	10.39	197.00	186.00
168	191.80	10.27	197.00	187.00
169	191.95	10.16	197.00	187.00
170	192.10	10.03	197.00	187.00
171	192.25	9.90	197.00	187.00
172	192.41	9.77	197.00	188.00
173	192.58	9.63	197.00	188.00
174	192.75	9.49	197.00	188.00
175	192.92	9.34	198.00	188.00
176	193.10	9.19	198.00	189.00
177	193.29	9.04	198.00	189.00
178	193.48	8.88	198.00	189.00
179	193.68	8.72	198.00	189.00
180	193.88	8.56	198.00	190.00
181	194.09	8.39	198.00	190.00
182	194.30	8.22	198.00	190.00
183	194.52	8.05	199.00	190.00
184	194.74	7.88	199.00	191.00
185	194.98	7.71	199.00	191.00
186	195.21	7.54	199.00	191.00

## 2011 Minnesota Growth Calculations Functional Requirements

187	195.46	7.37	199.00	192.00
188	195.70	7.20	199.00	192.00
189	195.96	7.03	199.00	192.00
190	196.21	6.86	200.00	193.00
191	196.47	6.69	200.00	193.00
192	196.74	6.52	200.00	193.00
193	197.01	6.36	200.00	194.00
194	197.28	6.19	200.00	194.00
195	197.56	6.03	201.00	195.00
196	197.84	5.87	201.00	195.00
197	198.12	5.72	201.00	195.00
198	198.41	5.56	201.00	196.00
199	198.69	5.41	201.00	196.00
200	198.98	5.27	202.00	196.00
201	199.27	5.12	202.00	197.00
202	199.56	4.98	202.00	197.00
203	199.85	4.84	202.00	197.00
204	200.14	4.71	202.00	198.00
205	200.43	4.57	203.00	198.00
206	200.72	4.45	203.00	199.00
207	201.02	4.32	203.00	199.00
208	201.30	4.20	203.00	199.00
209	201.59	4.08	204.00	200.00
210	201.88	3.97	204.00	200.00
211	202.17	3.86	204.00	200.00
212	202.45	3.75	204.00	201.00
213	202.74	3.65	205.00	201.00
214	203.02	3.55	205.00	201.00
215	203.30	3.46	205.00	202.00
216	203.58	3.36	205.00	202.00
217	203.85	3.28	205.00	202.00
218	204.13	3.19	206.00	203.00
219	204.40	3.11	206.00	203.00
220	204.67	3.03	206.00	203.00
221	204.94	2.96	206.00	203.00
222	205.20	2.89	207.00	204.00

2011 Minnesota Growth Calculations  
Functional Requirements

223	205.47	2.82	207.00	204.00
224	205.73	2.76	207.00	204.00
225	205.99	2.70	207.00	205.00
226	206.25	2.64	208.00	205.00
227	206.50	2.59	208.00	205.00
228	206.75	2.54	208.00	205.00



Growth expectations: Grade 4 MCA reading

Prior scale score	Mean of current scale scores	Standard deviation of current scores	High growth target (cut score)	Medium growth target (cut score)
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## 2011 Minnesota Growth Calculations Functional Requirements

301	426.27	11.55	432.00	420.00
302	426.40	11.45	432.00	421.00
303	426.53	11.36	432.00	421.00
304	426.66	11.29	432.00	421.00
305	426.79	11.23	432.00	421.00
306	426.93	11.19	433.00	421.00
307	427.06	11.15	433.00	421.00
308	427.19	11.13	433.00	422.00
309	427.32	11.11	433.00	422.00
310	427.46	11.10	433.00	422.00
311	427.59	11.10	433.00	422.00
312	427.74	11.11	433.00	422.00
313	427.90	11.13	433.00	422.00
314	428.09	11.15	434.00	423.00
315	428.32	11.17	434.00	423.00
316	428.59	11.19	434.00	423.00
317	428.91	11.20	435.00	423.00
318	429.28	11.21	435.00	424.00
319	429.71	11.20	435.00	424.00
320	430.18	11.19	436.00	425.00
321	430.71	11.16	436.00	425.00
322	431.28	11.12	437.00	426.00
323	431.89	11.07	437.00	426.00
324	432.53	11.00	438.00	427.00
325	433.20	10.93	439.00	428.00
326	433.89	10.85	439.00	428.00
327	434.60	10.76	440.00	429.00
328	435.32	10.66	441.00	430.00
329	436.04	10.55	441.00	431.00
330	436.77	10.44	442.00	432.00
331	437.50	10.32	443.00	432.00
332	438.23	10.20	443.00	433.00
333	438.95	10.09	444.00	434.00
334	439.67	9.97	445.00	435.00
335	440.38	9.86	445.00	435.00
336	441.08	9.75	446.00	436.00

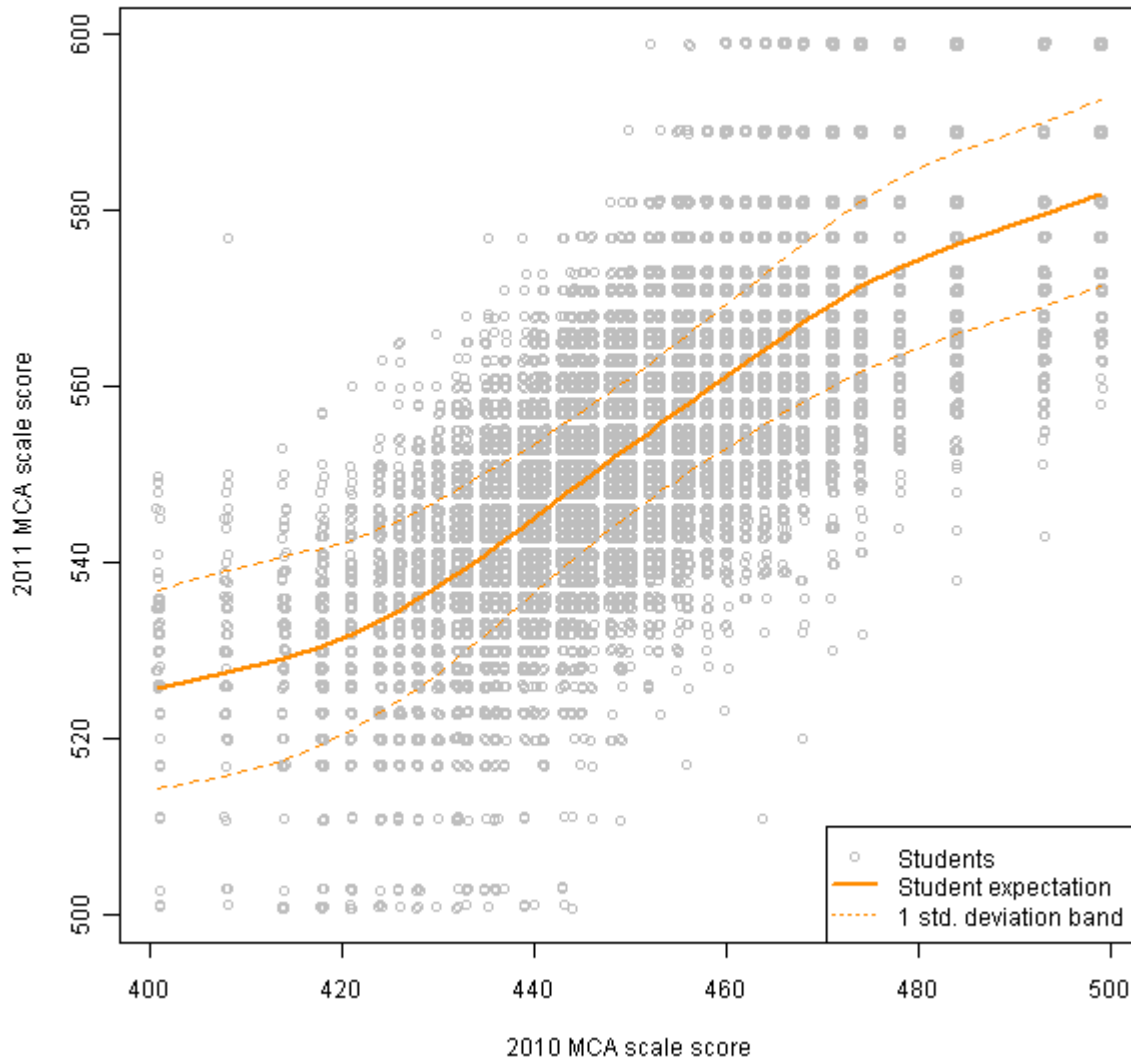
## 2011 Minnesota Growth Calculations Functional Requirements

337	441.78	9.65	447.00	437.00
338	442.47	9.55	447.00	438.00
339	443.15	9.46	448.00	438.00
340	443.82	9.37	449.00	439.00
341	444.49	9.29	449.00	440.00
342	445.15	9.21	450.00	441.00
343	445.81	9.14	450.00	441.00
344	446.46	9.08	451.00	442.00
345	447.11	9.02	452.00	443.00
346	447.76	8.96	452.00	443.00
347	448.40	8.91	453.00	444.00
348	449.04	8.87	453.00	445.00
349	449.69	8.83	454.00	445.00
350	450.34	8.80	455.00	446.00
351	451.00	8.78	455.00	447.00
352	451.66	8.77	456.00	447.00
353	452.32	8.77	457.00	448.00
354	453.00	8.77	457.00	449.00
355	453.67	8.79	458.00	449.00
356	454.35	8.81	459.00	450.00
357	455.04	8.84	459.00	451.00
358	455.73	8.87	460.00	451.00
359	456.42	8.92	461.00	452.00
360	457.12	8.97	462.00	453.00
361	457.82	9.02	462.00	453.00
362	458.52	9.08	463.00	454.00
363	459.22	9.15	464.00	455.00
364	459.93	9.22	465.00	455.00
365	460.63	9.29	465.00	456.00
366	461.34	9.37	466.00	457.00
367	462.04	9.46	467.00	457.00
368	462.74	9.55	468.00	458.00
369	463.43	9.65	468.00	459.00
370	464.11	9.75	469.00	459.00
371	464.78	9.85	470.00	460.00
372	465.43	9.94	470.00	460.00

**2011 Minnesota Growth Calculations  
Functional Requirements**

373	466.07	10.04	471.00	461.00
374	466.68	10.13	472.00	462.00
375	467.28	10.22	472.00	462.00
376	467.86	10.30	473.00	463.00
377	468.42	10.38	474.00	463.00
378	468.97	10.46	474.00	464.00
379	469.50	10.52	475.00	464.00
380	470.02	10.59	475.00	465.00
381	470.53	10.65	476.00	465.00
382	471.03	10.72	476.00	466.00
383	471.52	10.78	477.00	466.00
384	472.00	10.83	477.00	467.00
385	472.47	10.89	478.00	467.00
386	472.93	10.94	478.00	467.00
387	473.39	10.99	479.00	468.00
388	473.84	11.03	479.00	468.00
389	474.28	11.07	480.00	469.00
390	474.72	11.10	480.00	469.00
391	475.16	11.13	481.00	470.00
392	475.60	11.16	481.00	470.00
393	476.03	11.19	482.00	470.00
394	476.47	11.21	482.00	471.00
395	476.91	11.23	483.00	471.00
396	477.36	11.25	483.00	472.00
397	477.81	11.26	483.00	472.00
398	478.28	11.28	484.00	473.00
399	478.77	11.29	484.00	473.00

Reading scores: Grade 5



Growth expectations: Grade 5 MCA reading

Prior scale score	Mean of current scale scores	Standard deviation of current scores	High growth target (cut score)	Medium growth target (cut score)
401	525.70	11.29	531.00	520.00
402	525.96	11.39	532.00	520.00
403	526.21	11.47	532.00	520.00
404	526.47	11.54	532.00	521.00
405	526.73	11.60	533.00	521.00
406	527.00	11.65	533.00	521.00
407	527.26	11.68	533.00	521.00

## 2011 Minnesota Growth Calculations Functional Requirements

408	527.52	11.71	533.00	522.00
409	527.79	11.72	534.00	522.00
410	528.05	11.73	534.00	522.00
411	528.32	11.71	534.00	522.00
412	528.59	11.69	534.00	523.00
413	528.86	11.64	535.00	523.00
414	529.15	11.58	535.00	523.00
415	529.45	11.50	535.00	524.00
416	529.76	11.41	535.00	524.00
417	530.11	11.30	536.00	524.00
418	530.48	11.19	536.00	525.00
419	530.89	11.08	536.00	525.00
420	531.34	10.97	537.00	526.00
421	531.82	10.85	537.00	526.00
422	532.33	10.74	538.00	527.00
423	532.87	10.63	538.00	528.00
424	533.44	10.52	539.00	528.00
425	534.04	10.41	539.00	529.00
426	534.65	10.30	540.00	530.00
427	535.29	10.19	540.00	530.00
428	535.94	10.08	541.00	531.00
429	536.62	9.97	542.00	532.00
430	537.31	9.85	542.00	532.00
431	538.01	9.73	543.00	533.00
432	538.74	9.60	544.00	534.00
433	539.48	9.47	544.00	535.00
434	540.24	9.33	545.00	536.00
435	541.02	9.19	546.00	536.00
436	541.81	9.05	546.00	537.00
437	542.61	8.90	547.00	538.00
438	543.43	8.76	548.00	539.00
439	544.25	8.63	549.00	540.00
440	545.08	8.50	549.00	541.00
441	545.91	8.37	550.00	542.00
442	546.74	8.26	551.00	543.00
443	547.57	8.16	552.00	543.00

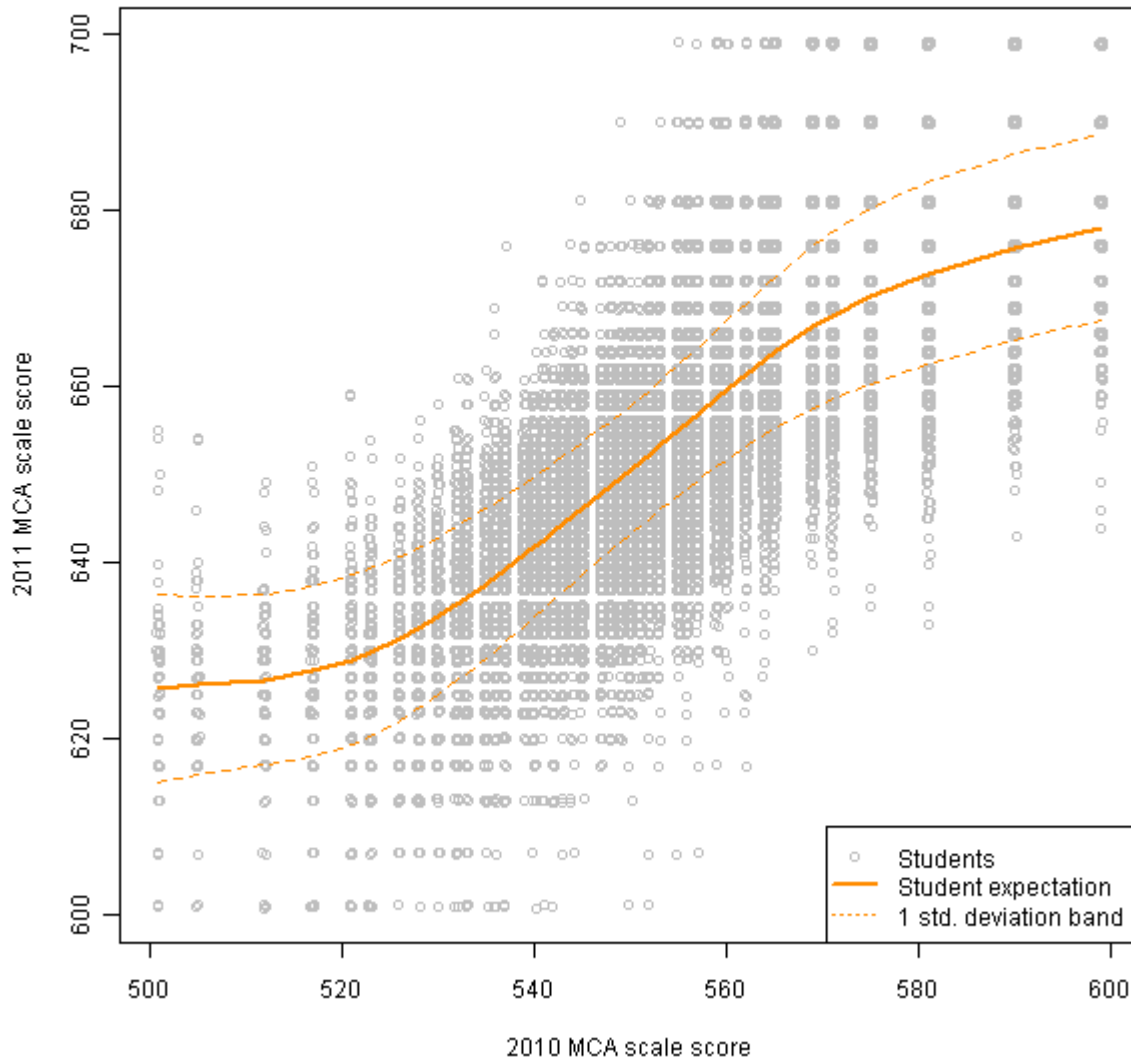
## 2011 Minnesota Growth Calculations Functional Requirements

444	548.39	8.07	552.00	544.00
445	549.22	7.98	553.00	545.00
446	550.04	7.91	554.00	546.00
447	550.85	7.85	555.00	547.00
448	551.66	7.81	556.00	548.00
449	552.47	7.77	556.00	549.00
450	553.28	7.75	557.00	549.00
451	554.08	7.74	558.00	550.00
452	554.87	7.74	559.00	551.00
453	555.67	7.75	560.00	552.00
454	556.46	7.77	560.00	553.00
455	557.25	7.80	561.00	553.00
456	558.04	7.85	562.00	554.00
457	558.83	7.90	563.00	555.00
458	559.61	7.96	564.00	556.00
459	560.40	8.04	564.00	556.00
460	561.18	8.12	565.00	557.00
461	561.96	8.21	566.00	558.00
462	562.73	8.31	567.00	559.00
463	563.51	8.41	568.00	559.00
464	564.28	8.53	569.00	560.00
465	565.05	8.65	569.00	561.00
466	565.80	8.77	570.00	561.00
467	566.55	8.90	571.00	562.00
468	567.29	9.03	572.00	563.00
469	568.01	9.15	573.00	563.00
470	568.72	9.28	573.00	564.00
471	569.41	9.40	574.00	565.00
472	570.07	9.51	575.00	565.00
473	570.72	9.62	576.00	566.00
474	571.34	9.72	576.00	566.00
475	571.93	9.81	577.00	567.00
476	572.51	9.89	577.00	568.00
477	573.05	9.97	578.00	568.00
478	573.57	10.04	579.00	569.00
479	574.07	10.10	579.00	569.00

**2011 Minnesota Growth Calculations  
Functional Requirements**

480	574.55	10.15	580.00	569.00
481	575.00	10.20	580.00	570.00
482	575.43	10.25	581.00	570.00
483	575.85	10.29	581.00	571.00
484	576.25	10.32	581.00	571.00
485	576.63	10.35	582.00	571.00
486	577.01	10.38	582.00	572.00
487	577.38	10.40	583.00	572.00
488	577.74	10.41	583.00	573.00
489	578.11	10.43	583.00	573.00
490	578.47	10.44	584.00	573.00
491	578.84	10.45	584.00	574.00
492	579.21	10.46	584.00	574.00
493	579.58	10.47	585.00	574.00
494	579.95	10.48	585.00	575.00
495	580.33	10.49	586.00	575.00
496	580.71	10.51	586.00	575.00
497	581.10	10.52	586.00	576.00
498	581.50	10.54	587.00	576.00
499	581.91	10.56	587.00	577.00

Reading scores: Grade 6



Growth expectations: Grade 6 MCA reading

Prior scale score	Mean of current scale scores	Standard deviation of current scores	High growth target (cut score)	Medium growth target (cut score)
501	625.71	10.63	631.00	620.00
502	625.83	10.46	631.00	621.00
503	625.94	10.31	631.00	621.00
504	626.03	10.16	631.00	621.00
505	626.12	10.04	631.00	621.00
506	626.20	9.93	631.00	621.00
507	626.28	9.83	631.00	621.00



**2011 Minnesota Growth Calculations  
Functional Requirements**

508	626.37	9.75	631.00	621.00
509	626.46	9.67	631.00	622.00
510	626.55	9.61	631.00	622.00
511	626.66	9.57	631.00	622.00
512	626.77	9.55	632.00	622.00
513	626.90	9.56	632.00	622.00
514	627.06	9.59	632.00	622.00
515	627.25	9.63	632.00	622.00
516	627.47	9.68	632.00	623.00
517	627.72	9.71	633.00	623.00
518	627.99	9.74	633.00	623.00
519	628.29	9.74	633.00	623.00
520	628.62	9.72	633.00	624.00
521	628.98	9.69	634.00	624.00
522	629.37	9.63	634.00	625.00
523	629.80	9.56	635.00	625.00
524	630.28	9.47	635.00	626.00
525	630.80	9.39	635.00	626.00
526	631.36	9.29	636.00	627.00
527	631.95	9.20	637.00	627.00
528	632.57	9.11	637.00	628.00
529	633.23	9.03	638.00	629.00
530	633.90	8.94	638.00	629.00
531	634.61	8.86	639.00	630.00
532	635.33	8.77	640.00	631.00
533	636.08	8.68	640.00	632.00
534	636.85	8.59	641.00	633.00
535	637.64	8.49	642.00	633.00
536	638.45	8.39	643.00	634.00
537	639.27	8.28	643.00	635.00
538	640.10	8.18	644.00	636.00
539	640.95	8.07	645.00	637.00
540	641.80	7.96	646.00	638.00
541	642.66	7.86	647.00	639.00
542	643.52	7.76	647.00	640.00
543	644.38	7.67	648.00	641.00

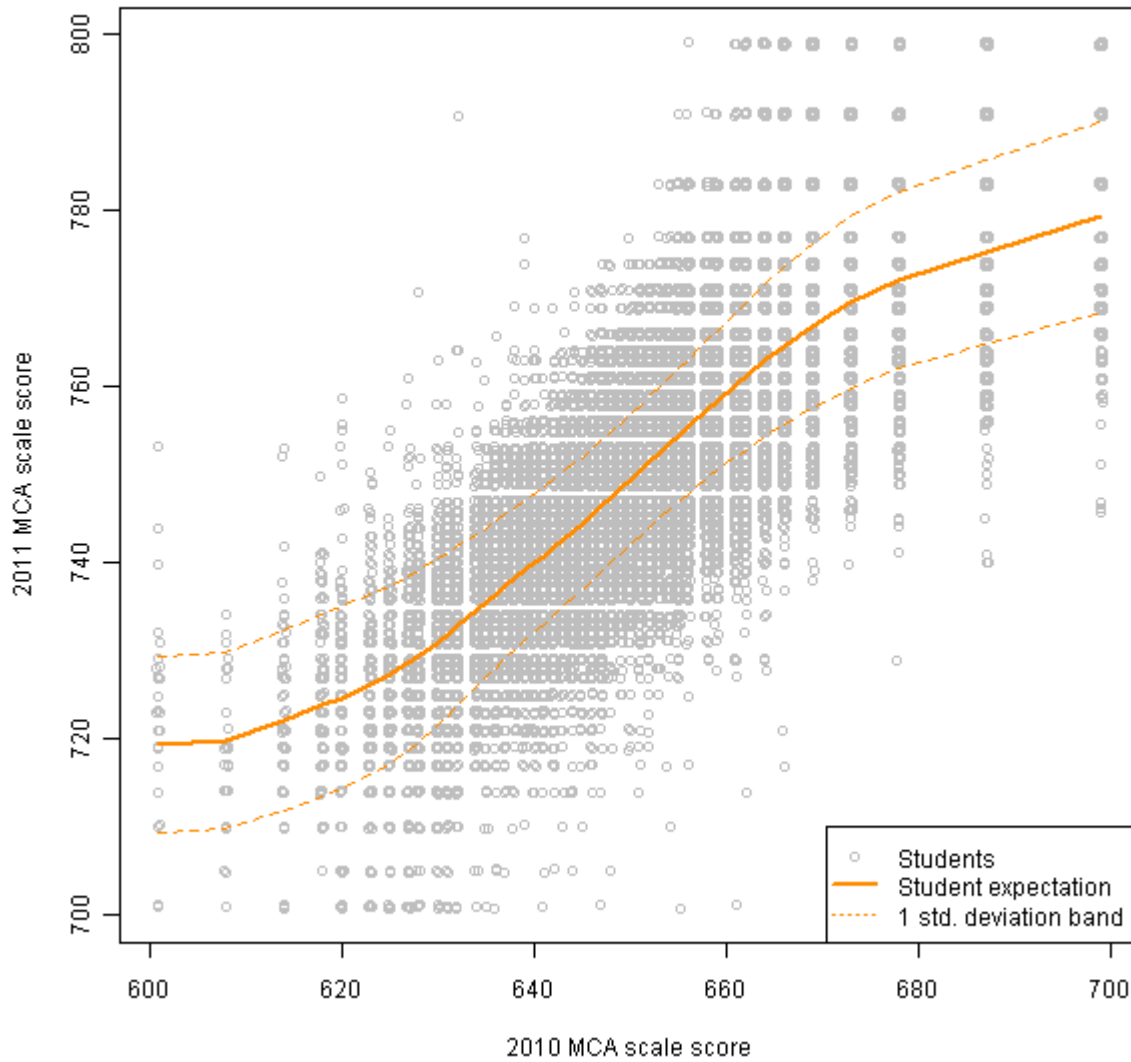
**2011 Minnesota Growth Calculations  
Functional Requirements**

544	645.25	7.59	649.00	641.00
545	646.12	7.51	650.00	642.00
546	647.00	7.44	651.00	643.00
547	647.87	7.38	652.00	644.00
548	648.75	7.33	652.00	645.00
549	649.64	7.30	653.00	646.00
550	650.53	7.28	654.00	647.00
551	651.43	7.27	655.00	648.00
552	652.33	7.28	656.00	649.00
553	653.24	7.31	657.00	650.00
554	654.15	7.35	658.00	650.00
555	655.06	7.40	659.00	651.00
556	655.98	7.47	660.00	652.00
557	656.89	7.55	661.00	653.00
558	657.80	7.65	662.00	654.00
559	658.71	7.76	663.00	655.00
560	659.61	7.88	664.00	656.00
561	660.49	8.01	664.00	656.00
562	661.36	8.14	665.00	657.00
563	662.21	8.29	666.00	658.00
564	663.04	8.44	667.00	659.00
565	663.84	8.59	668.00	660.00
566	664.62	8.74	669.00	660.00
567	665.38	8.90	670.00	661.00
568	666.10	9.04	671.00	662.00
569	666.80	9.19	671.00	662.00
570	667.47	9.33	672.00	663.00
571	668.10	9.46	673.00	663.00
572	668.69	9.58	673.00	664.00
573	669.26	9.70	674.00	664.00
574	669.80	9.81	675.00	665.00
575	670.31	9.92	675.00	665.00
576	670.80	10.02	676.00	666.00
577	671.27	10.11	676.00	666.00
578	671.71	10.19	677.00	667.00
579	672.13	10.27	677.00	667.00

2011 Minnesota Growth Calculations  
Functional Requirements

580	672.53	10.34	678.00	667.00
581	672.91	10.39	678.00	668.00
582	673.27	10.43	678.00	668.00
583	673.61	10.47	679.00	668.00
584	673.96	10.50	679.00	669.00
585	674.29	10.53	680.00	669.00
586	674.62	10.55	680.00	669.00
587	674.94	10.58	680.00	670.00
588	675.25	10.59	681.00	670.00
589	675.55	10.60	681.00	670.00
590	675.82	10.61	681.00	671.00
591	676.08	10.62	681.00	671.00
592	676.33	10.62	682.00	671.00
593	676.57	10.62	682.00	671.00
594	676.81	10.62	682.00	671.00
595	677.05	10.63	682.00	672.00
596	677.30	10.63	683.00	672.00
597	677.56	10.63	683.00	672.00
598	677.83	10.64	683.00	673.00
599	678.12	10.64	683.00	673.00

Reading scores: Grade 7



Growth expectations: Grade 7 MCA reading

Prior scale score	Mean of current scale scores	Standard deviation of current scores	High growth target (cut score)	Medium growth target (cut score)
601	719.44	9.98	724.00	714.00
602	719.40	9.92	724.00	714.00
603	719.39	9.88	724.00	714.00
604	719.41	9.88	724.00	714.00
605	719.48	9.89	724.00	715.00
606	719.59	9.92	725.00	715.00
607	719.74	9.97	725.00	715.00

## 2011 Minnesota Growth Calculations Functional Requirements

608	719.94	10.02	725.00	715.00
609	720.19	10.08	725.00	715.00
610	720.49	10.13	726.00	715.00
611	720.86	10.17	726.00	716.00
612	721.27	10.19	726.00	716.00
613	721.72	10.21	727.00	717.00
614	722.17	10.23	727.00	717.00
615	722.63	10.25	728.00	718.00
616	723.07	10.28	728.00	718.00
617	723.49	10.32	729.00	718.00
618	723.90	10.36	729.00	719.00
619	724.31	10.38	729.00	719.00
620	724.73	10.39	730.00	720.00
621	725.17	10.37	730.00	720.00
622	725.64	10.34	731.00	720.00
623	726.15	10.28	731.00	721.00
624	726.71	10.21	732.00	722.00
625	727.31	10.13	732.00	722.00
626	727.97	10.02	733.00	723.00
627	728.67	9.90	734.00	724.00
628	729.42	9.76	734.00	725.00
629	730.21	9.60	735.00	725.00
630	731.04	9.42	736.00	726.00
631	731.90	9.22	737.00	727.00
632	732.78	9.02	737.00	728.00
633	733.68	8.83	738.00	729.00
634	734.59	8.64	739.00	730.00
635	735.50	8.47	740.00	731.00
636	736.41	8.32	741.00	732.00
637	737.31	8.18	741.00	733.00
638	738.20	8.06	742.00	734.00
639	739.08	7.95	743.00	735.00
640	739.96	7.86	744.00	736.00
641	740.84	7.77	745.00	737.00
642	741.72	7.69	746.00	738.00
643	742.63	7.62	746.00	739.00

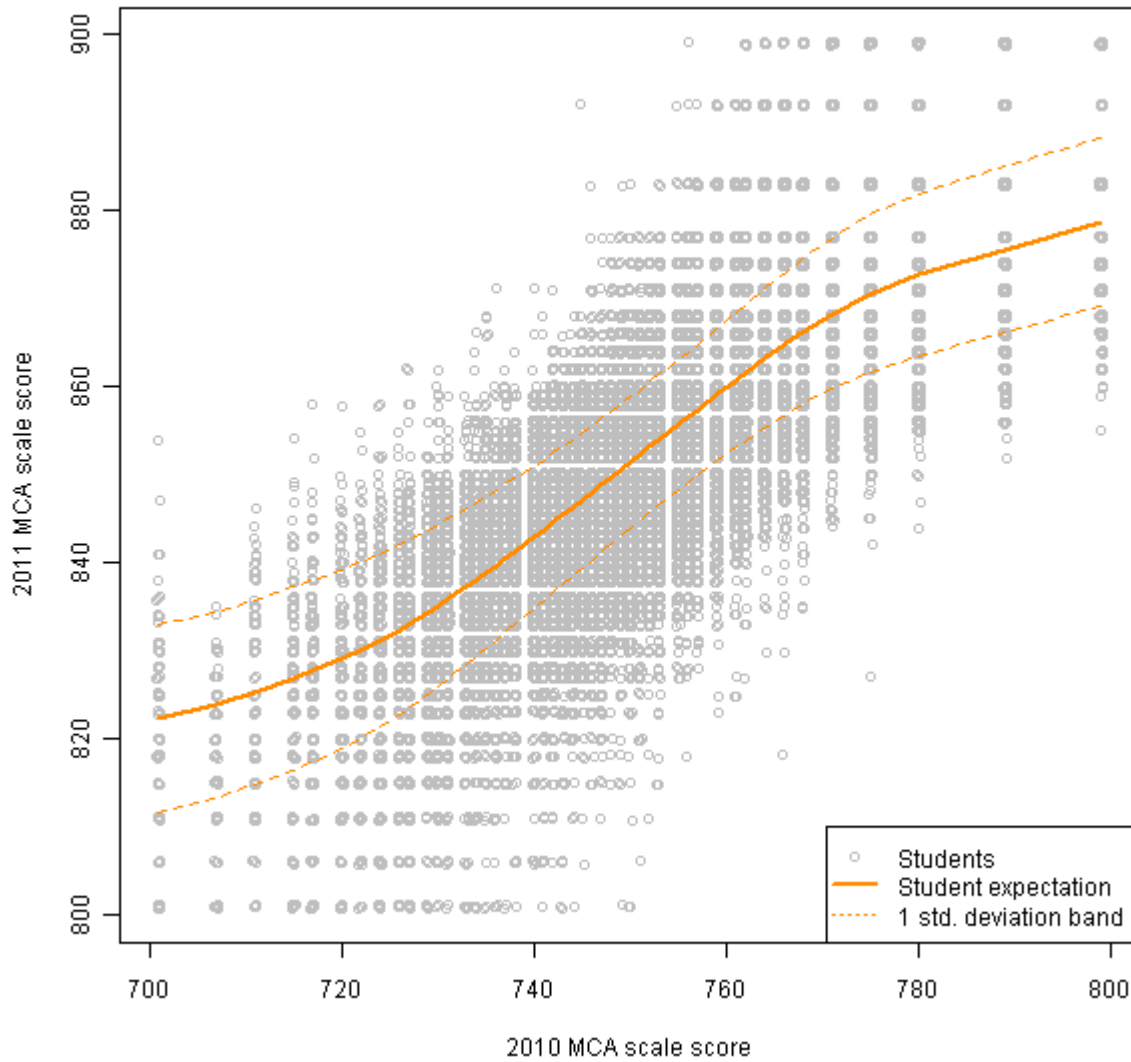
**2011 Minnesota Growth Calculations  
Functional Requirements**

644	743.55	7.56	747.00	740.00
645	744.49	7.51	748.00	741.00
646	745.46	7.47	749.00	742.00
647	746.43	7.44	750.00	743.00
648	747.42	7.42	751.00	744.00
649	748.42	7.41	752.00	745.00
650	749.42	7.41	753.00	746.00
651	750.43	7.42	754.00	747.00
652	751.44	7.45	755.00	748.00
653	752.44	7.49	756.00	749.00
654	753.45	7.53	757.00	750.00
655	754.45	7.60	758.00	751.00
656	755.44	7.67	759.00	752.00
657	756.43	7.75	760.00	753.00
658	757.40	7.85	761.00	753.00
659	758.37	7.95	762.00	754.00
660	759.33	8.07	763.00	755.00
661	760.27	8.19	764.00	756.00
662	761.21	8.33	765.00	757.00
663	762.12	8.47	766.00	758.00
664	763.01	8.63	767.00	759.00
665	763.87	8.78	768.00	759.00
666	764.69	8.93	769.00	760.00
667	765.49	9.08	770.00	761.00
668	766.25	9.21	771.00	762.00
669	766.98	9.34	772.00	762.00
670	767.68	9.46	772.00	763.00
671	768.35	9.57	773.00	764.00
672	769.00	9.66	774.00	764.00
673	769.61	9.74	774.00	765.00
674	770.20	9.82	775.00	765.00
675	770.75	9.88	776.00	766.00
676	771.27	9.94	776.00	766.00
677	771.75	9.99	777.00	767.00
678	772.19	10.04	777.00	767.00
679	772.59	10.10	778.00	768.00

**2011 Minnesota Growth Calculations**  
Functional Requirements

680	772.95	10.15	778.00	768.00
681	773.30	10.20	778.00	768.00
682	773.64	10.25	779.00	769.00
683	773.98	10.30	779.00	769.00
684	774.32	10.35	779.00	769.00
685	774.65	10.40	780.00	769.00
686	774.97	10.45	780.00	770.00
687	775.27	10.51	781.00	770.00
688	775.55	10.56	781.00	770.00
689	775.80	10.60	781.00	771.00
690	776.07	10.63	781.00	771.00
691	776.36	10.65	782.00	771.00
692	776.66	10.67	782.00	771.00
693	776.97	10.69	782.00	772.00
694	777.28	10.71	783.00	772.00
695	777.59	10.73	783.00	772.00
696	777.91	10.74	783.00	773.00
697	778.27	10.76	784.00	773.00
698	778.72	10.76	784.00	773.00
699	779.32	10.75	785.00	774.00

Reading scores: Grade 8



Growth expectations: Grade 8 MCA reading

Prior scale score	Mean of current scale scores	Standard deviation of current scores	High growth target (cut score)	Medium growth target (cut score)
701	822.29	10.70	828.00	817.00
702	822.51	10.67	828.00	817.00
703	822.76	10.64	828.00	817.00
704	823.01	10.62	828.00	818.00
705	823.29	10.60	829.00	818.00
706	823.58	10.59	829.00	818.00
707	823.89	10.58	829.00	819.00



## 2011 Minnesota Growth Calculations Functional Requirements

708	824.22	10.57	830.00	819.00
709	824.56	10.56	830.00	819.00
710	824.91	10.55	830.00	820.00
711	825.27	10.53	831.00	820.00
712	825.65	10.51	831.00	820.00
713	826.03	10.49	831.00	821.00
714	826.43	10.46	832.00	821.00
715	826.84	10.43	832.00	822.00
716	827.26	10.38	832.00	822.00
717	827.70	10.34	833.00	823.00
718	828.14	10.28	833.00	823.00
719	828.61	10.22	834.00	823.00
720	829.09	10.15	834.00	824.00
721	829.59	10.08	835.00	825.00
722	830.11	10.00	835.00	825.00
723	830.66	9.92	836.00	826.00
724	831.23	9.83	836.00	826.00
725	831.83	9.74	837.00	827.00
726	832.45	9.64	837.00	828.00
727	833.09	9.53	838.00	828.00
728	833.76	9.43	838.00	829.00
729	834.45	9.31	839.00	830.00
730	835.15	9.20	840.00	831.00
731	835.88	9.08	840.00	831.00
732	836.62	8.96	841.00	832.00
733	837.37	8.84	842.00	833.00
734	838.13	8.73	842.00	834.00
735	838.91	8.61	843.00	835.00
736	839.69	8.50	844.00	835.00
737	840.49	8.38	845.00	836.00
738	841.29	8.28	845.00	837.00
739	842.10	8.17	846.00	838.00
740	842.92	8.07	847.00	839.00
741	843.74	7.98	848.00	840.00
742	844.57	7.89	849.00	841.00
743	845.41	7.81	849.00	842.00

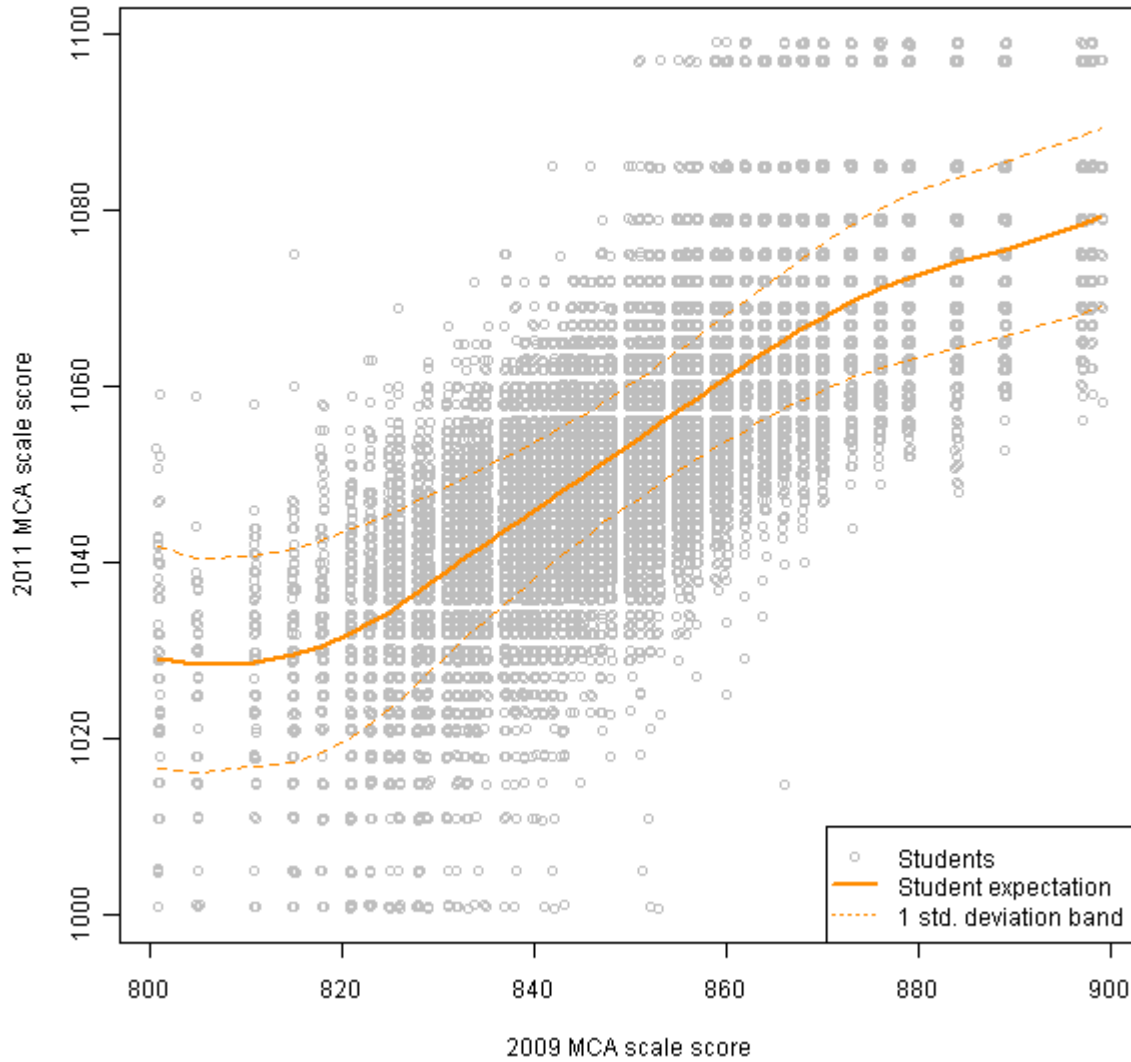
**2011 Minnesota Growth Calculations  
Functional Requirements**

744	846.26	7.73	850.00	842.00
745	847.11	7.66	851.00	843.00
746	847.96	7.60	852.00	844.00
747	848.82	7.54	853.00	845.00
748	849.68	7.50	853.00	846.00
749	850.55	7.46	854.00	847.00
750	851.41	7.43	855.00	848.00
751	852.28	7.40	856.00	849.00
752	853.14	7.39	857.00	849.00
753	854.01	7.39	858.00	850.00
754	854.87	7.39	859.00	851.00
755	855.73	7.41	859.00	852.00
756	856.59	7.43	860.00	853.00
757	857.45	7.46	861.00	854.00
758	858.30	7.50	862.00	855.00
759	859.15	7.54	863.00	855.00
760	859.99	7.60	864.00	856.00
761	860.82	7.66	865.00	857.00
762	861.65	7.73	866.00	858.00
763	862.46	7.80	866.00	859.00
764	863.27	7.88	867.00	859.00
765	864.06	7.97	868.00	860.00
766	864.83	8.06	869.00	861.00
767	865.58	8.15	870.00	862.00
768	866.31	8.24	870.00	862.00
769	867.01	8.34	871.00	863.00
770	867.69	8.44	872.00	863.00
771	868.33	8.54	873.00	864.00
772	868.95	8.64	873.00	865.00
773	869.54	8.73	874.00	865.00
774	870.09	8.82	875.00	866.00
775	870.61	8.91	875.00	866.00
776	871.09	9.00	876.00	867.00
777	871.55	9.07	876.00	867.00
778	871.97	9.14	877.00	867.00
779	872.37	9.21	877.00	868.00

**2011 Minnesota Growth Calculations  
Functional Requirements**

780	872.74	9.26	877.00	868.00
781	873.09	9.31	878.00	868.00
782	873.43	9.35	878.00	869.00
783	873.76	9.39	878.00	869.00
784	874.08	9.42	879.00	869.00
785	874.39	9.44	879.00	870.00
786	874.71	9.46	879.00	870.00
787	875.02	9.47	880.00	870.00
788	875.32	9.49	880.00	871.00
789	875.63	9.50	880.00	871.00
790	875.94	9.51	881.00	871.00
791	876.25	9.52	881.00	871.00
792	876.56	9.53	881.00	872.00
793	876.87	9.54	882.00	872.00
794	877.17	9.55	882.00	872.00
795	877.49	9.56	882.00	873.00
796	877.79	9.57	883.00	873.00
797	878.10	9.58	883.00	873.00
798	878.41	9.58	883.00	874.00
799	878.71	9.59	884.00	874.00

Reading scores: Grade 10



Growth expectations: Grade 10 MCA reading

Prior scale score	Mean of current scale scores	Standard deviation of current scores	High growth target (cut score)	Medium growth target (cut score)
801	1029.26	12.59	1036.00	1023.00
802	1028.88	12.46	1035.00	1023.00
803	1028.62	12.35	1035.00	1022.00
804	1028.46	12.25	1035.00	1022.00
805	1028.38	12.17	1034.00	1022.00
806	1028.36	12.09	1034.00	1022.00
807	1028.38	12.03	1034.00	1022.00

**2011 Minnesota Growth Calculations**  
Functional Requirements

808	1028.43	11.99	1034.00	1022.00
809	1028.51	11.95	1034.00	1023.00
810	1028.61	11.94	1035.00	1023.00
811	1028.72	11.94	1035.00	1023.00
812	1028.87	11.97	1035.00	1023.00
813	1029.04	12.01	1035.00	1023.00
814	1029.25	12.06	1035.00	1023.00
815	1029.51	12.09	1036.00	1023.00
816	1029.82	12.11	1036.00	1024.00
817	1030.18	12.11	1036.00	1024.00
818	1030.58	12.09	1037.00	1025.00
819	1031.02	12.03	1037.00	1025.00
820	1031.50	11.94	1037.00	1026.00
821	1032.01	11.82	1038.00	1026.00
822	1032.57	11.67	1038.00	1027.00
823	1033.17	11.49	1039.00	1027.00
824	1033.81	11.28	1039.00	1028.00
825	1034.49	11.05	1040.00	1029.00
826	1035.21	10.81	1041.00	1030.00
827	1035.96	10.56	1041.00	1031.00
828	1036.73	10.31	1042.00	1032.00
829	1037.52	10.06	1043.00	1032.00
830	1038.31	9.81	1043.00	1033.00
831	1039.11	9.57	1044.00	1034.00
832	1039.89	9.33	1045.00	1035.00
833	1040.67	9.11	1045.00	1036.00
834	1041.44	8.90	1046.00	1037.00
835	1042.20	8.69	1047.00	1038.00
836	1042.94	8.50	1047.00	1039.00
837	1043.68	8.31	1048.00	1040.00
838	1044.42	8.12	1048.00	1040.00
839	1045.16	7.94	1049.00	1041.00
840	1045.90	7.77	1050.00	1042.00
841	1046.65	7.60	1050.00	1043.00
842	1047.41	7.44	1051.00	1044.00
843	1048.17	7.30	1052.00	1045.00

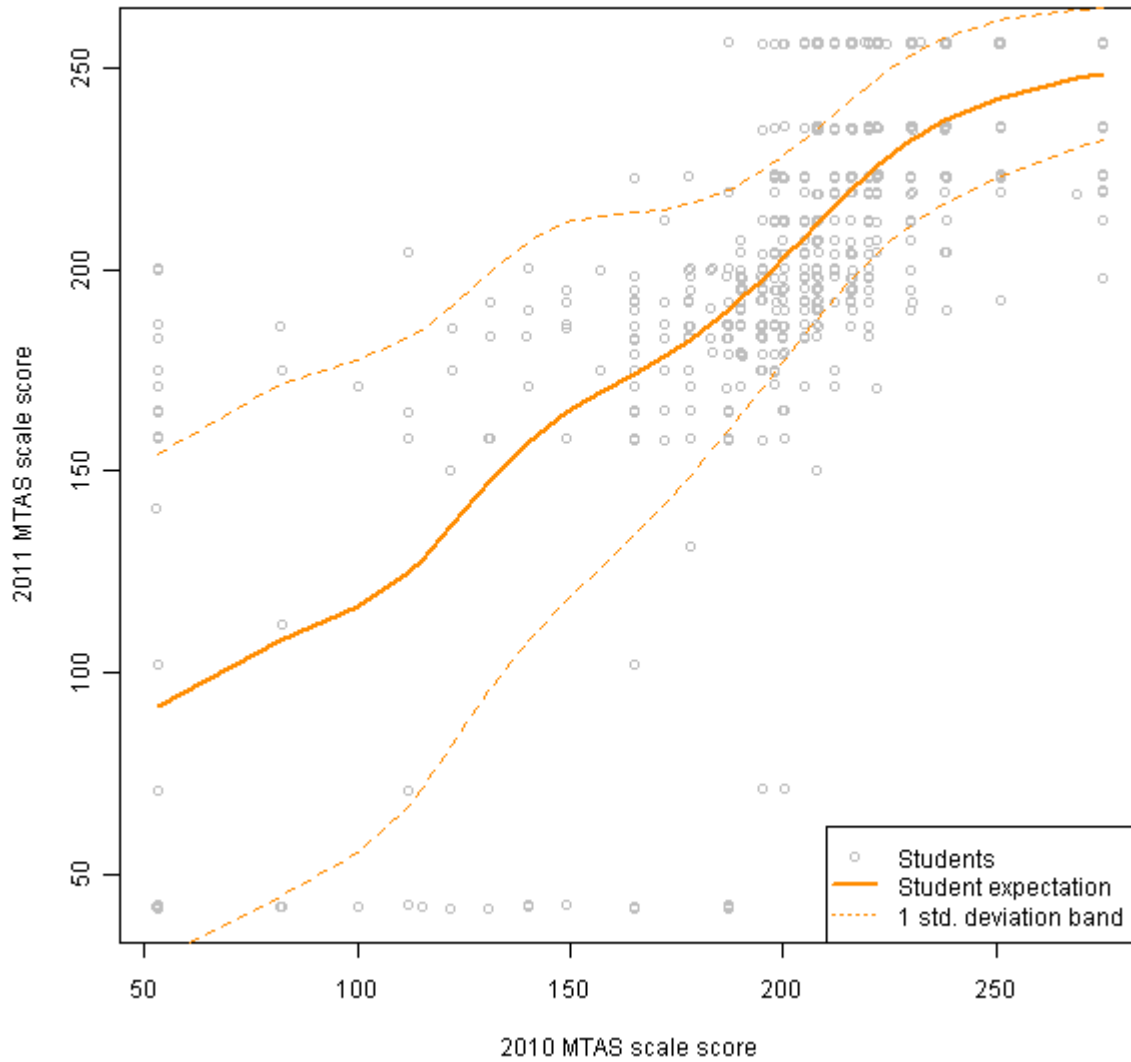
**2011 Minnesota Growth Calculations  
Functional Requirements**

844	1048.93	7.17	1053.00	1045.00
845	1049.69	7.07	1053.00	1046.00
846	1050.45	6.98	1054.00	1047.00
847	1051.20	6.91	1055.00	1048.00
848	1051.96	6.85	1055.00	1049.00
849	1052.71	6.82	1056.00	1049.00
850	1053.46	6.79	1057.00	1050.00
851	1054.21	6.78	1058.00	1051.00
852	1054.97	6.77	1058.00	1052.00
853	1055.73	6.78	1059.00	1052.00
854	1056.49	6.79	1060.00	1053.00
855	1057.26	6.82	1061.00	1054.00
856	1058.03	6.86	1061.00	1055.00
857	1058.79	6.91	1062.00	1055.00
858	1059.55	6.97	1063.00	1056.00
859	1060.30	7.04	1064.00	1057.00
860	1061.05	7.13	1065.00	1057.00
861	1061.78	7.23	1065.00	1058.00
862	1062.50	7.33	1066.00	1059.00
863	1063.21	7.44	1067.00	1059.00
864	1063.91	7.55	1068.00	1060.00
865	1064.60	7.67	1068.00	1061.00
866	1065.28	7.80	1069.00	1061.00
867	1065.95	7.92	1070.00	1062.00
868	1066.61	8.05	1071.00	1063.00
869	1067.25	8.18	1071.00	1063.00
870	1067.88	8.31	1072.00	1064.00
871	1068.49	8.44	1073.00	1064.00
872	1069.08	8.56	1073.00	1065.00
873	1069.65	8.69	1074.00	1065.00
874	1070.20	8.81	1075.00	1066.00
875	1070.72	8.93	1075.00	1066.00
876	1071.21	9.05	1076.00	1067.00
877	1071.66	9.16	1076.00	1067.00
878	1072.07	9.26	1077.00	1067.00
879	1072.45	9.36	1077.00	1068.00

**2011 Minnesota Growth Calculations**  
Functional Requirements

880	1072.80	9.45	1078.00	1068.00
881	1073.13	9.53	1078.00	1068.00
882	1073.44	9.60	1078.00	1069.00
883	1073.74	9.67	1079.00	1069.00
884	1074.05	9.74	1079.00	1069.00
885	1074.35	9.79	1079.00	1069.00
886	1074.66	9.84	1080.00	1070.00
887	1074.97	9.88	1080.00	1070.00
888	1075.29	9.91	1080.00	1070.00
889	1075.61	9.93	1081.00	1071.00
890	1075.94	9.94	1081.00	1071.00
891	1076.26	9.95	1081.00	1071.00
892	1076.60	9.96	1082.00	1072.00
893	1076.93	9.97	1082.00	1072.00
894	1077.28	9.99	1082.00	1072.00
895	1077.63	10.01	1083.00	1073.00
896	1078.00	10.03	1083.00	1073.00
897	1078.40	10.05	1083.00	1073.00
898	1078.84	10.08	1084.00	1074.00
899	1079.36	10.12	1084.00	1074.00

Reading scores: Grade 4



Growth expectations: Grade 4 MTAS reading

Prior scale score	Mean of current scale scores	Standard deviation of current scores	High growth target (cut score)	Medium growth target (cut score)
53	91.45	62.53	123.00	60.00
54	92.15	62.72	124.00	61.00
55	92.82	62.89	124.00	61.00
56	93.48	63.05	125.00	62.00
57	94.12	63.20	126.00	63.00
58	94.74	63.33	126.00	63.00
59	95.35	63.46	127.00	64.00



**2011 Minnesota Growth Calculations**  
Functional Requirements

60	95.95	63.57	128.00	64.00
61	96.54	63.67	128.00	65.00
62	97.11	63.76	129.00	65.00
63	97.68	63.84	130.00	66.00
64	98.25	63.90	130.00	66.00
65	98.80	63.96	131.00	67.00
66	99.35	64.00	131.00	67.00
67	99.90	64.03	132.00	68.00
68	100.44	64.06	132.00	68.00
69	100.98	64.07	133.00	69.00
70	101.52	64.07	134.00	69.00
71	102.06	64.05	134.00	70.00
72	102.59	64.03	135.00	71.00
73	103.13	64.00	135.00	71.00
74	103.66	63.96	136.00	72.00
75	104.20	63.91	136.00	72.00
76	104.73	63.85	137.00	73.00
77	105.27	63.78	137.00	73.00
78	105.81	63.70	138.00	74.00
79	106.34	63.61	138.00	75.00
80	106.88	63.52	139.00	75.00
81	107.42	63.42	139.00	76.00
82	107.95	63.32	140.00	76.00
83	108.49	63.21	140.00	77.00
84	109.01	63.09	141.00	77.00
85	109.54	62.97	141.00	78.00
86	110.06	62.85	141.00	79.00
87	110.57	62.73	142.00	79.00
88	111.08	62.61	142.00	80.00
89	111.57	62.48	143.00	80.00
90	112.06	62.36	143.00	81.00
91	112.53	62.23	144.00	81.00
92	112.99	62.11	144.00	82.00
93	113.45	61.99	144.00	82.00
94	113.89	61.86	145.00	83.00
95	114.32	61.74	145.00	83.00

## 2011 Minnesota Growth Calculations Functional Requirements

96	114.75	61.61	146.00	84.00
97	115.18	61.48	146.00	84.00
98	115.61	61.35	146.00	85.00
99	116.05	61.21	147.00	85.00
100	116.50	61.06	147.00	86.00
101	116.97	60.90	147.00	87.00
102	117.46	60.73	148.00	87.00
103	117.99	60.54	148.00	88.00
104	118.55	60.33	149.00	88.00
105	119.15	60.11	149.00	89.00
106	119.80	59.87	150.00	90.00
107	120.50	59.60	150.00	91.00
108	121.25	59.32	151.00	92.00
109	122.05	59.01	152.00	93.00
110	122.92	58.69	152.00	94.00
111	123.83	58.35	153.00	95.00
112	124.80	58.01	154.00	96.00
113	125.82	57.65	155.00	97.00
114	126.89	57.28	156.00	98.00
115	128.00	56.91	156.00	100.00
116	129.15	56.54	157.00	101.00
117	130.34	56.17	158.00	102.00
118	131.55	55.81	159.00	104.00
119	132.79	55.44	161.00	105.00
120	134.04	55.09	162.00	106.00
121	135.31	54.74	163.00	108.00
122	136.59	54.41	164.00	109.00
123	137.87	54.08	165.00	111.00
124	139.14	53.76	166.00	112.00
125	140.42	53.44	167.00	114.00
126	141.68	53.14	168.00	115.00
127	142.93	52.85	169.00	117.00
128	144.17	52.56	170.00	118.00
129	145.39	52.28	172.00	119.00
130	146.59	52.01	173.00	121.00
131	147.77	51.74	174.00	122.00

**2011 Minnesota Growth Calculations**  
Functional Requirements

132	148.93	51.48	175.00	123.00
133	150.06	51.22	176.00	124.00
134	151.17	50.96	177.00	126.00
135	152.26	50.71	178.00	127.00
136	153.32	50.46	179.00	128.00
137	154.36	50.21	179.00	129.00
138	155.36	49.96	180.00	130.00
139	156.34	49.70	181.00	131.00
140	157.30	49.44	182.00	133.00
141	158.22	49.18	183.00	134.00
142	159.12	48.92	184.00	135.00
143	159.99	48.65	184.00	136.00
144	160.84	48.37	185.00	137.00
145	161.65	48.08	186.00	138.00
146	162.44	47.78	186.00	139.00
147	163.21	47.47	187.00	139.00
148	163.95	47.15	188.00	140.00
149	164.66	46.82	188.00	141.00
150	165.35	46.48	189.00	142.00
151	166.02	46.12	189.00	143.00
152	166.67	45.75	190.00	144.00
153	167.29	45.36	190.00	145.00
154	167.90	44.96	190.00	145.00
155	168.50	44.55	191.00	146.00
156	169.08	44.13	191.00	147.00
157	169.65	43.69	192.00	148.00
158	170.22	43.25	192.00	149.00
159	170.77	42.79	192.00	149.00
160	171.33	42.32	192.00	150.00
161	171.88	41.85	193.00	151.00
162	172.43	41.37	193.00	152.00
163	172.98	40.89	193.00	153.00
164	173.54	40.40	194.00	153.00
165	174.10	39.91	194.00	154.00
166	174.67	39.41	194.00	155.00
167	175.25	38.92	195.00	156.00

**2011 Minnesota Growth Calculations**  
Functional Requirements

168	175.84	38.43	195.00	157.00
169	176.45	37.94	195.00	157.00
170	177.06	37.45	196.00	158.00
171	177.69	36.96	196.00	159.00
172	178.33	36.48	197.00	160.00
173	178.99	36.00	197.00	161.00
174	179.67	35.53	197.00	162.00
175	180.35	35.06	198.00	163.00
176	181.06	34.60	198.00	164.00
177	181.78	34.14	199.00	165.00
178	182.51	33.69	199.00	166.00
179	183.26	33.24	200.00	167.00
180	184.03	32.80	200.00	168.00
181	184.82	32.37	201.00	169.00
182	185.61	31.94	202.00	170.00
183	186.43	31.52	202.00	171.00
184	187.26	31.11	203.00	172.00
185	188.11	30.70	203.00	173.00
186	188.97	30.30	204.00	174.00
187	189.85	29.91	205.00	175.00
188	190.74	29.52	206.00	176.00
189	191.65	29.14	206.00	177.00
190	192.58	28.77	207.00	178.00
191	193.51	28.40	208.00	179.00
192	194.47	28.05	208.00	180.00
193	195.43	27.70	209.00	182.00
194	196.41	27.36	210.00	183.00
195	197.41	27.03	211.00	184.00
196	198.41	26.70	212.00	185.00
197	199.43	26.39	213.00	186.00
198	200.46	26.08	214.00	187.00
199	201.50	25.79	214.00	189.00
200	202.55	25.50	215.00	190.00
201	203.61	25.22	216.00	191.00
202	204.68	24.96	217.00	192.00
203	205.75	24.70	218.00	193.00

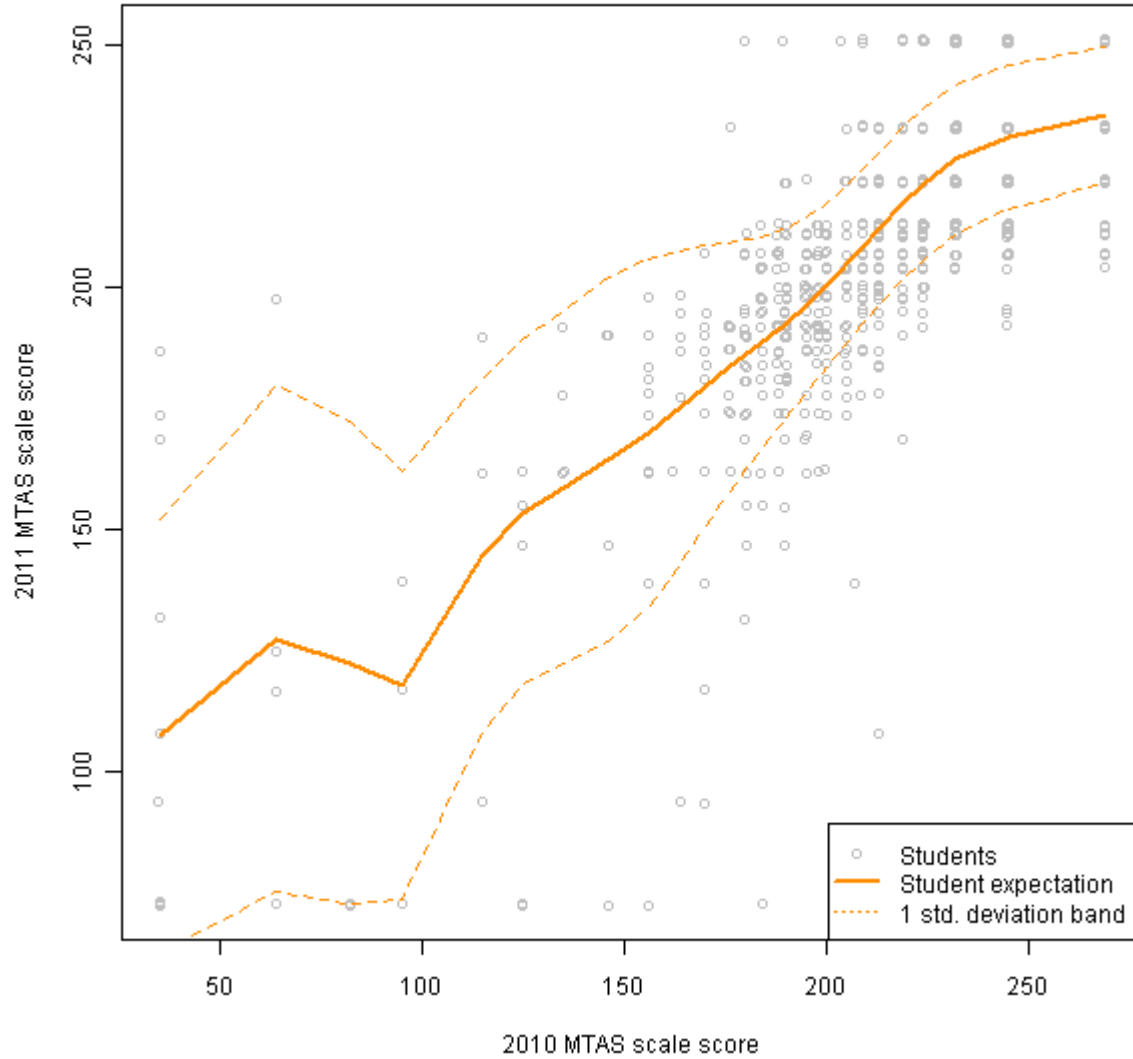
**2011 Minnesota Growth Calculations**  
Functional Requirements

204	206.83	24.45	219.00	195.00
205	207.91	24.22	220.00	196.00
206	208.99	23.99	221.00	197.00
207	210.08	23.77	222.00	198.00
208	211.16	23.57	223.00	199.00
209	212.25	23.37	224.00	201.00
210	213.33	23.19	225.00	202.00
211	214.40	23.01	226.00	203.00
212	215.47	22.84	227.00	204.00
213	216.53	22.69	228.00	205.00
214	217.58	22.54	229.00	206.00
215	218.62	22.40	230.00	207.00
216	219.64	22.27	231.00	209.00
217	220.65	22.15	232.00	210.00
218	221.65	22.03	233.00	211.00
219	222.62	21.93	234.00	212.00
220	223.58	21.82	234.00	213.00
221	224.51	21.73	235.00	214.00
222	225.43	21.64	236.00	215.00
223	226.32	21.56	237.00	216.00
224	227.19	21.47	238.00	216.00
225	228.03	21.40	239.00	217.00
226	228.85	21.32	240.00	218.00
227	229.65	21.25	240.00	219.00
228	230.42	21.18	241.00	220.00
229	231.16	21.11	242.00	221.00
230	231.88	21.05	242.00	221.00
231	232.58	20.98	243.00	222.00
232	233.25	20.91	244.00	223.00
233	233.90	20.84	244.00	223.00
234	234.52	20.77	245.00	224.00
235	235.12	20.70	245.00	225.00
236	235.70	20.62	246.00	225.00
237	236.26	20.55	247.00	226.00
238	236.80	20.47	247.00	227.00
239	237.31	20.39	248.00	227.00

**2011 Minnesota Growth Calculations**  
Functional Requirements

240	237.81	20.31	248.00	228.00
241	238.29	20.22	248.00	228.00
242	238.76	20.14	249.00	229.00
243	239.21	20.05	249.00	229.00
244	239.64	19.96	250.00	230.00
245	240.06	19.86	250.00	230.00
246	240.46	19.77	250.00	231.00
247	240.85	19.67	251.00	231.00
248	241.23	19.57	251.00	231.00
249	241.60	19.47	251.00	232.00
250	241.96	19.36	252.00	232.00
251	242.30	19.26	252.00	233.00
252	242.64	19.15	252.00	233.00
253	242.97	19.05	252.00	233.00
254	243.28	18.94	253.00	234.00
255	243.59	18.83	253.00	234.00
256	243.89	18.72	253.00	235.00
257	244.19	18.61	253.00	235.00
258	244.47	18.50	254.00	235.00
259	244.75	18.38	254.00	236.00
260	245.02	18.27	254.00	236.00
261	245.28	18.15	254.00	236.00
262	245.54	18.04	255.00	237.00
263	245.79	17.92	255.00	237.00
264	246.03	17.81	255.00	237.00
265	246.27	17.69	255.00	237.00
266	246.50	17.57	255.00	238.00
267	246.72	17.45	255.00	238.00
268	246.94	17.33	256.00	238.00
269	247.16	17.20	256.00	239.00
270	247.37	17.08	256.00	239.00
271	247.57	16.95	256.00	239.00
272	247.77	16.82	256.00	239.00
273	247.97	16.69	256.00	240.00
274	248.16	16.56	256.00	240.00
275	248.34	16.42	257.00	240.00

Reading scores: Grade 5



Growth expectations: Grade 5 MTAS reading

Prior scale score	Mean of current scale scores	Standard deviation of current scores	High growth target (cut score)	Medium growth target (cut score)
35	107.41	44.68	130.00	85.00
36	108.62	45.26	131.00	86.00
37	109.76	45.76	133.00	87.00
38	110.86	46.20	134.00	88.00
39	111.91	46.60	135.00	89.00
40	112.93	46.95	136.00	89.00
41	113.92	47.27	138.00	90.00

**2011 Minnesota Growth Calculations**  
Functional Requirements

42	114.88	47.56	139.00	91.00
43	115.81	47.84	140.00	92.00
44	116.73	48.10	141.00	93.00
45	117.62	48.35	142.00	93.00
46	118.48	48.59	143.00	94.00
47	119.33	48.82	144.00	95.00
48	120.15	49.05	145.00	96.00
49	120.95	49.28	146.00	96.00
50	121.72	49.51	146.00	97.00
51	122.46	49.73	147.00	98.00
52	123.16	49.96	148.00	98.00
53	123.83	50.18	149.00	99.00
54	124.45	50.40	150.00	99.00
55	125.03	50.62	150.00	100.00
56	125.55	50.83	151.00	100.00
57	126.02	51.04	152.00	101.00
58	126.44	51.25	152.00	101.00
59	126.79	51.44	153.00	101.00
60	127.07	51.62	153.00	101.00
61	127.29	51.79	153.00	101.00
62	127.44	51.95	153.00	101.00
63	127.53	52.08	154.00	101.00
64	127.56	52.19	154.00	101.00
65	127.53	52.28	154.00	101.00
66	127.45	52.34	154.00	101.00
67	127.33	52.37	154.00	101.00
68	127.18	52.37	153.00	101.00
69	126.99	52.34	153.00	101.00
70	126.78	52.28	153.00	101.00
71	126.56	52.19	153.00	100.00
72	126.32	52.07	152.00	100.00
73	126.06	51.92	152.00	100.00
74	125.78	51.75	152.00	100.00
75	125.49	51.56	151.00	100.00
76	125.17	51.35	151.00	99.00
77	124.82	51.13	150.00	99.00



**2011 Minnesota Growth Calculations**  
Functional Requirements

78	124.45	50.90	150.00	99.00
79	124.03	50.65	149.00	99.00
80	123.58	50.39	149.00	98.00
81	123.10	50.12	148.00	98.00
82	122.58	49.83	147.00	98.00
83	122.02	49.53	147.00	97.00
84	121.45	49.21	146.00	97.00
85	120.86	48.87	145.00	96.00
86	120.27	48.51	145.00	96.00
87	119.70	48.13	144.00	96.00
88	119.16	47.72	143.00	95.00
89	118.67	47.29	142.00	95.00
90	118.26	46.84	142.00	95.00
91	117.95	46.36	141.00	95.00
92	117.75	45.86	141.00	95.00
93	117.68	45.34	140.00	95.00
94	117.77	44.81	140.00	95.00
95	118.01	44.26	140.00	96.00
96	118.42	43.71	140.00	97.00
97	119.00	43.16	141.00	97.00
98	119.74	42.61	141.00	98.00
99	120.65	42.06	142.00	100.00
100	121.71	41.53	142.00	101.00
101	122.91	41.01	143.00	102.00
102	124.24	40.50	144.00	104.00
103	125.68	40.02	146.00	106.00
104	127.21	39.55	147.00	107.00
105	128.82	39.11	148.00	109.00
106	130.48	38.69	150.00	111.00
107	132.18	38.30	151.00	113.00
108	133.89	37.93	153.00	115.00
109	135.59	37.59	154.00	117.00
110	137.28	37.28	156.00	119.00
111	138.91	36.99	157.00	120.00
112	140.50	36.74	159.00	122.00
113	142.01	36.51	160.00	124.00

**2011 Minnesota Growth Calculations**  
Functional Requirements

114	143.43	36.32	162.00	125.00
115	144.77	36.15	163.00	127.00
116	146.02	36.01	164.00	128.00
117	147.17	35.90	165.00	129.00
118	148.23	35.81	166.00	130.00
119	149.21	35.75	167.00	131.00
120	150.10	35.71	168.00	132.00
121	150.91	35.69	169.00	133.00
122	151.67	35.69	170.00	134.00
123	152.36	35.70	170.00	135.00
124	153.01	35.72	171.00	135.00
125	153.62	35.75	171.00	136.00
126	154.20	35.79	172.00	136.00
127	154.76	35.84	173.00	137.00
128	155.30	35.90	173.00	137.00
129	155.82	35.96	174.00	138.00
130	156.34	36.02	174.00	138.00
131	156.85	36.09	175.00	139.00
132	157.35	36.17	175.00	139.00
133	157.86	36.25	176.00	140.00
134	158.36	36.33	177.00	140.00
135	158.87	36.43	177.00	141.00
136	159.38	36.52	178.00	141.00
137	159.88	36.63	178.00	142.00
138	160.39	36.73	179.00	142.00
139	160.90	36.85	179.00	142.00
140	161.42	36.96	180.00	143.00
141	161.93	37.08	180.00	143.00
142	162.45	37.19	181.00	144.00
143	162.96	37.30	182.00	144.00
144	163.48	37.39	182.00	145.00
145	164.00	37.47	183.00	145.00
146	164.52	37.52	183.00	146.00
147	165.04	37.55	184.00	146.00
148	165.56	37.54	184.00	147.00
149	166.09	37.50	185.00	147.00

**2011 Minnesota Growth Calculations**  
Functional Requirements

150	166.63	37.41	185.00	148.00
151	167.17	37.27	186.00	149.00
152	167.72	37.10	186.00	149.00
153	168.27	36.87	187.00	150.00
154	168.84	36.61	187.00	151.00
155	169.43	36.30	188.00	151.00
156	170.03	35.96	188.00	152.00
157	170.64	35.58	188.00	153.00
158	171.27	35.17	189.00	154.00
159	171.91	34.74	189.00	155.00
160	172.57	34.28	190.00	155.00
161	173.24	33.81	190.00	156.00
162	173.92	33.32	191.00	157.00
163	174.61	32.82	191.00	158.00
164	175.30	32.30	191.00	159.00
165	176.00	31.78	192.00	160.00
166	176.71	31.25	192.00	161.00
167	177.41	30.72	193.00	162.00
168	178.11	30.18	193.00	163.00
169	178.81	29.64	194.00	164.00
170	179.51	29.10	194.00	165.00
171	180.19	28.56	194.00	166.00
172	180.87	28.02	195.00	167.00
173	181.55	27.48	195.00	168.00
174	182.21	26.94	196.00	169.00
175	182.87	26.41	196.00	170.00
176	183.53	25.88	196.00	171.00
177	184.17	25.36	197.00	171.00
178	184.81	24.84	197.00	172.00
179	185.45	24.33	198.00	173.00
180	186.09	23.83	198.00	174.00
181	186.73	23.34	198.00	175.00
182	187.36	22.87	199.00	176.00
183	188.00	22.40	199.00	177.00
184	188.65	21.95	200.00	178.00
185	189.30	21.51	200.00	179.00

**2011 Minnesota Growth Calculations**  
Functional Requirements

186	189.95	21.08	200.00	179.00
187	190.62	20.67	201.00	180.00
188	191.30	20.28	201.00	181.00
189	191.99	19.91	202.00	182.00
190	192.69	19.55	202.00	183.00
191	193.41	19.21	203.00	184.00
192	194.14	18.89	204.00	185.00
193	194.89	18.58	204.00	186.00
194	195.65	18.30	205.00	186.00
195	196.42	18.03	205.00	187.00
196	197.21	17.78	206.00	188.00
197	198.02	17.55	207.00	189.00
198	198.84	17.34	208.00	190.00
199	199.68	17.14	208.00	191.00
200	200.53	16.96	209.00	192.00
201	201.39	16.80	210.00	193.00
202	202.26	16.65	211.00	194.00
203	203.14	16.51	211.00	195.00
204	204.03	16.39	212.00	196.00
205	204.92	16.29	213.00	197.00
206	205.82	16.19	214.00	198.00
207	206.73	16.11	215.00	199.00
208	207.64	16.04	216.00	200.00
209	208.55	15.97	217.00	201.00
210	209.45	15.92	217.00	201.00
211	210.36	15.88	218.00	202.00
212	211.26	15.84	219.00	203.00
213	212.16	15.80	220.00	204.00
214	213.05	15.77	221.00	205.00
215	213.93	15.75	222.00	206.00
216	214.80	15.73	223.00	207.00
217	215.66	15.71	224.00	208.00
218	216.50	15.69	224.00	209.00
219	217.34	15.67	225.00	210.00
220	218.16	15.65	226.00	210.00
221	218.96	15.63	227.00	211.00

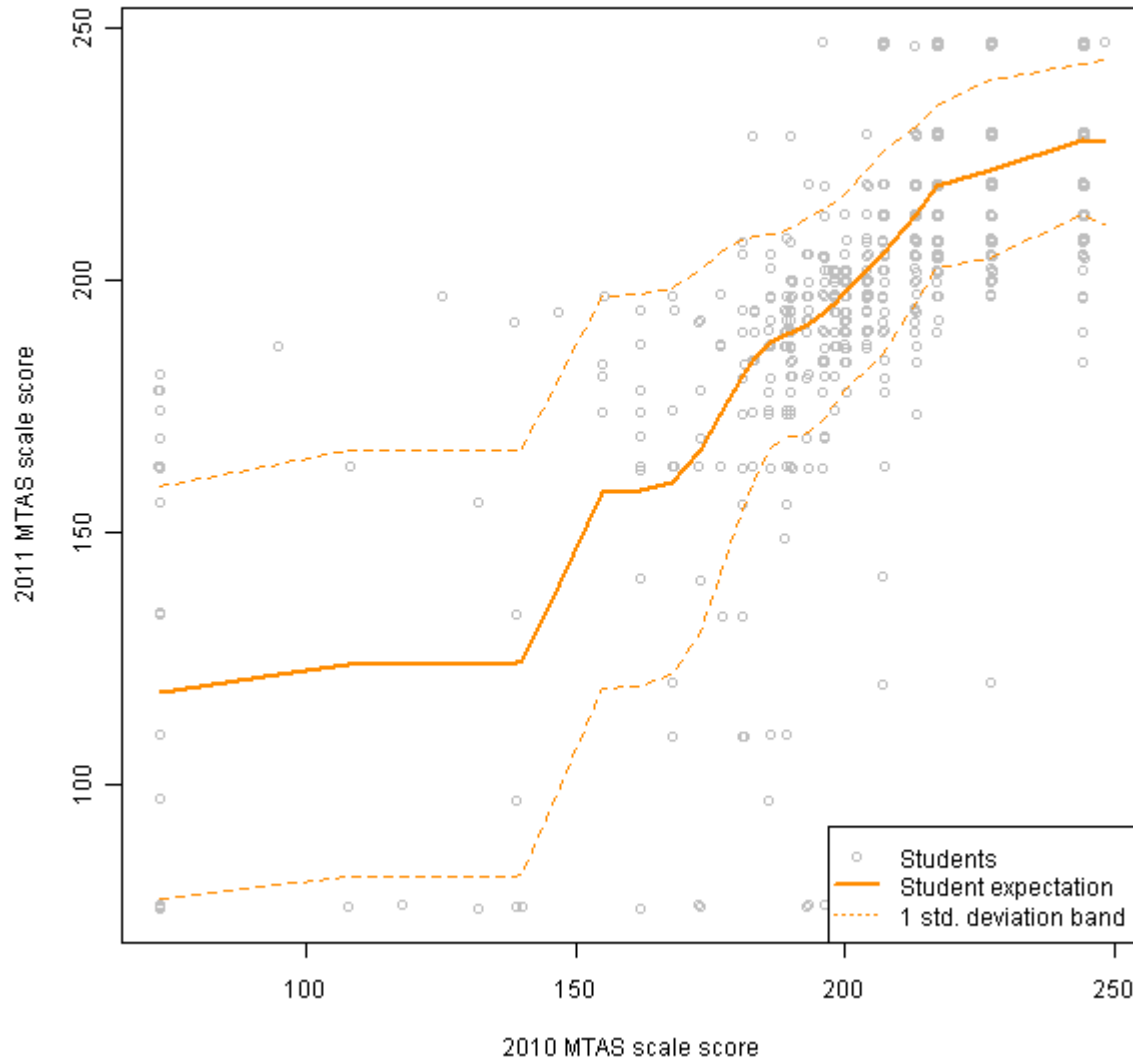
**2011 Minnesota Growth Calculations**  
Functional Requirements

222	219.75	15.61	228.00	212.00
223	220.51	15.59	228.00	213.00
224	221.26	15.57	229.00	213.00
225	221.98	15.55	230.00	214.00
226	222.69	15.52	230.00	215.00
227	223.37	15.50	231.00	216.00
228	224.02	15.47	232.00	216.00
229	224.65	15.44	232.00	217.00
230	225.25	15.41	233.00	218.00
231	225.82	15.38	234.00	218.00
232	226.37	15.34	234.00	219.00
233	226.88	15.31	235.00	219.00
234	227.37	15.27	235.00	220.00
235	227.82	15.24	235.00	220.00
236	228.25	15.20	236.00	221.00
237	228.65	15.17	236.00	221.00
238	229.02	15.13	237.00	221.00
239	229.37	15.09	237.00	222.00
240	229.70	15.05	237.00	222.00
241	230.00	15.01	238.00	222.00
242	230.29	14.97	238.00	223.00
243	230.56	14.93	238.00	223.00
244	230.82	14.89	238.00	223.00
245	231.07	14.85	238.00	224.00
246	231.31	14.81	239.00	224.00
247	231.53	14.77	239.00	224.00
248	231.76	14.73	239.00	224.00
249	231.97	14.69	239.00	225.00
250	232.18	14.64	240.00	225.00
251	232.39	14.60	240.00	225.00
252	232.59	14.56	240.00	225.00
253	232.79	14.51	240.00	226.00
254	232.99	14.47	240.00	226.00
255	233.18	14.43	240.00	226.00
256	233.37	14.39	241.00	226.00
257	233.56	14.34	241.00	226.00

2011 Minnesota Growth Calculations  
Functional Requirements

258	233.74	14.30	241.00	227.00
259	233.92	14.26	241.00	227.00
260	234.10	14.22	241.00	227.00
261	234.28	14.18	241.00	227.00
262	234.46	14.15	242.00	227.00
263	234.63	14.11	242.00	228.00
264	234.80	14.08	242.00	228.00
265	234.98	14.05	242.00	228.00
266	235.15	14.03	242.00	228.00
267	235.32	14.01	242.00	228.00
268	235.49	14.00	242.00	228.00
269	235.66	14.00	243.00	229.00

Reading scores: Grade 6



Growth expectations: Grade 6 MTAS reading

Prior scale score	Mean of current scale scores	Standard deviation of current scores	High growth target (cut score)	Medium growth target (cut score)
73	118.49	40.88	139.00	98.00
74	118.49	40.88	139.00	98.00
75	118.49	40.88	139.00	98.00
76	118.49	40.88	139.00	98.00
77	118.49	40.88	139.00	98.00
78	118.49	40.88	139.00	98.00
79	118.49	40.88	139.00	98.00

## 2011 Minnesota Growth Calculations Functional Requirements

80	118.49	40.88	139.00	98.00
81	118.49	40.88	139.00	98.00
82	118.49	40.88	139.00	98.00
83	118.49	40.88	139.00	98.00
84	118.51	40.89	139.00	98.00
85	118.59	40.89	139.00	98.00
86	118.97	40.94	139.00	99.00
87	119.86	41.11	140.00	99.00
88	120.59	41.34	141.00	100.00
89	120.93	41.46	142.00	100.00
90	121.12	41.52	142.00	100.00
91	121.29	41.57	142.00	101.00
92	121.45	41.61	142.00	101.00
93	121.61	41.65	142.00	101.00
94	121.79	41.69	143.00	101.00
95	122.03	41.74	143.00	101.00
96	122.54	41.82	143.00	102.00
97	123.39	42.00	144.00	102.00
98	123.92	42.18	145.00	103.00
99	124.06	42.24	145.00	103.00
100	124.08	42.26	145.00	103.00
101	124.08	42.26	145.00	103.00
102	124.08	42.26	145.00	103.00
103	124.08	42.26	145.00	103.00
104	124.08	42.26	145.00	103.00
105	124.08	42.26	145.00	103.00
106	124.08	42.26	145.00	103.00
107	124.08	42.26	145.00	103.00
108	124.08	42.26	145.00	103.00
109	124.08	42.26	145.00	103.00
110	124.08	42.26	145.00	103.00
111	124.08	42.26	145.00	103.00
112	124.08	42.26	145.00	103.00
113	124.08	42.26	145.00	103.00
114	124.08	42.26	145.00	103.00
115	124.08	42.26	145.00	103.00



## 2011 Minnesota Growth Calculations Functional Requirements

116	124.08	42.26	145.00	103.00
117	124.08	42.26	145.00	103.00
118	124.08	42.26	145.00	103.00
119	124.08	42.26	145.00	103.00
120	124.08	42.26	145.00	103.00
121	124.08	42.26	145.00	103.00
122	124.08	42.26	145.00	103.00
123	124.08	42.26	145.00	103.00
124	124.08	42.26	145.00	103.00
125	124.08	42.26	145.00	103.00
126	124.08	42.26	145.00	103.00
127	124.08	42.26	145.00	103.00
128	124.08	42.26	145.00	103.00
129	124.08	42.26	145.00	103.00
130	124.08	42.26	145.00	103.00
131	124.08	42.26	145.00	103.00
132	124.08	42.26	145.00	103.00
133	124.08	42.26	145.00	103.00
134	124.08	42.26	145.00	103.00
135	124.08	42.26	145.00	103.00
136	124.09	42.26	145.00	103.00
137	124.10	42.26	145.00	103.00
138	124.14	42.25	145.00	103.00
139	124.28	42.25	145.00	103.00
140	124.69	42.22	146.00	104.00
141	125.77	42.13	147.00	105.00
142	127.92	41.95	149.00	107.00
143	130.81	41.66	152.00	110.00
144	133.60	41.36	154.00	113.00
145	136.04	41.11	157.00	115.00
146	138.23	40.89	159.00	118.00
147	140.33	40.68	161.00	120.00
148	142.46	40.48	163.00	122.00
149	144.74	40.27	165.00	125.00
150	147.39	40.02	167.00	127.00
151	150.60	39.71	170.00	131.00

**2011 Minnesota Growth Calculations**  
Functional Requirements

152	153.95	39.38	174.00	134.00
153	156.40	39.13	176.00	137.00
154	157.60	38.99	177.00	138.00
155	158.05	38.93	178.00	139.00
156	158.20	38.91	178.00	139.00
157	158.25	38.90	178.00	139.00
158	158.27	38.90	178.00	139.00
159	158.28	38.90	178.00	139.00
160	158.29	38.91	178.00	139.00
161	158.31	38.91	178.00	139.00
162	158.35	38.90	178.00	139.00
163	158.44	38.88	178.00	139.00
164	158.58	38.84	178.00	139.00
165	158.81	38.77	178.00	139.00
166	159.15	38.65	178.00	140.00
167	159.62	38.50	179.00	140.00
168	160.23	38.28	179.00	141.00
169	161.02	37.99	180.00	142.00
170	161.99	37.62	181.00	143.00
171	163.19	37.15	182.00	145.00
172	164.60	36.57	183.00	146.00
173	166.21	35.87	184.00	148.00
174	167.96	35.05	185.00	150.00
175	169.80	34.13	187.00	153.00
176	171.70	33.10	188.00	155.00
177	173.61	31.98	190.00	158.00
178	175.54	30.77	191.00	160.00
179	177.46	29.47	192.00	163.00
180	179.38	28.10	193.00	165.00
181	181.26	26.70	195.00	168.00
182	183.04	25.32	196.00	170.00
183	184.65	24.01	197.00	173.00
184	186.03	22.83	197.00	175.00
185	187.14	21.84	198.00	176.00
186	187.98	21.08	199.00	177.00
187	188.60	20.58	199.00	178.00

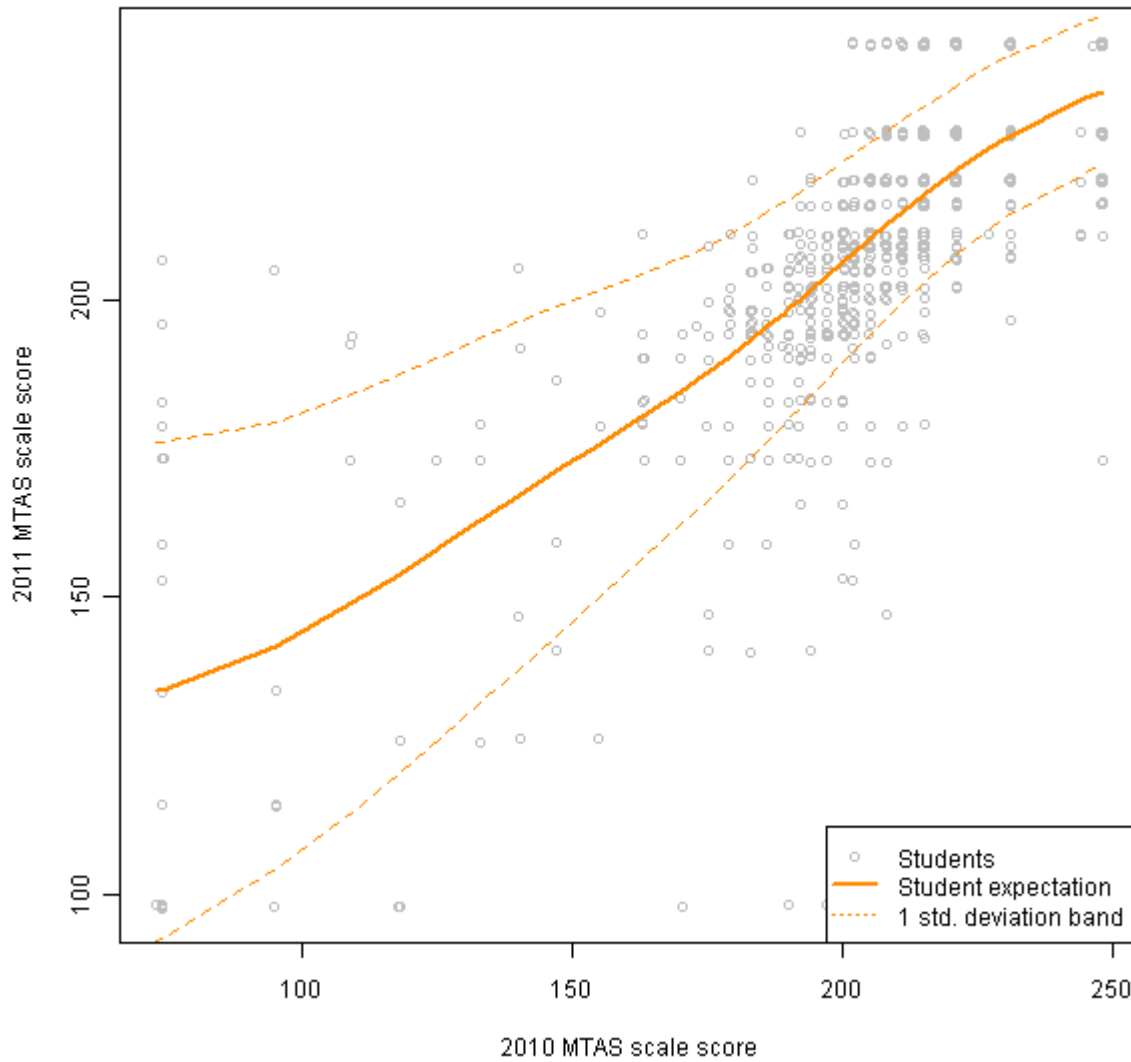
## 2011 Minnesota Growth Calculations Functional Requirements

188	189.07	20.37	199.00	179.00
189	189.48	20.41	200.00	179.00
190	189.89	20.62	200.00	180.00
191	190.34	20.90	201.00	180.00
192	190.85	21.14	201.00	180.00
193	191.42	21.28	202.00	181.00
194	192.08	21.28	203.00	181.00
195	192.80	21.11	203.00	182.00
196	193.61	20.80	204.00	183.00
197	194.50	20.41	205.00	184.00
198	195.47	20.01	205.00	185.00
199	196.51	19.66	206.00	187.00
200	197.60	19.44	207.00	188.00
201	198.72	19.36	208.00	189.00
202	199.84	19.41	210.00	190.00
203	200.94	19.55	211.00	191.00
204	202.04	19.71	212.00	192.00
205	203.14	19.86	213.00	193.00
206	204.25	19.95	214.00	194.00
207	205.38	19.93	215.00	195.00
208	206.55	19.79	216.00	197.00
209	207.76	19.51	218.00	198.00
210	209.01	19.10	219.00	199.00
211	210.31	18.59	220.00	201.00
212	211.66	18.03	221.00	203.00
213	213.06	17.48	222.00	204.00
214	214.48	16.98	223.00	206.00
215	215.91	16.58	224.00	208.00
216	217.29	16.28	225.00	209.00
217	218.57	16.11	227.00	211.00
218	219.64	16.05	228.00	212.00
219	220.47	16.10	229.00	212.00
220	221.04	16.21	229.00	213.00
221	221.40	16.38	230.00	213.00
222	221.62	16.57	230.00	213.00
223	221.75	16.77	230.00	213.00

**2011 Minnesota Growth Calculations**  
Functional Requirements

224	221.84	16.99	230.00	213.00
225	221.90	17.20	231.00	213.00
226	221.95	17.42	231.00	213.00
227	222.01	17.63	231.00	213.00
228	222.13	17.81	231.00	213.00
229	222.36	17.92	231.00	213.00
230	222.75	17.91	232.00	214.00
231	223.26	17.73	232.00	214.00
232	223.75	17.45	232.00	215.00
233	224.14	17.17	233.00	216.00
234	224.47	16.94	233.00	216.00
235	224.81	16.73	233.00	216.00
236	225.15	16.54	233.00	217.00
237	225.50	16.35	234.00	217.00
238	225.87	16.14	234.00	218.00
239	226.25	15.92	234.00	218.00
240	226.66	15.65	234.00	219.00
241	227.09	15.35	235.00	219.00
242	227.51	15.05	235.00	220.00
243	227.82	14.88	235.00	220.00
244	227.95	14.93	235.00	220.00
245	227.91	15.17	235.00	220.00
246	227.77	15.52	236.00	220.00
247	227.60	15.91	236.00	220.00
248	227.42	16.30	236.00	219.00

Reading scores: Grade 7



Growth expectations: Grade 7 MTAS reading

Prior scale score	Mean of current scale scores	Standard deviation of current scores	High growth target (cut score)	Medium growth target (cut score)
73	134.08	41.89	155.00	113.00
74	134.31	41.67	155.00	113.00
75	134.55	41.45	155.00	114.00
76	134.80	41.24	155.00	114.00
77	135.07	41.03	156.00	115.00
78	135.34	40.82	156.00	115.00
79	135.64	40.61	156.00	115.00

**2011 Minnesota Growth Calculations**  
Functional Requirements

80	135.94	40.41	156.00	116.00
81	136.26	40.21	156.00	116.00
82	136.58	40.01	157.00	117.00
83	136.92	39.81	157.00	117.00
84	137.27	39.62	157.00	117.00
85	137.63	39.42	157.00	118.00
86	138.01	39.23	158.00	118.00
87	138.39	39.05	158.00	119.00
88	138.78	38.86	158.00	119.00
89	139.19	38.67	159.00	120.00
90	139.60	38.49	159.00	120.00
91	140.02	38.30	159.00	121.00
92	140.46	38.12	160.00	121.00
93	140.90	37.94	160.00	122.00
94	141.35	37.75	160.00	122.00
95	141.80	37.57	161.00	123.00
96	142.27	37.39	161.00	124.00
97	142.74	37.21	161.00	124.00
98	143.22	37.03	162.00	125.00
99	143.71	36.85	162.00	125.00
100	144.20	36.67	163.00	126.00
101	144.70	36.49	163.00	126.00
102	145.20	36.31	163.00	127.00
103	145.72	36.12	164.00	128.00
104	146.23	35.94	164.00	128.00
105	146.75	35.76	165.00	129.00
106	147.28	35.58	165.00	129.00
107	147.81	35.40	166.00	130.00
108	148.35	35.22	166.00	131.00
109	148.89	35.04	166.00	131.00
110	149.43	34.86	167.00	132.00
111	149.98	34.68	167.00	133.00
112	150.53	34.50	168.00	133.00
113	151.09	34.32	168.00	134.00
114	151.65	34.14	169.00	135.00
115	152.21	33.96	169.00	135.00

**2011 Minnesota Growth Calculations**  
Functional Requirements

116	152.78	33.79	170.00	136.00
117	153.35	33.61	170.00	137.00
118	153.92	33.43	171.00	137.00
119	154.49	33.25	171.00	138.00
120	155.07	33.08	172.00	139.00
121	155.65	32.90	172.00	139.00
122	156.23	32.72	173.00	140.00
123	156.82	32.54	173.00	141.00
124	157.41	32.36	174.00	141.00
125	158.00	32.18	174.00	142.00
126	158.59	32.00	175.00	143.00
127	159.18	31.82	175.00	143.00
128	159.78	31.64	176.00	144.00
129	160.37	31.45	176.00	145.00
130	160.97	31.27	177.00	145.00
131	161.57	31.08	177.00	146.00
132	162.17	30.89	178.00	147.00
133	162.77	30.69	178.00	147.00
134	163.37	30.50	179.00	148.00
135	163.98	30.30	179.00	149.00
136	164.58	30.10	180.00	150.00
137	165.18	29.89	180.00	150.00
138	165.78	29.69	181.00	151.00
139	166.38	29.48	181.00	152.00
140	166.98	29.26	182.00	152.00
141	167.58	29.05	182.00	153.00
142	168.18	28.83	183.00	154.00
143	168.78	28.60	183.00	154.00
144	169.37	28.38	184.00	155.00
145	169.96	28.15	184.00	156.00
146	170.55	27.92	185.00	157.00
147	171.14	27.69	185.00	157.00
148	171.73	27.45	185.00	158.00
149	172.31	27.22	186.00	159.00
150	172.89	26.98	186.00	159.00
151	173.47	26.74	187.00	160.00

**2011 Minnesota Growth Calculations**  
Functional Requirements

152	174.05	26.50	187.00	161.00
153	174.63	26.26	188.00	161.00
154	175.20	26.02	188.00	162.00
155	175.77	25.78	189.00	163.00
156	176.34	25.54	189.00	164.00
157	176.92	25.31	190.00	164.00
158	177.49	25.07	190.00	165.00
159	178.06	24.83	190.00	166.00
160	178.63	24.60	191.00	166.00
161	179.20	24.36	191.00	167.00
162	179.78	24.13	192.00	168.00
163	180.36	23.90	192.00	168.00
164	180.94	23.67	193.00	169.00
165	181.52	23.45	193.00	170.00
166	182.11	23.22	194.00	170.00
167	182.70	23.00	194.00	171.00
168	183.30	22.78	195.00	172.00
169	183.90	22.57	195.00	173.00
170	184.51	22.35	196.00	173.00
171	185.13	22.14	196.00	174.00
172	185.75	21.93	197.00	175.00
173	186.38	21.72	197.00	176.00
174	187.02	21.52	198.00	176.00
175	187.67	21.31	198.00	177.00
176	188.33	21.11	199.00	178.00
177	188.99	20.91	199.00	179.00
178	189.66	20.71	200.00	179.00
179	190.35	20.52	201.00	180.00
180	191.04	20.33	201.00	181.00
181	191.74	20.14	202.00	182.00
182	192.44	19.95	202.00	182.00
183	193.16	19.76	203.00	183.00
184	193.89	19.57	204.00	184.00
185	194.62	19.39	204.00	185.00
186	195.36	19.21	205.00	186.00
187	196.11	19.03	206.00	187.00



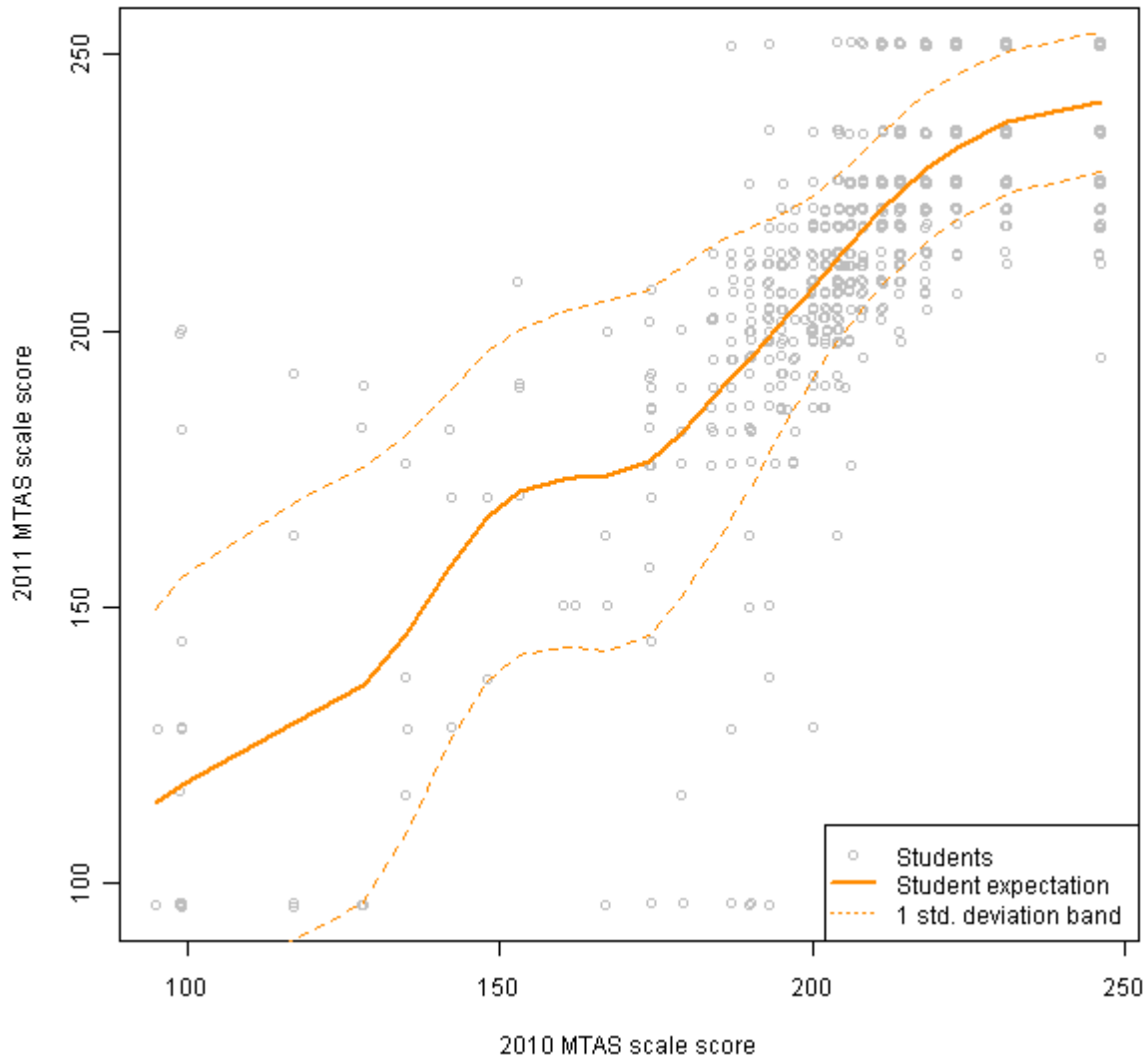
**2011 Minnesota Growth Calculations**  
Functional Requirements

188	196.87	18.85	206.00	187.00
189	197.63	18.67	207.00	188.00
190	198.40	18.50	208.00	189.00
191	199.17	18.32	208.00	190.00
192	199.95	18.15	209.00	191.00
193	200.73	17.98	210.00	192.00
194	201.52	17.82	210.00	193.00
195	202.31	17.65	211.00	193.00
196	203.11	17.49	212.00	194.00
197	203.90	17.33	213.00	195.00
198	204.70	17.17	213.00	196.00
199	205.49	17.01	214.00	197.00
200	206.29	16.86	215.00	198.00
201	207.08	16.70	215.00	199.00
202	207.88	16.55	216.00	200.00
203	208.67	16.41	217.00	200.00
204	209.46	16.26	218.00	201.00
205	210.24	16.12	218.00	202.00
206	211.02	15.98	219.00	203.00
207	211.79	15.84	220.00	204.00
208	212.56	15.71	220.00	205.00
209	213.33	15.57	221.00	206.00
210	214.08	15.44	222.00	206.00
211	214.83	15.32	222.00	207.00
212	215.57	15.19	223.00	208.00
213	216.30	15.07	224.00	209.00
214	217.02	14.95	225.00	210.00
215	217.74	14.84	225.00	210.00
216	218.44	14.73	226.00	211.00
217	219.14	14.62	226.00	212.00
218	219.82	14.51	227.00	213.00
219	220.49	14.40	228.00	213.00
220	221.16	14.30	228.00	214.00
221	221.81	14.20	229.00	215.00
222	222.45	14.11	230.00	215.00
223	223.08	14.02	230.00	216.00

**2011 Minnesota Growth Calculations**  
Functional Requirements

224	223.69	13.93	231.00	217.00
225	224.30	13.84	231.00	217.00
226	224.89	13.76	232.00	218.00
227	225.48	13.67	232.00	219.00
228	226.05	13.60	233.00	219.00
229	226.60	13.52	233.00	220.00
230	227.15	13.45	234.00	220.00
231	227.68	13.38	234.00	221.00
232	228.21	13.31	235.00	222.00
233	228.72	13.24	235.00	222.00
234	229.22	13.18	236.00	223.00
235	229.71	13.12	236.00	223.00
236	230.18	13.06	237.00	224.00
237	230.65	13.01	237.00	224.00
238	231.10	12.96	238.00	225.00
239	231.55	12.91	238.00	225.00
240	231.98	12.86	238.00	226.00
241	232.40	12.81	239.00	226.00
242	232.81	12.77	239.00	226.00
243	233.21	12.73	240.00	227.00
244	233.61	12.69	240.00	227.00
245	233.99	12.65	240.00	228.00
246	234.36	12.62	241.00	228.00
247	234.72	12.59	241.00	228.00
248	235.07	12.56	241.00	229.00

Reading scores: Grade 8



Growth expectations: Grade 8 MTAS reading

Prior scale score	Mean of current scale scores	Standard deviation of current scores	High growth target (cut score)	Medium growth target (cut score)
95	114.46	35.13	132.00	97.00
96	115.28	36.10	133.00	97.00
97	116.06	36.83	134.00	98.00
98	116.82	37.37	135.00	98.00
99	117.54	37.75	136.00	99.00
100	118.25	38.02	137.00	99.00
101	118.94	38.21	138.00	100.00

**2011 Minnesota Growth Calculations  
Functional Requirements**

102	119.62	38.35	139.00	100.00
103	120.29	38.45	140.00	101.00
104	120.94	38.54	140.00	102.00
105	121.59	38.62	141.00	102.00
106	122.22	38.70	142.00	103.00
107	122.84	38.78	142.00	103.00
108	123.46	38.87	143.00	104.00
109	124.07	38.96	144.00	105.00
110	124.67	39.05	144.00	105.00
111	125.27	39.14	145.00	106.00
112	125.87	39.23	145.00	106.00
113	126.47	39.32	146.00	107.00
114	127.08	39.40	147.00	107.00
115	127.69	39.47	147.00	108.00
116	128.31	39.54	148.00	109.00
117	128.93	39.59	149.00	109.00
118	129.56	39.64	149.00	110.00
119	130.18	39.67	150.00	110.00
120	130.79	39.70	151.00	111.00
121	131.39	39.72	151.00	112.00
122	131.96	39.73	152.00	112.00
123	132.53	39.74	152.00	113.00
124	133.09	39.73	153.00	113.00
125	133.67	39.70	154.00	114.00
126	134.29	39.64	154.00	114.00
127	134.99	39.54	155.00	115.00
128	135.79	39.37	155.00	116.00
129	136.72	39.14	156.00	117.00
130	137.78	38.82	157.00	118.00
131	138.98	38.43	158.00	120.00
132	140.32	37.96	159.00	121.00
133	141.77	37.43	160.00	123.00
134	143.33	36.84	162.00	125.00
135	144.97	36.21	163.00	127.00
136	146.67	35.56	164.00	129.00
137	148.41	34.90	166.00	131.00

## 2011 Minnesota Growth Calculations Functional Requirements

138	150.17	34.24	167.00	133.00
139	151.94	33.60	169.00	135.00
140	153.71	32.98	170.00	137.00
141	155.46	32.41	172.00	139.00
142	157.18	31.87	173.00	141.00
143	158.86	31.39	175.00	143.00
144	160.49	30.97	176.00	145.00
145	162.06	30.61	177.00	147.00
146	163.55	30.31	179.00	148.00
147	164.95	30.08	180.00	150.00
148	166.23	29.89	181.00	151.00
149	167.39	29.76	182.00	153.00
150	168.42	29.67	183.00	154.00
151	169.31	29.62	184.00	154.00
152	170.06	29.60	185.00	155.00
153	170.70	29.60	186.00	156.00
154	171.23	29.64	186.00	156.00
155	171.68	29.69	187.00	157.00
156	172.05	29.78	187.00	157.00
157	172.38	29.89	187.00	157.00
158	172.66	30.03	188.00	158.00
159	172.90	30.19	188.00	158.00
160	173.11	30.38	188.00	158.00
161	173.29	30.60	189.00	158.00
162	173.43	30.82	189.00	158.00
163	173.53	31.05	189.00	158.00
164	173.60	31.28	189.00	158.00
165	173.64	31.49	189.00	158.00
166	173.67	31.68	190.00	158.00
167	173.70	31.81	190.00	158.00
168	173.76	31.90	190.00	158.00
169	173.88	31.94	190.00	158.00
170	174.09	31.92	190.00	158.00
171	174.41	31.85	190.00	158.00
172	174.87	31.73	191.00	159.00
173	175.46	31.56	191.00	160.00

## 2011 Minnesota Growth Calculations Functional Requirements

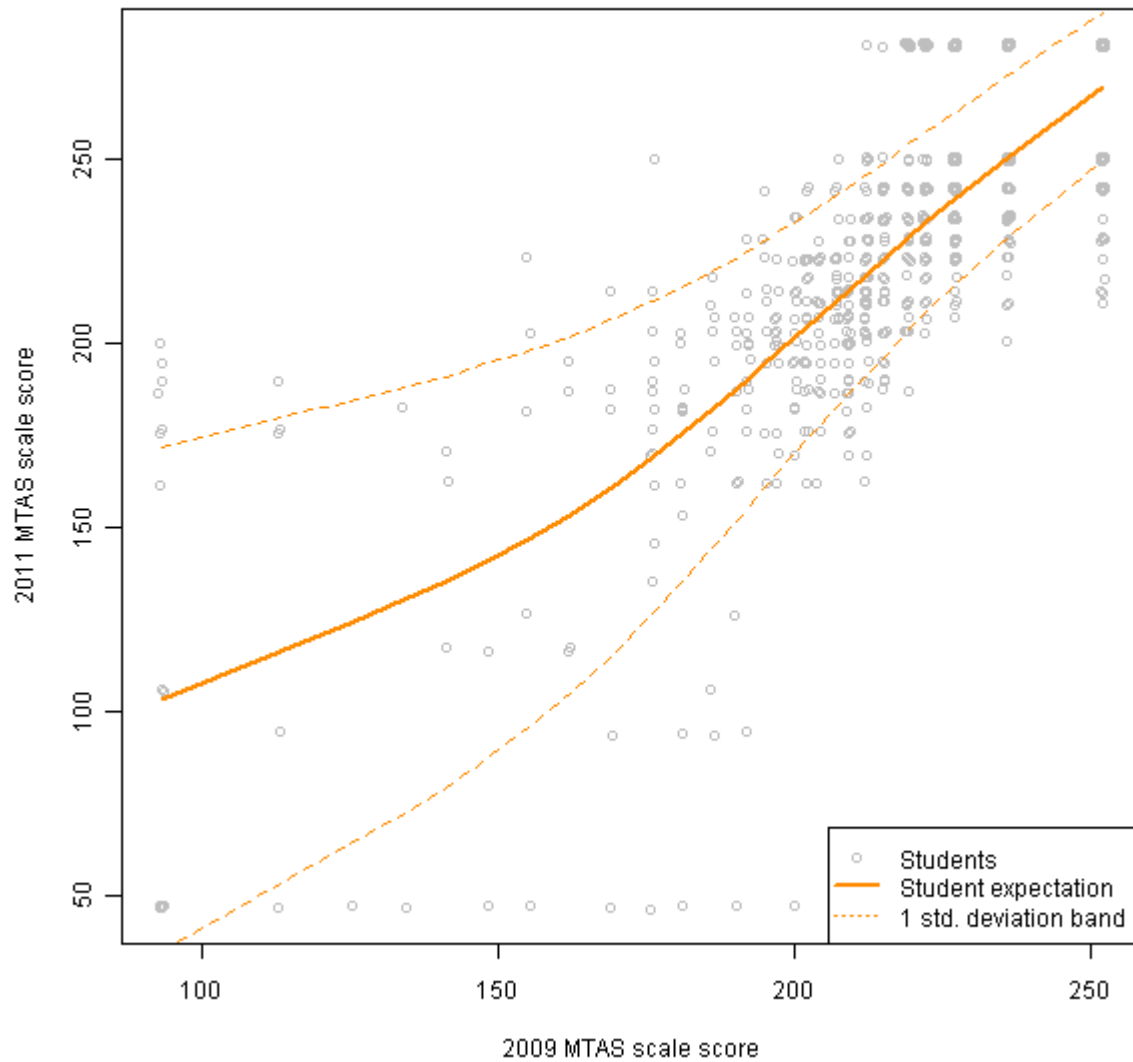
174	176.20	31.36	192.00	161.00
175	177.07	31.13	193.00	162.00
176	178.05	30.86	193.00	163.00
177	179.13	30.56	194.00	164.00
178	180.28	30.24	195.00	165.00
179	181.48	29.89	196.00	167.00
180	182.72	29.50	197.00	168.00
181	183.98	29.08	199.00	169.00
182	185.25	28.62	200.00	171.00
183	186.53	28.12	201.00	172.00
184	187.80	27.58	202.00	174.00
185	189.06	27.00	203.00	176.00
186	190.31	26.38	204.00	177.00
187	191.56	25.71	204.00	179.00
188	192.79	25.01	205.00	180.00
189	194.02	24.27	206.00	182.00
190	195.24	23.51	207.00	183.00
191	196.47	22.74	208.00	185.00
192	197.69	21.96	209.00	187.00
193	198.92	21.19	210.00	188.00
194	200.15	20.42	210.00	190.00
195	201.40	19.69	211.00	192.00
196	202.65	18.98	212.00	193.00
197	203.92	18.32	213.00	195.00
198	205.19	17.69	214.00	196.00
199	206.48	17.12	215.00	198.00
200	207.78	16.60	216.00	199.00
201	209.08	16.13	217.00	201.00
202	210.39	15.71	218.00	203.00
203	211.71	15.34	219.00	204.00
204	213.02	15.02	221.00	206.00
205	214.33	14.75	222.00	207.00
206	215.63	14.52	223.00	208.00
207	216.92	14.32	224.00	210.00
208	218.19	14.16	225.00	211.00
209	219.44	14.03	226.00	212.00

**2011 Minnesota Growth Calculations**  
Functional Requirements

210	220.67	13.92	228.00	214.00
211	221.87	13.84	229.00	215.00
212	223.03	13.77	230.00	216.00
213	224.17	13.71	231.00	217.00
214	225.26	13.67	232.00	218.00
215	226.32	13.63	233.00	220.00
216	227.34	13.59	234.00	221.00
217	228.31	13.55	235.00	222.00
218	229.24	13.51	236.00	222.00
219	230.13	13.47	237.00	223.00
220	230.97	13.43	238.00	224.00
221	231.77	13.39	238.00	225.00
222	232.53	13.34	239.00	226.00
223	233.25	13.28	240.00	227.00
224	233.92	13.23	241.00	227.00
225	234.56	13.17	241.00	228.00
226	235.16	13.12	242.00	229.00
227	235.72	13.06	242.00	229.00
228	236.26	13.01	243.00	230.00
229	236.76	12.95	243.00	230.00
230	237.23	12.90	244.00	231.00
231	237.68	12.85	244.00	231.00
232	238.09	12.80	244.00	232.00
233	238.49	12.75	245.00	232.00
234	238.86	12.71	245.00	233.00
235	239.20	12.67	246.00	233.00
236	239.52	12.64	246.00	233.00
237	239.82	12.61	246.00	234.00
238	240.09	12.59	246.00	234.00
239	240.34	12.57	247.00	234.00
240	240.57	12.57	247.00	234.00
241	240.77	12.57	247.00	234.00
242	240.94	12.58	247.00	235.00
243	241.09	12.60	247.00	235.00
244	241.21	12.63	248.00	235.00
245	241.30	12.68	248.00	235.00

246	241.37	12.74	248.00	235.00
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Reading scores: Grade 10



Growth expectations: Grade 10 MTAS reading

Prior scale score	Mean of current scale scores	Standard deviation of current scores	High growth target (cut score)	Medium growth target (cut score)
93	103.45	68.35	138.00	69.00
94	104.10	68.11	138.00	70.00
95	104.75	67.87	139.00	71.00
96	105.39	67.63	139.00	72.00
97	106.04	67.38	140.00	72.00



## 2011 Minnesota Growth Calculations Functional Requirements

98	106.69	67.14	140.00	73.00
99	107.33	66.89	141.00	74.00
100	107.98	66.64	141.00	75.00
101	108.62	66.39	142.00	75.00
102	109.27	66.13	142.00	76.00
103	109.92	65.88	143.00	77.00
104	110.56	65.63	143.00	78.00
105	111.21	65.37	144.00	79.00
106	111.85	65.12	144.00	79.00
107	112.50	64.86	145.00	80.00
108	113.14	64.60	145.00	81.00
109	113.79	64.34	146.00	82.00
110	114.44	64.08	146.00	82.00
111	115.08	63.82	147.00	83.00
112	115.73	63.56	148.00	84.00
113	116.38	63.30	148.00	85.00
114	117.02	63.04	149.00	86.00
115	117.67	62.78	149.00	86.00
116	118.32	62.52	150.00	87.00
117	118.97	62.26	150.00	88.00
118	119.62	61.99	151.00	89.00
119	120.27	61.73	151.00	89.00
120	120.92	61.47	152.00	90.00
121	121.57	61.21	152.00	91.00
122	122.23	60.94	153.00	92.00
123	122.88	60.68	153.00	93.00
124	123.54	60.41	154.00	93.00
125	124.20	60.15	154.00	94.00
126	124.86	59.88	155.00	95.00
127	125.53	59.62	155.00	96.00
128	126.19	59.35	156.00	97.00
129	126.86	59.09	156.00	97.00
130	127.54	58.82	157.00	98.00
131	128.22	58.55	157.00	99.00
132	128.90	58.28	158.00	100.00
133	129.59	58.01	159.00	101.00

**2011 Minnesota Growth Calculations  
Functional Requirements**

134	130.28	57.74	159.00	101.00
135	130.97	57.46	160.00	102.00
136	131.68	57.19	160.00	103.00
137	132.39	56.91	161.00	104.00
138	133.10	56.63	161.00	105.00
139	133.82	56.34	162.00	106.00
140	134.55	56.06	163.00	107.00
141	135.29	55.77	163.00	107.00
142	136.04	55.48	164.00	108.00
143	136.79	55.18	164.00	109.00
144	137.56	54.88	165.00	110.00
145	138.33	54.58	166.00	111.00
146	139.11	54.27	166.00	112.00
147	139.91	53.95	167.00	113.00
148	140.71	53.64	168.00	114.00
149	141.53	53.31	168.00	115.00
150	142.36	52.98	169.00	116.00
151	143.20	52.65	170.00	117.00
152	144.06	52.31	170.00	118.00
153	144.92	51.96	171.00	119.00
154	145.80	51.60	172.00	120.00
155	146.70	51.24	172.00	121.00
156	147.61	50.88	173.00	122.00
157	148.53	50.50	174.00	123.00
158	149.47	50.12	175.00	124.00
159	150.42	49.73	175.00	126.00
160	151.39	49.34	176.00	127.00
161	152.37	48.93	177.00	128.00
162	153.37	48.52	178.00	129.00
163	154.39	48.11	178.00	130.00
164	155.42	47.68	179.00	132.00
165	156.47	47.25	180.00	133.00
166	157.53	46.82	181.00	134.00
167	158.61	46.38	182.00	135.00
168	159.71	45.93	183.00	137.00
169	160.82	45.48	184.00	138.00

## 2011 Minnesota Growth Calculations Functional Requirements

170	161.95	45.02	184.00	139.00
171	163.09	44.56	185.00	141.00
172	164.25	44.09	186.00	142.00
173	165.43	43.62	187.00	144.00
174	166.62	43.15	188.00	145.00
175	167.82	42.67	189.00	146.00
176	169.04	42.19	190.00	148.00
177	170.27	41.72	191.00	149.00
178	171.52	41.24	192.00	151.00
179	172.78	40.75	193.00	152.00
180	174.06	40.27	194.00	154.00
181	175.35	39.79	195.00	155.00
182	176.64	39.31	196.00	157.00
183	177.96	38.83	197.00	159.00
184	179.28	38.36	198.00	160.00
185	180.61	37.88	200.00	162.00
186	181.95	37.41	201.00	163.00
187	183.31	36.95	202.00	165.00
188	184.67	36.48	203.00	166.00
189	186.04	36.02	204.00	168.00
190	187.42	35.57	205.00	170.00
191	188.80	35.12	206.00	171.00
192	190.20	34.67	208.00	173.00
193	191.60	34.23	209.00	174.00
194	193.00	33.80	210.00	176.00
195	194.41	33.37	211.00	178.00
196	195.82	32.95	212.00	179.00
197	197.24	32.53	214.00	181.00
198	198.66	32.13	215.00	183.00
199	200.08	31.73	216.00	184.00
200	201.51	31.33	217.00	186.00
201	202.94	30.95	218.00	187.00
202	204.37	30.57	220.00	189.00
203	205.80	30.19	221.00	191.00
204	207.22	29.83	222.00	192.00
205	208.65	29.47	223.00	194.00

**2011 Minnesota Growth Calculations  
Functional Requirements**

206	210.08	29.12	225.00	196.00
207	211.51	28.78	226.00	197.00
208	212.93	28.45	227.00	199.00
209	214.35	28.12	228.00	200.00
210	215.77	27.80	230.00	202.00
211	217.19	27.49	231.00	203.00
212	218.60	27.19	232.00	205.00
213	220.01	26.89	233.00	207.00
214	221.41	26.60	235.00	208.00
215	222.81	26.32	236.00	210.00
216	224.21	26.05	237.00	211.00
217	225.60	25.78	238.00	213.00
218	226.98	25.52	240.00	214.00
219	228.36	25.27	241.00	216.00
220	229.74	25.02	242.00	217.00
221	231.10	24.78	243.00	219.00
222	232.46	24.55	245.00	220.00
223	233.81	24.32	246.00	222.00
224	235.16	24.10	247.00	223.00
225	236.50	23.89	248.00	225.00
226	237.83	23.68	250.00	226.00
227	239.16	23.48	251.00	227.00
228	240.47	23.28	252.00	229.00
229	241.78	23.09	253.00	230.00
230	243.08	22.91	255.00	232.00
231	244.38	22.73	256.00	233.00
232	245.66	22.56	257.00	234.00
233	246.94	22.39	258.00	236.00
234	248.21	22.23	259.00	237.00
235	249.47	22.07	261.00	238.00
236	250.72	21.92	262.00	240.00
237	251.96	21.77	263.00	241.00
238	253.20	21.62	264.00	242.00
239	254.42	21.48	265.00	244.00
240	255.64	21.35	266.00	245.00
241	256.85	21.22	267.00	246.00

2011 Minnesota Growth Calculations  
Functional Requirements

242	258.05	21.09	269.00	248.00
243	259.24	20.97	270.00	249.00
244	260.43	20.85	271.00	250.00
245	261.60	20.73	272.00	251.00
246	262.77	20.62	273.00	252.00
247	263.92	20.51	274.00	254.00
248	265.07	20.41	275.00	255.00
249	266.21	20.30	276.00	256.00
250	267.34	20.21	277.00	257.00
251	268.46	20.11	279.00	258.00
252	269.58	20.02	280.00	260.00

Functional specifications for the computation of the  
**Minnesota Graduation Rates**

**Four-Year Graduation Rate**

**Five-Year Graduation Rate**

**Six-Year Graduation Rate**

**Overview:**

The purpose of this document is to describe the graduation rate calculations using the Exclusion-Adjusted Cohort Graduation Indicator (EACGI) methodology as applied in Minnesota. There are three calculations: The first results in the Four-Year Graduation Rate, the second results in the Five-Year Graduation Rate, and the third results in the Six-Year Graduation Rate. The calculations use data from the Minnesota Automated Reporting Student System (MARSS) and other Minnesota Department of Education sources.

The calculations are dependant on the last reported enrollment record for each student and the corresponding ending status of the record. To determine the final ending status for each student, the MARSS Status End Code is used. A complete listing of these codes and their definitions is found in *Appendix A – MARSS Status End Codes*.

Additionally, the MARSS State Aid Category (reflecting why the student is attending) is part of the selection process. For example, students who are primarily enrolled in a nonpublic school, but attend a public school for specific class are not included in the calculations. A complete listing of these codes and their definitions is found in *Appendix B – MARSS State Aid Categories*.

High school rates are determined using the school last reporting the student in the state. District rates are determined using the district last reporting the student in the state. District rates are computed separately from the school rates and are not simply an average of the school rates within the district.

High schools and districts that have at least one senior and normally graduate students are assigned a graduation rate.

- Districts are assigned a graduation rate if they have at least one senior enrolled over October 1 of the analysis year (MARSS October Record Indicator = ‘Y’).
- Schools are assigned a graduation rate if they have at least one senior enrolled over October 1 of the analysis year *and* are classified as a High School, K-12 Open School, or Distance Learning School (School classifications 32, 33, 40 or 46).

Other references to graduation rate computations can be found at:

User's Guide to Computing High School Graduation Rates, Volume 1: Review of Current and Proposed Graduation Indicators <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2006604>

User's Guide to Computing High School Graduation Rates, Volume 2: Technical Evaluation of Proxy Graduation Indicators <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2006605>

No Child Left Behind - High School Graduation Rate  
Non-Regulatory Guidance December 22, 2008  
<http://www.ed.gov/policy/elsec/guid/hsgrguidance.pdf>

## Four-Year Graduation Rate

### *Summary:*

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The Four-Year Graduation Rate is a four-year, on-time graduation rate based on a cohort of first time ninth grade students plus transfers into the cohort within the four year period minus transfers out of the cohort within the four year period. This rate is similar to, but not the same as, the National Governors Association (NGA) Graduation Rate. The NGA Rate allows more time for Special Education students and recent immigrants to graduate.

### *Student Record Selection:*

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#### **A. Initial selection of records**

To construct the cohort, specific MARSS records are first selected which will comprise the universe of all possible records that need to be evaluated. When creating the universe of records, some records are excluded (such as records in error or where the student is attending elsewhere but still reported in the MARSS system).

Initially, the computation selects all student records from MARSS End of Year data reported as:

- Grade 9 in Year 1
- Grade 10 in Year 2
- Grade 11 in Year 3
- Grade 12 in Year 4

These are the records where the student might be a first time ninth grade student or might be joining the cohort in a later year in a higher grade.

Exclude from this selection those records where:

- MARSS Status = 1 (the record is in error)
- School Classification = 45 (the student attends elsewhere)
- State Aid Category = 14, 16, 17, 18, 28, 46, 52 (the student attends elsewhere)
- State Aid Category = 25 (only found prior to 2004 designating adult students)
- State Aid Category = 98 (students from the prior year who are designated as summer graduates, summer dropouts or summer transfers). These records are excluded in this initial selection since the reported grade during the summer may not be part of the cohort.

A complete list of State Aid Categories can be found in Appendix B: MARSS State Aid Category Definitions.



**B. Additional records for students represented in the cohort**

Once these records are selected, other records for these same students are added to the group to get a full enrollment history for each student. For example: when a student is promoted from grade 9 to grade 10 at the semester, the grade 10 record is needed to complete the full enrollment history for the student.

In this selection process, summer graduate, dropout and transfer records (State Aid Category 98) *are* included for the students in the cohort. When matching student records, two enrollment records are considered from the same student when the records share the same MARSS number. In rare cases, the MARSS number may have been reassigned to a different student. To avoid using these records, an addition check is made using the student birth date or student initials before the records are matched.

Add to the group:

- Any matching student record prior to or including Year 4 not already present in the initial selection

Exclude from this selection those records where:

- MARSS Status = 1 (the record is in error)
- School Classification = 45 (the student attends elsewhere)
- State Aid Category = 14, 16, 17, 18, 28, 46, 52 (the student attends elsewhere)
- State Aid Category = 25 (only found prior to 2004 designating adult students)

**C. Additional records from the following summer - Graduates**

The Four-Year Graduation Rate also allows for graduate records from the following summer to be included for students in this existing cohort. This data is reported the following year and is found in the MARSS Fall submission. Districts may report these summer graduates at any time during the year so records are limited to those with status end dates on or before September 15 to ensure service was only provided during the summer.

Add to the group any matching student record from the following summer found in the MARSS Fall submission where:

- Status Begin Date is on or after June 1 of Year 4
- Status End Date between June 1 and September 15 of Year 4
- Status End Code = 08 (Graduate)

Exclude from this selection those records where:

- MARSS Status = 1 (record in error)
- School Classification = 45 (the student attends elsewhere).

**D. Resulting set of records**

The resulting set of data represents the entire enrollment history for all students represented in the initial cohort (the universe of possible records). This set of data is then evaluated to determine which students belong in the exclusion-adjusted cohort for the specific graduation indicator.

**D. Minimum amount of time in a qualifying cohort grade**

The MARSS system records all enrollment activity for students in various districts though out the state. In some cases, students are enrolled in a grade that appears to qualify to be included in the cohort, but the enrollment period is very brief. This can occur when a student is temporarily placed in an alternative program or other specialized educational facility and the grade is reported differently than in the regular school.

Students enter the cohort based on a grade within a specific year (a qualifying cohort grade). The enrollment period for a qualifying record can be expressed as the number of days enrolled between the MARSS Status Begin Date and the MARSS Status End Date. Normally students enrolled continuously over the four year period would have four enrollment records, one for each year – each about 250 calendar days (the number of days between September 1 and May 30). The total enrollment in a qualifying cohort grade for the four years would amount to about 1000 days.

Records for students who are enrolled for short time periods in the qualifying cohort grades during their high school careers are removed from the calculation. Students who do not exceed one quarter of a standard school year (approximately 9 weeks – 45 school days or 60 calendar days) of enrollment in a qualifying cohort grade within a year are removed.

- Remove from the group all records for a student where the sum of the enrollment with a single year is less than 60 days as long as no other cohort year has enrollment days equal to or exceeding 60 days.

**E. Removing mismatched records**

In the final resulting set of date, there sill exist a few cases where a single MARSS number is assigned to two different students. If both of these students are part of the cohort being measured, anomalous results are obtained when determining the last record and the resulting status end code. When detected, the programming removes these records from the cohort.

- Remove from the group all records sharing a single MARSS Number where at least one of the records in the cohort grades (09, 10, 11, 12) has a different birth date *and* different initials from another record.

**F. Determining the last reported status for each student in the group**

Once the universe of student records is established, the computation steps through each student's enrollment history to determine the last reported status. The records are placed in order (from the earliest to the latest) for each student based on:

- MARSS Number
- Fiscal Year
- Status End Date
- Status End Code (descending order – applies to dual-enrolled students)
- Internal record number (used as a tie-breaker when all other elements are equal)

The computation sets an *End of Enrollment History* flag on the last record found to designate it as the specific record to use in the computations. The school and district designated on the *End of Enrollment History* record is the school and district used in the computational summaries.

**G. Service provided after graduation**

In rare cases, there are some students who were served after graduation within the *same year*. This appeared when 'dual-enrolled' students attended an Alternative Program that briefly continued after the student was reported by the High School as graduating. In such cases, the computation resets the *End of Enrollment History* flag to the record with the graduation indicator.

- Determine which records are marked as graduating but are not considered the last record.
- Determine if any of these students have a matching record within the same fiscal year that is marked as the last record.
- If so, set the *End of Enrollment History* flag to 'N' on that record and set it to 'Y' on the corresponding graduation record.

Later in the computations, the programming seeks out conditions where students were reported as graduating but were subsequently served in a *following year* (after September 15). These students are considered as 'continuing enrollment' students and are not designated as graduates for the current year analysis.

- Set the ending status to C- Continued Enrollment for students marked as graduating if a linked record with a MARSS Status End Date after September 15 is found in the following year's FALL submission.
- Exclude FALL records with State Aid Category 98
- Exclude FALL records with local errors (MARSS Status = 1)

**H. Removing students who were not 'first-time' ninth graders**

The Four-Year Graduation Rate specifically uses 'first-time' ninth graders. Ninth grade students who appear in the group, but who were actually retained or demoted from the previous year are not 'first-time' ninth grade students. These students' records should be removed from the group as they are not part of the cohort. This check is applied to higher grades as well.

To prevent inadvertent removal of students simply attending summer school in the promoted grade, service must be provided *prior* to the summer (prior to June 1 of the previous school year).

Additionally, the annual enrollment period for the record from the prior year (the number of days enrolled in the prior year) must also exceed the earlier discussed ‘minimum amount of time in a qualifying grade cohort’.

*Removing Grade 09 students not part of the cohort*

The computation removes student records from the group where an enrollment record is matched in any of the years preceding Year 1 and indicates the student should not be part of the cohort (not a ‘first-time’ 9<sup>th</sup> grade student). The conditions to remove the student are:

- The reported grade in Year 1, 2, 3 or 4 = 09 AND
- The grade in any year preceding Year 1 = 09, 10, 11 or 12 AND
- The prior year record has a start date before June 1 of the prior year AND
- The annual enrollment period from one of the previous years in grades 09, 10, 11 or 12 exceeds 60 days.

*Removing Grade 10 students not part of the cohort*

The conditions to remove the record are:

- The reported grade in Year 1, 2, 3 or 4 = 10 AND
- The grade in any year preceding Year 2 = 10, 11 or 12 AND
- The prior year record has a start date before June 1 of Year 1 AND
- The student is not part of the grade 09 original cohort from Year 1 AND
- The annual enrollment period from one of the previous years in grades 10, 11 or 12 exceeds 60 days.

*Removing Grade 11 students not part of the cohort*

The conditions to remove the record are:

- The reported grade in Year 1, 2, 3 or 4 = 11 AND
- The grade in any year preceding Year 3 = 11 or 12 AND
- The prior year record has a start date before June 1 of Year 2 AND
- The student is not part of the grade 09 original cohort from Year 1 AND
- The student is not part of the grade 10 original cohort from Year 2 AND
- The annual enrollment period from one of the previous years in grades 11 or 12 exceeds 60 days.

*Removing Grade 12 students not part of the cohort*

The conditions to remove the records are:

- The reported grade in Year 1, 2, 3 or 4 = 12 AND
- The grade in any year preceding Year 4 = 12 AND
- The prior year record has a start date before June 1 of Year 3 AND
- The student is not part of the grade 09 original cohort from Year 1 AND

- The student is not part of the grade 10 original cohort from Year 2 AND
- The student is not part of the grade 11 original cohort from Year 3
- The annual enrollment period from one of the previous years in grade 12 exceeds 60 days.

#### *Removing students who qualify to be included in a previous cohort*

As a final check, students should only be designated in a single cohort. Records for students may appear to be included in multiple cohorts when students are in multiple grades in the same year or are promoted or retained outside of the general pattern described above.

Records for students who qualify to be included in a previous cohort as well as the current cohort are removed. The earliest MARSS status begin date is evaluated for records in grades 9-12 for students in cohort. If an earlier qualifying grade 9-12 record is found from a year that is not in this cohort, the student records are removed. The earlier qualifying record must an annual enrollment period at or above 60 days.

### **I. Removing related records**

Remove all related records for students where the student was not a first time ninth grade student, was not eligible to join the cohort, or a reporting anomaly was detected for the student.

### **J. Designation of final ending classification**

For those students who remain in the cohort, there are five possible classifications for each record designated as the *End of Enrollment History* record.

1. Graduate
2. Dropout
3. Continuing education into following year
4. Ending status unknown
5. Stopped (unable to attend school or transferred out of MN public school)

#### *1. Graduate*

These students were reported as graduating from a MN public school and were not served in a following year. If they were served in the following year, the computation classifies the students as Continuing. The computation designates records as Graduates where:

- The Status End Code = 08

(Status End Code = 09 was eliminated as a valid code in 2008. It also indicated the student was a graduate. Longitudinal analysis using graduate data from 2007 or earlier should include Status End Code 09 when determining graduates).

#### *2. Dropout*

These students were reported as dropping out of a MN public school and did not return. The computation designates these students as Dropouts where:

- The Status End Code = 06, 07, 14, 15, 16, 17, 18, 19, 31, 32, 33, 34, 35 or 37

### 3. Continuing

These students were reported in Year 4 as neither dropping out nor graduating from the cohort. The students are anticipated to continue enrollment into the following year. The computation designates these students as Continuing where:

- The Status End Code = 01, 02, 04, 12, 20, 21, 22, 23, 24, 25, 26, 27, 36, 40, 41, 42, 50 or 99 AND
- The *End of Enrollment History* record is from Year 4

### 4. Ending Status Unknown

These students were reported in Years, 1, 2, or 3 as neither dropping out nor graduating from the cohort. The students were anticipated to return by Year 4 but were not reported in Year 4. The computation designates these students as Unknowns where:

- The Status End Code = 01, 02, 04, 12, 20, 21, 22, 23, 24, 25, 26, 27, 40, 41, 42, 50 or 99 AND
- The *End of Enrollment History* record is from Year 1, Year 2 or Year 3

### 5. Stopped

These students transferred out of a Minnesota public school and did not return, died, or were committed to a correctional institution providing instruction culminating in a regular diploma. The Four-Year Graduation Rate does not include these students in either the numerator or the denominator. The computation designated these students as Stopped where:

- The Status End Code = 03, 05, 11, 13 OR
- District Type = 60 (correctional facility)

## **K. Setting demographics on student records**

Because there are multiple records for a student, demographic characteristics may be reported differently over time by different districts. Ethnicity and Gender are taken from the most recent enrollment record. The broader categories of LEP, Special Education and Free/Reduced Priced Meals are taken from when the student first joined the cohort. This minimizes the effect of students leaving these categories as they progress through high school. The demographics for a student are defined as follows:

- Gender: The gender (Male or Female) is determined from the record that is designated as the *End of Enrollment History* record.
- Ethnicity: The Race/Ethnic category (American Indian, Asian, Hispanic, Black or White) is determined from the record that is designated as the *End of Enrollment History* record.
- Limited English Proficient: LEP status set to 'Y' if the student was designated as LEP at any time in the fiscal year in which he or she first joined the cohort.
- Special Education: Special Education status is set to 'Y' if the student was designated as Special Education at any time in the fiscal year in which he or she first joined the cohort. (MARSS Special Education Evaluation Status = 4 or 6).
- Free/Reduced Priced Meals: FRP status is set to 'Y' if the student was designated as eligible for Free/Reduced Priced meals at any time in the fiscal year in which

he or she first joined the cohort. (MARSS Economic Indicator Code = 1, 2, 4 or 5).

*General Formula for Four-Year Graduation Rate:*

Once the cohort is established, the computation uses the *End of Enrollment History* record and evaluates the final ending status using the last school and district reporting the student.

The computation determines the count of graduates in the cohort divided by the total number in the cohort.

$$\frac{\text{Count of On-Time Graduates in Year 4}}{\text{First-time entering ninth graders in Year 1} \\ \text{plus transfers into the cohort in Years 2, 3, and 4} \\ \text{minus transfers out of the cohort in Years 1, 2, 3, and 4}}$$

*Numerator:*

Count those records designated as the *End of Enrollment History* record where the status final ending status = Graduate

*Denominator:*

Count those records designated as the *End of Enrollment History* record where the status final ending status = Graduate, Dropout, Continuing, or Unknown

## Five-Year Graduation Rate

### *Summary:*

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The Five-Year Graduation Rate is similar to the Four-Year Graduation Rate, but allows a fifth year to be included to determine if students graduated within four or five years. Generally, the computation selects the same cohort of students as the Four-Year Graduation Rate (first time ninth grade students plus transfers in minus transfer out) reported in four specific years (Year 1, Year 2, Year 3, and Year 4). It then determines if these students graduated in Year 4 or in Year 5.

### *Student Record Selection:*

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#### **A. Initial selection of records**

The initial cohort for the Five-Year Graduation Rate is constructed in the same way as the Four-Year Graduation Rate.

#### **B. Additional records within the five year period**

Additional records are added in the same way as the Four-Year Graduation Rate to obtain the full enrollment history for the cohort. But in addition to Years 1, 2, 3, and 4, Year 5 is added in the selection process.

#### **C. Additional records from the following summer - Graduates**

Additional records from the following summer are added in the same way as the Four-year Graduation Rate, but uses the summer following Year 5.

All other record selection processes (steps D through K) are the same for the Five-Year Graduation Rate as they are for the Four-Year Graduation Rate.



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*General Formula for Five-Year Graduation Rate:*

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Once the cohort is established, the computation uses the *End of Enrollment History* record and evaluates the final ending status using the last school and district reporting the student.

The computation determines the count of graduates in the cohort divided by the total number in the cohort.

$$\frac{\text{Count of Graduates in Year 4 or Year 5}}{\text{First-time entering ninth graders in Year 1} \\ \text{plus transfers into the cohort in Years 2, 3, 4 and 5} \\ \text{minus transfers out of the cohort in Years 1, 2, 3, 4 and 5}}$$

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*Numerator:*

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Count those records designated as the *End of Enrollment History* record where the status final ending status = Graduate

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*Denominator:*

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Count those records designated as the *End of Enrollment History* record where the status final ending status = Graduate, Dropout, Continuing, or Unknown

## Six-Year Graduation Rate

### *Summary:*

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The Six-Year Graduation Rate is similar to the Four-Year Graduation Rate, but allows a fifth and sixth year to be included to determine if students graduated within four or five or six years. Generally, the computation selects the same cohort of students as the Four-Year Graduation Rate (first time ninth grade students plus transfers in minus transfer out) reported in four specific years (Year 1, Year 2, Year 3, and Year 4). It then determines if these students graduated in Year 4 or in Year 5 or Year 6.

### *Student Record Selection:*

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#### **A. Initial selection of records**

The initial cohort for the Six-Year Graduation Rate is constructed in the same way as the Four-Year Graduation Rate.

#### **B. Additional records within the six year period**

Additional records are added in the same way as the Four-Year Graduation Rate to obtain the full enrollment history for the cohort. But in addition to Years 1, 2, 3, and 4, Year 5 and Year 6 are added in the selection process.

#### **C. Additional records from the following summer - Graduates**

Additional records from the following summer are added in the same way as the Four-year Graduation Rate, but uses the summer following Year 6.

All other record selection processes (steps D through K) are the same for the Six-Year Graduation Rate as they are for the Four-Year Graduation Rate.

*General Formula for Six-Year Graduation Rate:*

Once the cohort is established, the computation uses the *End of Enrollment History* record and evaluates the final ending status using the last school and district reporting the student.

The computation determines the count of graduates in the cohort divided by the total number in the cohort.

$$\frac{\text{Count of Graduates in Year 4 or Year 5 or Year 6}}{\text{First-time entering ninth graders in Year 1} \\ \text{plus transfers into the cohort in Years 2, 3, 4, 5 and 6} \\ \text{minus transfers out of the cohort in Years 1, 2, 3, 4, 5 and 6}}$$

*Numerator:*

Count those records designated as the *End of Enrollment History* record where the status final ending status = Graduate

*Denominator:*

Count those records designated as the *End of Enrollment History* record where the status final ending status = Graduate, Dropout, Continuing, or Unknown

## **Assigning points to schools for graduation rates**

For ESEA Flexibility, Minnesota has proposed assigning points to schools for graduation rates in order to rank schools across Multiple Measures. This is accomplished by calculating the percentile rank of the four-year graduation rate. Ranking is done within each school type (i.e., elementary, middle, high school, and other). After calculating percentile ranks within school types, the ranks are divided by 100 and multiplied by 25 points.

## Appendix A: MARSS Status End Code Definitions

Full definitions of the MARSS Status End Codes can be found on the web at:

[http://education.state.mn.us/MDE/Accountability\\_Programs/Program\\_Finance/MARSS\\_Student\\_Accounting/MARSS\\_Instruction\\_Manual/Data\\_Elements-Definitions/index.html](http://education.state.mn.us/MDE/Accountability_Programs/Program_Finance/MARSS_Student_Accounting/MARSS_Instruction_Manual/Data_Elements-Definitions/index.html)

- 01 - Change in students' grade level.
- 02 - Transferred to another public school in the same district.
- 03 - Transferred to an approved nonpublic school.
- 04 - Students moved outside of the district.
- 05 - Students moved outside of the state or country.
- \*06 - Students left school after reaching compulsory attendance age without written election
- \*07 - Students left school after reaching compulsory attendance age with written election.
- 08 - Students graduated.
- 09 - Students graduated after meeting IEP/IFSP requirements  
(no longer a valid code – last used in the 2006/2007 school year)
- 10 – Received a Certificate of Completion  
(no longer a valid code – last used in 1996/1997 school year)
- 11 - Died.
- 12 - Students excused from attending school for a physical or mental disability;  
does not include treatment centers if instruction is provided.
- 13 - Students committed to a correctional facility.
- \*14 - Students withdrawn after 15 consecutive days absence - expected back.
- \*15 - Students left school because of marriage.
- \*16 - Students were expelled and did not return to school during the year.
- \*17 - Students leave school due to pregnancy.
- \*18 - Students withdrew, no transcript requested, or transferred to a non-approved nonpublic school.
- \* 19 Enlisted-Armed Services  
(no longer a valid code – last used in 2005/2006 school year)
- 20 - Students transferred to another district or state but did not move.
- 21 - Early Childhood withdrawal; IEP, IFSP or IIP objectives were met.
- 22 - Students withdrew to enter a care and/or treatment program; instruction is provided.
- 23 - Kindergarten withdrawal, expected back next year.
- 24 - Withdrew to Receive Homebound Services.
- 25 – EC (early childhood) students evaluated only.
- 26 – EC students withdrawn by parents.
- 27 – EC students that transition at age three.
- \*31 - Students left school for social reasons.
- \*32 - Students left school for financial reasons.
- \*33 - Students left school for family environment reasons.
- \*34 - Students left school for reasons unknown.
- \*35 - Students left school after attaining age 21 and did not graduate.

**MARSS status end codes continued**

- 36 - Students enrolled in a postsecondary institution (baccalaureate credit) without receiving a high school diploma.
- \*37 - Students left school to attend a GED program or withdrew after taking the GED Exam.
- 40 - End-of-year, students were enrolled the last day of school.
- 41 - Students dropped out of school during the current school year but re-enrolled somewhere by the following October 1.
- 42 - Students met the district's graduation requirements but did not pass one of the required basic standards tests.
- 50 - Students special education data has changed
- 99 - Students enrollment status has changed necessitating the closing of one status record and the opening of a new one.

*\*Dropout Codes*

## Appendix B: MARSS State Aid Category Definitions

Full definitions of the MARSS State Aid Categories can be found on the web at:

[http://education.state.mn.us/MDE/Accountability\\_Programs/Program\\_Finance/MARSS\\_Student\\_Accounting/MARSS\\_Instruction\\_Manual/Data\\_Elements-Definitions/index.html](http://education.state.mn.us/MDE/Accountability_Programs/Program_Finance/MARSS_Student_Accounting/MARSS_Instruction_Manual/Data_Elements-Definitions/index.html)

- 00 - Regular; resident enrolled at the resident district
- 01 - Enrollment Options/Open
- 02 - Foreign Exchange
- 03 - Graduation Incentives
- 04 - Enrollment Choice for 11th and 12th Grade Students
- 05 - Inter-district Cooperative Agreement
- 06 - Cooperative Facilities
- 07 - Homeless ((No longer valid - last used in 2001/2002 school year)
- 08 - Charter School
- 10 - Joint Powers Cooperatives for Special Education and/or Secondary Vocational Programs
- 11 - Parent Initiated Agreements Between School Boards
- 12 - Grandfather Clause/40 Acre Law (No longer valid - last used in 1996/1997 school year)
- 13 - State Board Approved (No longer valid - last used in 1996/1997 school year)
- 14 - Enrollment in another State
- 15 - Non-Minnesota resident, tuition paid by entity in another state or country
- 16 - Shared-Time Aid is paid to the resident district
- 17 - Shared-Time Aid paid to the serving district
- 18 - Shared-Time - Parent/guardian pays
- 19 - Tuition Agreement with Resident District
- 20 - Tuition Agreement with Parent/Guardian,
- 21 - Ineligible Nonresident Student.
- 22 - Residents
- 24 - Early Graduate
- 25 - Adult (No longer valid - last used in 2002/2003 school year)
- 26 - Contract Alternative School/Graduation Incentives,
- 27 - Temporary Placement for Non-handicapped Students for Care and Treatment
- 28 - Resident student attending a nonpublic school through either an IEP/IFSP/IIP or for care and treatment.
- 34 - TRIBAL CONTRACT/GRANT meeting criteria
- 35 - TRIBAL CONTRACT/GRANT not meeting criteria
- 41 - Early Childhood Screening - Screening by school district.
- 42 - Early Childhood Screening - Child & Teen Checkups/EPSDT
- 43 - Early Childhood Screening - Head Start.
- 44 - Early Childhood Screening - Private Provider
- 45 - Early Childhood Screening - Conscientious Objector
- 46 - Extended School Year
- 51 - SD to MN Reciprocity
- 52 - MN to SD Reciprocity
- 97 - Students displaced due to natural disaster (Flood / Hurricane)
- 98 - Summer Graduate, Late Graduate or Dropout.

**Principal Evaluation Work Group )  
Schedule )**

Note: All meetings will be held at TIES Building at 1667 Snelling Ave. N. St. Paul

<b>Date</b>	<b>Time</b>	<b>Location</b>	<b>Agenda</b>
Monday, October 24	1:00 – 4:00	TIES Building 1667 Snelling Ave. N. St. Paul  Snelling Room	<ul style="list-style-type: none"> <li>• Introductions</li> <li>• Charge to the group</li> <li>• Review of legislation</li> <li>• Presentations by BOSA and MESPA &amp; MASSP of work completed</li> <li>• Next Steps</li> <li>• Set calendar and adjust agendas for upcoming meetings</li> </ul>
Monday, November 7	1:00 – 4:00	TIES Building 1667 Snelling Ave. N. St. Paul  Snelling Room	<ul style="list-style-type: none"> <li>• Review of information at federal level-NCLB Waiver Principles</li> <li>• Review of models from state and national sources (NC, IL, IA)</li> <li>• Compare and contrast models</li> <li>• Definition of terms and agreement of terminology</li> <li>• Set calendar and adjust agendas for upcoming meetings</li> </ul>
Monday, November 14	1:00 – 4:00	TIES Building 1667 Snelling Ave. N. St. Paul  Snelling Room	<ul style="list-style-type: none"> <li>• Legal implications</li> <li>• 2</li> <li>• 3</li> <li>• 4</li> <li>• Set calendar and adjust agendas for upcoming meetings</li> </ul>
Monday, December 5	1:00 – 4:00	TIES Building 1667 Snelling Ave. N. St. Paul  Snelling Room	<ul style="list-style-type: none"> <li>• 1</li> <li>• 2</li> <li>• 3</li> <li>• 4</li> <li>• 5</li> </ul>
Monday, December 12	1:00 – 4:00	TIES Building 1667 Snelling Ave. N. St. Paul  Snelling Room	<ul style="list-style-type: none"> <li>• 1</li> <li>• 2</li> <li>• 3</li> <li>• 4</li> <li>• 5</li> </ul>
Monday, January 9	1:00 – 4:00	TBD	<ul style="list-style-type: none"> <li>• Joint meeting with teacher evaluation working group on issues related to testing, assessments and longitudinal data--Tentative</li> <li>• Review outline of draft report; discussion and revisions</li> </ul>
Monday, February 16	1:00 – 4:00	TIES Building 1667 Snelling Ave. N. St. Paul  Snelling Room	<ul style="list-style-type: none"> <li>• Review and Adopt Final Report</li> </ul>



**Proposed Adequate Yearly Progress (AYP) Targets Starting in 2012**

Category	Subject	Grade	2011 (Baseline)	2012	2013	2014	2015	2016	2017
All	M	3	0.7880	0.8057	0.8233	0.8410	0.8587	0.8763	0.8940
All	M	4	0.7588	0.7789	0.7990	0.8191	0.8392	0.8593	0.8794
All	M	5	0.6684	0.6960	0.7237	0.7513	0.7789	0.8066	0.8342
All	M	6	0.6357	0.6661	0.6964	0.7268	0.7571	0.7875	0.8179
All	M	7	0.6618	0.6900	0.7182	0.7464	0.7746	0.8027	0.8309
All	M	8	0.6612	0.6894	0.7176	0.7459	0.7741	0.8024	0.8306
All	M	11	0.5820	0.6168	0.6516	0.6865	0.7213	0.7562	0.7910
All	R	3	0.8407	0.8540	0.8672	0.8805	0.8938	0.9071	0.9203
All	R	4	0.8259	0.8404	0.8549	0.8694	0.8839	0.8984	0.9129
All	R	5	0.8591	0.8708	0.8825	0.8943	0.9060	0.9178	0.9295
All	R	6	0.8273	0.8417	0.8561	0.8705	0.8849	0.8993	0.9137
All	R	7	0.7896	0.8071	0.8246	0.8422	0.8597	0.8773	0.8948
All	R	8	0.7806	0.7989	0.8172	0.8354	0.8537	0.8720	0.8903
All	R	10	0.8389	0.8523	0.8657	0.8792	0.8926	0.9060	0.9194
Am Indian	M	3	0.6106	0.6430	0.6755	0.7079	0.7404	0.7728	0.8053
Am Indian	M	4	0.5569	0.5939	0.6308	0.6677	0.7046	0.7415	0.7785
Am Indian	M	5	0.4280	0.4756	0.5233	0.5710	0.6186	0.6663	0.7140
Am Indian	M	6	0.3871	0.4381	0.4892	0.5403	0.5914	0.6425	0.6935
Am Indian	M	7	0.4229	0.4710	0.5191	0.5672	0.6153	0.6634	0.7115
Am Indian	M	8	0.3908	0.4416	0.4923	0.5431	0.5939	0.6446	0.6954
Am Indian	M	11	0.3121	0.3694	0.4267	0.4841	0.5414	0.5987	0.6560
Am Indian	R	3	0.6998	0.7248	0.7498	0.7748	0.7999	0.8249	0.8499
Am Indian	R	4	0.6766	0.7036	0.7305	0.7575	0.7844	0.8114	0.8383
Am Indian	R	5	0.7195	0.7429	0.7663	0.7896	0.8130	0.8364	0.8598
Am Indian	R	6	0.6630	0.6911	0.7192	0.7473	0.7754	0.8034	0.8315
Am Indian	R	7	0.6151	0.6472	0.6792	0.7113	0.7434	0.7755	0.8075
Am Indian	R	8	0.6214	0.6529	0.6845	0.7160	0.7476	0.7791	0.8107
Am Indian	R	10	0.6915	0.7172	0.7429	0.7686	0.7944	0.8201	0.8458

**Proposed Adequate Yearly Progress (AYP) Targets Starting in 2012 (cont.)**

Category	Subject	Grade	2011 (Baseline)	2012	2013	2014	2015	2016	2017
Asian	M	3	0.7355	0.7576	0.7796	0.8016	0.8237	0.8457	0.8678
Asian	M	4	0.7444	0.7657	0.7870	0.8083	0.8296	0.8509	0.8722
Asian	M	5	0.6690	0.6966	0.7242	0.7517	0.7793	0.8069	0.8345
Asian	M	6	0.6046	0.6375	0.6705	0.7034	0.7364	0.7693	0.8023
Asian	M	7	0.6493	0.6786	0.7078	0.7370	0.7662	0.7954	0.8247
Asian	M	8	0.6594	0.6878	0.7162	0.7446	0.7729	0.8013	0.8297
Asian	M	11	0.5282	0.5675	0.6068	0.6462	0.6855	0.7248	0.7641
Asian	R	3	0.7685	0.7878	0.8071	0.8264	0.8457	0.8650	0.8843
Asian	R	4	0.7556	0.7760	0.7964	0.8167	0.8371	0.8575	0.8778
Asian	R	5	0.8047	0.8210	0.8373	0.8535	0.8698	0.8861	0.9024
Asian	R	6	0.7506	0.7714	0.7922	0.8130	0.8337	0.8545	0.8753
Asian	R	7	0.7175	0.7411	0.7646	0.7881	0.8117	0.8352	0.8588
Asian	R	8	0.7264	0.7492	0.7720	0.7948	0.8176	0.8404	0.8632
Asian	R	10	0.7428	0.7643	0.7857	0.8071	0.8286	0.8500	0.8714
Hispanic	M	3	0.5952	0.6289	0.6626	0.6964	0.7301	0.7638	0.7976
Hispanic	M	4	0.5547	0.5918	0.6289	0.6660	0.7031	0.7402	0.7773
Hispanic	M	5	0.4544	0.4998	0.5453	0.5908	0.6362	0.6817	0.7272
Hispanic	M	6	0.3863	0.4374	0.4886	0.5397	0.5909	0.6420	0.6932
Hispanic	M	7	0.4269	0.4746	0.5224	0.5702	0.6179	0.6657	0.7134
Hispanic	M	8	0.4407	0.4873	0.5339	0.5805	0.6271	0.6737	0.7203
Hispanic	M	11	0.3132	0.3705	0.4277	0.4849	0.5421	0.5994	0.6566
Hispanic	R	3	0.6557	0.6844	0.7131	0.7417	0.7704	0.7991	0.8278
Hispanic	R	4	0.6623	0.6905	0.7186	0.7468	0.7749	0.8030	0.8312
Hispanic	R	5	0.7273	0.7500	0.7728	0.7955	0.8182	0.8409	0.8637
Hispanic	R	6	0.6661	0.6939	0.7217	0.7496	0.7774	0.8052	0.8330
Hispanic	R	7	0.6114	0.6438	0.6762	0.7086	0.7409	0.7733	0.8057
Hispanic	R	8	0.6055	0.6384	0.6713	0.7041	0.7370	0.7699	0.8028
Hispanic	R	10	0.6730	0.7003	0.7275	0.7548	0.7820	0.8093	0.8365
Black	M	3	0.5558	0.5928	0.6298	0.6669	0.7039	0.7409	0.7779
Black	M	4	0.5230	0.5627	0.6025	0.6422	0.6820	0.7217	0.7615
Black	M	5	0.4052	0.4548	0.5043	0.5539	0.6035	0.6530	0.7026
Black	M	6	0.3571	0.4107	0.4642	0.5178	0.5714	0.6250	0.6785
Black	M	7	0.3933	0.4438	0.4944	0.5449	0.5955	0.6461	0.6966
Black	M	8	0.3980	0.4482	0.4983	0.5485	0.5987	0.6488	0.6990
Black	M	11	0.2482	0.3108	0.3735	0.4361	0.4988	0.5614	0.6241
Black	R	3	0.6734	0.7006	0.7278	0.7550	0.7823	0.8095	0.8367
Black	R	4	0.6534	0.6823	0.7112	0.7401	0.7689	0.7978	0.8267
Black	R	5	0.7008	0.7257	0.7506	0.7756	0.8005	0.8254	0.8504
Black	R	6	0.6639	0.6919	0.7199	0.7479	0.7759	0.8039	0.8320
Black	R	7	0.6201	0.6517	0.6834	0.7150	0.7467	0.7784	0.8100
Black	R	8	0.5870	0.6214	0.6559	0.6903	0.7247	0.7591	0.7935
Black	R	10	0.6276	0.6586	0.6896	0.7207	0.7517	0.7827	0.8138

**Proposed Adequate Yearly Progress (AYP) Targets Starting in 2012 (cont.)**

Category	Subject	Grade	2011 (Baseline)	2012	2013	2014	2015	2016	2017
White	M	3	0.8525	0.8648	0.8771	0.8894	0.9017	0.9140	0.9262
White	M	4	0.8212	0.8361	0.8510	0.8659	0.8808	0.8957	0.9106
White	M	5	0.7325	0.7548	0.7771	0.7994	0.8217	0.8440	0.8663
White	M	6	0.7044	0.7290	0.7537	0.7783	0.8029	0.8276	0.8522
White	M	7	0.7213	0.7445	0.7677	0.7910	0.8142	0.8374	0.8606
White	M	8	0.7175	0.7410	0.7646	0.7881	0.8117	0.8352	0.8588
White	M	11	0.6424	0.6722	0.7020	0.7318	0.7616	0.7914	0.8212
White	R	3	0.8958	0.9045	0.9132	0.9219	0.9305	0.9392	0.9479
White	R	4	0.8786	0.8887	0.8988	0.9089	0.9190	0.9292	0.9393
White	R	5	0.9027	0.9108	0.9189	0.9271	0.9352	0.9433	0.9514
White	R	6	0.8744	0.8849	0.8953	0.9058	0.9163	0.9267	0.9372
White	R	7	0.8354	0.8491	0.8628	0.8765	0.8903	0.9040	0.9177
White	R	8	0.8263	0.8408	0.8553	0.8698	0.8842	0.8987	0.9132
White	R	10	0.8839	0.8936	0.9033	0.9129	0.9226	0.9323	0.9420
LEP	M	3	0.5419	0.5801	0.6182	0.6564	0.6946	0.7328	0.7709
LEP	M	4	0.5166	0.5569	0.5972	0.6375	0.6777	0.7180	0.7583
LEP	M	5	0.3784	0.4302	0.4820	0.5338	0.5856	0.6374	0.6892
LEP	M	6	0.3064	0.3642	0.4220	0.4798	0.5376	0.5954	0.6532
LEP	M	7	0.3298	0.3857	0.4415	0.4974	0.5532	0.6091	0.6649
LEP	M	8	0.3572	0.4108	0.4643	0.5179	0.5715	0.6250	0.6786
LEP	M	11	0.1610	0.2309	0.3008	0.3707	0.4407	0.5106	0.5805
LEP	R	3	0.5854	0.6200	0.6545	0.6891	0.7236	0.7582	0.7927
LEP	R	4	0.5768	0.6121	0.6473	0.6826	0.7179	0.7531	0.7884
LEP	R	5	0.6132	0.6455	0.6777	0.7099	0.7422	0.7744	0.8066
LEP	R	6	0.5228	0.5625	0.6023	0.6421	0.6818	0.7216	0.7614
LEP	R	7	0.4337	0.4809	0.5281	0.5753	0.6225	0.6697	0.7169
LEP	R	8	0.4395	0.4862	0.5329	0.5796	0.6263	0.6731	0.7198
LEP	R	10	0.4512	0.4970	0.5427	0.5884	0.6342	0.6799	0.7256
Special Ed	M	3	0.5664	0.6026	0.6387	0.6748	0.7110	0.7471	0.7832
Special Ed	M	4	0.5213	0.5612	0.6011	0.6410	0.6809	0.7207	0.7606
Special Ed	M	5	0.4190	0.4674	0.5158	0.5642	0.6126	0.6611	0.7095
Special Ed	M	6	0.3616	0.4148	0.4680	0.5212	0.5744	0.6276	0.6808
Special Ed	M	7	0.3743	0.4264	0.4786	0.5307	0.5828	0.6350	0.6871
Special Ed	M	8	0.3433	0.3980	0.4527	0.5075	0.5622	0.6169	0.6716
Special Ed	M	11	0.2597	0.3214	0.3831	0.4448	0.5065	0.5682	0.6299
Special Ed	R	3	0.5792	0.6143	0.6493	0.6844	0.7195	0.7545	0.7896
Special Ed	R	4	0.5609	0.5975	0.6341	0.6707	0.7072	0.7438	0.7804
Special Ed	R	5	0.6282	0.6592	0.6901	0.7211	0.7521	0.7831	0.8141
Special Ed	R	6	0.5485	0.5861	0.6238	0.6614	0.6990	0.7366	0.7743
Special Ed	R	7	0.5105	0.5513	0.5921	0.6329	0.6737	0.7145	0.7553
Special Ed	R	8	0.5086	0.5495	0.5905	0.6314	0.6724	0.7133	0.7543
Special Ed	R	10	0.5759	0.6112	0.6466	0.6819	0.7172	0.7526	0.7879

**Proposed Adequate Yearly Progress (AYP) Targets Starting in 2012 (cont.)**

Category	Subject	Grade	2011 (Baseline)	2012	2013	2014	2015	2016	2017
FRP	M	3	0.6527	0.6817	0.7106	0.7396	0.7685	0.7974	0.8264
FRP	M	4	0.6142	0.6463	0.6785	0.7106	0.7428	0.7749	0.8071
FRP	M	5	0.5031	0.5445	0.5859	0.6274	0.6688	0.7102	0.7516
FRP	M	6	0.4587	0.5038	0.5489	0.5940	0.6391	0.6842	0.7293
FRP	M	7	0.4900	0.5325	0.5750	0.6175	0.6600	0.7025	0.7450
FRP	M	8	0.4863	0.5291	0.5719	0.6147	0.6575	0.7003	0.7431
FRP	M	11	0.3732	0.4254	0.4776	0.5299	0.5821	0.6343	0.6866
FRP	R	3	0.7255	0.7484	0.7712	0.7941	0.8170	0.8399	0.8627
FRP	R	4	0.7089	0.7332	0.7574	0.7817	0.8059	0.8302	0.8545
FRP	R	5	0.7571	0.7773	0.7976	0.8178	0.8381	0.8583	0.8785
FRP	R	6	0.7072	0.7316	0.7560	0.7804	0.8048	0.8292	0.8536
FRP	R	7	0.6556	0.6843	0.7130	0.7417	0.7704	0.7991	0.8278
FRP	R	8	0.6408	0.6707	0.7007	0.7306	0.7605	0.7905	0.8204
FRP	R	10	0.7059	0.7304	0.7549	0.7794	0.8039	0.8284	0.8530

<b>Representation</b>	<b>Name</b>	<b>Group Affiliation</b>
<b>Business Community</b>	Jim Bartholomew	Minnesota Business Partnership
<b>Teachers</b>	Jane Gilles	Education Minnesota
	Lynn Nordgren	Minneapolis Federation of Teachers
<b>Superintendents</b>	John Thein	Roseville School District
	Jerry Reshetar	Grand Meadow Public Schools
	Scott Thielman	Buffalo School District
<b>Higher Education</b>	Louise Sundin	Minnesota State Colleges and Universities
	Kent Pikel	University of Minnesota
<b>Charter Schools</b>	Al Fan	Charter School Partners
<b>School Boards</b>	Bob Meeks	Minnesota School Boards Association
<b>Legislators</b>	Sen. Gen Olson	Senate Education Committee Chair
	Rep. Sondra Erickson	House Education Policy Committee Chair
	Rep. Carlos Mariani	House Education Policy Committee Ranking Member
<b>Parents</b>	Mary Ceconni	Parents United
<b>Ed Orgs</b>	Sia Her	Hmong American Partnership
	Anna Marie Hill	Indian Affairs Council
	Vallay Varro	MinnCan
	Joann Knuth	Minnesota Association of Secondary School Principals
	Fred Nolan	Minnesota Rural Education Association
<b>Title I</b>	Matt Mohs	St. Paul Public Schools
<b>Assessment Directors</b>	Dave Heistad	Minneapolis Public Schools
	Lloyd Komatsu	Forest Lake School District
<b>Special Education</b>	Michelle Orcutt	Minnesota Administrators for

		Special Education
<b>Principals</b>	Scott Taylor	Park Brook Elementary School
	Rose Wippler	Monroe Elementary School

## PRINCIPAL LEADERSHIP AND PROFESSIONAL DEVELOPMENT

Yes / No	School Changes to Warrant New School Status	Proficient Response
	<b>Principal will dedicate a minimum of 60 percent of work hours as instructional leader.</b>	<input type="checkbox"/> What evidence will be provided to meet the 60% work hours as instructional leader (logs, time and effort reports, agendas, activities)?  <input type="checkbox"/> Please define work hours representing instructional leader time? How is this defined in research or best practice?
	<b>Principal leadership is supported through ongoing professional development to enhance the ability to lead the school.</b>	<input type="checkbox"/> Was there an orientation or training provided for taking over a low performing school?  <input type="checkbox"/> Please define what a “turn-around principal” is in comparison to a regular principal?  <input type="checkbox"/> What ongoing principal professional development is planned to build the capacity of the “turn-around principal?”
	<b>Principal will develop a personal action plan to increase teacher effectiveness and student learning.</b>	<input type="checkbox"/> Has a personal action plan been submitted? Are there timelines, benchmarks or milestones along with annual goals or targets?
	<b>Principal will be provided with ongoing coaching to sustain improvement efforts.</b>	<input type="checkbox"/> Describe how the ongoing coaching or mentoring will provide intense intervention skills and tools for the turn-around principal?
	<b>Principal will dedicate time throughout the year for staff to regularly examine student achievement data in order to set student achievement goals and create and monitor school improvement plans.</b>	<input type="checkbox"/> How is data analyzed to ensure significant results and time-compressed change by the end of a school year?  <input type="checkbox"/> What is the leadership process to assure verifiable student achievement targets set at the beginning of the school year based on multi-year trends in student performance?

## A Checklist for School Improvement Action Plan

(PROFICIENT ← NEEDS REVISION)

<b>Leadership teams need to prioritize the development, implementation and evaluation of the action plan as the central focus of the continuous improvement process.</b>		
<b>Action Plan Indicator</b>	<b>Proficient</b>	<b>Needs Revision</b>
1. All goals align with data and needs identified in the Needs Analysis		
2. There is a definite shift from programs to practices as identified in the action plan		
3. Instructional Strategy(s) have been prioritized, focused and integrated so that instructional practices (action steps) are matched to the gap		
4. Action steps consistently describe how practices will be implemented and who will implement them		
5. The action plan clearly identifies the core of teachers and administrators who will lead the design, implementation and ongoing assessment of action steps		
6. Implementation Monitoring Frequency aligns with the pacing of instructional strategy implementation		



## **DEMONSTRATING THAT MINNESOTA'S LIST OF REWARD, PRIORITY, AND FOCUS SCHOOLS MEET ESEA FLEXIBILITY DEFINITIONS**

Minnesota generated its list of Reward, Focus, and Priority schools from its overall differentiated recognition, accountability, and support system, the centerpiece of which is the Multiple Measures Rating (MMR). This document demonstrates that our list is consistent with the U.S. Department of Education's suggested definitions.

### **Reward schools**

In order to meet the U.S. Department of Education's definition of a "highest-performing school", a school must:

1. be a Title I school
2. make adequate yearly progress (AYP)
3. exhibit the highest absolute performance
4. exhibit the highest graduation rates (if a high school)
5. be closing achievement gaps.

For demonstration purposes, we used overall proficiency rates to operationalize absolute performance in a way that is consistent with U.S. Department of Education's definition. Eighty-five percent of Title I schools exhibited proficiency rates below 79.2 percent. As such, a school had to exhibit a proficiency rate of 79.2 percent or greater in order to meet the third condition (i.e., "highest absolute performance"). Eighty-five percent of Title I high schools exhibited graduation rates below 91.3 percent. As such, a high school had to exhibit a graduation rate or 79.2 percent or greater in order to meet the fourth condition (i.e., "highest graduation rates"). A Title I school could meet the fifth condition if its growth gap z-score was negative, indicating it contributed to a statewide reduction in achievement gaps.

As shown in the table below, Minnesota's list of Reward schools is consistent with the U.S. Department of Education's definition of a "highest-performing schools". The U.S. Department of Education's definition is rigorous. Only 53 schools met the necessary conditions for qualifying as a "highest-performing school", compared to 125 Reward schools (slightly more than 15 percent of Title I schools). Of the "highest-performing school" schools, 47 (89%) were also Reward schools. Discrepancies can be attributed to Minnesota's high academic standards and its use of Multiple Measures for differentiated recognition, accountability, and support.

<b>Reward (Minnesota Department of Education)</b>	<b>Highest-performing (U.S. Department of Education)</b>	
	No	Yes
No	0	6
Yes	78	47
Sum	78	53

## Priority schools

Minnesota and the U.S. Department of Education define priority schools as those that meet the following conditions:

1. among lowest five percent of Title I schools in terms of achievement and lack of progress
2. exhibits graduation rate less than 60 percent over a number of years (if a high school)
3. School Improvement Grants (SIG) schools.

As shown in the table below, Minnesota's list of Priority schools is consistent with the U.S. Department of Education's definition. The MMR's achievement and growth measures operationalize achievement and progress, respectively. A total of 42 schools, or five percent of all Title I schools, were required to be identified. Of the Priority schools, 19 were SIG schools and 28 were Priority C schools (neither SIG nor low-graduation-rate schools). No Priority Schools were identified based solely on their graduation rates, but five Priority Schools exhibited graduation rates of less than 60 percent. These five schools were identified as Priority Schools due to a combination of low-achievement, low-progress, and low graduation rates. The final count of Priority schools (48) exceeds the required number (42) because fractions were rounded up during the proportional ranking process.

Category of Priority Schools	Number of Schools
Total number of priority schools required to be identified	42
C. Among lowest five percent of Title I (achievement/progress)	29
D. Graduation rate less than 60 percent	0
E. SIG school	19

## Focus schools

Minnesota and the U.S. Department of Education define focus Title I schools as:

- having a subgroup or subgroups exhibiting low achievement
- high schools with low graduation rates not identified as Priority.

Minnesota has made a strategic, data-driven decision to hold schools accountable for growth gaps because students who have economic and other educational advantages exhibit higher achievement *and* higher growth. Closing achievement gaps will require disadvantaged groups to grow at a faster rate than their advantaged peers. For this demonstration, we have operationalized achievement gaps as growth gaps, consistent with the MMR and our theory of action. Additionally, we do not define growth gaps within schools. By comparing the growth of a lower-performing group in a school to the statewide mean of the corresponding higher-performing group, it prevents schools from getting credit if the achievement of the higher-performing student group falls in that particular school.

Using the growth gaps measure and graduation rates, the following table demonstrates that Minnesota meets the U.S. Department of Education's guidelines for identifying the appropriate number of Focus schools overall and by category. The final count of Focus schools (86) exceeds

the required number (84) because fractions were rounded up during the proportional ranking process.

<b>Category of Focus schools</b>	<b>Number of schools</b>
Total number of schools required to be identified as focus schools	84
Total number of schools on list generated based on Focus MMR rating (AYP determinations for disadvantaged groups only; growth gap z-scores)	83
High schools with low graduation rates not identified as Priority	3

**1. How do schools that would meet the exit criteria for Priority and Focus Schools compare with those schools identified as Priority and Focus Schools? Is the difference meaningful enough to make the exit criteria meaningful?**

MDE has proposed that a Priority or Focus school that improves all four measures enough to be ranked above 25 percent of Title I schools (i.e., in the second or greater quartile) for two consecutive years may exit their Priority or Focus classification. Attached, you will find summary data that illustrate the level of improvement that will be required for schools to exit Priority or Focus classification. A school that advances into the second quartile must exhibit large improvements across the Multiple Measures. For example, an elementary Priority school must meet a greater share of AYP targets (from 40% to about 93%), improve growth by about 0.35 standard deviation (from -0.46 to about -0.11 mean growth z-score), and reduce their contribution to achievement gaps by about 0.30 standard deviation (from 0.58 to about 0.28 mean growth gap z-score). Focus schools would also need to make meaningful improvements to justify exit. From a distribution-wide perspective, the boxplots reveal little overlap in the Multiple Measures between schools classified as Priority or Focus and schools in the second quartile. This indicates that Priority and Focus schools must ramp up their performance up to a distinctly higher level in order to exit.

**Multiple Measures by school type and classification/quartile: Means**

School type	Classification/quartile	Proficiency	Growth	Gaps	Graduation
Elementary	Priority	40.39	-0.46	0.58	
Elementary	Focus	60.38	-0.20	0.38	
Elementary	Second quartile	93.09	-0.11	0.28	
Jr./Mid. School	Priority	35.04	-0.63	0.79	
Jr./Mid. School	Focus	45.81	-0.33	0.46	
Jr./Mid. School	Second quartile	61.33	-0.16	0.27	
High School	Priority	24.55	-0.39	0.48	
High School	Focus	38.39	-0.47	0.58	10.11
High School	Second quartile	66.24	-0.11	0.31	66.34
Other	Priority	35.03	-0.84	0.92	
Other	Focus	18.81	-0.74	0.85	0.00
Other	Second quartile	20.97	-0.52	0.56	0.00