# The Decline in Private School Enrollment SEHSD Working Paper Number FY12-117 

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## Introduction:

Private schools represent a significant part of the education sector and provide an opportunity for children to attend schools, at cost, that may offer benefits unavailable in the public school system. Parents might choose to send their children to private schools for a variety of reasons, including the availability of academic programs and extracurricular activities, religious reasons, dissatisfaction with the local public schools, and school characteristics such as class size and student-teacher ratios.

Over the last decade, government statistics seem to show that private school enrollment has declined. Although the trend has been noted (Aud et al., 2011), the phenomenon has not been examined in detail. Since private schools represent a sizable portion of the education sector, a decline in enrollment would warrant attention. Specifically, is the decline the result of a particular data collection system associated with a specific survey, or a real trend? Does the trend hold for various socio-demographic subgroups? If so, what are potential underlying causes? This paper seeks to provide relevant background information on the topic by comparing trends across datasets and subgroups and exploring possible underlying causes of the decline in private school enrollment.

## Background:

Limited research has examined trends in private school enrollment over time. Private School Survey (PSS) reports released yearly by the Department of Education provide a detailed look at enrollment by typology of private school; however, these annual reports do not provide a longitudinal analysis. The Condition of Education report (Aud et al., 2011) documented that the percentage and actual number of elementary and secondary school students in private schools declined from 1995 to 2010, but the report examined only a single source of data on private
school enrollment and did not explore possible explanations for the decline. Examination of additional data on private school enrollment from the Current Population Survey (CPS) and the American Community Survey (ACS) would prove illuminating.

While little attention has been paid to possible declining private school enrollment and its causes, some attention has focused specifically on the struggling Catholic school system. The Catholic school system grew rapidly after the Civil War, particularly in cities and among working class immigrants (Baker 1999). By 1930, Catholic schooling comprised 60 percent of private school enrollment, and Catholic schools enrolled almost one third of school children in the largest cities such as New York City and Milwaukee (Baker 1999). However, there have been notable declines in recent decades, particularly in cities. While 5.2 million students were enrolled in 13,000 Catholic schools in 1960, only 2.3 million students were enrolled in 7,500 such schools by 2006 (Meyer 2007). While overall Catholic school enrollment declined by 1.6 percent annually from 2000 to 2008, the rate was a particularly high 5.6 percent in highly urban areas (Buddin 2012).

The research literature suggests several factors have likely contributed to declining Catholic school enrollment and school closures. Underlying factors that specifically affect Catholic schools rather than all private schools are the changing demographics of the Catholic population and sex abuse scandals (Buddin 2012). Although the Catholic population continues to grow, many Catholic working- and middle-class families have moved from urban areas to the suburbs where there are better public schools and fewer Catholic schools; furthermore, urban Catholics are increasingly Hispanic, a group which tends not to send their children to Catholic schools (Buddin 2012). Other suggested causes for declining Catholic school enrollment could also affect enrollment in other religious and nonsectarian private schools as well. Leading
explanations include rising tuition costs and growth in the number of charter schools (Buddin 2012; Meyer 2007).

As the case study of the Catholic school system suggests, enrollment in private schools in general may have declined for a number of reasons. The economic downturn of the most recent recession may have made it difficult for families to afford private school tuition, students may have transferred to charter schools as parents now have more options in the public school sector, or parents may have decided to homeschool their children.

## Affordability of private school

Since private schools can be expensive, financial difficulties may cause some families who previously sent their children to private schools to transfer their children to public schools. Studies have shown that financial considerations can be a determinant of enrolling children in private schools (Ferreyra 2007). For example, Ferreyra (2007) found that the availability of school vouchers, and the subsequent alleviation of some of the financial burden, results in increased private school enrollment. If the recession that began in December of 2007 financially hurt families with children in private schools, some may have decided to transfer their children to public schools to relieve financial strain. Consequently, the recession may be associated with the decline in private school enrollment.

## Homeschooling

An additional explanation for the decline in private school enrollment is an association with growth in homeschooling. Homeschooling is notable because it represents a form of schooling dramatically different from what is offered by public schools. If families who enroll children in private schools also seek schooling that radically differs from public schooling, then there might be underlying similarities between households that homeschool and those that send
children to private schools. Analysis of data from the National Household Education Survey shows that families of homeschooled children often home school because they feel it is a better education than regular public schools (Bauman 2002). The same may be true for why many families send their children to private school. If both homeschool and private school families seek alternatives to public schools, then as homeschooling grows as a sector, it might draw from the population that had previously sent children to private schools. Bauman (2002) documented differences in characteristics between homeschooled children and public school children, noting that homeschooled children were more likely to be from two parent families with one adult not in the labor force. If the economic downturn led to more families with non-working adults, families that previously sent children to private schools might now fall into the group most likely to homeschool their children. Bauman (2002) showed that homeschooling grew during the second half of the 1990's and appeared on track to continue growing. If homeschool enrollment is negatively associated with private school enrollment, then growth in the homeschool sector may help to partially explain the decline in the private school sector.

## Charter schools

Another possible reason for the decline in private school enrollment is the growth of charter schools, which began in the 1990s. Charter schools are publicly funded schools that are exempt from some of the regulations of regular public schools, and many focus on particular curriculum or target specific groups such as special education students and at-risk students (Chakrabarti and Roy 2010). If parents perceive charter schools as an improvement over regular public schools, then some households that previously enrolled their children in private schools will change from private to charter schools. According to Chakrabarti and Roy (2010), the households most likely to make this switch are those for whom the benefits of private school
only moderately outweigh the cost of private school tuition; given a public alternative to regular public schools, these households will likely switch to charter schools. They analyze data from Michigan and find modest negative effects of charter schools on private school enrollment. The effects are particularly evident at the elementary school level and for Catholic private schools. Chakrabarti and Roy (2010) also find that the negative effect of charter schools on private school enrollment grows as the charter school sector grows. Recent research also found that charter school growth was a significant cause of the decline in Catholic school enrollment in New York State (Council for American Private Education, 2012). If some of the decline in private school enrollment results from transfers to charter schools, there are possible repercussions for school funding. Since charter schools are publically funded, if private school students transfer into charter schools without an increase in total school spending, the amount of per pupil spending in public schools will have to go down (Chakrabarti and Roy, 2010).

This paper then, will examine trends in private schools using multiple sources of data, and, where possible, test for possible influences of affordability, homeschooling alternatives, and charter school growth.

## Data

Several data sources, including the ACS, the CPS, and the PSS, are used to examine private school enrollment across datasets and over time. The ACS, which achieved full-scale implementation in 2005, replaced the long-form portion of the Census and collects data on a variety of social, economic, demographic and housing characteristics. The ACS sample includes about 3 million addresses per year and is administered to the resident population, including those living in institutions and other group quarters. Given the large sample size, the ACS enables an examination of characteristics for very small levels of geography. The ACS asks respondents
whether they were enrolled in regular school at any time in the 3 months prior to the interview. For enrolled respondents, the survey also asks whether they attended public or private school and in what grade or level the respondents were enrolled. The ACS question on type of school changed in 2008 to clarify that children who are homeschooled should be included in the private school category.

The CPS covers the civilian noninstitutionalized population and samples approximately 72,000 housing unit addresses each month. The CPS collects detailed information on school enrollment in a special supplement administered each October. Since the supplement has been collected each year since 1956, the data allow for time series analyses of school enrollment. The supplement asks detailed questions of people aged 3 and older, including enrollment status and level for the current and previous year. Follow-up questions ask, among other things, whether the respondent attends full-time or part-time and whether the school is public or private.

The National Center for Education Statistics (NCES) conducts the PSS biennially, and the survey is designed to collect data on the number of private schools, students, and teachers in the United States as well as on a variety of characteristics of the schools and students. The PSS population includes all schools not primarily supported by public funds that have classroom instruction for at least one grade of kindergarten through grade 12. The PSS collects information on the private school typology (nonsectarian, Catholic, other religious), school level, school size, and program emphasis as well as characteristics of the student body, such as sex, race, and Hispanic origin.

Data on charter school enrollment come from the National Alliance for Public Charter Schools (NAPCS) for the District of Columbia and the 40 states that currently allow for charter schools. The NAPCS compiled the data from state charter school offices. The data on the
number of homeschooled children by state were compiled by researcher Milton Gaither and made available to the public through his blog (http://gaither.wordpress.com/2012/02/06/all-the-available-state-homeschooling-data-2011/). Gaither primarily collected information from school districts and state departments of education.

## Methods

Comparing estimates across surveys and over time will determine whether the decline in private school enrollment represents an actual phenomenon or results from a particular system of data collection. Therefore, I begin by estimating the number of private school students in kindergarten through grade 12 in the PSS, CPS, and ACS. Next, I examine private school enrollment trends by sex, race, and Hispanic origin to determine whether the decline in private school enrollment is confined to only certain subgroups of the population. In an effort to determine whether the decline in enrollment is concentrated among certain types of schools, I also explore trends in private school enrollment by school characteristics such as size, level, and religious affiliation.

I then explore possible explanations for the decline in private school enrollment, including the economic downturn, growth in charter schools, and growth in homeschooling. I compare estimates of charter school enrollment and private school enrollment by state, and over time, and then calculate the correlation coefficient for the difference in charter school and private school enrollment to determine whether the decline in private school enrollment is associated with trends in charter school enrollment. I replicate these state analyses for homeschooling to explore whether the decline in private school enrollment is associated with homeschooling trends.

## Results

Figure 1 shows multiple estimates of private school enrollment for kindergarten through grade 12 over the last twenty years. The PSS and CPS data, which allow us to track enrollment for a longer period of time than the ACS, show that the number of students enrolled in private school grew steadily from 1990 to about 2001. After 2002, the number of students enrolled in private school began to decline in both datasets. For example, the PSS shows that there were 5.3 million students enrolled in private school in the 2001-2002 school year but only 4.7 million in the 2009-2010 school year. Similarly, the CPS data indicate that there were 5.4 million private school students in 2002 but only 4.5 million in 2010. The ACS, with data available starting in 2005, shows an increase in private school enrollment until 2008. ${ }^{1}$ This is the year in which an explicit instruction was added to include homeschool as private school. After the classification of homeschool was clarified in 2008, the ACS data show a decline in private school enrollment. The percentage of students enrolled in private school in kindergarten through grade 12 declined from 10.7 percent in 2005 to 10.0 percent in 2010. All three datasets therefore show decreasing private school enrollment by the late 2000's, illustrating that the decline in private school enrollment is an actual phenomenon rather than the result of a particular system of data collection.

Figures 2-6 display private school enrollment by sex, race, and Hispanic origin in the three surveys to explore whether the decline in private school enrollment is concentrated within particular subgroups of the population. Figure 2 shows that the male private school enrollment trends are similar to the overall trends, and the data show that both male and female private school enrollment declined in recent years ${ }^{2}$.

[^0]Figures 3-6 show private school enrollment by race and Hispanic origin. Across all three surveys the trend for non-Hispanic whites mirrors the overall decline in private school enrollment in recent years. With fluctuations within and between datasets, there are no clear patterns of private school enrollment for blacks and Asians. The data from the ACS suggest that private school enrollment may have actually increased for Hispanic students in recent years. Fairlie (2002) found evidence of "Latino flight" from public to private schools in response to high ratios of black children in public schools, so an increase in Hispanic private school enrollment may reflect this phenomenon. In the context of overall growth in Hispanic enrollment across all types of schools, it is just as likely that Hispanics are reacting to the same forces affecting other groups.

Although the CPS and ACS do not distinguish between types of private school, the PSS includes information on school characteristics that allow for a closer examination of whether the decline in private school enrollment is concentrated among certain types of schools. Table 1 reports private school enrollment from 2005-2009 across a variety of school characteristics. The data show a decline in private school enrollment at the elementary and secondary school levels. While there was a decline in enrollment for Catholic and other religious private schools, there was an increase in enrollment for nonsectarian schools, although the increase was not statistically significant. The number of students enrolled declined for all sizes of private schools except for the smallest schools. For schools with 50-149 students there was no change and for schools with less than 50 students there was an increase. It is unclear whether this increase in students in small private schools results from an increased number of small schools, or whether larger schools lost students and are now classified as small schools. Private school enrollment decreased in cities, suburbs, and towns. These analyses show that the decline in private school
enrollment occurred at all school levels but was concentrated among schools that were larger, religiously affiliated, and not located in rural areas.

So far these analyses have focused on K-12 enrollment, but private schools comprise a consequential number of undergraduate institutions. Therefore, Table 2 provides a brief examination of private school enrollment at the undergraduate level. Although the number of students enrolled in private undergraduate schools increased from 2006 to 2010, that trend reflects the overall growth in higher education over this period. The rate of increase for public school enrollment was greater than for private school enrollment, meaning the share of private school enrollment declined over the period. Undergraduate public school enrollment grew by 14.6 percent from 2006 to 2010, while private school enrollment grew by only 8.7 percent.

The remainder of the section evaluates several possible explanations for the decline in private school enrollment. The first possible explanation is that the recession beginning in December of 2007 negatively impacted some families financially to the point where they were unable to continue paying for private school for their children. Since Figure 1 shows that the decline in private school enrollment began earlier in the decade, the results suggest that the economic downturn did not start the trend of declining private school enrollment. However, the recession may have accelerated the trend.

Figure 7 uses CPS data to show the proportion of students enrolled in private school over a longer period of time, from 1955 to 2011. A long time series enables a rough examination of whether rises and declines in private school enrollment seem to align with recessions or periods of economic growth. The proportion of students enrolled in private school declined during most of the 1960s, which was a period of great economic growth in the U.S. The proportion of students in private schools held fairly steady during the recession of 1983. As noted earlier, the
decline in private school enrollment in the 2000s began prior to the most recent recession. Although these observations are no substitute for a more detailed analysis of the relationship between economic conditions and private school enrollment, they indicate that recessions and periods of economic growth do not drive changes in private school enrollment. This finding suggests that short-term changes in finances do not affect enrollment decisions. This is plausible if families try to avoid yearly enrollment decisions, preferring to make long-term school choices when a child starts school and perhaps again when the child enters high school.

A second possible explanation for the decline in private school enrollment is growth in the charter school movement. Table 3 compares the number of students enrolled in charter and private schools from 2008-2010, as well as the difference in enrollment across years for each type of school. Ten states did not have a charter law during this time, including Alabama, Kentucky, Maine, Montana, Nebraska, North Dakota, South Dakota, Vermont, Washington, and West Virginia. Mississippi, meanwhile, allowed charter schools during some but not all of the years under consideration.

Most states with a significant difference show a decline in private school enrollment and an increase in charter school enrollment. For example, from 2009 to 2010, the number of California students enrolled in charter schools increased by 48,000 while the number of private school students decreased by 40,000. Maps A and B depict the change in private school and charter school enrollment by state, with states categorized by typology of change. For both 2008-2009 and 2009-2010, the majority of states are shaded red, indicating they experienced an increase in charter school enrollment and a decline in private school enrollment. Of the states with an increase in charter school enrollment, 11 had a significant decline in private school enrollment in 2008-2009 and 15 did in 2009-2010. Among states shaded green that experienced
a decline in charter school enrollment or no change in charter school enrollment (including states without charter schools), change in private school enrollment varied. Some of these states experienced a decline in private school enrollment while others experienced growth. States shaded pink experienced charter school growth and either private school growth or no change in private school enrollment.

Supplemental analyses examined the correlation coefficient between the change in private school enrollment and the change in charter school enrollment to determine whether they were associated. Appendix A shows that the correlation coefficient for the change in charter school and private school enrollment was -0.40 from 2008 to 2009 and -0.59 from 2009 to 2010. ${ }^{3}$ These correlation coefficients show that private school enrollment is negatively associated with charter school enrollment, meaning that the observed increase in charter school enrollment may somehow be associated with a decline in private school enrollment. To determine whether these findings were driven by enrollment changes in large states, I ran supplemental sensitivity analyses that removed large states from the calculations one at a time and documented any resulting changes to the correlation coefficient. The sensitivity analyses show that even after removing large states, a negative association between changes in private and charter school enrollment remains. ${ }^{4}$ Therefore, the results support the explanation that growth in the charter school movement has occurred in conjunction with the decline in private school enrollment. These findings are consistent with current research that found that charter school growth was a significant cause of the decline in Catholic school enrollment in New York State (Council for American Private Education, 2012).

[^1]A third possible explanation for the decline in private school enrollment is an increase in the number of homeschooled children. Table 4 compares homeschool and private school enrollment for select states that have available data on homeschool enrollment from 2008 to 2010. There was an increase in the number of homeschooled children over the period for most of the states examined, and some of these states also had a significant decrease in the number of private school students. For example the number of homeschooled children in North Carolina increased by 2,000 from 2009 to 2010, while the number of private school students decreased by 15,000. The correlation coefficient for the change in homeschool and private school enrollment for these few states was 0.03 from 2008 to 2009, which was not statistically different from the correlation coefficient for change of -0.12 from 2009 to 2010. The weak negative correlation in change from 2009 to 2010 does not provide strong support for the explanation that a rise in homeschooling has affected the decline in private school enrollment. However, patterns of change by individual state are consistent with the explanation. These analyses are based on only a handful of states where data could be found. Data on home schooling are difficult to collect, and results may vary with additional data from other sources. More data on homeschooling by state are needed to comprehensively evaluate the accuracy of this explanation for declining private school enrollment.

## Conclusion

This paper documents that private school enrollment has declined during the first decade of the $21^{\text {st }}$ century, a phenomenon observed in multiple surveys. The decline is evident both in terms of total numbers and the percent of enrolled students in private schools. We observe the decline among non-Hispanic whites, but there are no clear patterns of private school enrollment for blacks and Asians over the period examined. Private school enrollment may have increased
for Hispanics. The decline in private school enrollment occurred at all school levels but was concentrated among schools that were larger, religiously affiliated, and not located in rural areas.

The data do not support the explanation that the economic recession started the decline in private school enrollment. However, there is some evidence that growth in the charter school movement has contributed to the decline in private school enrollment. The limited data on homeschool enrollment do not allow for a careful examination of the relationship between homeschooling and private school enrollment.

With these limitations in mind, we believe that additional data are necessary to shed light on declining private school enrollment. In order to measure trends in various types of nontraditional schools that might compete with private schools, we have recommended adding survey items on homeschool and charter school enrollment to the Survey of Income and Program Participation (SIPP-EHC). The specific answer categories we have recommended are based on questions in the National Household Education Surveys (NHES) and the National Longitudinal Survey of Youth (NLSY) 1997. We ask respondents, "What type of school are you enrolled in?" We include the following response categories-public, private, charter school, home school.

Collecting more detailed data in federal surveys on the type of school in which students enroll will provide rich information on trends in school enrollment and will also illuminate possible causes of these changes over time. Including additional response categories in longitudinal and cross-sectional surveys will enable researchers to better understand changes in the education sector while informing policymakers, educators, and the general public to the changing nature of school enrollment in the United States.

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Figure 1. Number of Students Aged 3 and Older Enrolled in Private School in Grades K-12, by Survey: 1989-2010


Figure 2. Number of Male Students Aged 3 and Older Enrolled in Private School in Grades K-12, by Survey: 1994-2010


Source: U.S. Census Bureau, 2005 through 2010 1-year American Community Surveys; 19942010 Current Population Survey; U.S. Department of Education, 1997-2009 Private School Universe Survey

Figure 3. Number of Non Hispanic White Alone Students Aged 3 and Older Enrolled in Private School in Grades K-12, by Survey: 1994-2010


Source: U.S. Census Bureau, 2005 through 20101-year American Community Surveys; 1993-2010 Current Population Survey; U.S. Department of Education, 1993-2009 Private School Universe Survey

Figure 5. Number of Asian Alone Students Aged 3 and Older Enrolled in Private School in Grades K12, by Survey: 1994-2010


Source: U.S. Census Bureau, 2005 through 20101-year American Community Surveys; 1993-2010 Current Population Survey; U.S. Department of Education, 1993-2009 Private School Universe Survey

Figure 4. Number of Black Alone Students Aged 3 and Older Enrolled in Private School in Grades K12, by Survey: 1994-2010


Source: U.S. Census Bureau, 2005 through 2010 1-year American Community Surveys; 1993-2010 Current Population Survey; U.S. Department of Education, 1993-2009 Private School Universe Survey

Figure 6. Number of Hispanic Students Aged 3 and Older Enrolled in Private School in Grades K-12, by Survey: 1994-2010


Source: U.S. Census Bureau, 2005 through 20101-year American Community Surveys; 1993-2010 Current Population Survey; U.S. Department of Education, 1993-2009 Private School Universe Survey

|  | 2005 | 2007 | 2009 | Difference $2005-$ 2009 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| School level |  |  |  |  |  |
| Elementary | 2,551,196 | 2,513,099 | 2,269,301 | -281,895 | * |
| Secondary | 859,453 | 826,905 | 785,500 | -73,953 | * |
| Combined | 1,646,871 | 1,732,447 | 1,645,318 | -1,553 |  |
| Size of school (\# students) |  |  |  |  |  |
| <50 | 236,267 | 295,250 | 318,234 | 81,967 | * |
| 50-149 | 763,189 | 782,795 | 755,596 | -7,593 |  |
| 150-299 | 1,321,541 | 1,269,818 | 1,187,419 | -134,122 | * |
| 300-499 | 1,089,541 | 1,078,484 | 986,558 | -102,983 | * |
| 500-749 | 804,744 | 746,227 | 672,244 | -132,500 | * |
| 750+ | 842,237 | 899,878 | 780,068 | -62,169 | * |
| Urbanicity type |  |  |  |  |  |
| City | 2,142,476 | 2,126,230 | 1,960,351 | -182,125 | * |
| Suburban | 1,948,911 | 1,987,714 | 1,785,348 | -163,563 | * |
| Town | 365,072 | 350,602 | 325,490 | -39,582 | * |
| Rural | 601,060 | 607,905 | 628,930 | 27,870 |  |
| Private school typology |  |  |  |  |  |
| Catholic | 2,246,240 | 2,156,173 | 2,009,640 | -236,600 | * |
| Other religious | 1,884,616 | 1,930,707 | 1,752,011 | -132,605 | * |
| Nonsectarian | 926,664 | 985,571 | 938,467 | 11,803 |  |

Source: U.S. Department of Education, 2005-2009 "Characteristics of Private Schools in the United States" reports

|  | Private | Public | Proportion Private |
| :---: | :---: | :---: | :---: |
| 2006 | 3,929,363 | 13,134,369 | 0.23 |
| 2007 | 4,043,797 | 13,291,232 | 0.23 |
| 2008 | 4,023,048 | 13,414,934 | 0.23 |
| 2009 | 4,166,397 | 14,148,827 | 0.23 |
| 2010 | 4,270,311 | 15,055,512 | 0.22 |
| \% growth from 2006-2010 | 8.68 | 14.63 |  |

Source: U.S. Census Bureau, 2006 through 2010 1-year American Community Surveys



* Denotes statistically significant difference at the $\mathrm{p}=.05$ level.

Source: U.S. Census Bureau, 2008 through 2009 1-year American Community Surveys; National Alliance for Public Charter Schools, 2008 -2009 Dashboard Data


Map A. 2008-2009 Typology of Change in Charter and Private School Enrollment by State
Source: U.S. Census Bureau, 2008 through 2009 1-year American Community Surveys; National Alliance for Public Charter Schools, 2008-2009 Dashboard Data


Map B. 2009-2010 Typology of Change in Charter and Private School Enrollment by State
Source: U.S. Census Bureau, 2008 through 2009 1-year American Community Surveys: National Alliance for Public Charter Schools, 2009-2010 Dashboard Data

|  | Total Enrollment |  |  |  |  |  | Difference |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Home 2008 | Home 2009 | Home 2010 | Private 2008 | Private 2009 | Private 2010 | Home 2008-2009 | $\begin{gathered} \text { Home } \\ 2009-2010 \end{gathered}$ | Private 2008-2009 | Private 2009-2010 |
| Arkansas | 15,660 | 16,061 | 15,791 | 42,864 | 37,409 | 30,556 | 401 | -270 | -5,455 * | -6,853 * |
| Colorado | 6,684 | 6,501 | 6,462 | 80,696 | 70,698 | 71,719 | -183 | -39 | -9,998 * | 1,021 |
| Delaware | 2,558 | 2,606 | 2,713 | 26,116 | 27,498 | 27,245 | 48 | 107 | 1,382 | -253 |
| Florida | 60,913 | 62,567 | 69,281 | 355,692 | 335,599 | 334,408 | 1,654 | 6,714 | -20,093 * | -1,191 |
| Georgia | 39,233 | 40,510 | 42,474 | 186,113 | 197,926 | 173,526 | 1,277 | 1,964 | 11,813 | -24,400 * |
| Montana | 4,028 | 4,075 | 4,269 | 14,817 | 13,828 | 14,974 | 47 | 194 | -989 | 1,146 |
| Nebraska | 6,134 | 6,295 | 6,540 | 44,666 | 38,248 | 40,726 | 161 | 245 | -6,418 * | 2,478 |
| North Carolina | 77,065 | 81,509 | 83,609 | 158,515 | 158,187 | 143,291 | 4,444 | 2,100 | -328 | -14,896 * |
| Ohio | 23,835 | 23,715 | 21,864 | 273,314 | 271,491 | 259,293 | -120 | -1,851 | -1,823 | -12,198 |
| South Dakota | 2,805 | 2,855 | 3,070 | 12,411 | 11,472 | 13,643 | 50 | 215 | -939 | 2,171 |
| Utah | 8,895 | 9,177 | 8,154 | 33,371 | 29,720 | 29,660 | 282 | -1,023 | -3,651 | -60 |
| Virginia | 22,621 | 23,290 | 24,682 | 142,878 | 137,381 | 128,014 | 669 | 1,392 | -5,497 | -9,367 |

* Denotes statistically significant difference at the $\mathrm{p}=.05$ level.

Source: U.S. Census Bureau, 2008 through 2010 1-year American Community Surveys; Milton Gather, 2008-2010 data on Home School Enrollment

| Appendix A. Correlation between Change in Charter and Private School Enrollment, by State: 2008-2010 r (correlation coefficient) |  |  |
| :---: | :---: | :---: |
|  | 2008-2009 | 2009-2010 |
| All states* | -0.40 | -0.59 |
| Sensitivity analyses with the following states removed: |  |  |
| CA | -0.29 | -0.38 |
| CA, TX | -0.32 | -0.42 |
| CA, TX, FL | -0.20 | -0.52 |
| CA, TX, FL, AZ | -0.34 | -0.50 |
| CA, TX, FL, AZ, DE | -0.36 | -0.50 |
| *Excludes MS due to missing data on charter schools |  |  |
| Note: States excluded in sensitivity analyses were outliers in scatterplots |  |  |
| Source: U.S. Census Bureau, 2008 through 2010 1-year American Community Surveys; National Alliance for Public Charter Schools, 2008-2010 Dashboard Data |  |  |
|  |  |  |
|  |  |  |


[^0]:    ${ }^{1} 2005$ and 2006 are not significantly different from one another.
    ${ }^{2}$ Since the male and female trends are similar, Table 2 only displays male trends for simplicity.

[^1]:    ${ }^{3}$ The analyses that calculated the correlation coefficients excluded Mississippi due to missing data on charter school enrollment for some of the years. The correlation coefficient for the change from 2008-2009 is not significantly different from the correlation coefficient for the change from 2009-2010.
    ${ }^{4}$ See Appendix A for the list of excluded states.

