

Child and Adult Care Food Program (CACFP)

Assessment of Sponsor Tiering Determinations 2009

Tier I
Tier II



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Child and Adult Care Food Program (CACFP)

Assessment of Sponsor Tiering Determinations 2009

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Executive Summary

The Improper Payments Information Act of 2002 (Public Law 107-300, or IPIA) requires all Federal agencies to identify programs and activities that may be susceptible to erroneous payments and to annually estimate and report to Congress the value of erroneous payments.¹ This assessment examines the accuracy of the classification of Family Day Care Homes (FDCHs) participating in the U.S. Department of Agriculture’s (USDA) Child and Adult Care Food Program (CACFP). The assessment provides estimates for Fiscal Year (FY) 2009 of the number of FDCHs misclassified by sponsoring agencies into the wrong tier, and the resulting erroneous payments for meals and snacks reimbursed at the wrong rate.² The assessment does not attempt to measure other types of erroneous payments in the CACFP, such as meal claiming errors by FDCHs.

CACFP Background

Meals served in CACFP FDCHs are reimbursed according to a two-tiered rate structure: Tier I and Tier II. Sponsoring agencies are responsible for determining the appropriate tier for each of their participating FDCHs. FDCHs are eligible for reimbursement at the higher Tier I rates for all eligible meals if they satisfy either of two conditions: geographic eligibility or provider income eligibility.

- **Geographic Eligibility:** the FDCH is located in a low-income area. Geographic eligibility is determined by a home being located: a) in the attendance area of an elementary school in which at least 50 percent of the children enrolled are certified eligible for free or reduced-price meals; or b) in a census block group (CBG) in which at least 50 percent of the children live in households with incomes at or below 185 percent of the Federal poverty guidelines (FPG).³
- **Provider Income Eligibility:** the family day care provider certifies by application that she or he has a household income at or below 185% of the FPG or is categorically eligible because of being certified for the Supplemental Nutrition Assistance Program (SNAP) or another means-tested program with income limits of no more than 185% of the FPG.

FDCHs that meet geographic or income eligibility criteria are classified as “Tier I,” and those that do not are classified as “Tier II.” In Tier II FDCHs, meals served to children who qualify as low-income are reimbursed at the Tier I rates; all other meals are reimbursed at the lower Tier II rates.⁴

¹ OMB guidance defines significant erroneous payments as annual erroneous payments in the program exceeding both 2.5 % of program payments and \$10 million (OMB Circular A-123, Appendix C, August 10, 2006). The terms “improper” and “erroneous” have the same meaning within the OMB guidance. We use the term “erroneous” in this report.

² Four previous reports provide estimates of erroneous CACFP payments due to errors in sponsor tiering determinations for FY 2005, FY 2006, FY 2007, and FY 2008: Rose et al., 2006; Gordon et al., 2008; Gordon et al., 2009; and Logan et al., 2010.

³ Program regulations indicate that sponsors should use elementary school data when available, but there are several circumstances that allow a sponsor to use CBG data even when school data are available.

⁴ Although the CACFP regulations differentiate between meals (breakfasts, lunches, and suppers) and snacks, we use the term “meals” alone in this report for simplicity.

During FY 2009, there were 139,774 family day care homes participating in the CACFP in the continental United States (the sampling universe for the assessment), including 106,154 Tier I FDCHs and 33,620 Tier II FDCHs (Exhibit ES.1). The CACFP provided reimbursements to FDCHs for 610 million meals, at a total cost of \$762.1 million. Thus, even a relatively modest percentage of FDCHs misclassified would lead to millions of dollars in erroneous payments. Tier I FDCHs claimed 78.1 percent of CACFP meals and received 86.4 percent of reimbursements.

Exhibit ES.1: Continental United States FDCH Totals for FY 2009

Type of Meal Served	Tier I	Tier II	All
Number of homes	106,154	33,620	139,774
Number of meals	477 million	134 million	610 million
Reimbursements	\$658.8 million	\$103.4 million	\$762.1 million

Sources: Numbers of homes and meals from FNS National Data Bank, as of March 2010. Number of homes is the average of counts for four reporting months. Reimbursements estimated from FNS data on number of meals and reimbursement rates. All totals exclude Alaska, Guam, Hawaii, and Puerto Rico; therefore the total numbers of homes differ from those in Exhibit 1.2.

Assessment Methods and Sample Results

For this assessment, we attempted to verify sponsors’ determinations of tiering status for a sample of 660 FDCHs, selected from the lists of 60 sponsors located in 14 States. All FDCHs in the final sample were currently approved for the CACFP as of August 2009 and claimed meals at some time between August 2008 and July 2009. We first attempted to independently verify Tier I eligibility for all sampled FDCHs using matches with school and Census data. Tier I FDCHs were verified without any additional data collection if all three of the nearest elementary schools (by straight-line distance) were area-eligible (i.e., at least 50 percent of students were approved for free or reduced-price meals), or if the FDCH was located in a Census Block Group (CBG) that was area-eligible (with at least 50 percent of children at or below 185 percent of the Federal Poverty Guidelines, or FPG). If some but not all of the nearest schools were area-eligible, we contacted school districts or used their websites to determine the correct school attendance area for the FDCH, and then determined whether this school was area-eligible. Using these methods, we verified sponsors’ determinations for 418 Tier I FDCHs, 79.9 percent of the Tier I sample.

For Tier I FDCHs not verified through data matching and all Tier II FDCHs, we reviewed sponsors’ documentation of tiering determinations. These documents confirmed the sponsors’ determinations for 92 Tier I FDCHs and 137 Tier II FDCHs. The assessment was completed for 100 percent of the sample. We identified 13 misclassified Tier I FDCHs and no misclassified Tier II FDCHs.

National Estimates of Misclassification Errors and Costs

Using sample data and sampling weights, we estimated that, nationwide, 2.39 percent of Tier I FDCHs and 0 percent of Tier II FDCHs were misclassified in FY 2009. In total, there were an estimated 2,527 misclassified FDCHs, 1.82 percent of all FDCHs. The percentage estimates and the associated 90 percent confidence intervals are shown in Exhibit ES.2.

Since we found no misclassified Tier II FDCHs, the estimates of the misclassification rate, the percentage of meals claimed at the wrong rate, and the improper payment rate were all 0 for Tier II FDCHs. It is very likely that the true population parameters for these measures are not zero but too small to be estimated with our sample, which is designed to estimate the parameters for the entire population of FDCHs.

Exhibit ES.2: Estimated Misclassification Rates by Tiering Status in 2009

FDCH Classification by Sponsor	Estimate of Misclassification Rate	90% Confidence Interval		Estimated FDCHs Incorrectly Classified ^a	Estimated FDCHs Correctly Classified	Estimated Total FDCHs ^b
		Lower Limit	Upper Limit			
Tier I	2.39%	0.75%	4.03%	2,527	103,306	105,832
Tier II	0.00%	0.00%	0.00%	0	33,162	33,162
All (Tier I or Tier II)	1.82%	0.55%	3.08%	2,527	136,467	138,994

^a All sampled Tier I FDCHs for which Tier I eligibility could not be verified, either initially or through followup, were deemed incorrectly classified. Tier II FDCHs were deemed incorrectly classified if the assessment determined they were Tier-I eligible and the sponsor determined or reviewed the tiering classification between September 2007 and June 2009.

^b Total FDCHs estimated from sample using adjusted weights; therefore these totals do not exactly match FNS totals in Exhibit ES.1.

Source: 2009 CACFP Tiering Assessment, weighted estimates. Sample data include active FDCHs with reimbursable meals served in August 2008–July 2009.

For misclassified FDCHs, the number of meals claimed in error is the difference between the number they actually claimed at Tier I rates and the number they would have claimed at Tier I rates if they had been correctly classified. Meals claimed at Tier I rates that should have been claimed at Tier II rates result in overpayments; meals claimed at Tier II rates that should have been claimed at Tier I rates result in underpayments. The erroneous payment for a meal claimed at the wrong rate is the **difference between the Tier I and Tier II rates**, which ranged from \$0.47 for snacks to \$0.87 for lunches and suppers (under rates effective from July 1, 2008 through June 30, 2009).

We estimate that, as a result of misclassifications, 2.25 percent of meals claimed by Tier I FDCHs were reimbursed at the higher Tier I rate instead of the lower Tier II rate, and 0 percent of meals claimed by Tier II FDCHs were reimbursed at the Tier II rate instead of the Tier I rate. Overall, 1.76 percent of FDCH meals—a total of 10.7 million meals—were reimbursed at the incorrect rate. (See Exhibit ES.3 for estimated percentages and their 90 percent confidence intervals.) The estimates for Tier I FDCHs are computed using State average percentages of meals in Tier II FDCHs reimbursed at Tier I rates, since we do not know the actual number of Tier I-eligible children in FDCHs misclassified as Tier I.

Exhibit ES.3: Percentage of Meals in CACFP Family Day Care Homes (FDCHs) Reimbursed at the Incorrect Rate Due to Misclassification of FDCHs in 2009

	Lower Limit ^a	Estimate	Upper Limit ^a
Tier I FDCHs ^b	0.77%	2.25%	3.74%
Tier II FDCHs ^b	0.0%	0.0%	0.0%
All FDCHs	0.57%	1.76%	2.95%

^a Lower and upper limits represent 90 percent confidence interval. If lower limit was computed as a negative value, it is shown as 0.

^b FDCHs classified according to sponsor determination.

Source: 2009 CACFP Tiering Assessment, weighted estimates. Sample data include FDCHs active and reimbursable meals served in August 2008–July 2009. Excludes Alaska, Guam, Hawaii, and Puerto Rico.

The estimated costs of misclassification errors were overpayments of 1.15 percent to Tier I FDCHs and underpayments of 0 percent to Tier II FDCHs. Overall, the erroneous payment rate was 0.99%, with a 90 percent confidence interval from 0.32 percent to 1.65 percent, as shown in Exhibit ES.4. Breaking down the overall erroneous payment rate, overpayments represented 0.99 percent of total payments, and underpayments represented 0 percent of total payments.

The total estimated cost of misclassification errors was \$7.5 million, with a 90 percent confidence interval from \$2.5 to \$12.6 million. The estimated total includes \$7.5 million in overpayments to Tier I FDCHs and \$0 in underpayments to Tier II FDCHs, as shown (with confidence intervals) in Exhibit ES.5.

Exhibit ES.4: Cost of Misclassification as a Percentage of Total Reimbursements to CACFP Family Day Care Homes in 2009

	Lower Limit ^a	Estimate	Upper Limit ^a
Tier I FDCHs ^b	0.39%	1.15%	1.90%
Tier II FDCHs ^b	0.00%	0.00%	0.00%
All FDCHs	0.32%	0.99%	1.65%

^a Lower and upper limits represent 90 percent confidence interval. If lower limit was computed as a negative value, it is shown as 0.

^b FDCHs classified according to sponsor determination.

Source: 2009 CACFP Tiering Assessment, weighted estimates. Sample data include FDCHs active and reimbursable meals served in August 2008–July 2009. Excludes Alaska, Guam, Hawaii, and Puerto Rico.

Exhibit ES.5: Total Costs of Verified Misclassification in 2009

Type of Home	Estimated Costs of Misclassifications ^a	90% Confidence Interval		Estimated Total Payments to All FDCHs in Tier ^b
		Lower Limit Estimate	Upper Limit Estimate	
Tier I FDCHs	\$7,543,221	\$2,536,433	\$12,550,010	658,796,618
Tier II FDCHs	0	0	0	103,352,854
All FDCHs	7,543,221	2,536,433	12,550,010	762,149,472

^a The estimated cost is the difference between the actual claims for misclassified FDCHs and estimates of what their claims would be if correctly classified. For misclassified Tier I FDCHs, the estimate is computed using the State average percentage of meals and snacks for which a Tier II FDCH would be compensated at the highest (Tier I) level. For FDCHs misclassified as Tier II, only meals reimbursed at Tier II rates are subject to error. The total estimated cost of improper payments equals the sum of overpayments to FDCHs misclassified as Tier I and the absolute value of underpayments to FDCHs misclassified as Tier II.

^b Total payments including correct and improper payments estimated from sample.

Source: 2009 CACFP Tiering Assessment, weighted estimates. Sample data include FDCHs active and reimbursable meals served in August 2008–July 2009. Excludes Alaska, Guam, Hawaii, and Puerto Rico.

The estimates of misclassification rates and the cost of misclassification for 2009 are less than estimates for all prior years. (See Exhibit ES.6.) In particular, the estimated overall erroneous payment rate of 1.0 percent⁵ for 2009 is less than the estimates for the previous years, which ranged from 1.4 percent (for 2006) to 2.1 percent (for 2008). The estimate for 2009 is not significantly different from the estimate of 2.1 percent for 2008 at the conventional 5 percent level of significance, although the difference is significant at the 10 percent level. Therefore, we have weak evidence that the erroneous payment rate declined in 2009.

Factors that might have contributed to a decline in erroneous payments include efforts by program officials to improve tiering determinations and changes in the program environment—specifically, rising poverty rates—that made more providers area-eligible for Tier I. FNS and the States have provided guidance and training to sponsors in an effort to improve the accuracy of tiering determinations, and the results may represent some payoff to these efforts. Rising poverty rates due to the recession beginning in 2008 may have had a small effect on Tier I eligibility and therefore on the misclassification rate. Overall, 87 percent of Tier I FDCHs in the sample (unweighted) were verified using area eligibility, either independently (80 percent) or by sponsor documents (7 percent). The comparable figure for 2008 was 85 percent, a small difference but one that may have contributed to the lower error rate.

We also note that while no Tier II FDCHs were misclassified, our independent verification found five FDCHs (3.6 percent of the sample) that could have been classified as Tier I in 2009. These FDCHs were not misclassified because there was no Tier I application or determination in the reference period, or because the sponsor’s determination was correct at the time it was made.

⁵ The erroneous payment rate for 2009 is reported with greater precision as 0.99 percent in Exhibit ES.4.

Exhibit ES.6: Results of the 2005, 2006, 2007, 2008, and 2009 Program Assessments

Type of Home	Estimate of Misclassification Rate	90 Percent Confidence Interval for Misclassification Rate	Estimated Number of FDCHs Incorrectly Classified	Estimated Erroneous Payments (millions)	Estimated Erroneous Payment Rate
<i>FY 2005^a</i>					
Tier 1	5.2%	3.8–6.5%	5,903	\$12.7	2.1%
Tier II	0.7%	0.4–0.9%	261	\$0.3	0.3%
All	4.1%	3.1–4.9%	6,164	\$13.0	1.8%
<i>FY 2006^b</i>					
Tier 1	4.0%	2.8–5.3%	4,171	\$9.2	1.6%
Tier II	0.2%	0.1–0.4%	94	\$0.1	0.1%
All	2.9%	2.1–3.7%	4,265	\$9.3	1.4%
<i>FY 2007^c</i>					
Tier 1	4.1%	3.2–5.5%	4,263	\$10.8	1.8%
Tier II	0.7%	0.5–0.9%	246	\$0.1	0.1%
All	3.2%	2.5–3.9%	4,512	\$10.9	1.6%
<i>FY 2008^d</i>					
Tier 1	5.4%	3.8–7.0%	5,635	\$13.8	2.2%
Tier II	1.7%	0.0–3.6%	612	\$1.4	1.3%
All	4.4%	3.0–5.8%	6,247	\$15.2	2.1%
<i>FY 2009^e</i>					
Tier 1	2.4%	0.8–4.0%	2,527	\$7.5	1.2%
Tier II	0%	0%	0	\$0	0%
All	1.8%	0.6–3.1%	2,527	\$7.5	1.0%

^a Exhibits A and 4.11 in *USDA, Food and Nutrition Service. Child and Adult Care Food Program, (CACFP): Assessment of Sponsor Tiering Determinations, 2005 (CN-06-IPIA)*.

^b Exhibits A and 4.20 in *USDA, Food and Nutrition Service. Child and Adult Care Food Program, (CACFP): Assessment of Sponsor Tiering Determinations, 2006 (CN-07-TD)*.

^c Exhibits A and 4.20 in *USDA, Food and Nutrition Service. Child and Adult Care Food Program, (CACFP): Assessment of Sponsor Tiering Determinations, 2007 (May 2009)*.

^d Exhibit ES.6 in *USDA, Food and Nutrition Service. Child and Adult Care Food Program, (CACFP): Assessment of Sponsor Tiering Determinations, 2008 (March 2010)*.

^e *Source: 2009 CACFP Tiering Assessment, weighted estimates.*

Implications of the Assessment Process and Results

This assessment met FNS' requirements to provide estimates of misclassification rates for FDCHs in the CACFP and the resulting erroneous payments, within the standards of precision set by OMB. The 2009 assessment produced results comparable to those of previous assessments. The methods used in the 2005-2007 assessments imposed substantially higher burdens on sponsors and costs to FNS than the methods used here for 2009 and also in 2008. These assessments collected sponsor documents for over 3,000 FDCHs per year through site visits; if the documents indicated procedural errors, school and Census data were used to confirm tiering determinations. The 2008 and 2009 assessments reversed the process, using independent verification with school and Census data first, followed by review of documents collected by mail from sponsors only when needed. The shift of methods, combined with the reduced sample size justified by error rates estimated in previous assessments, resulted in a substantial reduction in the need to collect and review documents: from over 3,000 FDCHs per year in the 2005, 2006, and 2007 assessments to about 240 per year in the 2008 and 2009 assessments. The current approach also eliminates the cost and intrusiveness of site visits to sponsors. Although sponsors take on the work of locating and copying documents, the average sponsor provided documents for just 4 FDCHs. The sample size is sufficient to produce 90 percent confidence intervals less than the OMB standard of 2.5 percentage points for the estimates of the misclassification rate, the percentage of meals claimed in error, and the erroneous payments as a percentage of reimbursements.

While the current approach meets FNS' primary requirements with substantially reduced burden and costs, it has some limitations. First, the current approach does not provide national estimates of the rates of procedural errors and the proportions of FDCHs approved by the various criteria. These estimates require a nationally representative sample of tiering determination documents; however, the documents collected in 2008 and 2009 represent only the FDCHs that could not be independently verified. Second, sample sizes are too small to provide State-level estimates of misclassification rates, which would be useful for program management. On balance, the benefits of the new approach appear to outweigh its limitations.

The assessment confirms that the vast majority of tiering determinations – 98 percent in 2009 – were accurate. At the same time, the document review indicates that determinations based on income are more error-prone than other determinations, and that income determinations without tax return documents are particularly error-prone – the “weakest link” in an otherwise highly accurate process. The results suggest the need for continued communications with States and sponsors about the importance of getting full documentation of income, and especially the need to document day care income and expenses. We also highlight the finding that, for five Tier II FDCHs, the sponsor determination was not in error (under FNS rules), but the FDCHs could have been classified as Tier I. This finding reinforces the value of checking area-eligibility for all FDCHs every year, as many sponsors already do.

Finally, in considering the implications of this assessment, it is important to acknowledge that tiering determinations are only one of several potential causes of improper payments in the CACFP. If tiering determinations were the sole source of improper payments, the CACFP would fall below the IPIA's reporting threshold, which mandates reports for programs with improper payments that exceed both \$10 million per year and 2.5 percent of total payments. The CACFP has several other potential sources of erroneous payments, including errors in determining eligibility of children in Tier II

FDCHs for Tier I meals, meal claiming errors by providers, and meal claims processing errors by sponsors. Thus, the estimates of this assessment understate the full extent of improper payments in the CACFP.

1. Introduction

The 2009 CACFP Assessment of Sponsor Tiering Determinations was conducted by Abt Associates for the USDA, Food and Nutrition Service (FNS). This assessment is intended to provide FNS with national estimates of the percentage of Child and Adult Care Food Program (CACFP) family day care homes (FDCHs) that were misclassified as Tier I or Tier II in Fiscal Year (FY) 2009, and the associated erroneous payments. FNS is required by the Improper Payments Information Act of 2002 (P.L. 107-300) to report these estimates annually to the Congress.

1.1 The Child and Adult Care Food Program

The Child and Adult Care Food Program (CACFP) provides reimbursements for nutritious meals and snacks served in family day care homes, child care centers, and other participating facilities and programs. In FY 2009, the CACFP provided \$2.5 billion in reimbursements for 1.90 billion meals served to 3.33 million participants. About 82 percent of CACFP meals were served to low-income participants eligible for free or reduced-price meals.⁶ Ninety-seven percent of meals were served to children, with 33 percent of children's meals served in family day care homes.

A family day care home (FDCH) is a private residence where day care is provided to nonresident children. In FY 2009, there were 140,626 approved family day care homes participating in the CACFP.⁷ To participate in the CACFP, an FDCH must meet program requirements and be approved by a sponsoring agency. FDCH providers are required to log meals served to each child on a daily basis. Each month, FDCHs submit meal claims to sponsors to obtain reimbursement for meals served. Sponsors act as fiscal intermediaries, receiving claims from family day care homes and disbursing USDA funds for meal reimbursements.

In FY 2009 there were 882 sponsors of family day care homes in the United States. According to a survey of sponsors in 20 states, about 69 percent of sponsors in 2000 were private nonprofit agencies, 10 percent were public agencies, 13 percent were military organizations, and 8 percent were identified as "other" organizations (such as schools or churches).⁸

CACFP Reimbursement for Meals Served in Family Day Care Homes (FDCHs)

Meals served in participating family day care homes are reimbursed according to a two-tiered rate structure (Tier I or Tier II).

- Tier I rates are higher and apply to all meals served in FDCHs that are located in low-income areas (geographic eligibility) or operated by providers whose own household

⁶ Program statistics as of March 30, 2010 were obtained from www.fns.usda.gov/pd/, accessed March 2010.

⁷ Average of counts in December 2008, March 2009, June 2009, and September 2009. Source: FNS National Databank, FY 2009 data, accessed March 2010. This figure includes areas outside the Continental U.S. (Alaska, Hawaii, Guam, and Puerto Rico).

⁸ The type of agency for sponsors is not routinely collected. The most recent data are for 2000 from Bernstein, Lawrence S. and William L. Hamilton, *Sponsoring Organizations and the CACFP: Administrative Effects of Reimbursement Tiering*. E-FAN-02-003. U.S. Department of Agriculture, Economic Research Service, April 2002. Available at: <http://www.ers.usda.gov/publications/efan02003>.

income is at or below 185 percent of the Federal poverty guidelines (income eligibility). FDCHs that meet the geographic or provider income criteria for Tier I rates are classified as Tier I FDCHs. Those that do not meet Tier I criteria are classified as Tier II FDCHs.⁹

- Tier II homes may receive reimbursement at Tier I rates for meals served to children that have been determined by the sponsor to be categorically eligible or have a household income at or below 185 percent of the Federal poverty guidelines (FPG).
- Tier II rates are lower and apply to meals served to children in Tier II FDCHs that do not qualify for Tier I rates.

Within each reimbursement tier, there are different rates for breakfast, lunch and supper, and snacks. FDCHs may claim up to two snacks and one meal (breakfast, lunch, or supper) or two meals and one snack each day for each participating child. The rates in effect in FY 2009 for all States except Alaska and Hawaii are shown in Exhibit 1.1.¹⁰

Exhibit 1.1: CACFP Reimbursement Rates for Meals Served in Family Day Care Homes

Type of Meal Served	July 1, 2008–June 30, 2009		July 1, 2009–June 30, 2010	
	Tier I Rate	Tier II Rate	Tier I Rate	Tier II Rate
Breakfast	\$1.17	\$0.43	\$1.19	\$0.44
Lunch and Supper	\$2.18	\$1.31	\$2.21	\$1.33
Snack	\$0.65	\$0.18	\$0.66	\$0.18

Note: Higher rates apply in Alaska and Hawaii.

Source: Federal Register, Vol. 73, No. 130, Monday, July 7, 2008, p. 38390; Vol. 74, No. 134, Monday, July 15, 2009, p. 34296.

In addition to the Tier I and Tier II classification of FDCHs, Tier II homes are classified into three groups, depending on the income-eligibility status of the participating children:

- Tier II high: all children approved for free/reduced-price meals, all eligible meals reimbursed at Tier I rates;
- Tier II mixed: some but not all children approved for free/reduced-price meals, eligible meals reimbursed at a combination of Tier I and Tier II rates;
- Tier II low: no children approved for free/reduced-price meals, all eligible meals reimbursed at Tier II rates.

In FY 2009, 76 percent of CACFP family day care homes in the United States were approved as Tier I. Exhibit 1.2 shows the total number and distribution of FDCHs in FY 2009, and the distribution among Tier II homes.

⁹ Providers must meet Tier I income eligibility criteria to obtain Tier I reimbursement rates for meals served to their own children.

¹⁰ The CACFP rates are revised effective July 1 of each year. Thus, the rates in effect during Fiscal Year 2009 (October 1, 2008 through September 30, 2009) included the Program Year 2008-2009 rates and the Program Year 2009-2010 rates announced in July 2009.

Exhibit 1.2: Number and Distribution of FDCHs by Reimbursement Tier, FY 2009

Tier	Number of FDCHs	Percent of All FDCHs	Percent of Tier II FDCHs
Tier I	106,763	76%	NA
Tier II, High	2,639	2%	8%
Tier II, Mixed	7,636	5%	22%
Tier II, Low	23,588	17%	70%
Total	140,626	100%	100%

Definitions: Tier II, High—all meals at Tier I rates; Tier II, Mixed—combination of Tier I and Tier II meals; Tier II, Low—all meals at Tier II rates. Includes all 50 States, District of Columbia, Guam, and Puerto Rico.

Source: FNS National Databank, FY 2009, accessed March 2010.

1.2 Classification of Family Day Care Homes

Sponsors are responsible for determining the appropriate tiering levels (Tier I or Tier II) of each of their participating FDCHs. FDCHs that meet the criteria for Tier I reimbursement are designated “Tier I” FDCHs, while all others are designated “Tier II.”

Criteria for Tier I Eligibility

Eligibility for higher Tier I rates is based on geographic eligibility or provider income eligibility:

- **Geographic Eligibility** – the FDCH is located in a low-income area, defined in one of two ways:
 - a) **School boundary area** – FDCH is located in the attendance area of an elementary school in which at least 50 percent of the children enrolled are approved for free or reduced-price (F/RP) meals in the National School Lunch Program (NSLP); or
 - b) **Census block group (CBG)** – FDCH is located in a CBG in which at least 50 percent of children at or below age 12 live in households with incomes below 185 percent of the FPG.¹¹
- **Provider Income Eligibility** – the family day care provider is low-income or is categorically eligible.
 - a) **Income eligibility** – Provider must have household income below 185 percent of the FPG.
 - b) **Categorical eligibility** – Provider receives benefits from the Supplemental Nutrition Assistance Program (SNAP) (formerly the Food Stamp Program), the Food Distribution Program on Indian Reservations (FDPIR), certain State programs for

¹¹ Although program regulations indicate that sponsors are to use elementary school data when such data are available, there are several circumstances that allow a sponsor to use CBG data even when school data are available.

Temporary Assistance to Needy Families (TANF), or other means-tested program designated by the State.¹²

CACFP sponsors are required to evaluate geographic eligibility for Tier I for all FDCHs. To do this, they are assisted by other agencies that supply data needed to assess geographic eligibility.

- **School boundary area** – State agencies administering the NSLP are required to provide the State CACFP agency with a list of all elementary schools in the State participating in the NSLP in which 50 percent or more of enrolled children have been determined eligible for free or reduced price meals as of the last operating day of the previous October, or other month specified by the State agency. Lists must be provided by February 15 of each year or, if data are based on a month other than October, within 90 calendar days following the end of the month designated by the State agency. (7 CFR 210.19)
- **Census block groups** – The Census Bureau created for FNS a special tabulation of the 2000 decennial Census tabulation providing for each CBG the percentage of children at or below age 12 in households with incomes below 185 percent of FPG. These data are available in spreadsheet format from State CACFP agencies or through an interactive mapping program on the CACFP Mapper website.¹³

Providers that are not geographically eligible for Tier I may apply for Tier I on the basis of income by completing an “Income Eligibility Statement” (IES) and providing appropriate documentation.¹⁴

Tier I determinations are valid for a specified time period, depending on the basis of determination:

- Geographic eligibility determined by school data is valid for 5 years;
- Geographic eligibility determined by 2000 Census data is valid until the next CBG tabulation becomes available; and
- Income eligibility for Tier I must be reviewed annually.

Family day care homes that do not meet the criteria for Tier I homes are designated as Tier II homes.

Tier I Documentation Requirements

Each Tier I classification must be documented in accordance with FNS guidance.¹⁵ Documentation of geographic eligibility must verify the FDCH location within the specified school or CBG boundary

¹² Individual States may designate additional means-tested programs for categorical eligibility, provided that the program has an income limit of no more than 185 percent of the FPG. For example, one State’s guardianship assistance program may be used to establish categorical eligibility,

¹³ The CACFP Mapper website was developed by FairData in association with the Food Research and Action Center, and is available at: <http://www.fairdata2000.com/CACFP/>.

¹⁴ The Income Eligibility Statement (IES) is similar to an application for free or reduced-price school meals, eliciting information about household members and categorical eligibility or income received by each household member. Unlike the school meals application, the IES for the CACFP must be accompanied by documentation of income.

area, and document the eligibility of the area. Income and categorical eligibility must be verified through supporting documentation or documented collateral contacts. Sponsors are required to hold documentation on file for as long as the classification is in effect plus three fiscal years. As discussed in Chapter 3, FNS guidance for documentation provides the basis for review of sponsor tiering documents and verification of FDCH classification.

1.3 Organization of the Report

The purpose of this assessment is to identify FDCHs that were misclassified as Tier I or Tier II, and the dollar value of erroneous payments associated with those misclassifications. Chapter 2 of this report provides an overview of the methodology for identifying misclassifications, and presents the sampling design and data collection procedures used for the assessment. Chapter 3 describes the detailed methodology for assessing sponsor tiering determinations and identifying misclassifications. Chapter 3 also presents the results of each stage of the assessment for the study sample. Nationally representative (weighted) estimates of FDCH misclassifications and erroneous payments are presented in Chapter 4, and Chapter 5 concludes the report. Appendix A provides supplementary information on sampling, weighting, and estimation. Appendix B provides the forms used for recruiting sponsors and data collection.

¹⁵ USDA, Food and Nutrition Service. The Child and Adult Care Food Program (CACFP): Eligibility Guidance for Family Day Care Homes, issued 1997 and subsequently revised. Downloaded from http://www.sde.idaho.gov/site/cnp/independent_docs/Eligibility%20Guidance%20FDCH.pdf

2. Assessment Design

The purpose of this assessment is to identify family day care home tiering classification errors; i.e., homes classified by sponsors as Tier I that should have been classified as Tier II, and homes classified by sponsors as Tier II that should have been classified as Tier I. For each of these misclassifications, we then estimate the value of erroneous payments due to misclassifications. This chapter has three sections: (1) an overview of the methodology used in 2008 and 2009 for verifying sponsor tiering determinations and the key differences from the methodology for the 2005, 2006, and 2007 assessments; (2) a description of the sampling design and recruitment of sponsors; and (3) a description of the data collection procedures.

2.1 Overview of the Assessment of Sponsor Tiering Determinations

The 2008 and 2009 assessments of sponsor tiering determinations used two methods to validate those determinations:

1. Independent verification of geographic eligibility for Tier I by matching FDCHs with school and Census data.
2. Review of sponsor tiering determination documents for all FDCHs not independently verified as geographically eligible for Tier I.

Our approach was specifically designed to minimize the burden on sponsors and the cost to FNS of doing the assessment. To this end and with FNS' approval, we adopted a modified set of rules for verifying geographic eligibility for Tier I. Formally, FNS rules for geographic eligibility require the FDCH to be located within the attendance area of an elementary school where at least half of the students are approved for F/RP school meals (unless the FDCH qualifies for Tier I based on Census data). However, there are no national or State databases that can be used to identify the exact school attendance area for FDCHs. Instead, we adopted the rule that if all three nearest elementary schools (by straight-line distance) satisfied the F/RP requirement, this information would be sufficient to confirm that the sponsor's determination of Tier I eligibility was correct.¹⁶ We also adopted the rule that location in a qualifying Census Block Group (CBG) is sufficient to confirm Tier I eligibility as determined by the sponsor, even though FNS policy states that school data should usually take precedence over Census data. (The rationale for our rule on use of Census data and the details of the FNS policy are discussed in Chapter 3.)

We implemented this approach through the multi-step process shown in Exhibit 2.1. Steps 1a and 1b were data matches with school and Census data. State lists of elementary schools with their percentage of students approved for F/RP meals were used for the school match. If Steps 1a and 1b were not conclusive (as described below), the school district was contacted to determine the school

¹⁶ This rule is based on the assumption that the correct school attendance area for the FDCH belongs to one of the three nearest elementary schools. Even if this assumption is not correct, it is likely that the correct school attendance area is nearby and has approximately the same percentage of F/RP students as those of the three nearest elementary schools. The rule approximates the sponsor's determination of area eligibility, which is based on exact information about school boundaries.

attendance area for the FDCH (Step 2). After Steps 1a, 1b, and 2, sponsors were asked to provide documentation of tiering determination for all FDCHs not verified by school or Census data (Step 3), and those documents were reviewed to determine the final FDCH classification (Step 4).

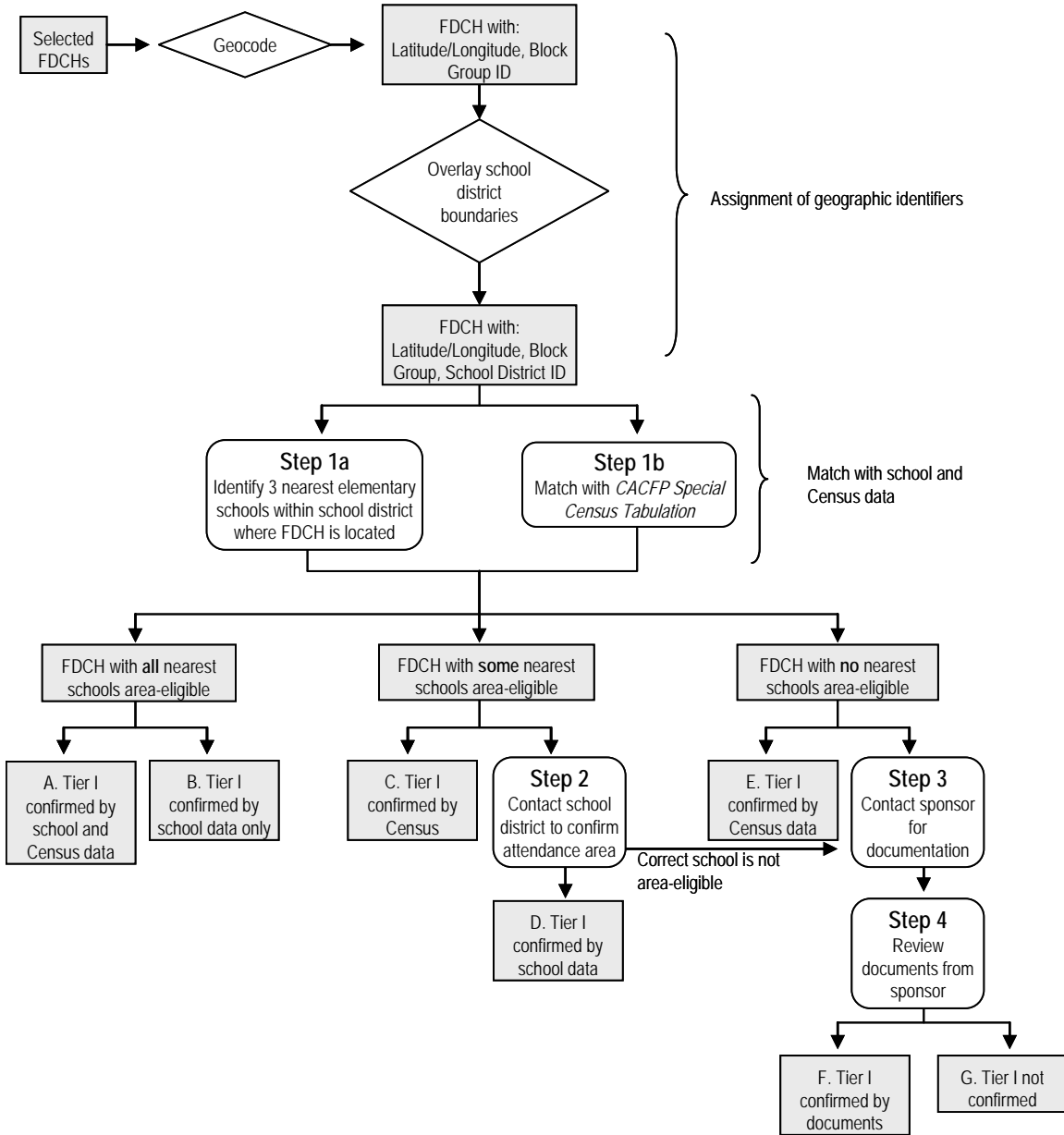
All Tier I FDCHs fell into one of the seven groups in the exhibit, as follows:

- A. All three nearest schools were area-eligible for Tier I (50% of students F/RP or more) **and** the CBG was area-eligible (50% of children or more at or below 185% of the FPG).
- B. All three nearest schools were area-eligible (50% of students F/RP or more) but the CBG was not area-eligible.
- C. Some (but not all) of three nearest schools were area-eligible, and the CBG was area-eligible.
- D. The correct school attendance area, as identified by contacting the school district, was area-eligible, but the CBG was not area-eligible.
- E. None of three nearest schools was area-eligible, but the CBG was area-eligible.
- F. Sponsor documents consistent with Tier I eligibility confirmed the determinations for the FDCHs in Group F; these determinations were not confirmed by the school and Census match, or the school district contacts.
- G. None of the methods confirmed sponsor determinations of Tier I eligibility, and the FDCH was considered misclassified (Group G).

Thus, sponsor determinations of Tier I eligibility were independently confirmed by the school and Census match **alone** (i.e., without contacting the sponsor or a school district) if the FDCH fell into group A, B, C, or E in Exhibit 2.1. Group D was confirmed by contacting the school district, without requiring sponsor documents.

The independent assessment process was the same for Tier II FDCHs. However, Tier II FDCHs were determined to be misclassified only if sponsor documents indicated that the FDCH should have been classified as Tier I. Thus, sponsor documents took precedence over the results of the independent verification efforts, because the school and Census matches were approximations of the geographic eligibility determination by the sponsor. Furthermore, FNS policy states that an FDCH is not misclassified as Tier II unless (a) it is eligible for Tier I, and (b) the sponsor either makes an incorrect tiering determination or fails to act on a request for a determination from the provider.

Exhibit 2.1: Flowchart for the CACFP Tiering Verification Process



Key: FDCH=Family day care home. CBG=Census block group. White boxes indicate processes. Gray boxes represent data.

Note: For all selected FDCHs, sponsors were asked to provide the most recent tiering determination date on or before June 30, 2009. If the tiering determination date for an FDCH was before February 2009, Steps 1a and 2 (if needed) were repeated using school data for the appropriate year. If the tiering determination was not confirmed, Abt Associates asked sponsors to send copies of certification documents for: a) Tier I FDCHs not verified through Step 2; b) Tier II FDCHs that were evaluated for Tier I eligibility. The usual reference period for Tier II determinations was September 2007 to June 2009. However, if data matching indicated a possible misclassification of a Tier II FDCH, tiering documents were requested for the entire period that might have affected eligibility in 2009: September 2003 through June 2009. Some addresses were corrected by sponsors, allowing verification by repeating Steps 1a, 1b, and 2.

After all steps, Tier I homes not confirmed were determined to be in error. Tier II homes confirmed as Tier I-eligible at the time of the last determination after review of sponsor documentation were determined to be in error.

Comparison of This Assessment with 2005-2007 Assessments

Annual assessments of sponsor tiering determinations were previously conducted for 2005, 2006, 2007, and 2008.¹⁷ The 2008 and 2009 assessments simplified the methodology used in the 2005-2007 assessments in the following ways:

- In the 2005-2007 assessments, data collectors visited CACFP sponsoring organizations to collect and review documentation of tiering determinations from sponsors' files. The 2008 and 2009 assessments collected all data from sponsors via mail.
- The 2005-2007 assessments reviewed documentation of all determinations and identified Tier I FDCHs as having "procedural misclassifications" if the tiering level was not supported by complete and proper documentation. These determinations were then independently validated to determine whether the FDCHs were eligible for Tier I on the basis of school or Census data. The 2008 and 2009 assessments used independent validation of geographic eligibility as a first step, prior to reviewing sponsor documents only for those FDCHs not independently confirmed as eligible for Tier I.
- The sample of FDCHs was reduced from 3,284 (for 2007) to 660 (for 2008 and 2009). Estimates of misclassification from the previous assessments were substantially lower than the rates assumed in sampling for those assessments. The appropriate formulas for calculating precision (formally "statistical power") imply that the smaller the probability of misclassification, the smaller can be the sample and still achieve any given level of precision. The smaller sample size nevertheless meets OMB criteria for the precision of the estimates of erroneous payments.

These changes in methodology for the 2008 and 2009 assessments were designed to reduce data collection burden and costs. The remainder of this chapter describes the sampling design and data collection.

2.2 Sampling Design

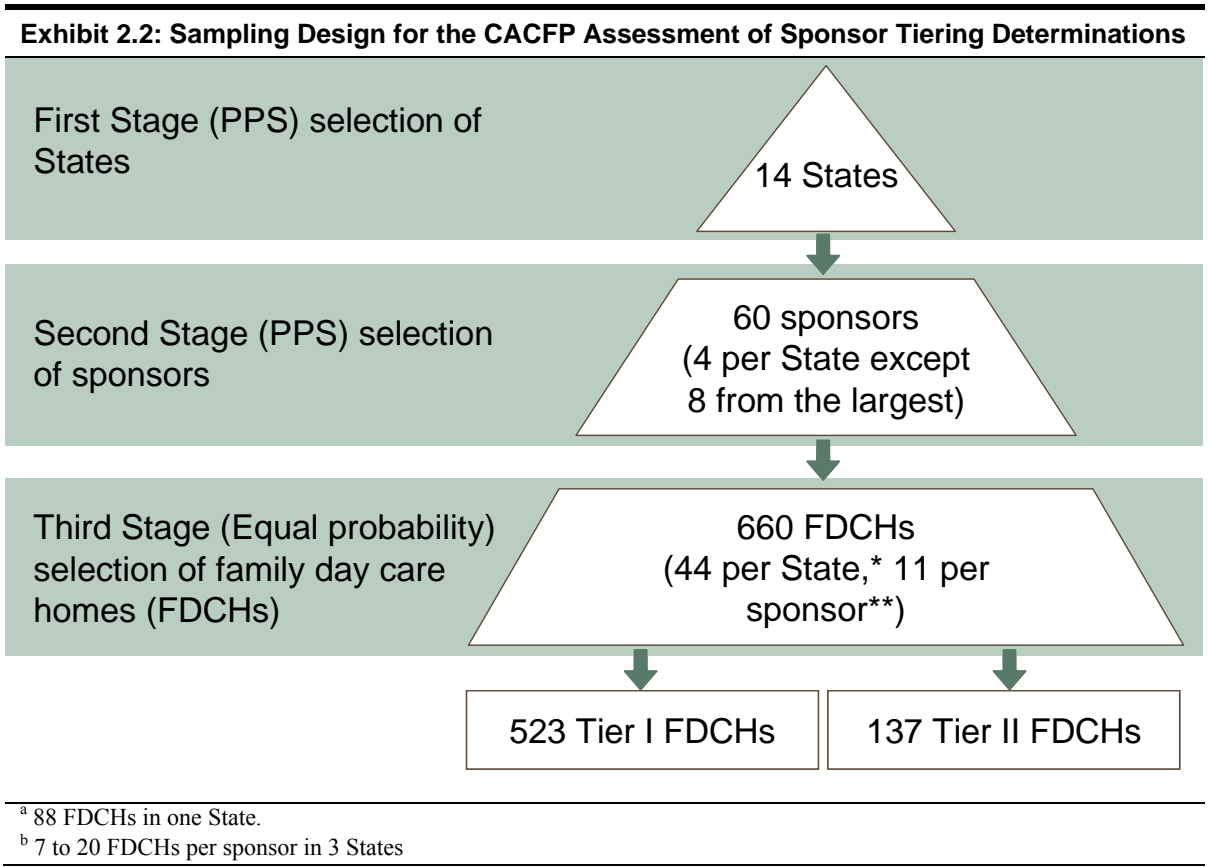
This assessment used a three-stage probability sample to obtain national estimates of three dimensions of errors:

- The number and percentage of FDCHs that are misclassified as Tier I or Tier II;
- The number and percentage of meals claimed at the incorrect tier due to misclassification of FDCHs (meals claimed as Tier I that would have been claimed at Tier II if the FDCH had been correctly classified as Tier II, and vice versa); and
- The dollar value of erroneous payments and the percentage of total payments to providers made in error, including separate estimates of totals and percentages for overpayments to Tier I FDCHs and underpayments to Tier II FDCHs.

¹⁷ Rose et al., 2006; Gordon et al. 2008; Gordon et al., 2009; and Logan et al., 2010.

Misclassification of homes as Tier I results in *overpayments* at the higher Tier I reimbursement rates, instead of the lower Tier II rates. Misclassification of homes as Tier II results in *underpayments* at the lower Tier II reimbursement rates, instead of the higher Tier I rates.

The goal for the sampling design was to obtain a sample of FDCHs that gave each FDCH approximately the same, if not exactly equal, probability of selection. The three-stage sampling design is depicted in Exhibit 2.2. Fourteen States were selected at random in the first stage, 60 sponsors were selected at random in the second stage, and 660 FDCHs were selected at random in the third stage.



At the first stage of sampling, 14 States were selected with probability proportional to size (PPS). To obtain geographic diversity, States were sorted by FNS region and measure of size prior to selection.¹⁸ As in previous assessments, the sampling frame excluded States and territories outside the continental U.S.¹⁹ The measure of size was the number of FDCHs per State in FY 2008, as reported in the FNS National Databank in March 2009. With a sample of 14 States, any State with more than one-fourteenth (7 percent) of FDCHs nationwide would be selected with certainty under conventional

¹⁸ Sorting by region helps to assure that the sample is spread across regions without requiring stratification, which would result in unequal sampling probabilities across regions and a less efficient design.

¹⁹ The 2005-2007 assessments excluded Alaska, Hawaii, Guam, and Puerto Rico because of the cost of site visits. The methodology for the 2008 and 2009 assessments did not require site visits, but the same sampling frame was used to assure consistency.

PPS sampling. In FY 2008, one State had 13 percent of FDCHs nationwide (almost twice the threshold for a certainty State), and another had 7 percent. Therefore, these States were selected with certainty. To assure that the largest State's share of the sample was approximately equal to its share of FDCHs, this State was allocated twice the number of sponsor selections as each other State at the second stage of sampling. Each certainty State formed its own stratum; the other 12 States that were selected with probability proportional to size formed the third stratum. The sample for the 2009 assessment was independent of the sample for previous assessments, but nine States were in both the 2008 and 2009 assessments (including two selected with certainty in both years).

At the second stage of sampling, an initial sample of eight sponsors was selected in each State with probability proportional to size (except the largest State, which had 10 initial selections and eight sponsors in the primary sample). These sponsors were then assigned random numbers. The first four were selected as the primary sample, and the others were designated as backups, to be used in random number order if sponsors in the primary sample refused to participate. The measure of size was the number of FDCHs per sponsor in May or June 2009, as reported by the State. In six States, at least one sponsor was selected with certainty, because each of those sponsors had more than one-fourth of the FDCHs in the State.²⁰ Three States each had two such self-representing sponsors, and three States each had one.

The third stage of sampling selected 88 FDCHs from the largest State and 44 from each of the other States, for a total sample of 660 FDCHs. In the three States where a self-representing sponsor had substantially more than one-fourth of the FDCHs in that State, FDCH selections were allocated to sponsors in proportion to sponsor size, and the number of FDCH selections per sponsor ranged from 7 to 20. In the other eleven States, no sponsor had a disproportionate share of FDCHs, so for simplicity the FDCH selections were allocated equally among sponsors, 11 FDCHs per sponsor.

Recruitment and Initial Response Rates

Recruitment of sponsors for the assessment began in late August 2009. Abt Associates contacted selected sponsors by mail. In addition, State directors were asked to send email to selected sponsors encouraging participation in the assessment. The sponsor recruitment package (provided as Appendix B) included:

- Letter describing the assessment and the accompanying materials
- Brochure describing the requirements for participation
- Letters of support from *The CACFP Sponsor's Association* and *CACFP National Forum*
- Memorandum of Understanding (MOU)

Sponsors were offered a \$100 honorarium to offset the costs of providing information for the assessment, with \$50 paid upon receipt of the signed MOU and the remainder paid upon completion of data collection after determination that all needed documents were received.

²⁰ Under PPS sampling at this stage, a sponsor's sampling probability equaled its percentage of FDCHs in the State times four (the number of sponsors selected per State). Thus, if the sponsor had 25 percent of FDCHs, the selection probability would be 100 percent.

Of the 60 initial sponsor selections, one (1.6 percent) refused to participate and was replaced with a sponsor from the backup sample in the same State.²¹ For the final sample of 60 sponsors, the mean number of FDCHs per sponsor was 687, and the median was 396. Eight percent of sponsors had 100 or fewer FDCHs, 45 percent had over 500 FDCHs, and 18 percent had over 1,000 FDCHs.²²

Selection of FDCHs and Final Response Rates

At the time of recruitment, sponsors were asked to provide a list of all FDCHs that they sponsored as of August 2009, regardless of whether the FDCH received reimbursement in that month. A primary sample and an equal-sized backup sample of FDCHs were selected at random from the lists provided by sponsors. For each sponsor, the sample was allocated between Tier I and Tier II in proportion to the numbers of Tier I and Tier II FDCHs sponsored.

After Abt Associates selected the sample of FDCHs, two subsequent data requests were sent to sponsors (as discussed in Section 2.3, which describes the data collection). Sponsors were asked to provide meal counts for sampled FDCHs for the reference period August 2008 to July 2009. If an FDCH in the primary sample was determined to be inactive (have no meal claims) for the reference period of the assessment, the FDCH was replaced with a selection from the backup sample. Among the 660 FDCHs selected for the primary sample, 48 (7.3 percent) were replaced because they had no meal claims during the reference period.²³

A final round of data collection was conducted to obtain information about tiering determinations for FDCHs that were not verified as geographically eligible for Tier I through a match with school and Census data. Information was requested for 105 Tier I FDCHs and 137 Tier II FDCHs. The response rate for the final round of data collection was 100 percent, yielding a final sample of 660 FDCHs.

Sampling Weights and Estimation

Each FDCH in the sample received a base sampling weight equal to the reciprocal of its probability of selection. Thus, the weight reflected the probability of selecting the State, the probability of selecting the sponsor (given that the State had been selected), and the probability of selecting the FDCH (from the sponsor's list of FDCHs in the particular tier, given that the sponsor had been selected). The selection probabilities for FDCHs took into account the presence in the sample of FDCHs that were found to be inactive for the reference period, so that the weights would allow projection from the sample to the universe of active FDCHs.

²¹ The sponsor that was replaced cited staff time constraints as their reason for not participating. Use of replacement sampling requires the assumption that sponsors who refuse to participate are not systematically different from the other sponsors in the sample. If sponsors who refuse to participate are more error-prone, tiering determination error rates may be underestimated; if these sponsors are less error-prone, error rates may be overestimated. Previous assessments estimated misclassification rates of 4.1 percent or less. Given the replacement rate of just 5 percent, a significant bias would be expected only if the true error rates for non-respondents were considerably different from those of respondents.

²² Source: Tabulations by Abt Associates, Inc. from sponsor lists.

²³ In the 2008 assessment, 4.4 percent of sampled FDCHs were replaced. The reason for the increase is not known.

The total number of FDCHs reported by the States as of May or June 2009 generally differed from the corresponding totals in the FNS National Databank as of July 2009. Similarly, the numbers of FDCHs on the sponsors' lists (as of August 2009) differed from the corresponding numbers reported by the States. Because this assessment aims to provide estimates for FY 2009, the base sampling weights were adjusted by post-stratification to two control totals: the FY 2009 total number of Tier I homes and the total number of Tier II homes (as reported in the FNS National Databank as of March 2009, after eliminating the States and territories that had been excluded from the sampling frame for this assessment).

The final weights assigned to the responding FDCHs were used to obtain estimates of various population parameters and standard errors of these estimates. For obtaining the misclassification rates for Tier I, Tier II, and all FDCHs, weighted estimates were computed for the number of misclassified FDCHs and the total number of FDCHs; the ratios of these numbers provided the national estimates.

Weighted sample data also were used to estimate (by tier and overall) the percentage of meals claimed in error and the percentage of reimbursements paid in error due to misclassification of FDCHs. To obtain estimates of total meals claimed in error, these estimated percentages were multiplied by the national total of meals for FY 2009 obtained from the FNS National Data Bank. Similarly, the estimated percentages of reimbursements paid in error were multiplied by the total reimbursements paid in FY 2009, also based on FNS data. These calculations and their rationale are discussed further in Chapter 4 and in Appendix A.

Standard errors for the totals and percentages of FDCHs misclassified were computed using SAS PROC SURVEYFREQ, which takes into account the multistage sampling design used for the selection of FDCHs in the sample (including stratification and clustering of sampling units at various stages of sampling). SUDAAN PROC RATIO was used to compute the standard errors of the estimated percentages of meals claimed in error and reimbursements paid in error, taking into the design used for the survey.

Appendix A provides more detail of the estimation procedures.

2.3 Data Collection

Data collection for the assessment began in July 2009 and continued through March 2010. Data were collected from FNS, State Child Nutrition Agencies, and CACFP sponsoring organizations. Family day care homes were not contacted for the assessment.

Data Collected from FNS

FNS provided administrative data on FDCHs and meal claims for FY 2008 and FY 2009 from its National Data Bank. As noted, the FY 2008 counts of FDCHs by State were used as the measure of size for selecting States; FY 2009 data were not complete at the time of sampling but were used later as the control totals to adjust the sampling weights.

The FY 2009 data on meal claims from the National Databank were used to determine State-level percentages of meals in Tier II homes that were reimbursed at Tier I rates. As noted above, Tier II homes may claim Tier I meals for children that have been certified as income-eligible. Thus, for

misclassified Tier I homes, we cannot assume that all meals were reimbursed in error, because some children might individually qualify for the higher Tier I reimbursement if given the opportunity to apply. Lacking information about individual children in misclassified Tier I homes, we applied the State-level percentages of Tier I meals in Tier II FDCHs when estimating the number of meals reimbursed in error in homes misclassified as Tier I.²⁴ In addition, FY 2009 total meal counts were used in the estimation of total meals reimbursed in error (as described above).

Data Collected from State Agencies

The 14 selected States were asked to provide two types of data for the assessment: a list of CACFP sponsors in their State, and the “State list of schools” which is provided to CACFP sponsors for the purpose of determining FDCH eligibility for Tier I. The data request was mailed to State agencies in August 2009.

Lists of Sponsors

States were asked to provide a list of CACFP sponsors of family day care homes to serve as the frame for sampling sponsors. The requested elements of the list included sponsor name, address, telephone number, and number of Tier I and Tier II homes in June 2009. The total number of sponsors per State ranged from 7 to 93. Five States had 11 or fewer sponsors, five States had 14 to 22 sponsors, and four States had 30 or more sponsors. After data were received from State agencies, the second stage of sampling was conducted to select 60 sponsors for the assessment.

State List of Schools

State CACFP agencies are required to provide to sponsors, by February 15 of each year, a list of schools in the State with each school’s percentage of students approved for free or reduced-price (F/RP) meals. We requested this list for each school year from 2004-05 through 2008-09 (5 years).²⁵ Eleven of the 14 States provided these lists in electronic data files suitable for matching. In 10 States, the list is comprehensive, including schools of all grade levels and with FRP percentages above and below the 50 percent cutoff for CACFP geographic eligibility. Two States provided a list that includes only elementary schools; one State provided a list that includes only schools with a F/RP percentage at or above 50 percent; and one State provided a list that includes only elementary schools with FRP percentages above 50 percent. For each State, the five lists (one for each year 2004-05 to 2008-09) were processed into a single list of schools active at any time over the past five years, with F/RP percentages for each year.²⁶

Data Collected from CACFP Sponsoring Organizations

The 60 selected sponsors were contacted by mail and recruited to participate in the assessment. As discussed in the sampling section, they were asked at the time of recruitment to provide Abt

²⁴ The previous assessments used the same application of State-level percentages but calculated those percentages from the Tier II FDCHs sampled for the assessment. The method used for the 2009 assessment provides more precise estimates of the percentages, since they are free from sampling error. The rationale for the methodology is discussed further in Chapter 4.

²⁵ For the nine States that were in the 2008 assessment sample, we already had school lists through the 2007-2008 school year, so we only requested the list for the 2008-2009 school year.

²⁶ We first identified the school districts where selected FDCHs were located, extracted school records for those school districts, and matched the five years of school records into a single master list.

Associates with a list of the homes that they sponsored, including address information. After agreeing to participate, sponsors were contacted two additional times to provide information about the FDCHs that were sampled for the assessment:

- Meal counts and tiering dates for selected FDCHs
- Copies of tiering determination documents for FDCHs not independently verified as Tier I through data matching.

Exhibit 2.3 indicates the number of requests and responses for each round of data collection from sponsors. Appendix B contains the data collection materials for each of the three contacts with sponsors.

Exhibit 2.3: Data Collection from CACFP Sponsors and Response Rates

Data Collection from CACFP Sponsors	Number of Sponsors/ Contacts	Number of Responses or Completes	Response/ Completion Rate
Sponsor mailing #1 – request list of FDCHs	60	60	100% ^a
Sponsor mailing #2 – request tiering dates and meal claims	60	60	100%
Sponsor mailing #3 – request tiering documents			
No mailing – all homes verified by data matching ^b	6	NA	
Requested documents ^c	54	54	100%

^a One sponsor refused to participate and was replaced.

^b For 6 sponsors, all Tier I FDCHs were verified by data matching. These sponsors had no Tier II FDCHs in the sample because they had very few or no Tier II FDCHs under sponsorship.

^c One sponsor agreed to participate but did not agree to extract data on sampled FDCHs from records. A project staff member collected this information onsite to complete the data for mailings 2 and 3.

Source: *CACFP Assessment of Sponsor Tiering Determinations, FY 2009*. Data are unweighted.

Meal Counts and Tiering Dates for Selected FDCHs

After sampling was complete, a second mailing to sponsors requested two types of information about selected FDCHs:²⁷

- The most recent tiering date.
- Monthly meal claims for the reference period of August 2008 to July 2009.

Monthly meal claims were requested as separate counts of breakfasts, lunches and suppers, and snacks, broken down between Tier I-eligible and Tier II-eligible meals.

If an FDCH in the primary sample was determined to be inactive (have no meal claims) for the reference period of the assessment, the FDCH was replaced with a selection from the backup sample.

²⁷ The request for information about selected FDCHs included the primary sample and 2 or 3 backup selections. The backups were used if any FDCH in the primary sample had no meal claims during the data collection period.

Among the 660 FDCHs selected for the primary sample, 48 (7.3 percent) were replaced because they had no meal claims during the reference period.

Tier II FDCHs could have claimed meals at Tier I, Tier II, or both rates (concurrent Tier I and Tier II claims), depending on whether some or all meals were served to Tier I-eligible children. In addition, Tier I FDCHs could have both Tier I and Tier II meal claims during the data collection period if they had changed tiering status during the period.²⁸ The distribution of FDCHs by types of meal claims (as approved by sponsors) is shown in Exhibit 2.4.

Tiering Determination Documents for FDCHs Not Independently Verified as Tier I

A final round of data collection obtained information about tiering determinations for FDCHs that were not verified as geographically eligible for Tier I through a match with school and Census data. Information was requested for 105 Tier I FDCHs and 137 Tier II FDCHs. The response rate for the final round of data collection was 100 percent, yielding a final sample of 660 FDCHs.

The final data request for copies of tiering documents was sent to sponsors after completion of the independent assessment of geographic eligibility for Tier I, which is described in Chapter 3. Sponsors were asked to provide documents as specified below, according to the status of the FDCH.

1. Tier I FDCHs: *copies* of the documentation on file for the most recent tiering determination prior to June 30, 2009. This would include one or more of the following:
 - School data - boundary information and school FRP percentage or other available school eligibility documentation included in the FDCH's files
 - Census data - block group code and percentage of children in households with income at or below 185% of poverty
 - Household income or categorical eligibility information—Income Eligibility Statement listing household members and their income, and/or information about participation in programs that confer categorical eligibility. Also copies of documents used to verify Tier I income eligibility, such as wage stubs, income tax forms, or benefits letters.
2. For Tier II FDCHs that did not appear area-eligible for Tier I based on school or Census data, we requested:
 - The name of the elementary school whose attendance area included the FDCH.
 - Whether the provider's tier status was determined or redetermined during the period from September 2007 to June 2009.
 - If a tiering determination was made between September 2007 and June 2009, the sponsor was asked to provide copies of all documents associated with the tiering determination(s) (as listed above for Tier I FDCHs).
 - If a Tier II FDCH requested to have their tiering level reevaluated in this time period, the sponsor was asked to provide a copy of the request.
3. For Tier II FDCHs that appeared area-eligible for Tier I based on school or Census data, we requested:
 - The elementary school whose attendance area includes the FDCH.

²⁸ Tier status was measured as of August 2009, when sponsors provided their list of FDCHs for sampling.

- Whether the provider’s tier status was determined or redetermined during the period from September 2003 to June 2009.
- If a tiering determination was made between September 2003 and June 2009, the sponsor was asked to provide copies of all documents associated with the tiering determination(s) (as listed above for Tier I FDCHs).
- If a Tier II FDCH requested to have their tiering level reevaluated in this time period, the sponsor was asked to provide a copy of the request.

For the third group of FDCHs, the longer reference period was needed because of the five-year period that area eligibility determinations are valid. Thus, if a sponsor made an incorrect determination or failed to make a determination upon request at any time during this period, and the FDCH was area-eligible at that time, we would consider this an error.

Information about the types of documentation provided by sponsors is provided in Chapter 3.

Exhibit 2.4: Number of Sample FDCHs by Type of Meal Claims Reported for 2009 Assessment

Type of Meal Claims	Tier I FDCH		Tier II FDCH	
	Number	Percent	Number	Percent
Tier I claims only	502	96.0%	6	4.4%
Tier II claims only	0	0.0%	97	70.8%
Tier I and Tier II claims, concurrent ^a	5	0.9%	28	20.4%
Tier I and Tier II claims, not concurrent	16	3.1%	6	4.4%
Total	523	100.0%	137	100.0%

^a “Concurrent” Tier I and Tier II claims occur when both Tier I and Tier II children are served.

Source: 2009 CACFP Assessment of Sponsor Tiering Determinations. Data are unweighted. Claims were reported for August 2008 through July 2009.

3. Methodology and Results of Assessment of Sponsor Tiering Determinations

The purpose of this assessment was to identify FDCHs that were misclassified as Tier I or Tier II, and estimate erroneous payments due to misclassifications. This chapter describes the detailed methodology for using the information collected (as described in the previous chapter) to verify sponsor tiering determinations. The chapter also presents the results for the study sample. We defer until the next chapter the presentation of results weighted up to represent national totals.

As shown in Exhibit 2.1, the first step in the assessment was to independently verify geographic eligibility for Tier I by matching FDCH address information with school and Census data. School contacts and tiering determination dates were then used in a further attempt to independently verify Tier I eligibility. These steps independently verified sponsor tiering determinations for 79.9 percent of sampled Tier I FDCHs.

Tier I FDCHs not verified through data matching and all Tier II FDCHs were assessed by reviewing sponsors' documentation of tiering determinations. Sponsor documents confirmed the sponsors' determinations for 17.6 percent of sampled Tier I FDCHs and 100 percent of sampled Tier II FDCHs. There were 13 misclassified Tier I FDCHs (2.5 percent of the Tier I sample) and zero misclassified Tier II FDCHs. The unweighted misclassification rates for the sample were 2.5 percent for Tier I, 0 percent for Tier II, and 2.0 percent overall.

Below, we explain how these results were obtained and provide additional unweighted sample statistics for the assessment.

3.1 Independent Verification of Geographic Eligibility for Tier I

The first step in assessing geographic eligibility was to geocode FDCH addresses to obtain latitude and longitude coordinates, and Census block group (CBG) code. This step is depicted at the top of Exhibit 2.1. Geocoding was accomplished with a commercial geocoding service available on the Web.²⁹ Twenty FDCH addresses could not be geocoded to an exact point because the address was a post office box or located in a rural area.³⁰ FDCHs that were not geocoded to an exact point were excluded from data matching; instead, we proceeded directly to Step 3, the request for documentation of the tiering determination from the sponsor.

After geocoding was complete, the "Census match" involved a simple merge of FDCHs with Census data by CBG code.³¹ The school match was more complicated because there are no readily available

²⁹ The TeleAtlas geocoding service was used for the assessment, available at www.geocoding.com.

³⁰ Only five FDCH addresses could not be geocoded in the 2008 assessment. The difference may be due to the mix of sponsors in the two assessments, as the post office box or rural addresses were concentrated in a few sponsors in 2009.

³¹ FNS provided the *Special Tabulation of Census Block Groups for CACFP*, prepared by the US Bureau of Census. For each CBG, the file contains the state and county FIPS code, Census tract, place name, and percentage of children under age 13 in households with income below 185 percent of the FPG. The file

databases identifying school boundary areas. The steps in the school match were (1) identify the school district where the FDCH was located; (2) within the school district, identify the three elementary schools nearest to the FDCH; and (3) determine if all, some, or none of the three nearest schools were area-eligible for Tier I, i.e., they had at least 50 percent of children eligible for NSLP F/RP meals. If all three nearest schools were area-eligible for Tier I, or if the CBG was area-eligible, then the FDCH was verified as Tier I by the data matching process.

School Match Process

The school match required several sources of information. To identify school district jurisdictions, FDCH locations were mapped with geographic information system (GIS) software using the latitude and longitude coordinates obtained from the geocoding process.³² School district boundary information was obtained from the US Bureau of Census and also mapped in GIS software.³³ The school district boundaries were overlaid on FDCH locations to identify the school district where each FDCH was located.

After identifying school districts containing FDCHs in the assessment sample, we assembled a list of elementary schools in those districts. Two sources of information were used to construct the list of schools:

- US Department of Education, Common Core of Data Public Elementary/Secondary School Universe Survey: School Year 2007-08
- State lists of schools provided to the CACFP, with F/RP percentage, for each school year from SY 2004-05 to SY 2008-09

The Common Core Data (CCD) file provides a master list of all schools in the nation with information on grade level, whether the school is a charter or magnet school, and latitude and longitude coordinates. Elementary schools were identified on the basis of the grade level (LEVEL07) indicator in the CCD file. Magnet and charter schools do not have defined boundary areas, so they were dropped from the list of schools used for CACFP area-eligibility determinations.

The State lists of schools provided the F/RP percentages needed to determine CACFP area eligibility. Because Tier I area eligibility based on school data is effective for 5 years, State school lists were obtained for the past 5 years. Thus an FDCH determined as Tier I based on school data in 2004 would not require redetermination until 2009, even if school data changed in the interim.

The CCD and State lists of schools were combined to create a single master list of elementary schools with latitude, longitude, and F/RP percentages for each of the past five years. Schools that appeared on the State list and not in the CCD were researched on the Web to confirm that they were regular elementary schools (not magnet or charter) and to obtain address information for geocoding.

contains multiple records per CBG where CBG boundaries cross place boundaries. The file was aggregated to one record per CBG prior to use. The same file was used for the 2008 assessment.

³² MapInfo Professional version 7.5 was used for this assessment.

³³ US Bureau of Census, *School Districts Cartographic Boundary Files, 2008*. Available at <http://ftp2.census.gov/geo/tiger/TIGER2007FE/>. Accessed July 2009.

The “school match” identified the three nearest elementary schools to each FDCH within the school district where the FDCH resides. This was accomplished by matching each FDCH to every elementary school in the district, calculating the distance from each FDCH to every elementary school, and keeping the nearest three schools.³⁴ The initial match used the list of elementary schools active in SY 2008-09, where active schools were identified by their appearance on the State list of schools. For the initial match, *current* eligibility for Tier I (as of the date of sampling) was determined based on schools’ SY 2008-09 percentages of children eligible for F/RP meals. This approach did not require tiering determination dates. If the initial match did not confirm Tier I eligibility, the match was repeated with the district school list applicable at the time of the last tiering determination, as described later in this chapter.³⁵

Categorizing the Outcomes of the Initial School and Census Match

FDCHs were categorized according to the results of the initial school and Census match. Program guidance specifies that elementary school data should be used to determine geographic eligibility for Tier I when available, but Census data may be used in several circumstances.³⁶ For this assessment, both types of data were used to confirm Tier I eligibility, as was done for the previous assessments.

The categories of match outcomes are shown in the flowchart in Exhibit 2.1 and described in Exhibit 3.1. The initial match was conclusive if the SY 2008-09 school data indicated that all of the nearest schools were area-eligible, or the CBG was area-eligible. If the school match indicated that “some” or “none” of the nearest schools were area-eligible, then additional steps were taken to confirm the FDCH’s geographic eligibility for Tier I.

Additional School Match and School District Contacts

If some or none of the nearest schools were area-eligible for Tier I in SY 2008-09, the complete school match was rerun using data current at the time of the FDCH’s most recent tiering determination date. The modified algorithm for this additional match included the following steps:

³⁴ Fewer than three schools were identified if the school district had fewer than three elementary schools.

³⁵ If the sponsor correctly determined that the FDCH was area-eligible for Tier I at any time in the five years prior to August 2009, that determination was still valid at the time of sampling. This was true even if the attendance area for the FDCH was not area-eligible in FY 2009. Thus, confirming the prior determination verified the current eligibility of the FDCH. On the other hand, a Tier I FDCH that was area-eligible in FY 2009 was considered to be correctly classified for that time period, even if the sponsor had incorrectly classified the FDCH as Tier I in a prior year and did not redetermine the status of the FDCH in FY 2009. In such a case, our independent verification replicated the determination that the sponsor would have made for FY 2009. Our procedure was consistent with that of sponsors that review tiering determinations every year; this review extends Tier I eligibility of currently eligible FDCHs for the next five years under FNS rules.

³⁶ Census data may be used when: a) the FDCH is located in the attendance area of an elementary school in which 40 to 49 percent of children are eligible for free or reduced-price meals; b) the school district has a school choice policy or the FDCH is located in the attendance area of an elementary school whose population is affected by busing; or c) the school attendance area is geographically large and obscures smaller pockets of poverty.

Exhibit 3.1: Categorizing the Outcomes of the School and Census Match^a

Exhibit	School Match Result	Census Block	
		Group Area	Outcome
2.1, Box:		Eligibility	
A.	All nearest schools area-eligible	Yes	Tier I verified by school and Census data
B.	All nearest schools area-eligible	No	Tier I verified only by school data
C.	Some nearest schools area-eligible	Yes	Tier I verified only by Census data
Step 2	Some nearest schools area-eligible	No	School district contact/website search to identify the elementary school attendance area for the FDCH. Tier I eligibility evaluated using SY2007-08 data for the identified school; if not confirmed, Tier I eligibility evaluated using the F/RP percentage for the school as of the most recent tiering date. If Tier I not verified by these steps, documentation requested from sponsor.
E.	None of the three nearest schools area-eligible	Yes	Tier I verified only by Census data
Step 3	None of the three nearest schools area-eligible	No	Tier I eligibility reevaluated using school data as of the most recent FDCH tiering determination date. If Tier I eligibility or not verified, documentation requested from sponsor.

^a The initial school match determined area eligibility based on the percentage of children eligible for F/RP meals in SY 2008-09. If an FDCH was not verified as Tier I by the initial match, it was reevaluated in Step 2 using information for schools active at the time of the FDCH's most recent tiering determination, and percentages of children eligible for F/RP meals in the school year corresponding to the determination date.

- Determine the correct school year for the tiering determination date. Most States provide the list of school F/RP percentages to CACFP sponsors on February 15. Thus all tiering determinations after February 15 through the end of the school year use data from the current school year, while tiering determinations after the end of the school year through the next February 15 use data from the previous school year.
- Restrict the list of elementary schools to those active in the school year corresponding to the tiering determination date.
- Identify the three nearest elementary schools from this list.
- Determine if attendance areas for all, some, or none of the nearest schools was area-eligible for Tier based on the F/RP percentages in the school year corresponding to the tiering determination date.

If none of the nearest schools was area-eligible by the initial or secondary match, and the CBG was not eligible, then the FDCH could not be verified as geographically eligible for Tier I. These FDCHs proceeded to Step 3 of the flowchart (Exhibit 2.1), the request for documentation of the sponsor's tiering determination.

If some of the nearest schools were area-eligible in either the initial or secondary match, then we used one of two methods to identify the school attendance area for the FDCH: district website searches and school district contacts (as described later in this chapter). Tier I was verified if the school

attendance area had at least 50 percent of students eligible for F/RP meals in SY 2008-09 or in the school year corresponding to the FDCH's most recent tiering determination. FDCHs not verified as Tier I proceeded to Step 3 of the flowchart (Exhibit 2.1).

Exhibit 3.2 presents the results of the initial school and Census data match. FDCHs were categorized into four groups, based on these results. Group 1 comprises the FDCHs that were verified as Tier I by Census, the school match, or both; this group included 345 Tier I FDCHs and five Tier II FDCHs. For the Tier II FDCHs in Group 1, as for all Tier II FDCHs, the assessment required information from sponsors to confirm whether and when the sponsor determined Tier I eligibility, and if so, whether the determination was correct.³⁷

Groups 2, 3, and 4 in Exhibit 3.2 comprise the 310 FDCHs that were not verified by the initial school and Census data matching (including 178 Tier I FDCHs and 132 Tier II FDCHs). These FDCHs required further steps in the assessment process:

- For Group 2 (144 FDCHs), school district contacts were required to determine the attendance area;
- For Group 3 (14 FDCHs), some of the three nearest schools were area-eligible in a previous year, so these FDCHs were potentially area-eligible as of the tiering determination date, and school match was repeated using the school data for this date;
- For Group 4 (152 FDCHs), the tiering determination could not be independently verified, because none of the three nearest schools was area-eligible in any of the five previous years, or because the FDCH could not be geocoded. These FDCHs required sponsor documentation.

As indicated in Exhibit 3.2, Group 2 included 113 FDCHs for which some, but not all, of the three nearest elementary schools were area-eligible; Group 2 also included 31 FDCHs in school districts where at least one elementary school could not be geocoded.

School district contacts verified Tier I eligibility for 72 Tier I FDCHs and 3 Tier II FDCHs. Matching with school data as of the tiering determination date verified Tier I eligibility for 1 Tier I FDCH and did not verify any Tier II homes, as indicated in Exhibit 3.3.

³⁷ Tier II homes are not misclassified unless the provider requests a tiering determination and the sponsor makes an incorrect determination.

Exhibit 3.2: Initial Data Matching Results

	Tier I FDCHs		Tier II FDCHs		Total
	Number	Percent	Number	Percent	Number
Number of FDCHs	523	100.0	137	100.0	660
1) Verified as Tier I by:					
All 3 nearest schools and Census ^a	154	29.5	0	0.0	154
All 3 nearest schools only ^a	156	29.8	4	2.9	160
Census only	35	6.7	1	0.7	36
Total	345	66.0	5	3.6	350
Not initially verified and:					
2) School district contact required					
a) Some of the three nearest schools were area-eligible	88	16.8	25	18.3	113
b) Unable to determine nearest schools because at least one elementary school in district could not be geocoded	26	5.0	5	3.7	31
Total FDCHs needing school district contact	114	21.8	30	22.0	144
3) School data to be reevaluated at tiering date					
None of the three nearest schools was area-eligible in SY2008-09 but some of the nearest schools were eligible in the past five years ^b	8	1.5	6	4.4	14
4) Unable to verify Tier I with data matching					
a) None of the three nearest schools was area-eligible in any of the last five years ^b	36	6.9	95	69.3	131
b) FDCH could not be geocoded	20	3.8	1	0.7	21
Total FDCHs unable to be verified with data matching	56	10.7	96	70.0	152

^a An FDCH was verified as Tier I by school data if all three of the nearest elementary schools were area-eligible.

^b The three nearest schools were determined for each FDCH in each of five school years (SY). For each SY, the list of active schools in the district was determined by the State list of schools with F/RP percentages. The list of schools in each SY changed if schools closed or new schools opened. Thus, the three nearest schools for a FDCH could vary from year to year.

Source: 2009 CACFP Assessment of Sponsor Tiering Determinations. Data are unweighted.

Exhibit 3.3: Outcome of School District Contacts and Matching at Tiering Date

	Tier I FDCH		Tier II FDCH		Total
	Number	Percent of Group	Number	Percent of Group	Number
<i>Group 2: School contact required</i>	114	100.0	30	100.0	144
Verified Tier I based on attendance area identified by district	72	63.2	3	10.0	75
Not eligible for Tier I based on attendance area identified by district	37	32.5	22	73.3	59
Could not determine attendance area ^a	5	4.4	5	16.7	10
<i>Group 3: School data reevaluated at tiering determination date^b</i>	8	100.0	6	100.0	14
Verified as Tier I	1	12.5	0	0.0	1
Not eligible for Tier I at the tiering date	7	87.5	5	83.3	12
Missing tiering date	0	0.0	1	16.7	1

^a Due to invalid address or full school choice areas with no defined attendance zones.

^b The three nearest schools at the time of the tiering determination were determined from among schools with FRP percentage reported for that year (i.e., we excluded schools that were closed in that year). If the school match indicated that some of the three nearest schools were area eligible, we contacted the school district.

Source: 2009 CACFP Assessment of Sponsor Tiering Determinations. Data are unweighted.

The results of all independent verification attempts, including data matching and school district contacts, are shown in Exhibit 3.4. A total of 418 Tier I FDCHs were independently verified, so sponsor documentation was not needed for 79.9 percent of the Tier I sample. The independent verification process indicated that 80 Tier I FDCHs (15.3 percent) were not eligible based on school or Census data; the process was inconclusive for 25 Tier I FDCHs (4.8 percent). In all, 105 Tier I FDCHs were not independently verified and required sponsor documentation, as well as the 137 Tier II FDCHs. Independent verification identified 8 Tier II FDCHs that were possibly misclassified (5.8 percent.) Documentation review procedures and results are presented in the next section.

Exhibit 3.4: Final Status of FDCHs After Data Matching and School District Contacts

	Tier I FDCH		Tier II FDCH	
	Number	Percent	Number	Percent
Eligible for Tier I based on school or Census data	418	79.9	8	5.8
Not eligible for Tier I based on school or Census data	80	15.3	122	89.1
Could not determine eligibility for Tier I due to missing data	25	4.8	7	5.1
Total	523	100.0	137	100.0

^a Tier II FDCHs required sponsor information to confirm provisional determination of Tier I status with school or Census data.

Source: 2009 CACFP Assessment of Sponsor Tiering Determinations. Data are unweighted.

3.2 Verifying Tier I Eligibility Through Review of Sponsor Documents

The school and Census matches streamlined the process of assessing sponsor tiering determinations for FDCHs that were geographically eligible for Tier I. All FDCHs not verified by the data matches and school district contacts were assessed by reviewing sponsor documentation from the most recent tiering determination.

This section describes the request for tiering determination documents, the document review process, and the algorithms for assessing the tiering determination. Following this description, the results of the document review are presented.

Request for Tiering Determination Documents

Abt Associates requested the following tiering determination information from sponsors for 105 Tier I FDCHs and 137 Tier II FDCHs:

1. Tier I FDCHs: copies of the documentation on file for the most recent tiering determination prior to June 30, 2009. This documentation included one or more of the following:³⁸
 - School data — boundary information and school FRP percentage or other available school eligibility documentation included in the file for the FDCH;
 - Census data — block group code and percentage of children in households with income at or below 185% of poverty;
 - Household income or categorical eligibility information — (a) Income Eligibility Statement (IES) listing household members and their income, and/or information about participation in programs that confer categorical eligibility; and (b) copies of documents

³⁸ Documents dated after June 30, 2009 and before July 31, 2009 were accepted if they indicated that the determination was effective for the month of July.

used to verify Tier I income eligibility, such as wage stubs, income tax forms, or benefits letters.

2. Tier II FDCHs:

- Elementary school attendance area for the FDCH;
- Whether and when the provider's tier status was determined or redetermined during the period from September 2007 to June 2009;
- If a tier determination was made between September 2007 and June 2009, copies of all documents associated with the tiering determination(s) (as listed above for Tier I FDCHs). If a Tier II FDCH provider requested to have her tiering level reevaluated in this time period, the sponsor was asked to provide a copy of the request.

Sponsors are expected to review all FDCHs for Tier I geographic eligibility, so they usually can identify the school attendance area for Tier II FDCHs and provide documentation. Unless the FDCH submits an IES, there is no documentation of income for Tier II FDCHs.

For the assessment, sponsors were asked to complete a face sheet that was preprinted with the names of FDCHs that required documentation, and to attach copies of documents from their files.

Document Review Process

Documentation was obtained for 105 Tier I FDCHs and 137 Tier II FDCHs (100 percent of the FDCHs for which documentation was requested). Documents were reviewed in a two-step process. The first step involved entry of information from the face sheets, which included:

- Tier I FDCHs – Type of documents provided (school, Census, income, or program participation) and an explanation if documents were not provided;
- Tier II FDCHs – Elementary school attendance area for FDCH, indicator of whether tier was determined during the specified period, and indicator of whether sponsor provided documents to identify the school area or other documents. For Tier II FDCHs that did not appear area-eligible for Tier I based on school or Census data, the specified period was September 2007 and June 2009. For Tier II FDCHs that appeared area-eligible for Tier I, the specified period was September 2003 and June 2009,

Information from the face sheets was used to identify the detailed documents to be reviewed in the second step. Depending on the basis for the tiering determination, the specific information needed for the assessment was extracted and entered from the school, Census, program certification, or income documents. Computerized algorithms were used to determine whether this information confirmed the sponsor's determination. Results of the algorithms were reviewed by the project director to make the final determination of whether the documentation confirmed that the FDCHs were correctly classified.

If documentation for an FDCH was needed and missing, or if all documents provided by a sponsor were incomplete, the sponsor was contacted to obtain the complete documentation. Sponsors were also contacted if they did not provide the most recent application or income documentation corresponding to the tiering date they reported; if they did not provide income documentation for all family members listed on the provider's application as having income; and if documentation was not provided for providers that reported zero earnings.

Algorithms for Assessing Tiering Determinations Using Sponsor Documents

The purpose of the tiering assessment algorithms was to confirm that the sponsor's tiering determination was correct and consistent with the FNS rules applicable to determinations made on that basis (geographic, program, or income). For Tier I FDCHs, the following general rules were used to confirm tiering determinations:

- Documentation required for the type of eligibility (geographic, program, or income) must be present;
- Documentation must meet FNS standards for the information provided (e.g., signature provided when required); and
- Documentation must be consistent with the eligibility determination by the sponsor (e.g., documented income is 185 percent of the FPG or less).

Separate algorithms were used for each type of determination supported by documents provided by sponsors: school, Census, program certification, and provider income.

The algorithm for assessing determinations based on **school documents** required all of the following conditions to confirm Tier I eligibility:

1. Valid documentation that the FDCH was located in the attendance area of the identified school:
 - a document was provided for the school attendance area (school boundary map,³⁹ page from school directory, Web site printout, letter from school official, or memorandum to file from contact with school official);
 - document was dated after 6/1/2004;
 - FDCH address was identified on the document (not needed if the document was a memorandum to the file);
 - document was signed (only needed if the document was a letter from a school official or a memorandum to the file).
2. Valid documentation of area-eligibility for the school identified⁴⁰:
 - a document was provided for the school F/RP percentage (copy of State school list, printout from a State Web site, or letter from a school official);
 - the document was dated after 6/1/2004;
 - if the document was a letter from a school official, it was signed.

The algorithm for assessing determinations based on **Census documents** required all of the following conditions to confirm Tier I eligibility:

- the CBG code was provided;

³⁹ If the map provided by the sponsor lacked detail sufficient enough to locate the FDCH in the attendance area of the identified school, googlemaps.com was used to verify the location of the FDCH.

⁴⁰ If the sponsor did not provide documentation of area-eligibility for the identified school, Abt independently verified eligibility using the date of the determination and a copy of the State school list.

- a document was provided indicating that the FDCH address was in the CBG;
- the address on the document corresponded to the FDCH address provided by the sponsor;
- a document was provided showing the percentage of children in households with income less than or equal to 185% of the FPG for the CBG.⁴¹

The algorithm for assessing determinations based on **means-tested program certification documents** required all of the following conditions to confirm Tier I eligibility:

1. Provider submitted a valid Income Eligibility Statement (IES)
 - provider name and address on the IES matched our files;
 - IES was signed by provider;
 - date of signing of IES was between June 30, 2008 and June 30, 2009;
 - Social Security Number (SSN) was provided or provider indicated that she did not have a SSN;
 - program indicated on IES was SNAP/Food Stamps, TANF, or other program accepted for provider eligibility for Tier I in the State;
 - program case number was provided on IES.
2. Provider submitted valid documentation of current eligibility for the program indicated on the IES:
 - document was certification letter or other document acceptable under FNS guidance;
 - date of document indicated current eligibility as of the date of the IES.
 - program case number on document matched case number on IES.

There were two algorithms for assessing determinations based on **provider income**, depending on whether a tax return (i.e., an Internal Revenue Service Form 1040) or other documents were provided. Both algorithms required the following conditions to confirm Tier I eligibility:

- provider submitted an IES;
- provider name and address on the IES matched our files;
- IES was signed by provider;
- date of signing of IES was between June 30, 2008 and June 30, 2009;
- Social Security Number (SSN) was provided or provider indicated that she did not have a SSN;
- total income on the IES was greater than zero and equal to or less than 185 percent of the FPG for the household size indicated on the IES.⁴²

⁴¹ The assessment noted whether the sponsor provided documentation of a reason for using Census data in lieu of school data, but this documentation was not required. This rule was consistent with using Census data for independent verification of area eligibility.

⁴² Under FNS guidance, a provider reporting zero gross household income may be approved for Tier I for 45 days, as long as the provider explains how household expenses are met. The number of months of claims after Tier I determination was checked to ensure that none of the providers was operating under a temporary approval when sampled.

For determinations based on a Form 1040, the algorithm also required the following:

- gross income on the Form 1040 was equal to or less than 185 percent of the FPG for the household size indicated on the IES⁴³
- all adults listed on the IES were listed on the Form 1040, or else had other acceptable income documentation.

For determinations based on other income documentation, the algorithm required determining that valid documentation was provided for each item of income reported on the IES. The standard IES format requires separate reporting of each type of income (earnings, Social Security/pension, child support, other) for each household member. The algorithm required the following conditions to confirm Tier I eligibility (in addition to the IES criteria):

- acceptable documentation for each item of income reported on the IES (dated, third-party source or supported by receipts or sworn statement);
- total income on all documents was equal to or less than 185 percent of the FPG for the household size indicated on the IES.

To make this determination, the reviewer used the following procedure:

1. Identify all persons in the household with reported income;
2. For each person, determine the items of income reported;
3. For each reported item of income, determine and record if an acceptable document was provided;
4. For each item of documentation, enter the amount of income and how frequently it was received. This information was used by the computer program to compute the total household income and percentage of the FPG indicated by the documentation.

For determinations based on income documentation other than IRS Form 1040, the algorithm had two specific requirements regarding income from family day care, following FNS policy. First, the provider had to report income from family day care, or else indicate that this self-employment resulted in a loss or no net income. Under FNS policy, receipt of payment for day care services is not a requirement for CACFP participation, but even zero income from day care must be declared on the IES.⁴⁴ Second, a statement of provider income and expenses other than an IRS Schedule C was accepted only if the statement was prepared by a third party, or if receipts were provided. The provider's ledger of payments for day care was considered acceptable, but a statement affirming that receipts for expenses were available upon request was not accepted in lieu of copies of the receipts (unless there was indication that the sponsor had reviewed the receipts). If receipts for expenses were not provided, Tier I eligibility was evaluated on the basis of the provider's gross revenues from day care and other income.

⁴³ In computing gross income for this test, a negative amount for business income was changed to a zero, consistent with FNS policy.

⁴⁴ If a provider reports zero income from day care, other household income must be reported and documented (except in the case of 45-day approvals as previously discussed).

Document Review for Tier II FDCHs

Sponsor responses and documents from the most recent tiering determination (if any) were reviewed for all 137 Tier II FDCHs in the sample. As previously discussed, Tier II FDCHs were considered misclassified only if documentation confirmed that the provider had made an incorrect determination. The document review used the following algorithm for the 129 Tier II FDCHs that did not appear to be Tier I-eligible based on school and Census data:

- Was the tiering status for the FDCH determined by the sponsor between September 2007 and June 2009? If not, then the home was automatically confirmed as Tier II, and the review was terminated.⁴⁵
- What school attendance area did the sponsor identify for the FDCH? Was this area eligible for Tier I at the time of the tiering determination, based on the State school list?
- If the sponsor used Census data for the tiering status determination, was the determination consistent with the match results? If not, did the sponsor's documentation support the determination?
- Did the FDCH provider apply for Tier I status based on program certification or income? If so, did the documentation confirm that the FDCH was not eligible for Tier I?

For the 8 Tier II FDCHs that appeared to be Tier I-eligible based on school or Census data, the reference period was September 2003 through June 2009. For these Tier II FDCHs, we sought to determine whether the sponsor made an erroneous tiering determination or failed to respond to a tiering request from an eligible FDCH. One of these conditions must be present for a Tier II FDCH to be misclassified. Determinations of area-eligibility are valid for five years. Therefore, for the period in which meal counts were measured for the study (August 2008 – July 2009), relevant tiering determinations or requests could have occurred as early as September 2003 and as late as June 2009.

For FDCHs classified as Tier II based on school attendance area, the sponsor documentation was reviewed to determine whether the school was one of the three nearest schools identified by the data match. If not, the F/RP percentage for the school identified by the sponsor was checked to confirm the sponsor's determination.

For Tier II FDCHs that had applied for Tier I based on program certification or income, the IES and accompanying documentation were reviewed to determine whether the sponsor's determination was correct, following the same rules as for Tier I FDCHs.

3.3 Final Results of Assessment of Sponsor Tiering Determinations

Below, we present the results of the documentation review for Tier I and Tier II FDCHs, then the overall results for the study sample.

⁴⁵ A FDCH would be considered misclassified as Tier II if the provider had failed to act on a request for determination by a FDCH that we independently verified as Tier I eligible. However, there were no such cases in the sample.

Documentation Review Results for Tier I FDCHs

The results of the documentation review for the Tier I FDCHs in the sample are shown in Exhibit 3.5, together with the results of the independent verification with school and Census data. A total of 92 Tier I FDCHs were verified with sponsor documents (87.6 percent of the 105 Tier I FDCHs for which documentation was needed to confirm Tier I eligibility, and 17.6 percent of all Tier I FDCHs).

Exhibit 3.5: Tier I Verification Results by Source of Determination

Source of Determination	Number of FDCHs	% of FDCHs in Tier
<i>Independently Verified by Area-Eligibility</i>		
Verified by school and Census data—all nearest schools area-eligible	154	29.4
Verified by school data only—all nearest schools area-eligible	156	29.8
Verified by school data only—correct school is area-eligible	72	13.8
Verified by Census data only—no nearest school area-eligible	35	6.7
Verified by school data at tiering date in prior program year	1	0.2
Subtotal: Independently verified by area-eligibility	418	79.9
<i>Verified by Sponsor Documents</i>		
Verified by area-eligibility documents	37	7.1
Verified by program certification documents	5	1.0
Verified by income documents ^a	50	9.6
Subtotal: Verified by sponsor documents	92	17.6
Total Tier I Verified	510	97.5
Misclassified Tier I ^b	13	2.5
All Tier I	523	100.0

^a Of the FDCHs verified by income documents, 34 were documented by IRS 1040, and 16 were documented by wage stubs or other documents.

^b Tier I FDCHs were considered misclassified if they could not be independently verified as Tier I and the sponsor provided documentation that did not support Tier I eligibility. For the misclassified Tier I FDCHs, 2 had IRS 1040 documents, 10 had other income documents, and 1 had area-eligibility documents.

Source: 2009 CACFP Tiering Assessment. Data are unweighted.

As expected, income documents were the most common form of documentation (provided for 62 FDCHs), and these verified 50 Tier I FDCHs (9.6 percent of all Tier I FDCHs). Sponsor errors were rare for income documented by IRS Form 1040, with 94 percent of such FDCHs verified (34 of 36). On the other hand, errors were common for other forms of income documents, with only 62 percent of these FDCHs verified (16 of 26). Usually, the errors arose because some but not all of the income was documented, or because the provider failed to report day care income as required (per the preceding discussion).

Other forms of eligibility documentation were less common. A small number of Tier I FDCHs (37, or 7.1 percent) were verified with documentation of geographic eligibility based on school attendance areas. One Tier I FDCH was not verified by the documentation of geographic eligibility based on

school attendance areas because the identified school was not eligible for Tier I for the year of the determination. Use of this documentation was needed if we were unable to verify Tier I eligibility with the school and Census matches, because the FDCH address could not be geocoded or the school district boundary changed over time.⁴⁶ Only five Tier I FDCHs were verified using program certification documents; three of these were documented by SNAP eligibility letters and two by a letter certifying the household for a State food assistance program.⁴⁷

As shown in Exhibit 3.5, a total of 510 Tier I FDCHs were verified, representing 97.5 percent of the Tier I sample. The vast majority—418, or 79.9 percent—were independently verified by school, Census, or both types of geographic eligibility data.⁴⁸

Documentation Review Results for Tier II FDCHs

Eight Tier II FDCHs were identified by data matching as potentially eligible for Tier I. However, upon reviewing the sponsors' documentation, we determined that none of these eight FDCHs was misclassified by the sponsor. For three of the FDCHs, there was no misclassification because there was no application or determination made. If an application or determination had been made, however, these three homes would have been area-eligible for Tier I.

For two other Tier II FDCHs, the review of documents also indicated that the sponsor's determination was correct, but the FDCHs could have been found area-eligible for Tier I. The circumstances are explained below.

1. The sponsor indicated that the FDCH was in the attendance area of two elementary schools: one that served grades K-2 and the other that served grades 3-5. The former had more than 50 percent F/RP students, however the latter did not. The sponsor made the decision of which school to use to determine area-eligibility. In this case, the sponsor chose the school with less than 50 percent F/RP students and determined that the FDCH was not area-eligible for Tier I. The sponsor's decision was consistent with FNS rules and thus correct, but the sponsor could have chosen to use the F/RP percentage for the K-2 school that would have made the FDCH eligible for Tier I.
2. The data match for the FDCH correctly identified the 3 nearest schools which had slightly more than 50 percent F/RP students in SY 2008-2009. The sponsor identified one of these schools as the attendance area for the FDCH. However, at the time of the tiering determination indicated on the documents, this school did not have more than 50

⁴⁶ Geocoding was not possible if the address was a Post Office Box or a rural route, or if there was a data entry error in the address provided by the sponsor.

⁴⁷ The State program included SNAP benefits and State-funded benefits for aliens not eligible for SNAP. Documents did not differentiate the source of funds.

⁴⁸ We note that under CACFP rules, Census data may only be used in place of school data under specified circumstances. To determine whether the verification of Tier I eligibility with Census data was consistent with these rules, documentation from sponsors would have been needed. Thus, for the 35 Tier I FDCHs that were verified using Census data alone, the verification of Tier I eligibility was not strictly consistent with FNS rules. In consultation with FNS, we determined that the Census data were sufficient to verify the Tier I determination by the sponsor, for the purposes of this assessment.

percent F/RP students. Therefore, the sponsor did not make an error, but the FDCH was area-eligible for Tier I in 2009.

For the other three FDCHs identified as potentially eligible for Tier I through the match to school and Census data, the sponsor determination was correct and there was no evidence that FDCHs could have been determined eligible for Tier I. The specifics of these cases are explained below.

1. The sponsor documentation confirmed that the FDCH was in the attendance area of a school that was not found to be one of the 3 nearest schools from the data match, and this school had less than 50 percent of students F/RP. There were many schools within close proximity of each other in this school district.
2. Census data indicated that the FDCH was area-eligible, but only some of the three nearest schools were area-eligible. Sponsor documentation indicated that the school attendance area for the FDCH was not area-eligible, and that there was not a reason to accept Census data over school data.
3. The data match identified that some of the three nearest schools were area-eligible. We incorrectly identified the school attendance area for the FDCH during the Web search. Sponsor documentation identified the correct school attendance area. This school had less than 50 percent of students F/RP.

For five of the 129 Tier II FDCHs that were not identified as area-eligible by data matching, the provider had submitted an income application for Tier I eligibility. All applications indicated that the provider was not income-eligible and the sponsor's determination was correct.

Final Overall Results for the Sample

As indicated in Exhibit 3.6, the assessment confirmed sponsor tiering determinations for all of the 137 Tier II FDCHs (100 percent), and the unweighted misclassification rate for Tier II was 0 percent. Tier II FDCHs represented 20.8 percent of the sample.

Combining the results for Tier I and Tier II, the assessment confirmed sponsor tiering determinations for 647 FDCHs (98 percent). There were 13 misclassified FDCHs, representing 2.0 percent of the sample.

These are unweighted estimates. Estimates of national misclassification rates are presented in Chapter 4, along with estimates of the impacts of misclassification errors: the number and percentage of meals claimed at the wrong tier, and the erroneous payments (total and percentages of reimbursements).

Exhibit 3.6: Tier II and Overall Verification Results by Source of Determination

Source of Determination	Number of FDCHs	% of FDCHs in Tier	% of All FDCHs
<i>Tier II</i>			
Verified ^a	137	100.0	
Misclassified—determined by school data ^b	0	0.0	
Tier II total	137	100.0	20.8
<i>All FDCHs</i>			
Verified	647		98.0
Misclassified	13		2.0
Total	660		100.0

^a Tier II FDCHs were considered verified if they were not determined to be eligible for Tier I based on Census, school, program, or income data.

^b The number of misclassified Tier II FDCHs excludes those that appeared area-eligible based on the Census or school match, but were confirmed as not area-eligible after review of sponsor documentation.

Source: 2009 CACFP Tiering Assessment. Data are unweighted.

4. National Estimates of Misclassification Errors and Costs

In this chapter, we present the national estimates of the key measures for the CACFP Assessment of Sponsor Tiering Determinations for 2009:

- Number and percentage of FDCHs misclassified by sponsors
- Number and percentage of meals claimed in error due to misclassification of FDCHs
- Amount and percentage of reimbursements paid in error due to misclassification of FDCHs (overpayments and underpayments)

These national estimates were computed using the sample data presented in Chapter 3 and the adjusted sampling weights described in Chapter 2. For each of these estimates, we also present the lower and upper limits of the 90 percent confidence intervals, taking into account the sampling design. Appendix A provides further details on our estimation procedures.

4.1 National Totals for CACFP FDCHs

To provide context for the estimates in this chapter, Exhibit 4.1 provides the total number of homes, number of meals, and reimbursements for the continental U.S. in FY 2009, by tier and overall. (Alaska, Guam, Hawaii, Puerto Rico, and the Virgin Islands are excluded because they were not in the sampling universe for the assessment.) All data in Exhibit 4.1 are actual national totals obtained from State reports collected and summarized in the FNS National Data Bank (NDB).⁴⁹

In FY 2009, within the continental U.S., a total of 106,154 Tier I FDCHs served 477 million meals, and 33,620 Tier II FDCHs served 134 million meals. Total reimbursements were \$658.8 million for Tier I FDCHs and \$103.4 million for Tier II FDCHs (as estimated by this assessment).

Exhibit 4.1: Continental United States FDCH Totals for FY 2009

Type of Meal Served	Tier I	Tier II	All
Number of FDCHs	106,154	33,620	139,774
Number of meals	477 million	134 million	610 million
Reimbursements	\$658.8 million	\$103.4 million	\$762.1 million

Sources: Numbers of FDCHs and meals from FNS National Data Bank, as of March 2010. Number of FDCHs is average of counts for four reporting months. Reimbursements estimated from FNS counts of meals and reimbursement rates. All totals exclude Alaska, Guam, Hawaii, and Puerto Rico.

⁴⁹ Previous assessments based all national estimates on weighted sample data. For the 2009 assessment, the known national totals from the NDB are provided, and estimates from sample data have been adjusted to conform as closely as practical to known national totals. See Appendix A for details on these adjustments.

4.2 National Estimates of Misclassification Errors

Our national estimates of misclassification rates for FDCHs in 2009 are 2.39 percent for Tier I and 0 percent for Tier II, resulting in an overall rate of 1.82 percent of FDCHs misclassified due to sponsor tiering determination errors. These misclassification rates and their 90 percent confidence intervals are shown in Exhibit 4.2, together with the estimated numbers of misclassified FDCHs, correctly classified FDCHs, and total FDCHs, for each tier and overall. For the misclassification rates, the 90 percent confidence intervals are less than 2 percentage points. Given the total number of FDCHs, this misclassification rate implies that 2,527 Tier I FDCHs and 0 Tier II FDCHs were misclassified.

Exhibit 4.2: Estimated Misclassification Rates by Tiering Status in 2009

FDCH Classification by Sponsor	Estimate of Misclassification Rate	90% Confidence Interval		Estimated FDCHs Incorrectly Classified ^a	Estimated FDCHs Correctly Classified	Estimated Total FDCHs ^b
		Lower Limit ^c	Upper Limit			
Tier I	2.39%	0.75%	4.03%	2,527	103,306	105,832
Tier II	0.00%	0.00%	0.00%	0	33,162	33,162
All (Tier I or Tier II)	1.82%	0.55%	3.08%	2,527	136,467	138,994

^a All sampled Tier I FDCHs for which Tier I eligibility could not be verified, either initially or through followup, were deemed incorrectly classified. Tier II FDCHs were deemed incorrectly classified if the assessment determined they were Tier-I eligible and the sponsor determined or reviewed the tiering classification between September 2007 and June 2009.

^b Total FDCHs estimated from sample using adjusted weights; therefore these totals do not exactly match FNS totals in Exhibit 4.1.

^c If lower limit was computed as a negative value, it is shown as 0.

Source: 2009 CACFP Tiering Assessment, weighted estimates. Sample data include active FDCHs with reimbursable meals served in August 2008–July 2009.

4.3 National Estimates of Meals Claimed in Error Due to Misclassification of FDCHs

For misclassified FDCHs, the number of meals claimed in error is the difference between the number they actually claimed at Tier I rates and the number they would have claimed at Tier I rates if they had been correctly classified. Meals claimed at Tier I rates that should have been claimed at Tier II rates result in overpayments; meals claimed at Tier II rates that should have been claimed at Tier I rates result in underpayments.

Estimation of Percentages of Meals Claimed at Incorrect Rate

Recall that Tier II FDCHs may claim meals for eligible children at the Tier I rates. If a FDCH is classified as Tier II, parents can apply for free meals for their participating children, and the sponsor determines whether they are eligible. On average across the nation, 8 percent of Tier II FDCHs were classified as Tier II-high in FY 2009 because all of the children they served were eligible for Tier I (high) rates, and 23 percent were classified as Tier II-mixed, because they served a mix of Tier I and Tier II children.

It follows that when a FDCH is misclassified, not all of the meals served were claimed in error. For a FDCH misclassified as Tier I, meals served to children who would have been individually eligible were not claimed at Tier I rates in error, but any meals served to children who would not have been individually eligible were claimed at the incorrect (Tier I) rate. Conversely, for a FDCH misclassified as Tier II, any meals served to children deemed individually eligible were claimed at the correct rate, but, since all meals should have been claimed at Tier I rates, the meals for children not individually deemed eligible for Tier I were claimed at the incorrect (Tier II) rate.

For individual FDCHs misclassified as Tier I, we cannot determine the exact number of meals that each FDCH claimed in error. Because the FDCH was misclassified as Tier I, no applications for free meals were submitted by parents. Therefore, we cannot know the number of eligible children served by the FDCH and thus the number of meals that would have been correctly claimed at Tier I rates.

Instead, as specified below, we used State averages to estimate the expected numbers of Tier I and Tier II meals that would have been claimed by FDCHs misclassified as Tier I if those FDCHs had been correctly classified. We assumed that State averages for Tier II FDCHs provide the best predictor of the expected percentage of meals by tier and type of meal for the FDCHs misclassified as Tier I. (We need to estimate counts of misclassified meals by type—breakfasts, lunches or suppers, and snacks—in order to compute overpayments and underpayments.) This approach takes into account the variation across States, while using data with no sampling errors.⁵⁰

Thus, we estimated the following for each State in the sample for each type of meal:

$ST_PR_ [MEAL]12$ = the statewide proportion of meals (for a specified type of meal) in Tier II FDCHs that were reimbursed at the higher Tier I rate.

$1 - ST_PR_ [MEAL]12$ = the statewide proportion of meals (for a specified type of meal) in Tier II FDCHs that were reimbursed at the lower Tier II rate.

For example ST_PR_BRK12 was the statewide proportion of breakfasts in Tier II FDCHs that were reimbursed at the Tier I rate. The State average percentages were obtained from FY 2009 meal counts in the FNS National Data Bank. These percentages are shown in Exhibit 4.3. As the exhibit shows, the percentages varied substantially across the States. The national averages for Tier II FDCHs ranged from 17.4 percent of breakfasts to 18.5 percent of lunches and suppers claimed at Tier I rates.

⁵⁰ The previous assessments used the same application of State-level percentages but calculated those percentages from the Tier II FDCHs sampled for the assessment. Our samples are smaller, and use of sample data for only 137 correctly classified Tier II FDCHs would result in a large amount of sampling error for the percentages. It is possible that the misclassified Tier I FDCHs were closer to Tier I eligibility than correctly classified Tier II FDCHs. If so, it might be expected that the misclassified Tier I FDCHs would, if correctly classified, have higher percentages of Tier I meals than the average correctly classified Tier II FDCH. Thus, our method could overstate the number of incorrectly claimed meals for misclassified Tier I FDCHs.

Exhibit 4.3: Tier I Share of Meals by Meal Type at Tier II FDCHs by State, FY 2009

State	Tier I Breakfasts	Tier I Lunches/Dinners	Tier I Snacks
1	9.3%	10.2%	10.0%
2	10.7	13.1	11.4
3	54.0	59.4	59.8
4	5.9	6.9	6.3
5	10.5	14.7	13.9
6	31.6	31.6	31.8
7	35.2	43.5	39.0
8	16.5	18.7	17.8
9	19.7	23.1	22.4
10	12.3	16.2	13.6
11	4.3	6.7	6.1
12	15.7	20.0	18.3
13	5.8	6.3	6.2
14	11.7	13.1	12.4
National Average	17.4	18.5	18.1

Source: FNS National Data Bank, as of March 2010. Actual averages computed for each State and Nation from aggregate data for FY 2009. National average excludes Alaska, Guam, Hawaii, and Puerto Rico.

To estimate the meal counts by tier and type that we would expect if the misclassified Tier I FDCHs had been correctly classified, we multiplied the State percentages for each meal type by each FDCH's total meals of that type, e.g.,

$$\begin{aligned} \text{ENBRK1} &= (\text{ANBRK1} + \text{ANBRK2}) \times \text{ST_PR_BRK12} \\ \text{ENBRK2} &= (\text{ANBRK1} + \text{ANBRK2}) \times (1 - \text{ST_PR_BRK12}) \end{aligned}$$

where ENBRK1 and ENBRK2 are the expected counts of Tier 1 and Tier II breakfasts (if the FDCH had been correctly classified), and ANBRK1 and ANBRK2 are the actual counts of Tier I and Tier II breakfasts.

To continue the example, we calculated the number of breakfasts claimed in error at Tier I (MNBK1) as:

$$\text{MNBK1} = \text{ANBRK1} - \text{ENBRK1}.$$

The analogous computation was done for lunches and suppers (combined) and for snacks.⁵¹

⁵¹ This example simplifies the actual computation slightly for exposition. The Program Year (PY) 2009 reimbursement rates applied to meals claimed for August 2008 through June 2009; PY 2010 rates applied to July 2009 meals. Therefore, we computed the number of misclassified meals separately for the two program years, so that the appropriate rates could be used in computing the cost of misclassification.

For FDCHs misclassified as Tier II, the computation of meals claimed in error was simpler. We assumed that all meals claimed at Tier II rates would have been claimed at Tier I rates. Thus, the number of meals claimed in error equaled the number of meals claimed at Tier II rates. Using the variable designations defined above, we computed the following for breakfasts:

$$\begin{aligned} \text{ENBRK1} &= \text{ANBRK1} + \text{ANBRK2} \\ \text{MNBRK1} &= \text{ENBRK1} - \text{ANBRK1} = \text{ANBRK2}. \end{aligned}$$

This computation yields the number of meals that should have been paid at Tier I rates but were not. MNBRK1 is equal to the number of meals incorrectly claimed at Tier II rates.

We estimated the national percentages of meals claimed in error from the sample data. We computed weighted totals of meals claimed in error by FDCHs in the sample and total of all meals claimed, by tier and overall. We then computed the percentage for each tier and overall, using the ratio of the estimated meals claimed in error to the estimated total meals.

The national estimates, as shown in Exhibit 4.4, were 2.25 percent of meals in Tier I FDCH and 0 percent of meals in Tier II FDCHs claimed at the incorrect tier due to misclassification of FDCHs by sponsors. Overall, an estimated 1.76 percent of FDCH meals were claimed at the incorrect tier. The Exhibit provides the 90 percent confidence intervals for these estimates; each of the confidence intervals was smaller than plus or minus 1.5 percentage points.

Exhibit 4.4: Percentage of Meals in CACFP Family Day Care Homes (FDCHs) Reimbursed at the Incorrect Rate Due to Misclassification of FDCHs in 2009

	Lower Limit ^a	Estimate	Upper Limit ^a
Tier I FDCHs ^b	0.77%	2.25%	3.74%
Tier II FDCHs ^b	0.0%	0.0%	0.0%
All FDCHs	0.57%	1.76%	2.95%

^a Lower and upper limits represent 90 percent confidence interval. If lower limit was computed as a negative value, it is shown as 0.

^b FDCHs classified according to sponsor determination.

Source: 2009 CACFP Tiering Assessment, weighted estimates. Sample data include FDCHs active and reimbursable meals served in August 2008–July 2009. Excludes Alaska, Guam, Hawaii, and Puerto Rico.

Estimation of Total Meals Claimed in Error

A ratio estimation procedure was used to estimate the total meals claimed in error. For each tier, we multiplied the percentage of meals paid at the incorrect tier rate (from sample data, as described above) by the national total count of meals (from FNS data) to estimate the total number of meals paid at the incorrect rate. We summed the Tier I and Tier II totals to estimate the overall total. To estimate the lower and upper limits of the total meals paid at the incorrect rate, the lower and upper

limits of the percentages by tier were multiplied by the national totals. Further details of these computations are provided in Appendix A.⁵²

The estimates of meals reimbursed at the incorrect rate were approximately 10.7 million for Tier I and 0 for Tier II FDCHs, for a grand total of 10.7 million meals, as shown in Exhibit 4.5. These estimates have substantial confidence intervals, e.g., from 3.7 million to 17.8 million meals for Tier I. The FNS totals for meals reimbursed in FY 2009 to Tier I and Tier II FDCHs are also shown in Exhibit 4.5, to provide context.

Exhibit 4.5: Annual Total Number of Meals Reimbursed and Number of Meals Reimbursed at Incorrect Rate by FDCH Tier Type in 2009

	Lower Limit ^a	Estimate ^b	Upper Limit ^a
<i>Tier I FDCHs^c</i>			
Total ^d		476,513,693	
Reimbursed at Incorrect Rate ^e	3,677,995	10,740,619	17,803,243
<i>Tier II FDCHs^c</i>			
Total ^d		133,892,559	
Reimbursed at Incorrect Rate ^f	0	0	0
<i>All FDCHs^c</i>			
Total ^d		610,406,252	
Reimbursed at Incorrect Rate ^{e,f}	3,677,995	10,740,619	17,803,243

^a Lower and upper limits represent 90 percent confidence interval. If lower limit was computed as a negative value, it is shown as 0. The estimate for all FDCHs and its 90 percent confidence interval were computed using all sample data. Therefore, the sample for all FDCHs is larger than the sample for each tier, and the estimate for all FDCHs is more precise and has a smaller confidence interval. As a result, the limits for each tier do not sum to the limits for the overall estimate.

^b National estimates of meals reimbursed at the incorrect rate were computed for each tier of FDCH as the product of (a) weighted sample estimates of the percentages of meals reimbursed at the incorrect rate, and (b) total meals claimed according to FNS National Data Bank as of March 2010. National estimate of all meals reimbursed at the incorrect rate due to misclassification of FDCHs is the sum of the estimates for Tier I and Tier II.

^c FDCHs classified according to sponsor determination.

^d Total meals according to FNS National Data Bank as of March 2010. These totals have no sampling error, so lower and upper limits are identical with the estimates.

^e The estimated meals reimbursed at the incorrect rate in FDCHs classified by sponsors as Tier I were computed by using each misclassified FDCH's Tier I meal counts (by type of meal) and the state average percentage of meals served in Tier I FDCHs reimbursed at the Tier I rate, as described in the text.

^f For FDCHs misclassified as Tier II, only meals reimbursed at Tier II rates are subject to error.

Source: 2009 CACFP Tiering Assessment, weighted estimates. Sample data include FDCHs active and reimbursable meals served in August 2008–July 2009. Excludes Alaska, Guam, Hawaii, and Puerto Rico.

⁵² These ratio estimates were superior to direct estimates of the totals from the sample data. As discussed in Appendix A, we determined that using sample data alone would result in underestimates of the totals, but that the sample-based percentages of meals claimed at the incorrect rate were valid and unbiased estimates.

4.4 Costs of Misclassification Errors

The costs of misclassification errors (i.e., the erroneous payments) include overpayments to FDCHs misclassified as Tier I and underpayments to FDCHs misclassified as Tier II. For each misclassified meal, the cost equals the difference between the Tier I and Tier II rate. Overpayments represent costs to taxpayers, while underpayments represent costs to FDCH providers. For this assessment, we treat both overpayments and underpayments as costs when we compute the total cost of misclassification errors. As with the counts of meals claimed at the incorrect rate, we first estimated the percentages of reimbursements paid in error due to misclassification of FDCHs, and then we estimated the national total costs of misclassification error.

Estimation of Percentage of Reimbursements Paid in Error

The amount of reimbursements paid in error was computed for each misclassified home in the sample, and then the weighted total of these amounts was computed. As previously discussed, the number of meals paid at the incorrect rate was computed separately for breakfasts, lunches and suppers, and snacks (e.g., for FDCHs misclassified as Tier I, MNBRK1 was the number of breakfasts paid incorrectly at the Tier I rate). For each type of meal, the cost of misclassification error was computed as the product of the number of meals claimed at the incorrect rate and the difference between the Tier I and Tier II rates.⁵³ For breakfasts:

$$CMBRK1 = MNBRK1 \times (RRB1 - RRB2)$$

where CMNBK1 = cost of misclassified breakfasts, RRB1 = reimbursement rate for Tier I breakfasts, and RRB2 = reimbursement rate for Tier II breakfasts. Costs were summed across meal types to compute the total cost for each misclassified FDCH. The weighted total cost of misclassification errors was divided by the estimated total reimbursements to estimate the percentages of reimbursements paid in error, both by tier and overall.

The estimated national costs of misclassification errors were 1.15 percent of reimbursements for Tier I FDCHs and 0 percent for Tier II FDCHs, resulting in an overall cost of 0.99 percent of reimbursements to all FDCHs. The 90 percent confidence intervals for these estimates, as shown in Exhibit 4.6, were less than plus or minus 0.75 percentage points for Tier I and 0.66 percentage points overall. Thus, all estimates meet the Office of Management and Budget (OMB) standard, which requires 90 percent confidence intervals plus or minus 2.5 percentage points or less.⁵⁴

For Tier I FDCHs, the percentage of reimbursements paid in error (in Exhibit 4.6) is just over half of the 2.25 percent of meals claimed in error (in Exhibit 4.4). This difference is due to the fact that the overpayment is a fraction of the reimbursement for each meal claimed in error. For example, the Tier I rate for lunch or supper was \$2.18 and the Tier II rate was \$1.31 (using 2008-2009 program year rates, as shown in Exhibit 1.1); thus the cost of a lunch or supper claimed at the wrong rate was \$0.87,

⁵³ Costs of misclassification were calculated separately for meals claimed in August 2008-June 2009 (at PY 2008-2009 rates) and in July 2009 (at PY 2009-2010 rates). These costs were then combined to produce the totals for the assessment period.

⁵⁴ Office of Management and Budget Circular A-123, Appendix C, August 10, 2006.

or about 40 percent of the Tier I rate. The ratio of the overpayment to the Tier I reimbursement varies by type of meal.

Exhibit 4.6: Cost of Misclassification as a Percentage of Total Reimbursements to CACFP Family Day Care Homes in 2009

	Lower Limit ^a	Estimate	Upper Limit ^a
Tier I FDCHs ^b	0.39%	1.15%	1.90%
Tier II FDCHs ^b	0.00%	0.00%	0.00%
All FDCHs	0.32%	0.99%	1.65%

^a Lower and upper limits represent 90 percent confidence interval. If lower limit was computed as a negative value, it is shown as 0.

^b FDCHs classified according to sponsor determination.

Source: 2009 CACFP Tiering Assessment, weighted estimates. Sample data include FDCHs active and reimbursable meals served in August 2008–July 2009. Excludes Alaska, Guam, Hawaii, and Puerto Rico.

Estimation of Total Costs of Misclassification of FDCHs

For the total costs of misclassification, as for the total meals claimed in error, we used a ratio estimation procedure. For each tier, we multiplied the percentage of reimbursements paid in error (from sample data, as described above) by the national total reimbursements (from the NDB) to estimate the total cost of misclassification errors. We combined these totals to estimate the overall total. To estimate the lower and upper limits of the total costs of misclassification, the lower and upper limits of the percentages by tier were multiplied by the national totals by tier. Further details of these computations are provided in Appendix A.

The estimated national FY 2009 costs of misclassification errors were \$7.5 million for Tier I FDCHs and \$0 for Tier II FDCHs, resulting in a total cost of \$7.5 million for all FDCHs. The 90 percent confidence intervals for these estimates, as shown in Exhibit 4.7, were from \$2.5 million to \$12.6 million for Tier I FDCHs and for all FDCHs.

Exhibit 4.7: Total Costs of Verified Misclassification in 2009

Type of Home	Estimated Costs of Misclassifications ^a	90% Confidence Interval		Estimated Total Payments to All FDCHs in Tier ^b
		Lower Limit Estimate	Upper Limit Estimate	
Tier I FDCHs	\$7,543,221	\$2,536,433	\$12,550,010	658,796,618
Tier II FDCHs	0	0	0	103,352,854
All FDCHs	7,543,221	2,536,433	12,550,010	762,149,472

^a The estimated cost is the difference between the actual claims for misclassified FDCHs and estimates of what their claims would be if correctly classified. For misclassified Tier I FDCHs, the estimate is computed using the State average percentage of meals and snacks for which a Tier II FDCH would be compensated at the highest (Tier I) level. For FDCHs misclassified as Tier II, only meals reimbursed at Tier II rates are subject to error. The total estimated cost of improper payments equals the sum of overpayments to FDCHs misclassified as Tier I and the absolute value of underpayments to FDCHs misclassified as Tier II.

^b Total payments including correct and improper payments estimated from sample.

Source: 2009 CACFP Tiering Assessment, weighted estimates. Sample data include FDCHs active and reimbursable meals served in August 2008–July 2009. Excludes Alaska, Guam, Hawaii, and Puerto Rico.

4.5 Comparison of Results with Estimates from Previous Assessments

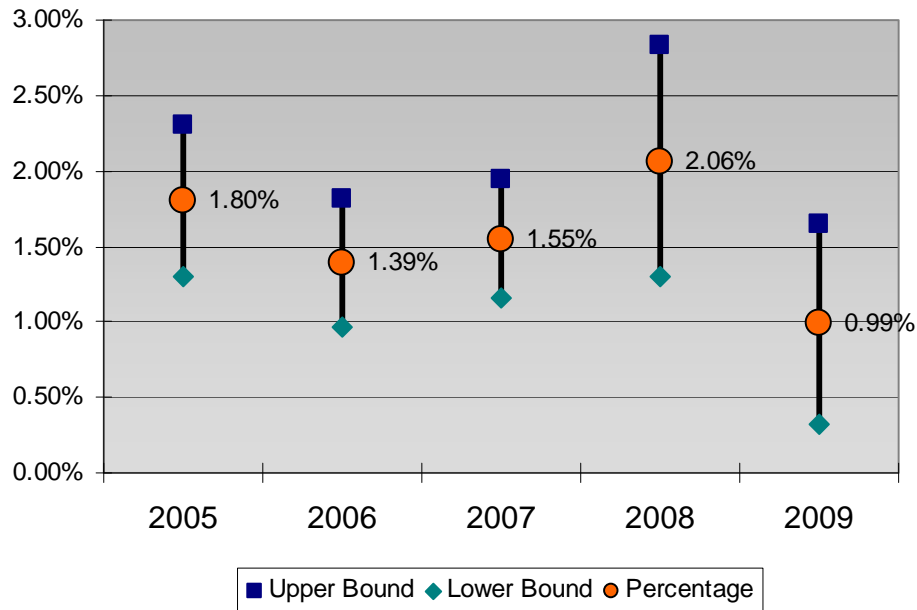
This 2009 assessment is the fifth annual assessment of sponsor tiering determinations for CACFP FDCHs. As discussed in Chapter 2, the 2008 and 2009 assessments differ from the 2005, 2006, and 2007 assessments in several ways. For this reason, and because of the potential interest in trends over time, in this section we compare the 2009 results with result of previous assessments.

Exhibit 4.8 compares the estimated cost of misclassification as a percentage of total reimbursements to all FDCHs (i.e., the improper payment rate) for 2005, 2006, 2007, 2008, and 2009. The estimate of 0.99 percent for 2009 is less than the estimates for the previous years, which ranged from 1.39 percent (for 2006) to 2.06 percent (for 2008). The estimate for 2009 is not significantly different from the estimate of 2.1 percent for 2008 at the conventional 5 percent level of significance, although the difference is significant at the 10 percent level. Therefore, we have weak evidence that the erroneous payment rate declined in 2009. The 2009 estimate is not significantly different from estimates for 2005, 2006, or 2007, even at the 10 percent level.

Factors that might have contributed to a decline in erroneous payments include efforts by program officials to improve tiering determinations and changes in the program environment—specifically, rising poverty rates—that made more providers area-eligible for Tier I. FNS and the States have provided guidance and training to sponsors in an effort to improve the accuracy of tiering determinations, and the results may represent some payoff to these efforts. Rising poverty rates due to the recession beginning in 2008 may have had a small effect on Tier I eligibility and therefore on the misclassification rate. Overall, 87 percent of Tier I FDCHs in the sample (unweighted) were verified using area eligibility, either independently or by sponsor documents. The comparable figure for 2008 was 85 percent, a small difference but one that may have contributed to the lower error rate.

We note that while the 2008 and 2009 results diverge, the earlier estimates fall in between them. This pattern and the general lack of significant differences support the inference that estimates using the current methods are comparable to those produced with the more resource-intensive methods of the 2005 through 2007 assessments.

Exhibit 4.8: Estimated Cost of FDCH Misclassification as a Percentage of Total CACFP Reimbursements: 2005, 2006, 2007, 2008, and 2009 Assessments



Exhibits 4.9 and 4.10 provide similar comparisons of the improper payment rate for Tier I FDCHs and the estimated total cost of misclassification for all FDCHs. Similar patterns in the variation of estimates over time appear in these exhibits, but differences between 2009 estimates and prior years are not significant even at the 10 percent level.

Exhibit 4.9: Estimated Cost of Tier I FDCH Misclassification as a Percentage of Total CACFP Reimbursements to Tier I FDCHs: 2005, 2006, 2007, 2008, and 2009 Assessments

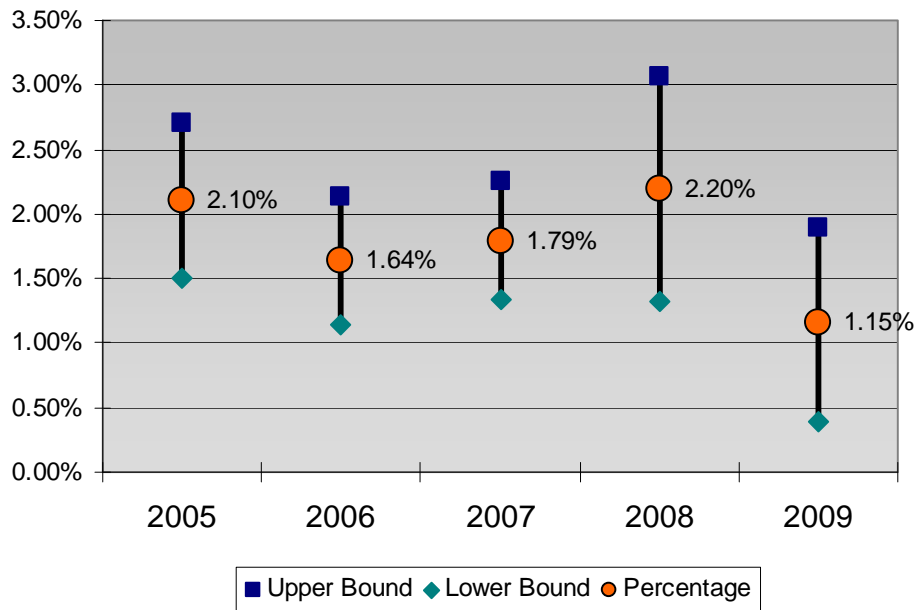
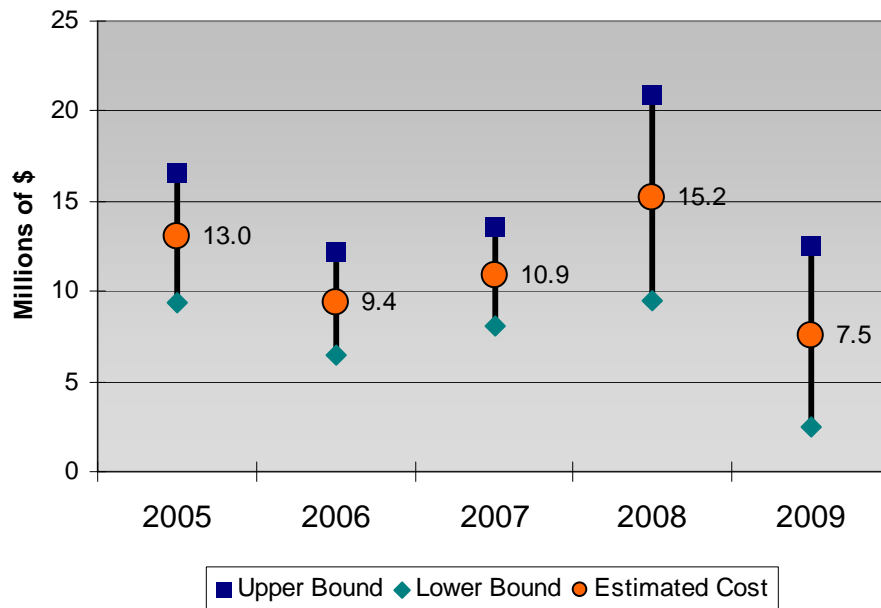


Exhibit 4.10: Estimated Total Cost of FDCH Misclassification: 2005, 2006, 2007, 2008, and 2009 Assessments



5. Conclusions

This assessment is intended to provide FNS with national estimates of the percentage of Child and Adult Care Food Program (CACFP) family day care homes (FDCHs) that were misclassified as Tier I or Tier II in Fiscal Year (FY) 2009, and the associated erroneous payments. During FY 2009, there were 140,626 family day care homes participating in the CACFP in the continental United States (the sampling universe for the assessment), including 106,763 Tier I FDCHs and 33,863 Tier II FDCHs. Reimbursements to FDCHs totaled \$762.1 million. Thus, even a relatively modest percentage of FDCHs misclassified would lead to millions of dollars in erroneous payments.

5.1 Methods and Results

For this assessment, we attempted to verify sponsors' determinations of tiering status for a sample of 660 FDCHs, selected from the lists of 60 sponsors located in 14 States. All FDCHs in the final sample were currently approved for the CACFP as of August 2009 and claimed meals at some time between August 2008 and July 2009. We first attempted to independently verify Tier I eligibility for all sampled FDCHs using matches to school and Census data. Tier I FDCHs were verified without any additional data collection if all three of the nearest elementary schools (by straight-line distance) were area-eligible (i.e., at least 50 percent of students were approved for F/RP meals), or if the FDCH was located in a Census Block Group (CBG) that was area-eligible (with at least 50 percent of children at or below 185 percent of the Federal Poverty Guidelines, or FPG). If some but not all of the nearest schools were area-eligible, we contacted school districts or used their websites to determine the correct school attendance area for the FDCH, and then determined whether this school was area-eligible. Using these methods, we verified sponsors' determinations for 418 Tier I FDCHs, 79.9 percent of the Tier I sample.

For Tier I FDCHs not verified through data matching and all Tier II FDCHs, we reviewed sponsors' documentation of tiering determinations. These documents confirmed the sponsors' determinations for 92 Tier I FDCHs and 137 Tier II FDCHs. We identified 13 misclassified Tier I FDCHs and no misclassified Tier II FDCHs.

Using sample data and sampling weights, we estimated that, nationwide, 2.39 percent of Tier I FDCHs were misclassified in FY 2009. As a result of these misclassifications, 2.25 percent of meals claimed by Tier I FDCHs were reimbursed at the higher Tier I rate instead of the lower Tier II rate. The estimated costs of misclassification errors were overpayments of 1.15 percent to Tier I FDCHs. In total, we estimate that 2,527 FDCHs were misclassified, 10.7 million meals were reimbursed at the incorrect rate, and the overpayments added up to \$7.5 million.

Since we found no misclassified Tier II FDCHs, the estimates of the misclassification rate, the percentage of meals claimed at the wrong rate, and the improper payment rate were all 0 for Tier II FDCHs. It is very likely that the true population parameters for these measures are not zero but too small to be estimated with our sample, which is designed to estimate the parameters for the entire population of FDCHs.

The estimates of the cost of misclassification for 2009 are less than estimates for prior years. In particular, the estimated overall erroneous payment rate of 0.99 percent for 2009 is less than the

estimates for the previous years, which ranged from 1.39 percent (for 2006) to 2.10 percent (for 2008). The estimate for 2009 is not significantly different from the estimate of 2.1 percent for 2008 at the conventional 5 percent level of significance, although the difference is significant at the 10 percent level. Therefore, we have weak evidence that the erroneous payment rate declined in 2009. While the 2008 and 2009 results diverge, the overall pattern of results confirms that estimates using the current methods are comparable to those produced with the more resource-intensive methods of the 2005 through 2007 assessments.

5.2 Implications of the Assessment Process and Results

This assessment met FNS' requirements to provide estimates of misclassification rates for FDCHs in the CACFP and the resulting erroneous payments, within the standards of precision set by OMB. The 2009 assessment produced results comparable to those of previous assessments. The methods used in the 2005-2007 assessments imposed substantially higher burdens on sponsors and costs to FNS than the methods used here for 2009 and also in 2008. These assessments collected sponsor documents for over 3,000 FDCHs per year through site visits; if the documents indicated procedural errors, school and Census data were used to confirm tiering determinations. The 2008 and 2009 assessments reversed the process, using independent verification with school and Census data first, followed by review of documents collected by mail from sponsors only when needed. The shift of methods, combined with the reduced sample size justified by error rates estimated in previous assessments, resulted in a substantial reduction in the need to collect and review documents: from over 3,000 FDCHs per year in the 2005, 2006, and 2007 assessments to about 240 per year in the 2008 and 2009 assessments. The current approach also eliminates the cost and intrusiveness of site visits to sponsors. Although sponsors take on the work of locating and copying documents, the average sponsor provided documents for just 4 FDCHs. The sample size is sufficient to produce 90 percent confidence intervals less than the OMB standard of 2.5 percentage points for the estimates of the misclassification rate, the percentage of meals claimed in error, and the erroneous payments as a percentage of reimbursements.

While the current approach meets FNS' primary requirements with substantially reduced burden and costs, it has some limitations. First, the current approach does not provide national estimates of the rates of procedural errors and the proportions of FDCHs approved by the various criteria. These estimates require a nationally representative sample of tiering determination documents; however, the documents collected in 2008 and 2009 represent only the FDCHs that could not be independently verified. Second, sample sizes are too small to provide State-level estimates of misclassification rates, which would be useful for program management. On balance, the benefits of the new approach appear to outweigh its limitations.

The assessment confirms that the vast majority of tiering determinations – 98 percent in 2009 – were accurate. At the same time, the document review indicates that determinations based on income are more error-prone than other determinations, and that income determinations without tax return documents are particularly error-prone – the “weakest link” in an otherwise highly accurate process. The results suggest the need for continued communications with States and sponsors about the importance of getting full documentation of income, and especially the need to document day care income and expenses. We also highlight the finding that, for five Tier II FDCHs, the sponsor determination was not in error (under FNS rules), but the FDCHs could have been classified as Tier I.

This finding reinforces the value of checking area-eligibility for all FDCHs every year, as many sponsors already do.

Finally, in considering the implications of this assessment, it is important to acknowledge that tiering determinations are only one of several potential causes of improper payments in the CACFP. If tiering determinations were the sole source of improper payments, the CACFP would fall below the IPIA's reporting threshold, which mandates reports for programs with improper payments that exceed both \$10 million per year and 2.5 percent of total payments. The CACFP has several other potential sources of erroneous payments to FDCHs, including errors in determining eligibility of children in Tier II FDCHs for Tier I meals, meal claiming errors by providers, and meal claims processing errors by sponsors. Furthermore, this assessment was not intended to address erroneous payments to child care centers or adult day care programs. Thus, the estimates of this assessment understate the full extent of improper payments in the CACFP.

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Appendix A: Sampling, Weighting, and Estimation

As summarized in Section 2.2, each FDCH in the sample received a base sampling weight equal to the reciprocal of its probability of selection in the three-stage sampling design. Thus, those weights reflected the probability of selecting the State, the probability of selecting the sponsor (given that the State had been selected), and the probability of selecting the FDCH (from the sponsor's list of FDCHs in the particular tier, given that the sponsor had been selected). The first two stages of sampling selected States and sponsors, respectively, with probability proportional to size (PPS), using the number of FDCHs as the measure of size. In the third stage FDCHs were selected by simple random sampling within the combination of sponsor and tier.

More specifically, the base sampling weight for FDCH m in tier k within sponsor j in State i can be written as

$$w_{ijkm} = 1 / (f_{1i} \times f_{2ij} \times f_{3ijkm}),$$

in which f_{1i} is the probability of selection for State i , f_{2ij} is the probability of selection for sponsor j (given that State i has been selected), and f_{3ijkm} is the probability of selection for FDCH m in tier k (given that sponsor j in State i has been selected).

A.1 Selection Probabilities for States

For selecting a sample of 14 States, the probability of selection for a particular State would ordinarily have been

$$P\{\text{State}\} = \frac{14 \times (\text{Number of FDCHs in State})}{\text{Total number of FDCHs}},$$

using the numbers of FDCHs from the FNS National Databank for FY 2008, and omitting from the total number in the denominator those States and territories that had been excluded from the sampling frame for this assessment. In two States, however, the numbers of FDCHs were large enough that their selection probabilities, according to this formula, were greater than 1; those States were selected with certainty. In effect, each of them was self-representing and constituted its own stratum in the design. Thus, for these States, $f_{1i} = 1$. The remaining States formed a stratum (the PPS stratum), from which a sample of 12 States was selected. For a State in the PPS stratum, the probability of selection was

$$f_{1i} = \frac{12 \times (\text{Number of FDCHs in State } i)}{\text{Total number of FDCHs in the PPS stratum}}.$$

A.2 Selection Probabilities for Sponsors

Let n_i be the required number of sponsors to be selected in state i . A larger sample of sponsors than required was selected to ensure that there was enough back up sample in case of nonresponse to the survey by some selected sponsors. If the assumed response rate is r , then the number of sponsors selected with probability proportional to size (PPS) where size is defined as the number of FDCHs of each sponsor is $n_i^* = n_i / r$ (where $r < 1$). The probability of selection for sponsor j in State i when n_i^* sponsors are selected is

$$P\{\text{Sponsor } j / \text{State } i\} = \frac{n_i^* x(\text{Number of FDCHs of Sponsor } j)}{\text{Number of FDCHs in State } i} \quad (1)$$

The sample of n_i^* sponsors was divided into two replicates at random. The first replicate contained n_i sponsors which is the required sample and the second replicate contained $n_i^* - n_i$ sponsors treated as reserve sample. Because of forming replicates at random, the overall probability of selecting sponsor j in the first replicate is

$$P\{\text{Sponsor } j / \text{State } i\} = \frac{n_i x(\text{Number of FDCHs of Sponsor } j)}{\text{Number of FDCHs in State } i} \quad (2)$$

If a sponsor in the first replicate refused to participate, a replacement sponsor was selected at random from the second replicate and added to the sample. The selected sample is now $(n + 1)$ with one sponsor being treated as a nonrespondent. Under this scheme the probability of selecting a sponsor is the same as above except that n is replaced by $(n + 1)$.

For this stage of selection, the numbers of FDCHs came from the lists of sponsors provided by the States as of May or June 2009. In six States, at least one sponsor had more than one-fourth of the FDCHs in the State. Those sponsors were selected with certainty and treated as self-representing. Three States each had two such self-representing sponsors; and three States each had one. In those States, the other two or three sponsors were selected from among the non-self-representing sponsors. In the formula for the selection probability, the denominator was reduced by the number of FDCHs of the self-representing sponsor(s), and n_i was 2 or 3, as appropriate.

Generally, the base sampling weights of each respondent is adjusted to account for nonrespondents to the survey. In this survey, the probability of selection was proportional to size. Therefore, the nonresponse adjustment would multiply the base weights of responding sponsors by the ratio of the weighted number of FDCHs of selected sponsors to the weighted number of FDCHs of responding sponsors. The computation would make the nonresponse-adjusted sampling weight the same as the inverse of (2). Therefore essentially, there was no nonresponse adjustment to the weights. The correct weight is simply the inverse of (2) with sample size being the number of respondents.

A.3 Selection Probabilities for FDCHs

At the third stage, the sampling design called for selection of a number of FDCHs in each State equal to 11 times the number of sponsors selected in the State (i.e., 88 in the largest State and 44 in each of the other States). In the absence of large self-representing sponsors, those numbers of FDCHs were allocated equally among the selected sponsors, 11 FDCHs per sponsor. In three States where a self-representing sponsor had substantially more than one-fourth of the FDCHs in the State, FDCH selections were allocated to the self-representing sponsors in proportion to sponsor size. Specifically, in one state, 20 FDCHs were allocated to the self-representing sponsor, and 8 to each of the other three sponsors; in another State, 19 and 11 FDCHs were allocated to the self-representing sponsors, and 7 to each of the other two sponsors; in the third state, 15 FDCHs were allocated to the each of the self-representing sponsors, and 7 to each of the other two sponsors.

On the basis of the lists of FDCHs that the participating sponsors provided (as of August 2009), the number of FDCHs to be selected from the sponsor was further allocated between Tier I and Tier II in rough proportion to the sponsor's numbers of FDCHs in the two tiers. (For 14 sponsors in seven States, the fraction of FDCHs in Tier II was small enough that no Tier II FDCHs were selected.) With those allocations as the sample sizes, the third stage selected a simple random sample of FDCHs from each combination of sponsor and tier. For a particular combination of sponsor (j) and tier (k) all FDCHs have the same selection probability. For example, assume that a certain sponsor had 267 Tier I FDCHs and 50 Tier II FDCHs; the sample included 9 Tier I FDCHs and 2 Tier II FDCHs. For this sponsor, the 9 FDCHs selected in Tier I have $f_{3ij1m} = 9 / 267$, and the 2 FDCHs selected in Tier II have $f_{3ij2m} = 2 / 50$.

The sponsors were asked to list all FDCHs that they sponsored as of August 2009, so it was possible that some FDCHs were inactive during the reference period. In the primary sample of 660 FDCHs a total of 48 FDCHs were found to be inactive and were replaced by FDCHs from the backup sample. In the calculation of the base sampling weight, these inactive FDCHs were considered part of the sample; that is, the numerator of f_{3ijkm} was equal to the combined number of active and inactive FDCHs. (The inactive FDCHs, however, were not otherwise used in the weighting and estimation.) This approach makes appropriate allowance for the inactive FDCHs in the sponsor's universe of FDCHs, so that the weights allow projection from the sample to the universe of active FDCHs.

A.4 Post-stratification

The total number of FDCHs reported by the States as of May or June 2009 generally differed from the corresponding totals in the FNS National Databank for FY 2008. Similarly, the numbers of FDCHs on the sponsors' lists (as of August 2009) differed from the corresponding numbers reported by the States. Because this assessment aims to provide estimates for FY 2009, the base sampling weights were adjusted by post-stratification to two control totals: the total number of Tier I FDCHs and the total number of Tier II FDCHs in the FNS National Databank for FY 2009 (as of March 2010). The control totals excluded the States and territories that had been excluded from the sampling frame for this assessment (Alaska, Guam, Hawaii, and Puerto Rico).

A.5 Estimation Procedures

The final weights assigned to each responding FDCH were used to obtain estimates of various population parameters and standard errors of these estimates. For computing the estimates and standard errors, the sample of States was considered as coming from three strata. The States selected with certainty were assigned to stratum 1 and stratum 2 respectively, and the remaining States were assigned to stratum 3. As indicated in the earlier section, 12 States were selected from stratum 3 with PPS.

Misclassification Rates

The misclassification rates for Tier I and Tier II were computed as follows.

A subscript h is added to the notation used for the sampling weight for FDCH m to indicate the stratum from which the FDCH was selected... The sampling weight is now written as f_{hijkm} . Let $y_{hijkm} = 1$ if the FDCH m in tier k within sponsor j in State i and stratum h is misclassified and equal to zero otherwise.

The estimated number of FDCHs misclassified in tier k in stratum h is given by

$$c_{hk} = \sum_i \sum_j \sum_m w_{hijkm} y_{hijkm}.$$

The misclassification rate for tier k is given by the proportion

$$r_k = \frac{\sum_{h=1}^3 c_{hk}}{N_k}$$

where N_k is the total number of FDCHs in tier k computed as follows:

$$N_k = \sum_h \sum_i \sum_j \sum_m w_{hijkm}$$

The misclassification rate for all FDCHs is given by the proportion

$$r = \frac{\sum_{h=1}^3 \sum_{k=1}^2 c_{hk}}{N} \quad \text{where}$$

$N = \sum_{k=1}^2 N_k$ is the total number of FDCHs in Tier I and Tier II.

Total Overpayments and Underpayments to FDCHs: Estimates from Sample Data

Let p_{hijkm} represent erroneous payments made to FDCH m in tier k within sponsor j in State i and stratum h . Let p_1 represent total overpayments made to FDCHs misclassified as Tier I. p_1 is given by

$$p_1 = \sum_{h=1}^3 \sum_i \sum_j \sum_m w_{hij1m} P_{hij1m} y_{hij1m} \quad \text{and}$$

p_2 , total underpayments to FDCHs misclassified as Tier II is given by

$$p_2 = \sum_{h=1}^3 \sum_i \sum_j \sum_m w_{hij2m} P_{hij2m} y_{hij2m}$$

Total erroneous payments (treating underpayments as positive) = $p = p_1 + p_2$.

Total Meals Claimed in Error: Estimates from Sample Data

Number of meals with overpayments to FDCHs misclassified as Tier I and number of meals with underpayments to FDCHs misclassified as Tier II can be obtained in the same way as the total overpayments and underpayments. As discussed below, the estimates from sample data were used to compute the percentage of payments in error and the percentage of meals claimed in error, and then a ratio estimation procedure was used to produce the final estimates of total payments in error and total meals claimed in error.

Percentage of Payments in Error

The percentage of payments made to misclassified Tier I FDCHs is obtained by dividing the total overpayments by the total payments made to FDCHs in Tier I. Let t_1 represent the total payment made to Tier I FDCHs. t_1 is given by

$$t_1 = \sum_{h=1}^3 \sum_i \sum_j \sum_m w_{hij1m} P_{hij1m}$$

and t_2 the total payments made to Tier II FDCHs is given by

$$t_2 = \sum_{h=1}^3 \sum_i \sum_j \sum_m w_{hij2m} P_{hij2m}$$

The percentage of payments to Tier I in error is estimated by the ratio R_1 multiplied by 100 where

$$R_1 = \frac{P_1}{t_1} .$$

Similarly, the percentage of payments to FDCHs in Tier II in error is estimated by the ratio R_2 multiplied by 100 where

$$R_2 = \frac{P_2}{t_2} .$$

Ratio Estimation Procedure for Final Estimates of Total Meals Claimed in Error and Erroneous Payments

As in the 2008 assessment, the sample estimate of total meals claimed by FDCHs (correctly or in error) underestimated the known totals from the FNS data. Therefore, using weighted sample data without adjustment would yield underestimates of total meals claimed in error and costs of misclassification errors.

Careful consideration of the nature of the sampling frames for the FNS reports and our assessment indicated that these frames differed in how they deal with FDCHs that do not claim meals in all twelve months of a fiscal year. In 2008, this subtle difference in sampling frame induced a difference in the estimates of the number of meals between the weighted sample data and the FNS National Databank information of 11 percent for Tier I FDCHs and 7 percent for Tier II FDCHs. After consultation with FNS, we concluded that it was preferable to use estimates of total meals and total reimbursements at each Tier which aligned exactly with the FNS National Databank estimate. We therefore adopted a ratio estimator which takes the FNS National Databank numbers as exactly correct. We discuss that method here. The same method was used in the 2008 assessment. The report of the 2008 assessment provides an explanation for why the sample data underestimate the national total meal counts and reimbursements.⁵⁵

Estimation of Total Meals Claimed in Error

To produce revised national estimates of meals claimed in error and the associated costs of sponsor classification errors, we used a standard ratio-estimation procedure. This procedure assures that the national estimates of misclassified meals and erroneous payments were consistent with the national totals as reported in the FNS National Data Bank.⁵⁶ Specifically, we proceeded as follows.

First, we used the weighted sample data to estimate the *percentage* of meals claimed at the wrong tier, R_1 for Tier I and R_2 for Tier II, as described above.

Second, we estimated the totals of meals claimed at the wrong tier (ap_1 and ap_2) using the national totals of FY 2009 meals claimed by Tier I and Tier II FDCHs (NTM_1 and NTM_2) as reported by FNS and included in the National Data Bank. To do this, we multiplied the FNS national total (from the

⁵⁵ See section A.6 of Logan et al., 2010.

⁵⁶ We acknowledge the possibility that the FNS totals are affected by non-sampling error.

FNS National Data Bank; not the estimate derived directly from our survey) by the appropriate percentage estimated from weighted sample data (R_1 or R_2). For Tier I, the calculation used the following formula:

$$(1) \quad ap_1 = NTM_1 \times R_1$$

The estimate of total correct Tier I meals is the difference between the total meals (NTM_1) and the estimated meals claimed in error (ap_1). We used similar calculations to estimate the total meals claimed in error and correctly for Tier II FDCHs, and we summed the estimates for Tier I and Tier II to estimate the totals for all FDCHs.

Estimation of Total Costs of Misclassification of FDCHs

We used the same procedure to estimate the national total costs of misclassification for Tier I and Tier II FDCHs, NCM_1 and NCM_2 . First, we used the weighted sample data to estimate the *percentage* of reimbursements paid in error for each tier, ER_1 and ER_2 .⁵⁷ We then estimated the *total* reimbursements paid in error using the totals of all FY 2009 FDCH reimbursements by tier (from the FNS NDB), NRM_1 and NRM_2 . For Tier I, the calculation used the following formula:

$$(2) \quad NCM_1 = NRM_1 \times ER_1$$

The analogous calculation used weighted sample estimates and national totals for Tier II FDCHs to estimate NRM_2 , the total reimbursements to Tier II FDCHs, and NCM_2 , the national cost of misclassification for Tier II FDCHs.

A.6 Standard Errors of Estimates

Standard errors for the totals and percentages of FDCHs misclassified were computed using SAS PROC SURVEYFREQ, which takes into account the multistage sampling design used for the selection of FDCHs in the sample (including stratification and clustering of sampling units at various stages of sampling). SUDAAN PROC RATIO was used to compute the standard errors of the estimated percentages of meals claimed in error and reimbursements paid in error, taking into the design used for the survey. Standard errors were used to compute the lower and upper bounds for the 90 percent confidence intervals of estimates.

All computations of standard errors were done under the assumption that primary sampling units were sampled with replacement. The primary sampling units in strata 1 and 2 (the certainty States) are sponsors, whereas the primary sampling units in stratum 3 (the PPS stratum) are States. Under this assumption, variances are computed based only on the estimated PSU totals and generally are slight overestimates of the variance. Variance estimation without this assumption is more complex and would require second order probabilities of selection at first and subsequent stages.

⁵⁷ ER_1 and ER_2 were calculated in a manner analogous to R_1 and R_2 . We omit these formulas for the sake of brevity.

Estimates of the confidence intervals for total meals claimed in error and total costs of misclassification used the confidence intervals for the estimated percentages of meals and reimbursements and the FNS totals, which were known with certainty. For example, the computation of the confidence interval for total meals claimed in error for Tier I FDCHs was as follows:

$$\begin{aligned}MM_LOW_1 &= NTM_1 \times R_LOW_1 \\ MM_HIGH_1 &= NTM_1 \times R_HIGH_1\end{aligned}$$

where

NTM_1 = total meals claimed by Tier I FDCHs from NDB
 R_LOW_1 = lower bound error rate for Tier I FDCHs (percentage of meal claims paid in error)
 R_HIGH_1 = upper bound error rate for Tier I FDCHs (percentage of meal claims paid in error)
 MM_LOW_1 = lower bound of total meals claimed in error due to misclassification for Tier I FDCHs
 MM_HIGH_1 = upper bound of total meals claimed in error due to misclassification for Tier I FDCHs.

The confidence interval for the totals for all FDCHs were computed using the estimated variances of Tier I and Tier II totals. (The variance of the sum of the Tier I and Tier II totals is equal to the sum of these variances of those totals.)

Appendix B: Data Collection Materials



Abt Associates Inc.

August 25, 2009

«Contact_Person»

«Sponsor_Name»

«Address»

«City», «State1» «Zip»

Dear «Contact_Person»:

The USDA Food and Nutrition Service (FNS) needs your help for the **2009 CACFP Assessment of Sponsor Tiering Determinations**. FNS collects information each year to estimate the accuracy of tiering determinations by CACFP sponsors for family day care homes, as required by the Improper Payments Information Act. Abt Associates Inc. is conducting the 2009 assessment for FNS. You may have heard about this assessment from your State Child Nutrition Director.

As explained in the enclosed brochure, you are one of 60 sponsors nationwide that have been randomly selected to represent all CACFP sponsors in this year's assessment. Your participation is crucial to ensure scientifically valid findings. I am writing to explain the assessment and to ask you to participate.

FNS and Abt Associates have designed this year's assessment to make it easier for participating sponsors. In brief, here's what we ask you to do by **September 22, 2009**:

1. Read and sign the enclosed Memorandum of Understanding (MOU), which explains the requirements of the assessment and how your data will be protected and used.
2. Compile a list of all family day care homes (FDCH) that you sponsor, including their name, address, and Tier I/II status, as specified in the brochure.
3. Return the MOU and the list of homes to Abt Associates. Please see the brochure for instructions.

Once we receive your list of FDCHs, we will select a sample of about 20 homes that you sponsor. In early October we will send you the list of 20 homes and ask for their most recent certification date and their counts of meals approved for reimbursement for August 2008 through July 2009. Abt Associates will attempt to verify the tier status of each home using Census and school information. In December, we will let you know if we are not able to verify the Tier I eligibility for any of your sampled homes and will ask you to send us the documentation of your tiering determination for that home. **We will not contact family day care homes.**

Unlike the 2005-2007 CACFP sponsor tiering assessments, we will not come to sponsors' offices to obtain documentation. Our approach will minimize the burden on participating sponsors. In

«Contact_Person»

Page 2

8/25/09

In addition, we will provide a \$100 honorarium to sponsors that complete all parts of the assessment, in recognition of their effort.

In this packet, you will find letters of support for the *CACFP Assessment of Sponsor Tiering Determinations* from the CACFP Sponsors Forum and The CACFP Sponsor's Association. These organizations recognize the importance of documenting the integrity of the CACFP.

Participation in this study is voluntary and will not affect your agency's participation in the CACFP. Abt Associates will not reveal the identities of participating sponsors or selected family day care homes to USDA/FNS. Information provided by sponsors will be kept confidential, to the extent provided by law, and results will be reported only at the national level.

USDA/FNS and Abt Associates need your participation to assure that this assessment fairly and accurately represents the integrity of the CACFP. We thank you in advance for your time and cooperation in this important study. If you have any questions about the study, please feel free to call me toll-free at 1-800-517-5736, or send an e-mail to CACFP@abtassoc.com.

Sincerely,

Chris Logan
Project Director

Enclosures:

1. Program Assessment Brochure
2. Letters of support
3. Memorandum of Understanding
4. FedEx materials for returning documents

CACFP Assessment of Tiering Determinations

MEMORANDUM OF UNDERSTANDING BETWEEN ABT ASSOCIATES INC. AND «Sponsor_Name», «State»

This MEMORANDUM OF UNDERSTANDING is entered into by «Sponsor_Name» (SPONSOR) and Abt Associates Inc. (Abt).

A. PURPOSE OF AGREEMENT:

Abt and SPONSOR hereby agree to the terms of an exchange of information between SPONSOR and Abt. The USDA Food and Nutrition Service (FNS) has contracted with Abt to conduct the CACFP Program Assessment of Tiering Determinations (the Assessment). This annual Assessment is required by the Improper Payments Act of 2002. The sampling approach used by the Assessment provides an alternative to comprehensive federal reporting requirements. Sponsor participation is voluntary.

For Abt, this agreement assures that the SPONSOR consents to participate and understands the requirements and honorarium for participating in the study.

For SPONSOR, this agreement provides assurance that information provided to Abt will be safeguarded and used only for specific research purposes directly connected to the administration of the CACFP. None of the information provided by SPONSOR to Abt will be released in a way that will identify SPONSOR or individual homes to USDA or any third party, unless required by law.

B. ABT AGREES TO:

1. Provide clear instructions to SPONSOR and pre-paid mailing envelopes for sending information to Abt.
2. Provide a toll-free telephone number, dedicated e-mail address, and private fax number for SPONSOR to use when contacting Abt.
3. Provide timely feedback, within 3 business days of receipt, if Abt is unable to read a data file, fax, or other document, or if Abt deems the data incomplete.
4. Provide a \$100 honorarium to SPONSOR in recognition of the effort of participating in the study.

C. SPONSOR AGREES TO:

Provide the following to Abt Associates:

1. **List of family day care homes**—due September 22, 2009. SPONSOR will provide a list of all homes under sponsorship as of August 2009, regardless of whether the home received CACFP reimbursements for August 2009. The list will include the following data elements:
 - Name of home or name of provider
 - Street address of home including city and zip code
 - Tier I or Tier II status as determined by SPONSOR

SPONSOR will send the list of homes via email to **CACFP@abtassoc.com** in a WORD or EXCEL file, or send the list on data disk or paper in a pre-paid mailing envelope provided by Abt.

2. **Monthly meal counts and certification date for selected homes**—due November 2009. Abt will select a sample of about 20 homes from the list that SPONSOR provides and send the list of sampled homes to SPONSOR in early October. For each sampled home, SPONSOR will provide to Abt: (a) the most recent certification date for the home, and (b) monthly counts of meals approved for reimbursement for the twelve-month period from August 2008 through July 2009. SPONSOR will respond to this request for information within 15 business days.

- 3. Documentation of tiering determination**—due January 2010. Abt will attempt to independently verify the Tier I eligibility of the selected homes using Census and school data. If Abt is unable to verify Tier I eligibility for a home, Abt will ask SPONSOR to provide copies of the complete documentation of tiering determination for that home. SPONSOR will respond to the request for documentation of tiering determination within 15 business days.

D. HONORARIUM:

Abt will pay an honorarium to SPONSOR in recognition of the expected costs and effort of participating in the Assessment. The amount of the honorarium is \$100 payable in two installments:

- a) \$50 will be paid upon receipt of this signed MOU and the SPONSOR's list of homes.
- b) \$50 will be paid upon receipt of the final data (documentation of tiering determination) or when SPONSOR is notified that no further data are needed.

Please tell us who we should make honorarium checks payable to: _____

E. DISCLOSURE OF INFORMATION AND PROTECTION OF CONFIDENTIALITY:

Abt will keep all information provided by SPONSOR confidential, to the full extent allowed by law, and will use the information only for the purposes of the Assessment. Abt will use the data to prepare a final Assessment report, in which all data will be reported in an aggregated form and information cannot be linked to individual sponsors or homes. The information provided by SPONSOR under this agreement will be protected against unauthorized access or disclosure:

- a) The information subject to this agreement shall be used only to the extent necessary to assist in the valid needs for this specific Assessment and shall be disclosed only for the purposes as defined in this agreement.
- b) Abt will not use the information for any purposes not specifically authorized under this agreement.
- c) All members of the Abt project team with access to data provided by sponsors will sign data confidentiality agreements. Data will be stored in locked cabinets or password-protected files.
- d) Abt will not identify states, sponsors, providers, or the location of providers in any publications or data files provided to the Food and Nutrition Service, USDA.
- e) Under these restrictions, Abt will provide data files to FNS, which plans to use the files to replicate the research and to release a public-use data set. Non-FNS users will be asked to sign a pledge that they will not combine the public-use data with other data in a way that may identify sponsors or providers.

F. DURATION OF AGREEMENT

The confidentiality provisions of this agreement shall remain in effect indefinitely. All other provisions shall be in effect for one year from the date of signature.

PRINCIPAL CONTACTS:

Abt Associates Contact
Chris Logan, Project Director
Abt Associates, Inc.
55 Wheeler Street
Cambridge, MA 02138
Phone: 617-349-2821
FAX: 617-386-8611
E-Mail: CACFP@abtassoc.com

SPONSOR Contact
Name: _____
Address: _____
City, State, Zip: _____
Phone: _____
E-Mail: _____

SIGNATURE

DATE

SIGNATURE

DATE

Frequently Asked Questions (FAQs)

1. When do I get the \$100 honorarium?

- » Abt Associates Inc. will send you a check for \$50 when we receive the signed MOU and your list of homes. The second payment of \$50 will be sent in January 2010 after we have received all the information requested from you.

2. What if all my information is on paper and I can't send you a data file?

- » We like to get data files by email because it's less work for us! But if all you have is paper, you can mail that to us and we will compile a file.

3. If I participate once, do I have to do it again?

- » Each year, an independent sample of sponsors and homes is selected for assessment. If you are a large sponsor, there is a chance you will be selected in multiple years. It's important that you participate!

4. Will Abt Associates contact the selected homes?

- » NO. We will obtain all of the information for the Assessment from you.

For more information

Call 800-517-5736
(toll-free)

Or send e-mail to
CACFP@abtassoc.com



Abt Associates Inc.

55 Wheeler Street
Cambridge, MA 02138-1168
Phone (617) 492-7100
Fax (617) 386-8511

CACFP Assessment of Tiering Determinations



Assessment conducted for the
Food and Nutrition Service.



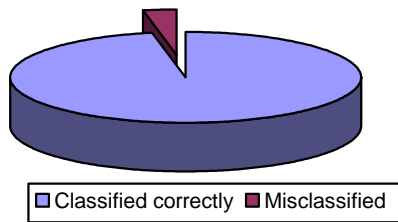
About the Assessment

Each year the USDA Food and Nutrition Service (FNS) is required to report to Congress the percentage of CACFP family day care homes that are misclassified as Tier I or Tier II, and the resulting improper payments.

Error rates are low in the CACFP!

In 2007, only 3 percent of homes were misclassified and less than 2 percent of payments were associated with errors.

CACFP Family Day Care Homes, 2007



CACFP provides over \$700 million in meal benefits annually, and therefore the Improper Payments Information Act of 2002 requires continued measurement of error rates.

The study of CACFP tiering determinations has become easier! As FNS' contractor, Abt Associates will sample family day care homes for this study and independently verify Tier I status using Census and school information. We will ask sponsors for certification documents **only** if we cannot independently verify a home.

Your Role in the Assessment

You are one of 60 sponsors nationwide that have been randomly selected to represent all CACFP sponsors. Your participation is crucial to ensure scientifically valid findings.

This year, Abt Associates will collect three types of data from sponsors. We will not visit you or intrude on your operations. We will provide you with pre-paid envelopes for mailing us the necessary documents, and \$100 honorarium for your effort.

What will we need from you—and when?

By September 22, 2009 (see box at right for details):

1. **Signed Memorandum of Understanding.** This document confirms your participation.
2. **List of homes that you sponsor.** This list is needed so that we can sample about 20 of your homes for the Assessment.

By October 31, 2009:

3. **Certification dates and meal counts for the sampled homes.** In early October, we will send you the list of the 20 sampled homes. For each selected home, we will need the most recent certification date and monthly counts of approved Tier I and Tier II breakfasts, snacks, and lunches/dinners for the period from August 2008 to July 2009. This information can be provided electronically or by sending us paper forms copied from your file.

By January 15, 2010:

4. **Certification documents.** In December, we will let you know if we were unable to verify a home and need more information from you. We anticipate that most homes can be verified as Tier I based on Census or school information, so few homes will need followup.

What should you do next?

- ✓ **First, read and sign the Memorandum of Understanding.** This is an important document that tells us that you understand:
 - a) the requirements of the assessment,
 - b) the honorarium that you will receive for completing the assessment, and
 - c) how your data will be protected and used.
 - » *Sign both copies, keep one for yourself, and return one copy in the envelope provided.*

- ✓ **Second, compile a list of all family day care homes that you sponsor.** This list should include all homes that you currently sponsor, regardless of whether they received reimbursements for the most recent month.

For each home, include: name of home, address, and Tier I or Tier II status.

- » *Send list of homes via email, or on data disk in the envelope provided. If you cannot provide the list in a WORD or Excel file, please call us so we can make other arrangements!*

- ✓ **Third, let us know if you have questions.** We want to work with you to reduce your burden and to make this a successful assessment! We can be reached at:

800-517-5736

Or

CACFP@abtassoc.com

CACFP
The Child
& Adult Care
Food Program

Sponsor's Association

www.cacfp.org

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August 25, 2009

The Improper Payments Information Act of 2002 (Public Law 107-300) requires Federal agencies to determine the amount of erroneous payments in Federal programs and to periodically conduct detailed assessments of vulnerable program components. The *CACFP Program Assessment of Sponsor Tiering Determinations* is a program assessment developed to produce a national estimate of the share of CACFP Family Day Care Homes that are misclassified into the wrong reimbursement tier. Similar studies to this one have been conducted in recent years and found a very low error rate of misclassifications—only 3 percent in 2007. Good news for the CACFP!

With reauthorization coming soon, it is vitally important that we continue to demonstrate that the CACFP is meeting the goals of the program and doing this with a high degree of integrity. One way to accomplish this is through the results of this year's CACFP Program Assessment of Sponsor Tiering Determinations which we are confident will once again show a low error rate of misclassifications and therefore resulting improper payments.

TSA is very pleased that Abt Associates and USDA will again use a process that will minimize the burden to the sponsors who participate. Some improvements to the procedure that were first made last year include:

- No on-site reviews.
- Verification of the tier status by first using census information and school eligibility, requiring only that you supply names, addresses, and tiering dates of the selected group.
- Requesting additional documentation only if this information does not support the tier classification. (This would typically be if the provider was classified for Tier I based on household size and income.)
- An honorarium paid to participating sponsors for their time and effort.
- Reporting only misclassifications and the resulting improper payments and not including procedural errors.

The TSA Board of Directors encourages you to participate in this important study and thanks you in advance for your cooperation. We will post its results on our website when they are published.

Sincerely,

Linda Leindecker, President
The CACFP Sponsors Association (TSA)



Abt Associates Inc.

October 29, 2009

«Contact»

«Sponsor»

«Address»

«City», «State» «Zip»

Dear «Contact»:

On behalf of the Food and Nutrition Service (FNS) and Abt Associates Inc., I want to thank you for agreeing to participate in the **2009 CACFP Assessment of Sponsor Tiering Determinations**. Your participation is crucial to ensure scientifically valid findings. Enclosed is a check for \$50 in partial payment of the honorarium for participation. Your agency will receive an additional \$50 check upon completion of data collection.

Also enclosed you will find a list of the CACFP family day care homes under your sponsorship that we have selected for this year's assessment. As specified in the Memorandum of Understanding, we ask you to **provide the following information for each selected home by November 4**, using the enclosed FedEx materials:

1. Enter the **date of the most recent tiering determination** on the list of selected homes.
2. Attach **monthly counts of meals** approved for reimbursement during August 2008-July 2009. We need separate counts of breakfasts, lunches and suppers, and snacks, broken down between Tier I-eligible and Tier II-eligible meals. You may provide a report with this information or copies of approved claims. Please see the attached instructions.
3. If meal counts for a home are not available for any of the 12 specified months, **please provide an explanation** on the list of homes or in an attached note.

Once again, we remind you that Abt Associates **will not contact family day care homes**, and we will not reveal the identify of sponsors or homes selected for the assessment (other than notifying State agencies of their sponsors that were selected).

Thank you in advance for your time and cooperation with the assessment. As specified in the Memorandum of Understanding, we may contact you for information again in December. If you have any questions, please call us toll-free at 1-800-517-5736, or send an e-mail to CACFP@abtassoc.com.

Sincerely,

Chris Logan
Project Director

«Sponsor»

Instructions: Below are listed the family day care homes that have been selected for the 2009 CACFP Assessment of Tiering Determinations. Please indicate the date of the most recent tiering determination for each home.

Please attach a report or documentation indicating the number of approved CACFP meals for each home on the list and for each month from **August 2008 through July 2009**. Provide separate counts for Tier I and Tier II meals and for each type of meal: breakfast, lunch or supper, and snacks.

In the grid below, indicate the number of months for which meal counts are provided. If this number is less than 12 for any listed home, explain in the space provided or in an attached note.

Name of Provider	Tier I or Tier II	Date of Most Recent Tiering Determination	Number of Months of Claim Data Provided	Explanation If Less than 12 Months of Claim Data Provided for August 2008–July 2009
«h1»	«t1»			
«h2»	«t2»			
«h3»	«t3»			
«h4»	«t4»			
«h5»	«t5»			
«h6»	«t6»			
«h7»	«t7»			
«h8»	«t8»			
«h9»	«t9»			
«h10»	«t10»			
«h11»	«t11»			
«h12»	«t12»			
«h13»	«t13»			

Name of Provider	Tier I or Tier II	Date of Most Recent Tiering Determination	Number of Months of Claim Data Provided	Explanation If Less than 12 Months of Claim Data Provided for August 2008–July 2009
«h14»	«t14»			
«h15»	«t15»			
«h16»	«t16»			
«h17»	«t17»			
«h18»	«t18»			
«h19»	«t19»			
«h20»	«t20»			



Abt Associates Inc.

January 22, 2010

«Contact»

«Sponsor»

«Address»

«City», «State» «Zip»

Dear «Contact»:

Abt Associates is nearing completion of the **2009 CACFP Assessment of Sponsor Tiering Determinations**. Your participation has been appreciated! We have one final request for information from you before we can complete the assessment.

Enclosed you will find a list of the CACFP family day care homes (FDCHs) under your sponsorship that we selected for the assessment and were unable to verify as Tier I using Census or school data. These FDCHs may not have been verified due to an error on our part in matching to school and Census data, or because the provider applied for Tier I status on the basis of income or program participation, or because they were approved as Tier II FDCHs. We list these FDCHs on the next pages.

We ask you to **provide the following information for each listed FDCH by February 12, 2010**, using the enclosed FedEx materials:

1. Tier I FDCHs: please provide copies of the documentation that you have on file for the most recent tiering determination **before July 2009**. This will include one or more of the following:
 - School data - boundary information and school FRP percentage or other available school eligibility documentation included in the FDCH's file
 - Census data - block group code and percentage of children in households with income at or below 185% of poverty
 - Household income or categorical eligibility information - application form listing household members and their income, and/or information about participation in programs that confer categorical eligibility. Include copies of documents used to verify Tier I income eligibility, such as wage stubs, income tax forms, or benefits letters.

2. For Tier II FDCHs in Group A, please tell us:
 - The elementary school whose attendance area includes the FDCH.
 - Whether the provider's tier status was determined or redetermined during the period from September 2007 through June 2009.
 - If a tiering determination was made between September 2007 and June 2009, provide copies of all documents associated with the tiering determination(s) (as listed above for Tier I FDCHs).
 - If a Tier II FDCH requested to have their tiering level reevaluated in this time period, please provide a copy of their request.

«Contact»

Page 2

January 22, 2010

3. For Tier II FDCHs in Group B, please tell us:

- The elementary school whose attendance area includes the FDCH.
- Whether the provider's tier status was determined or redetermined during the period from September 2003 to June 2009.
- If a tiering determination was made between September 2003 and June 2009, provide copies of all documents associated with the tiering determination(s) (as listed above for Tier I FDCHs).
- If a Tier II FDCH requested to have their tiering level reevaluated in this time period, please provide a copy of their request.

Once again, we remind you that Abt Associates **will not contact family day care homes** and we will not reveal the identify of sponsors or homes selected for the assessment. All documents of tiering determinations provided to Abt Associates will be kept confidential as provided under the Memorandum of Understanding between your agency and us.

Thank you in advance for your time and cooperation with the assessment. If you have any questions, please call us toll-free at 1-800-517-5736, or send an e-mail to CACFP@abtassoc.com.

Sincerely,

Chris Logan
Project Director

Tier I Family Day Care Homes

Instructions: For each Tier I FDCH listed below, please check the appropriate box(es) to indicate the method of tiering determination used most recently before **July 2009**. Please provide copies of all documents associated with the tiering determination. Documents will vary according to the method of determination and may include:

- If Census data were used – street address (not PO box or rural route), block group boundary map, documentation showing that block group is income-eligible
- If school data were used – street address (not PO box or rural route), school boundary map, State list of schools indicating FRP percentage for school, letter from school official, printed copy of website information
- If provider income or categorical eligibility was used – copy of form used by provider to list household members and their income, or information about participation in Food Stamps/SNAP, TANF, or other program approved for Tier I determinations. Also include copies of documents used to verify income or categorical eligibility – for example, food stamp/SNAP certification letter, income tax form, or wage stubs.

Name of Provider	Method of Tiering Determination	Explanation If Documentation is Not Provided
«ti1»	<input type="checkbox"/> School data <input type="checkbox"/> Census data <input type="checkbox"/> Income <input type="checkbox"/> Program partic.	
«ti2»	<input type="checkbox"/> School data <input type="checkbox"/> Census data <input type="checkbox"/> Income <input type="checkbox"/> Program partic.	
«ti3»	<input type="checkbox"/> School data <input type="checkbox"/> Census data <input type="checkbox"/> Income <input type="checkbox"/> Program partic.	
«ti4»	<input type="checkbox"/> School data <input type="checkbox"/> Census data <input type="checkbox"/> Income <input type="checkbox"/> Program partic.	
«ti5»	<input type="checkbox"/> School data <input type="checkbox"/> Census data <input type="checkbox"/> Income <input type="checkbox"/> Program partic.	
Name of Provider	Method of Tiering Determination	Explanation If Documentation is Not Provided

Return this information to Abt Associates using the provided FedEx envelope. If you have a question about how to provide this information, please send an e-mail to CACFP@abtaassoc.com or call us toll-free at 1-800-517-5736.

«ti6»	<input type="checkbox"/> School data <input type="checkbox"/> Census data <input type="checkbox"/> Income <input type="checkbox"/> Program partic.	
«ti7»	<input type="checkbox"/> School data <input type="checkbox"/> Census data <input type="checkbox"/> Income <input type="checkbox"/> Program partic.	
«ti8»	<input type="checkbox"/> School data <input type="checkbox"/> Census data <input type="checkbox"/> Income <input type="checkbox"/> Program partic.	

Return this information to Abt Associates using the provided FedEx envelope. If you have a question about how to provide this information, please send an e-mail to CACFP@abtassoc.com or call us toll-free at 1-800-517-5736.

Tier II Family Day Care Homes—Group A

Instructions: Please complete the grid below for each Tier II FDCH listed, indicating the school attendance area and whether the FDCH's tier was determined or redetermine at any time from **September 2007 through June 2009**. If Tier II status was determined or redetermined—or if a Tier II FDCH applied for Tier I eligibility—during this period, please provide copies of all documents associated with the Tier II determinations. Documents may include:

- Request from provider for tiering determination based on school or Census data (If no application, check this on the form.)
- If school data were used – street address (not PO box or rural route), school boundary map, State list of schools indicating FRP percentage for school, letter from school official, printed copy of website information
- If provider income or categorical eligibility was used – copy of form used by provider to list household members and their income, or information about participation in Food Stamps/SNAP, TANF, or other program approved for Tier I determinations. Also include copies of documents used to verify income or categorical eligibility – for example, food stamp/SNAP certification letter, income tax form, or wage stubs.

Name of Provider	Elementary school whose attendance area includes the FDCH	Was the FDCH's tier determined or redetermined from Sept. 2007 through June 2009?	If documents are not provided, explain.
«tii1»		<input type="checkbox"/> Yes – provide documents <input type="checkbox"/> Provider applied but no determination <input type="checkbox"/> No application or determination	
«tii2»		<input type="checkbox"/> Yes – provide documents <input type="checkbox"/> Provider applied but no determination <input type="checkbox"/> No application or determination	
«tii3»		<input type="checkbox"/> Yes – provide documents <input type="checkbox"/> Provider applied but no determination <input type="checkbox"/> No application or determination	
«tii4»		<input type="checkbox"/> Yes – provide documents <input type="checkbox"/> Provider applied but no determination <input type="checkbox"/> No application or determination	
«tii5»		<input type="checkbox"/> Yes – provide documents <input type="checkbox"/> Provider applied but no determination <input type="checkbox"/> No application or determination	

Return this information to Abt Associates using the provided FedEx envelope. If you have a question about how to provide this information, please send an e-mail to CACFP@abtaassoc.com or call us toll-free at 1-800-517-5736.

Tier II Family Day Care Homes—Group A (continued)

Name of Provider	Elementary school whose attendance area includes the FDCH	Was the FDCH's tier determined or redetermined from Sept. 2007 through June 2009?	If documents are not provided, explain.
«tii6»		<input type="checkbox"/> Yes – provide documents <input type="checkbox"/> Provider applied but no determination <input type="checkbox"/> No application or determination	
«tii7»		<input type="checkbox"/> Yes – provide documents <input type="checkbox"/> Provider applied but no determination <input type="checkbox"/> No application or determination	
«tii8»		<input type="checkbox"/> Yes – provide documents <input type="checkbox"/> Provider applied but no determination <input type="checkbox"/> No application or determination	
«tii9»		<input type="checkbox"/> Yes – provide documents <input type="checkbox"/> Provider applied but no determination <input type="checkbox"/> No application or determination	
«tii10»		<input type="checkbox"/> Yes – provide documents <input type="checkbox"/> Provider applied but no determination <input type="checkbox"/> No application or determination	
«tii11»		<input type="checkbox"/> Yes – provide documents <input type="checkbox"/> Provider applied but no determination <input type="checkbox"/> No application or determination	
«tii12»		<input type="checkbox"/> Yes – provide documents <input type="checkbox"/> Provider applied but no determination <input type="checkbox"/> No application or determination	
«tii13»		<input type="checkbox"/> Yes – provide documents <input type="checkbox"/> Provider applied but no determination <input type="checkbox"/> No application or determination	
«tii14»		<input type="checkbox"/> Yes – provide documents <input type="checkbox"/> Provider applied but no determination <input type="checkbox"/> No application or determination	
«tii15»		<input type="checkbox"/> Yes – provide documents <input type="checkbox"/> Provider applied but no determination <input type="checkbox"/> No application or determination	

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Tier II Family Day Care Homes—Group B

Instructions: Please complete the grid below for each Tier II FDCH listed, indicating the school attendance area and whether the FDCH's tier was determined or redetermine at any time from **September 2003 through June 2009**. If Tier II status was determined or redetermined—or if a Tier II FDCH applied for Tier I eligibility—during this period, please provide copies of **all** documents associated with **all** Tier II determinations. Documents may include:

- Request from provider for tiering determination based on school or Census data
- If school data were used – school boundary map, State list of schools indicating FRP percentage for school, letter from school official, printed copy of website information
- If provider income or categorical eligibility was used – copy of form used by provider to list household members and their income, or information about participation in Food Stamps/SNAP, TANF, or other program approved for Tier I determinations. Also include copies of documents used to verify income or categorical eligibility – for example, food stamp/SNAP certification letter, income tax form, or wage stubs.

Name of Provider	Elementary school whose attendance area includes the FDCH	Was the FDCH's tier determined or redetermined from Sept. 2003 through June 2009?	If documents are not provided, explain.
«tiii1»		<input type="checkbox"/> Yes – provide documents <input type="checkbox"/> Provider applied but no determination <input type="checkbox"/> No application or determination	
«tiii2»		<input type="checkbox"/> Yes – provide documents <input type="checkbox"/> Provider applied but no determination <input type="checkbox"/> No application or determination	
		<input type="checkbox"/> Yes – provide documents <input type="checkbox"/> Provider applied but no determination <input type="checkbox"/> No application or determination	