Child and Adult Care Food Program (CACFP)

Assessment
of
Sponsor Tiering Determinations
2008

Tier I

Tier II

Child and Adult Care Food Program (CACFP)

Assessment of Sponsor Tiering Determinations 2008

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Acknowledgments

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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) 2008 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 qualify 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.[4]

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

[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 2008, there were 140,691 family day care homes participating in the CACFP in the continental United States (the sampling universe for the assessment), including 104,324 Tier I FDCHs and 36,367 Tier II FDCHs (Exhibit ES.1). The CACFP provided reimbursements to FDCHs for 624 million meals, at a total cost of $734.7 million. Thus, even a relatively modest percentage of FDCHs misclassified would lead to millions of dollars in erroneous payments. Tier I FDCHs claimed 76.4 percent of CACFP meals and received 85.3 percent of reimbursements.

Exhibit ES.1: Continental United States FDCH Totals for FY 2008

Type of Meal Served	Tier I	Tier II	All
Number of homes	104,324	36,367	140,691
Number of meals	477 million	147 million	624 million
Reimbursements	$626.4 million	$108.3 million	$734.7 million

Sources: Numbers of homes and meals from FNS National Data Bank, as of March 2009. Number of homes is the average of counts for four reporting months. Reimbursements estimated from FNS and sample data as described in text. 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 2008 and claimed meals at some time between August 2007 and July 2008. 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 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 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 438 Tier I FDCHs, 81.7 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 70 Tier I FDCHs and 122 Tier II FDCHs. The assessment was completed for 100 percent of the sample. We identified 28 misclassified Tier I FDCHs and two misclassified Tier II FDCHs.

National Estimates of Misclassification Errors and Costs

Using sample data and sampling weights, we estimated that, nationwide, 5.40 percent of Tier I FDCHs and 1.69 percent of Tier II FDCHs were misclassified in FY 2008. Overall, there were an estimated 6,247 misclassified FDCHs, 4.44 percent of all FDCHs. The percentage estimates and the associated 90 percent confidence intervals are shown in Exhibit ES.2.

Exhibit ES.2: Estimated Misclassification Rates by Tiering Status in 2008

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	5.40%	3.76%	7.03%	5,635	98,805	104,440
Tier II	1.69%	0.00%	3.57%	612	35,655	36,267
All (Tier I or Tier II)	4.44%	3.04%	5.84%	6,247	134,460	140,707

[a] All sampled Tier I FDCHs for which Tier I eligibility cannot be verified, either initially or through followup, are deemed incorrectly classified. Tier II FDCHs are deemed incorrectly classified if the sponsor initially determined or reviewed the tiering classification between September 2006 and June 2008, and the assessment determined they were Tier-I eligible.

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

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

Source: 2008 CACFP Tiering Assessment, weighted estimates. Sample data include active FDCHs with reimbursable meals served in August 2007–July 2008.

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 $0.44 for snacks to $0.82 for lunches and suppers (under rates effective from July 1, 2007 through June 30, 2008).

We estimate that, as a result of misclassifications, 4.40 percent of meals claimed by Tier I FDCHs were reimbursed at the higher Tier I rate instead of the lower Tier II rate, and 1.51 percent of meals claimed by Tier II FDCHs were reimbursed at the Tier II rate instead of the Tier I rate. Overall, 3.69 percent of FDCH meals—a total of 23.2 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 based on 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 2008

	Lower Limit[a]	Estimate	Upper Limit[a]
Tier I FDCHs[b]	2.66%	4.40%	6.14%
Tier II FDCHs[b]	0.00%	1.51%	3.43%
All FDCHs	2.30%	3.69%	5.08%

[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: 2008 CACFP Tiering Assessment, weighted estimates. Sample data include FDCHs active and reimbursable meals served in August 2007–July 2008. Excludes Alaska, Guam, Hawaii, and Puerto Rico.

The estimated costs of misclassification errors were overpayments of 2.20 percent to Tier I FDCHs and underpayments of 1.34 percent to Tier II FDCHs. Overall, the erroneous payment rate was 2.06%, with a 90 percent confidence interval from 1.30 percent to 2.83 percent, as shown in Exhibit ES.4. Breaking down the overall erroneous payment rate, overpayments represented 1.87 percent of total payments, and underpayments represented 0.20 percent of total payments.

The total estimated cost of misclassification errors was $15.2 million, with a 90 percent confidence interval from $9.5 to $20.9 million. The estimated total includes $13.8 million in overpayments to Tier I FDCHs and $1.4 million 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 2008

	Lower Limit[a]	Estimate	Upper Limit[a]
Tier I FDCHs[b]	1.33%	2.20%	3.07%
Tier II FDCHs[b]	0.00%	1.34%	3.01%
All FDCHs	1.30%	2.06%	2.83%

[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: 2008 CACFP Tiering Assessment, weighted estimates. Sample data include FDCHs active and reimbursable meals served in August 2007–July 2008. Excludes Alaska, Guam, Hawaii, and Puerto Rico.

Exhibit ES.5: Costs of Verified Misclassifications in 2008

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	$13,761,539	$8,305,781	$19,211,033	$ 626,378,639
Tier II FDCHs	1,446,463	0	3,255,625	108,268,217
All FDCHs[c]	15,208,002	9,466,047	20,949,958	734,646,856

[a] The estimated cost is the difference between the actual claims for misclassified homes and estimates of what their claims would be if correctly classified. For misclassified Tier I homes, the estimate takes into account the State average percentage of meals and snacks for which a Tier II home would be compensated at the highest (Tier I) level. For homes 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 homes misclassified as Tier I and the absolute value of underpayments to homes misclassified as Tier II.

[b] Total payments including correct and improper payments estimated from sample.

[c] Lower and upper limits of estimate for all FDCHs based on estimate of variance using variances of estimates for Tier I and Tier II FDCHs. The estimate for all FDCHs and its 90 percent confidence interval were computed using all sample data. Therefore, the estimate is more precise and has a smaller confidence interval, and the limits for each tier do not sum to the limits for the overall estimate. See Appendix A for details.

Source: 2008 CACFP Tiering Assessment, weighted estimates. Sample data include FDCHs active and reimbursable meals served in August 2007–July 2008. Excludes Alaska, Guam, Hawaii, and Puerto Rico.

The estimates of misclassification rates and the cost of misclassification for 2008 are greater than estimates for prior years. (See Exhibit ES.6.) In particular, the estimated overall erroneous payment rate of 2.1 percent for 2008 is greater than the estimates for the previous years, which ranged from 1.4 percent (for 2006) to 1.8 percent (for 2005). However, the estimate for 2008 is not significantly different from the estimate of 1.6 percent for 2007, even at the 10 percent level of significance, so we cannot rule out the null hypothesis that this difference is due to sampling error. We conclude that the results are substantially consistent with those of previous assessments.

Exhibit ES.6: Results of the 2005, 2006, 2007, and 2008 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
FY 2005[a]					
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%
FY 2006[b]					
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%
FY 2007[c]					
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%
FY 2008[d]					
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%

[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 (in clearance).*

[d] *Source: 2008 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 2008 assessment produced results comparable to those of previous assessments, while substantially reducing the burden on sponsors and the cost to FNS. Previous assessments collected sponsor documents for over 3,000 FDCHs per year through site visits; school and Census data were used to confirm tiering determinations if the documents indicated procedural errors. This assessment reversed the process, using independent verification with school and Census data first, followed by review of documents collected by mail from sponsors. This shift of methods, combined with the reduced sample size justified by error rates estimated in previous assessments, resulted in the average sponsor providing documents for less than 4 FDCHs. The new approach also eliminated the cost and intrusiveness of site visits to sponsors. The sample size was 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 new approach meets FNS' primary requirements with substantially reduced burden and costs, it has some limitations that must be noted. First, it 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; the documents collected in 2008 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 – over 95 percent in 2008 – 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.

Finally, in considering the implications of this assessment, it is important to acknowledge that tiering determinations are only one of several potential causes of erroneous payments in the CACFP. If these determinations were the sole source of erroneous payments, the CACFP would fall below the IPIA's reporting threshold, which mandates reports for programs with over $10 million in erroneous payments and payment error rates of at least 2.5 percent. 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 likely understate the full extent of erroneous payments in the CACFP.

1. Introduction

The *2008 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) 2008, 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 2008, the CACFP provided $2.4 billion in reimbursements for 1.89 billion meals served to 3.19 million participants. About 81 percent of CACFP meals were served to low-income participants eligible for free or reduced-price meals.[5] Ninety-seven percent of meals were served to children, with 34 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 2008, there were 141,540 approved family day care homes participating in the CACFP.[6] 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 2008 there were 1,041 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).[7]

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

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[5]   Program statistics as of December 30, 2008 were obtained from www.fns.usda.gov/pd/, accessed January 2009.

[6]   Average of counts in December 2007, March 2008, June 2008, and September 2008. Source: FNS National Databank, FY 2008 data, accessed March 2009.

[7]   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.[8]

- 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 in 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 2008 for all States except Alaska and Hawaii are shown in Exhibit 1.1.[9]

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

Type of Meal Served	July 1, 2007–June 30, 2008		July 1, 2008–June 30, 2009	
	Tier I Rate	Tier II Rate	Tier I Rate	Tier II Rate
Breakfast	$1.11	$0.41	$1.17	$0.43
Lunch and Supper	$2.06	$1.24	$2.18	$1.31
Snack	$0.61	$0.17	$0.65	$0.18

Note: Higher rates apply in Alaska and Hawaii.

Source: Federal Register, Vol. 72, No. 131, Tuesday, July 10, 2007, p. 37505; Vol. 73, No. 130, Monday, July 7, 2008, p. 38391.

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 2008, 74 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 2008, and the distribution among Tier II homes.

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

[9]   The CACFP rates are revised effective July 1 of each year. Thus, the rates in effect during Fiscal Year 2008 (October 1, 2007 through September 30, 2008) included the Program Year 2007-2008 rates and the Program Year 2008-2009 rates announced in July 2008.

Exhibit 1.2: Number and Distribution of FDCHs by Reimbursement Tier, FY 2008

Tier	Number of FDCHs	Percent of All FDCHs	Percent of Tier II FDCHs
Tier I	104,914	74%	NA
Tier II, High	2,661	2%	7%
Tier II, Mixed	8,763	6%	24%
Tier II, Low	25,203	18%	69%
Total	141,540	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.

Source: FNS National Databank, FY 2008, accessed March 2009.

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 qualify 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.[10]

- **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

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[10] 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.[11]

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.[12]

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.[13]

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.[14] Documentation of geographic eligibility must verify the FDCH location within the specified school or CBG boundary

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[11] 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,

[12] 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/.

[13] 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.

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[14]   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 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 assessment of sponsor tiering determinations (which is the subject of this document) 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.[15] 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

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[15] 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.

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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 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 it is eligible for Tier I, and 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
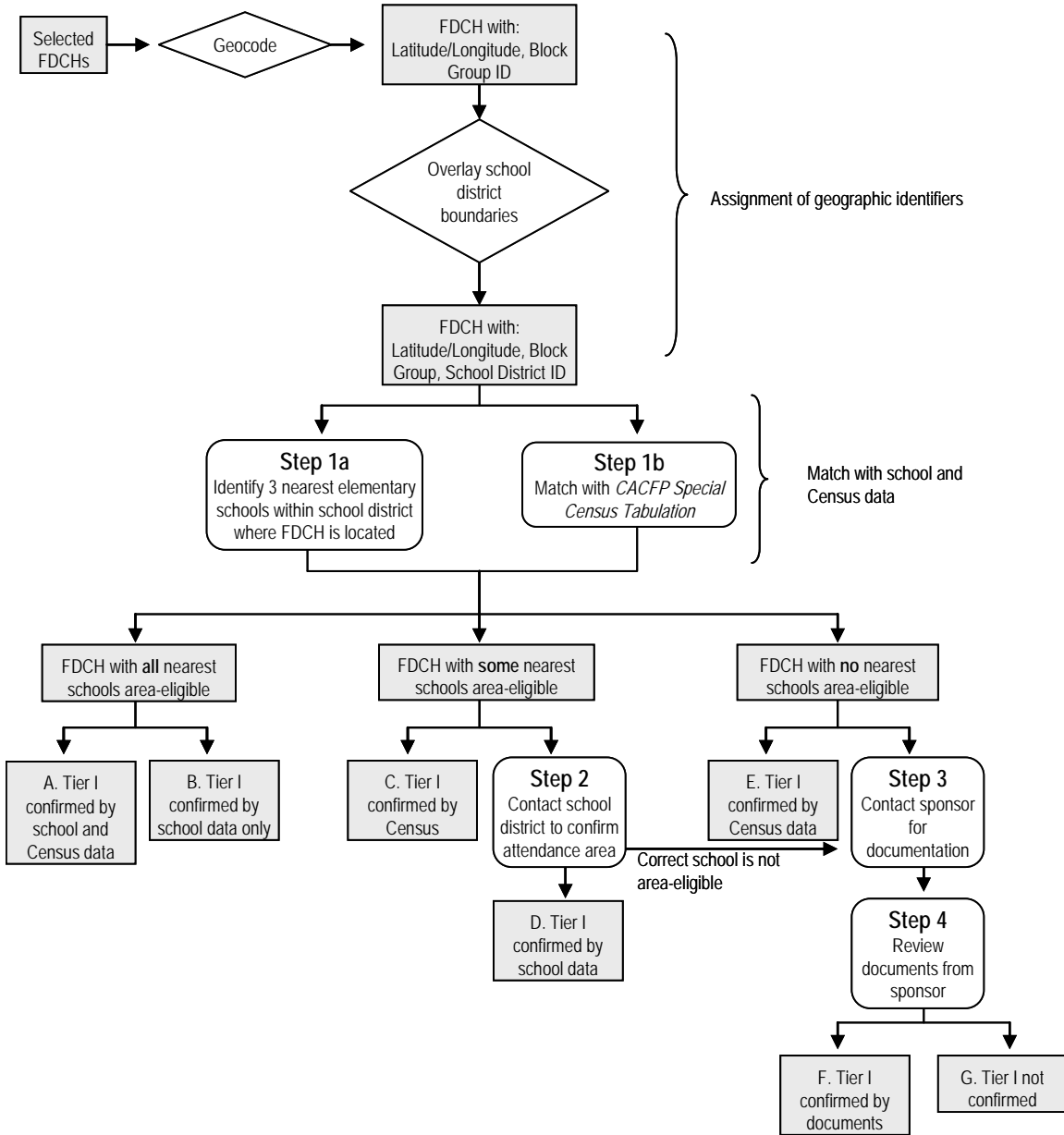
Key: FDCH=Family day care home. CBG=Census block group. White boxes indicate processes. Gray boxes represent data.

Note: For all selected FDCHs, sponsors were asked to provide the most recent tiering determination data on or before June 30, 2008. In Step 3, if the tiering determination date for an FDCH was before February 2007, 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; and b) Tier II FDCHs that were evaluated for Tier I eligibility during the period September 2006 to June 2008. 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 Previous Assessments

Annual assessments of sponsor tiering determinations were previously conducted for 2005, 2006, and 2007.[16] This assessment for 2008 simplifies the methodology used in previous assessments in the following ways:

- In the previous assessments, data collectors visited CACFP sponsoring organizations to collect and review documentation of tiering determinations from sponsors' files. The current assessment collected all data from sponsors via mail.

- The previous 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 current assessment uses 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). 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 assessment 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.

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.

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[16] Rose et al., 2006; Gordon et al. 2008; and Gordon et al., 2009.

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.

Exhibit 2.2: Sampling Design for the CACFP Assessment of Sponsor Tiering Determinations

First Stage (PPS) selection of States	14 States
Second Stage (PPS) selection of sponsors	60 sponsors (4 per State except 8 from largest State)
Third Stage (Equal probability) selection of family day care homes (FDCHs)	660 FDCHs (44 per State,[a] 11 per sponsor[b])

536 Tier I FDCHs	124 Tier II FDCHs
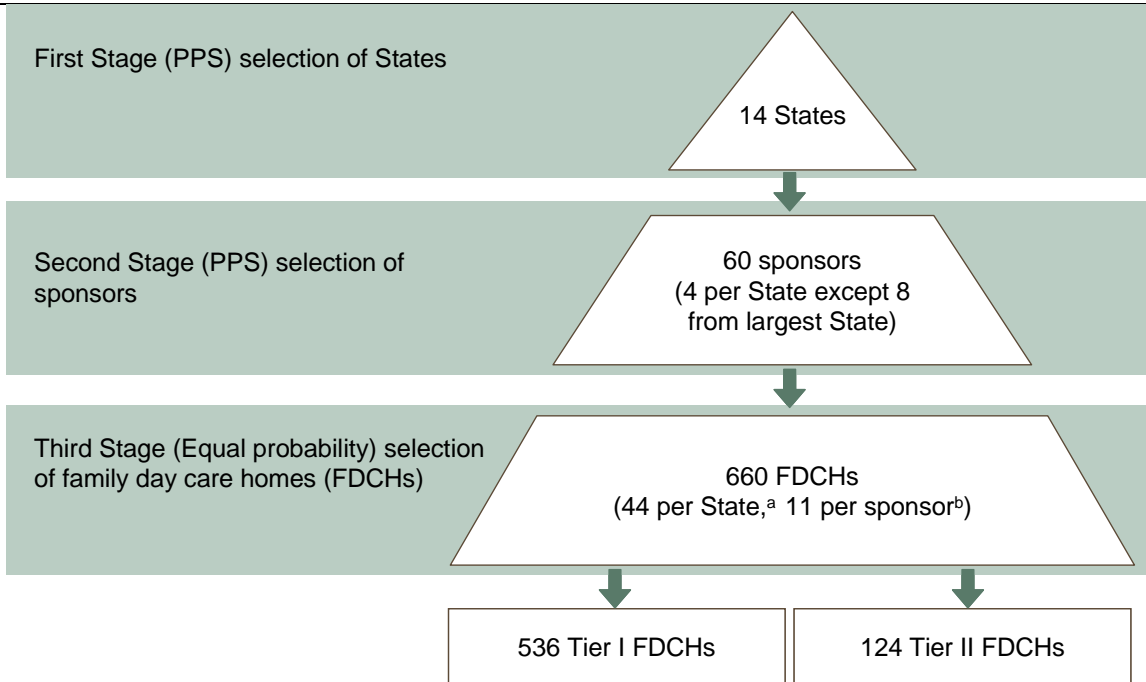
[a] 88 FDCHs in one State.
[b] 8 to 20 FDCHs per sponsor in 4 states

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.[17] As in previous assessments, the sample frame excluded States and territories outside the continental U.S.[18] The measure of size was the number of FDCHs per State in FY 2007, as reported in the FNS National Databank in July 2008. 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 PPS sampling. In FY 2007, one State had 13 percent of FDCHs nationwide (almost twice the threshold for a certainty State), and another had 8.4 percent. Therefore, these States were selected with certainty. To assure that the largest State's share of the sample was approximately equal to its

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[17] 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.

[18] Previous assessments excluded Alaska, Hawaii, Guam, and Puerto Rico because of the cost of site visits. The methodology for the 2008 assessment did not require site visits, but the same sample frame was used to assure consistency.

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.

At the second stage of sampling, a primary sample of four sponsors was selected in each State with probability proportional to size (except the largest State, which had eight selections). A backup sample of equal size also was selected, to be used if sponsors in the primary sample refused to participate.[19] The measure of size was the number of FDCHs per sponsor in May or June 2008, as reported by the State. In seven 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] Two States each had two such self-representing sponsors. Five 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 four 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 8 to 20. In the other ten 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

Sponsors were recruited for the assessment in late August and early September 2008. 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.

Of the 60 initial sponsor selections, two (3.3 percent) refused to participate and were replaced with sponsors from the backup sample in their State. One backup selection also refused and was replaced with another backup in the same State.[21] For the final sample of 60 sponsors, the mean number of

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[19]   The primary and backup samples were selected independently. Sponsors appearing in both the primary and backup sample were discarded from the backup sample. A random number was assigned to sponsors in the backup sample to rank them for replacement purposes.

[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.

[21]   The three sponsors that were 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

FDCHs per sponsor was 624, and the median was 353. Fifteen percent of sponsors had 100 or fewer FDCHs, 40 percent had over 500 FDCHs, and 17 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 2008, 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 2007 to July 2008. 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, 29 (4.4 percent) were replaced because they had no meal claims during the reference period.

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 98 Tier I FDCHs and 124 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.

The total number of FDCHs reported by the States as of May or June 2008 generally differed from the corresponding totals in the FNS National Databank as of July 2008. Similarly, the numbers of FDCHs on the sponsors' lists (as of August 2008) differed from the corresponding numbers reported by the States. Because this assessment aims to provide estimates for FY 2008, the base sampling weights were adjusted by poststratification to two control totals: the FY 2008 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).

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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 State sponsor lists. Appendix A provides further details.

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 2008 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 2008, 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 2008 and continued through March 2009. 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 2007 and FY 2008 from its National Data Bank. As noted, the FY 2007 counts of FDCHs by State were used as the measure of size for selecting States; FY 2008 data were not complete at the time of sampling. Also as noted, the FY 2008 counts of FDCHs were used as the control totals to adjust the sampling weights.

The FY 2008 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.[23] In addition, FY 2008 total meal counts were used in the estimation of total meals reimbursed in error (as described above).

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[23]   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 2008 assessment

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 July 2008, with a request for response by August 15.

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 2008. The total number of sponsors per State ranged from 8 to 97. Five States had 11 or fewer sponsors, five States had 16 to 18 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 2003-04 through 2007-08 (5 years). Eleven of the 14 States provided these lists in electronic data files suitable for matching. In 12 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. One State provided a list that includes only elementary schools; and one State provided a list that includes only schools with a F/RP percentage at or above 50 percent. For each State, the five lists (one for each year 2003-04 to 2007-08) were processed into a single list of schools active at any time over the past five years, with F/RP percentages for each year. [24]

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 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 (due November 10).
- Copies of tiering determination documents for FDCHs not independently verified as Tier I through data matching (due December 15).

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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.

[24] Only 6 States provided lists that included numeric district and school codes that could be used to combine the five years of data into a single master list. For other States, we first identified the school districts where selected FDCHs were located, extracted school records for those school districts, and manually matched the five years of school records into a single master list.

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]	8	NA	
Requested documents	52	52	100%

[a] Two sponsors refused to participate and were replaced.

[b] For 8 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.

Source: CACFP Assessment of Sponsor Tiering Determinations, FY 2008. 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:[25]

- The most recent tiering date.
- Monthly meal claims for the reference period of August 2007 to July 2008.

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. Among the 660 FDCHs selected for the primary sample, 29 (4.4 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.[26] The distribution of FDCHs by types of meal claims (as approved by sponsors) is shown in Exhibit 2.4.

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[25] 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.

[26] Tier status was measured as of August 2008, when sponsors provided their list of FDCHs for sampling.

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 98 Tier I FDCHs and 124 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 the following:

1. Tier I FDCHs: *copies* of the documentation on file for the most recent tiering determination prior to June 30, 2008. 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. Tier II FDCHs: (a) the name of the elementary school whose attendance area includes the FDCH, and (b) whether the provider's tier status was determined or redetermined during the period from September 2006 to June 2008. If a tier determination was made between September 2006 and June 2008, 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 provider requested to have the tiering level re-evaluated in this time period, the sponsor was asked to provide a copy of the request.

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 2008 Assessment

Type of Meal Claims	Tier I FDCH		Tier II FDCH	
	Number	Percent	Number	Percent
Tier I claims only	515	96.1%	8	6.5%
Tier II claims only	0	0.0%	74	59.7%
Tier I and Tier II claims, concurrent[a]	10	1.9%	36	29.0%
Tier I and Tier II claims, not concurrent	11	2.1%	6	4.8%
Total	536	100.0%	124	100.0%

Source: 2008 CACFP Assessment of Sponsor Tiering Determinations. Data are unweighted. Claims were reported for August 2007 through July 2008.

[a] "Concurrent" Tier I and Tier II claims occur when both Tier I and Tier II children are served.

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 81.7 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 13.1 percent of sampled Tier I FDCHs and 98.4 percent of sampled Tier II FDCHs. There were 28 misclassified Tier I FDCHs (5.2 percent of the Tier I sample) and two misclassified Tier II FDCHs. The unweighted misclassification rates for the sample were 5.2 percent for Tier I, 1.6 percent for Tier II, and 4.5 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.[27] A small number of FDCH addresses (five) could not be geocoded to an exact point because the address was a post office box or located in a rural area. 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.[28] The school match was more complicated because there are no readily available 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

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[27] The TeleAtlas geocoding service was used for the assessment, available at www.geocoding.com.

[28] 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 contains multiple records per CBG where CBG boundaries cross place boundaries. The file was aggregated to one record per CBG prior to use.

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.[29] School district boundary information was obtained from the US Bureau of Census and also mapped in GIS software.[30] 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 2005-06

- State lists of schools provided to the CACFP, with F/RP percentage, for each school year from SY 2003-04 to SY 2007-08

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 (LEVEL05) 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 2003 would not require redetermination until 2008, 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.

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

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[29]   MapInfo Professional version 6.5 was used for this assessment.

[30]   US Bureau of Census, *School Districts Cartographic Boundary Files, 2007.* Available at ftp://ftp2.census.gov/geo/tiger/TIGER2007FE/. Accessed July 2008.

school, and keeping the nearest three schools.[31] The initial match used the list of elementary schools active in SY 2007-08, 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 2007-08 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.[32]

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.[33] 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 2007-08 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 2007-08, 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:

- 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

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[31] Fewer than three schools were identified if the school district had fewer than three elementary schools.

[32] If the sponsor correctly determined that the FDCH was area-eligible for Tier I at any time in the five years prior to August 2008, 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 2008. 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 2008 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 2008. In such a case, our independent verification replicated the determination that the sponsor would have made for FY 2008. 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.

[33] 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.

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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, 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 the school district was contacted and asked to identify the school attendance area for the FDCH. Tier I was verified if this school had at least 50 percent of students eligible for F/RP meals in SY 2007-08 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 3.1: Categorizing the Outcomes of the School and Census Match[a]

Exhibit 2.1, Box:	School Match Result	Census Block Group Area Eligibility	Outcome
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 contacted 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 2007-08. 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.

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 360 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.[34]

Groups 2, 3, and 4 in Exhibit 3.2 comprise the 295 FDCHs that were not verified by the initial school and Census data matching (including 176 Tier I FDCHs and 119 Tier II FDCHs). These FDCHs required further steps in the assessment process:

- For Group 2 (125 FDCHs), school district contact was required to determine the attendance area;

- For Group 3 (45 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 (125 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 101 FDCHs for which some, but not all, of the three nearest elementary schools were area-eligible; Group 2 also included 24 FDCHs in school districts where at least one elementary school could not be geocoded.

School district contacts verified Tier I eligibility for 67 Tier I FDCHs, and matching with school data as of the tiering determination date verified Tier I eligibility for 11 Tier I FDCHs, as indicated in Exhibit 3.3. These steps did not identify any Tier II FDCHs as potentially eligible for Tier I.

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[34] 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	536	100.0	124	100.0	660
1) Verified as Tier I by:					
All 3 nearest schools and Census[a]	151	28.2	0	0.0	151
All 3 nearest schools only[a]	166	31.0	4	3.2	170
Census only	43	8.0	1	0.8	44
Total	360	67.1	5	4.0	365
Not initially verified and:					
2) School district contact required					
a) Some of the three nearest schools were area-eligible	80	14.9	21	16.9	101
b) Unable to determine nearest schools because at least one elementary school in district could not be geocoded	14	2.6	10	8.0	24
Total FDCHs needing school district contact	**94**	**17.5**	**31**	**25.0**	**125**
3) School data to be reevaluated at tiering date					
None of the three nearest schools was area-eligible in SY2007-08 but some of the nearest schools were eligible in the past five years[b]	**32**	**6.0**	**13**	**10.5**	**45**
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]	45	8.4	75	60.5	120
b) FDCH could not be geocoded	5	0.9	0	0.0	5
Total FDCHs unable to be verified with data matching	**50**	**9.3**	**75**	**60.5**	**125**

[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 an FDCH could vary from year to year.

Source: 2008 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
Group 2: School contact required	94	100.0	31	100.0	125
Verified Tier I based on attendance area identified by district	67	71.2	0	0.0	67
Not eligible for Tier I based on attendance area identified by district	21	22.3	22	71.0	43
Could not determine attendance area[a]	6	6.2	9	29.0	15
Group 3: School data reevaluated at tiering determination date[b]	32	100.0	13	100.0	35
Verified as Tier I	11	34.4	0	0.0	11
Not eligible for Tier I at the tiering date	21	65.6	10	76.9	31
Missing tiering date	0	0.0	3	23.1	3

[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: 2008 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 438 Tier I FDCHs were independently verified, so sponsor documentation was not needed for 81.7 percent of the Tier I sample. The independent verification process indicated that 87 Tier I FDCHs (16.2 percent) were not eligible based on school or Census data; the process was inconclusive for 11 Tier I FDCHs (2.1 percent). In all, 98 Tier I FDCHs were not independently verified and required sponsor documentation, as well as the 124 Tier II FDCHs. 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	438	81.7%	5[a]	4.0%
Not eligible for Tier I based on school or Census data	87	16.2%	107	86.3%
Could not determine eligibility for Tier I due to missing data	11	2.1%	12	9.7%
Total	536	100.0%	124	100.0%

Note: Percentages are unweighted.

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

Source: 2008 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 98 Tier I FDCHs and 124 Tier II FDCHs:

1. Tier I FDCHs: copies of the documentation on file for the most recent tiering determination prior to June 30, 2008. This documentation included one or more of the following:[35]
   - 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;

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[35]   The first batch mailing to sponsors asked for "documentation of the most recent tiering determination" without the condition "prior to June 30, 2008." After receiving documents from several sponsors, Abt amended the instructions, but accepted documents already received and dated after June 2008.

- 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 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 2006 to June 2008;
   - If a tier determination was made between September 2006 and June 2008, 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 98 Tier I FDCHs and 124 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 between September 2006 and June 2008, and indicator of whether sponsor provided documents to identify the school area or other documents.

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. Otherwise, it was assumed that all available documentation was provided.

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, page from school directory, Web site printout, letter from school official, or memorandum to file from contact with school official);
   - document was dated after 6/1/2003;
   - 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 identified:
   - 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 6/1/2003;
   - 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;
- a document indicating the FDCH address was in the CBG was provided;
- 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.

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

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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, 2007 and June 30, 2008;
   - Social Security Number (SSN) was provided or provider indicated that she did not have a SSN;
   - program indicated on IES was Food Stamps, TANF, or other program accepted for provider eligibility for Tier I in the State.

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.

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, 2007 and June 30, 2008;

- 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.[36]

For determinations based on a Form 1040, the algorithm also required that gross income on the Form 1040 was equal to or less than 185 percent of the FPG for the household size indicated on the IES.

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 sworn statement);

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[36] 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.

- 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.[37] 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. 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.

Document Review for Tier II FDCHs

Sponsor responses and documents from the most recent tiering determination (if any) were reviewed for all 124 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:

- Was the tiering status for the FDCH determined by the sponsor between September 2006 and June 2008? If not, then the home was automatically confirmed as Tier II, and the review was terminated.[38]

- 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?

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[37] 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).

[38] 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.

- 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 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.

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 70 Tier I FDCHs were verified with sponsor documents (71.4 percent of the 98 Tier I FDCHs for which documentation was needed to confirm Tier I eligibility, and 13.1 percent of all Tier I FDCHs).

As expected, income documents were the most common form of documentation (provided for 70 FDCHs), and these verified 49 Tier I FDCHs (9.1 percent of all Tier I FDCHs). Sponsor errors were rare for income documented by IRS Form 1040, with 92 percent of such FDCHs verified (37 of 40). On the other hand, errors were common for other forms of income documents, with only 40 percent of these FDCHs verified (12 of 30). 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 (18, or 3.4 percent) were verified with documentation of geographic eligibility based on school attendance areas. 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.[39] Only three Tier I FDCHs were verified using program certification documents; two of these were documented by Food Stamp Program letters and one by a letter certifying the household for a State means-tested program.[40]

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[39] 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.

[40] The program provided assistance to relatives caring for children who would otherwise be in foster care.

As shown in Exhibit 3.5, a total of 508 Tier I FDCHs were verified, representing 94.8 percent of the Tier I sample. The vast majority—438, or 81.7 percent—were independently verified by school, Census, or both types of geographic eligibility data.[41]

Exhibit 3.5: Tier I Verification Results by Source of Determination

Source of Determination	Number of FDCHs	% of FDCHs in Tier
Independently Verified by Area-Eligibility		
Verified by school and Census data—all nearest schools area-eligible	151	28.2%
Verified by school data only—all nearest schools area-eligible	166	31.0%
Verified by school data only—correct school is area-eligible	67	12.5%
Verified by Census data only—no nearest school area-eligible	43	8.0%
Verified by school data at tiering date in prior program year	11	2.1%
Subtotal: Independently verified by area-eligibility	438	81.7%
Verified by Sponsor Documents		
Verified by area eligibility documents	18	3.4%
Verified by program certification documents	3	0.6%
Verified by income documents	49	9.1%
Subtotal: Verified by sponsor documents	70	13.1%
Total Tier I Verified	**508**	**94.8%**
Misclassified Tier I[a]	28	5.2%
All Tier I	536	100%

[a] Tier I FDCHs were considered misclassified if they cannot be independently verified as Tier I and the sponsor provided insufficient documentation.

Source: 2008 CACFP Tiering Assessment, unweighted sample data.

Documentation Review Results for Tier II FDCHs

Five Tier II FDCHs were identified by data matching as potentially eligible for Tier I. For two FDCHs identified as eligible based on data for the three nearest schools, review of sponsor documents confirmed that the tiering status had been determined during the applicable period, and that the correct school attendance area belonged to one of the three nearest schools. Therefore, these two FDCHs were misclassified. These were the only errors among the 124 Tier II FDCHs.

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[41] 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 43 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.

The other three of these five FDCHs were not eligible for Tier I. The independent verification was not confirmed for the following reasons:

1. The sponsor indicated that the FDCH was in the attendance area of a school that was dropped from the data match. The CCD data identified the school as a magnet school, but in fact it had a regular attendance area. This school had less than 50 percent of students F/RP.

2. The sponsor indicated that the school district had no defined attendance areas; parents could choose any school. Since some of the schools in the district did not have at least 50 percent F/RP students, school data could not be used. According to Census data, the FDCH was not area-eligible for Tier I.

3. 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.

For two of the 119 Tier II FDCHs that were not identified as area-eligible by data matching, the provider had submitted an income application for Tier I eligibility. Both 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 122 of the 124 Tier II FDCHs (98.4 percent), and the unweighted misclassification rate for Tier II was 1.6 percent. Tier II FDCHs represented 18.8 percent of the sample.

Combining the results for Tier I and Tier II, the assessment confirmed sponsor tiering determinations for 630 FDCHs (95.4 percent). There were 30 misclassified FDCHs, representing 4.5 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
Tier II			
Verified[a]	122	98.4%	
Misclassified—determined by school data[b]	2	1.6%	
Tier II total	124	100.0%	18.8%
All FDCHs			
Verified	630		95.4%
Misclassified	30		4.5%
Total	**660**		100.0%

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

[b] Three Tier II FDCHs were initially determined Tier I-eligible based on Census or school data, but later determined not eligible for Tier I and therefore correctly classified by the sponsor, on the basis of information obtained from the sponsor. Two Tier II FDCHs were determined by the school match to be Tier-I eligible and confirmed as misclassified after review of sponsor documentation.

Source: 2008 CACFP Tiering Assessment, unweighted sample data.

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 2008:

- 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 the 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 2008, 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.) The counts of homes and meals were obtained from State reports collected and summarized in the FNS National Data Bank (NDB). Total reimbursements to FDCHs by tier were not available from the NDB. Instead, we multiplied number of meals (from the FNS databank) by average reimbursement per meal (from our sample) to produce the estimates of reimbursements, by tier and overall.[42]

In FY 2008, within the continental U.S., a total of 104,324 Tier I FDCHs served 477 million meals, and 36,367 Tier II FDCHs served 147 million meals. Total reimbursements were $626.4 million for Tier I FDCHs and $108.3 million for Tier II FDCHs (as estimated by this assessment).

Exhibit 4.1: Continental United States FDCH Totals for FY 2008

Type of Meal Served	Tier I	Tier II	All
Number of homes	104,324	36,367	140,691
Number of meals	477 million	147 million	624 million
Reimbursements	$626.4 million	$108.3 million	$734.7 million

Sources: Numbers of homes and meals from FNS National Data Bank, as of March 2009. Number of homes is average of counts for four reporting months. Reimbursements estimated from FNS and sample data as described in text. All totals exclude Alaska, Guam, Hawaii, and Puerto Rico; therefore the total numbers of homes differ from those in Exhibit 1.2.

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[42] Previous assessments based all national estimates on weighted sample data. For the 2008 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 2008 are 5.40 percent for Tier I and 1.69 percent for Tier II, resulting in an overall rate of 4.44 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 5,635 Tier I FDCHs and 612 Tier II FDCHs were misclassified, for a total of 6,247 misclassified FDCHs.

Exhibit 4.2: Estimated Misclassification Rates by Tiering Status in 2008

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	5.40%	3.76%	7.03%	5,635	98,805	104,440
Tier II	1.69%	0.00%	3.57%	612	35,655	36,267
All (Tier I or Tier II)	4.44%	3.04%	5.84%	6,247	134,460	140,707

[a] All sampled Tier I FDCHs for which Tier I eligibility cannot be verified, either initially or through followup, are deemed incorrectly classified. Tier II FDCHs are deemed incorrectly classified if the assessment determined they were Tier-I eligible and the sponsor determined or reviewed the tiering classification between September 2006 and June 2008.

[b] Total homes 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: 2008 CACFP Tiering Assessment, weighted estimates. Sample data include active FDCHs with reimbursable meals served in August 2007–July 2008.

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, 7 percent of Tier II FDCHs were classified as Tier II-high in FY 2008 because all of the children they served were eligible for Tier I

(high) rates, and 24 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.[43]

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 2008 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 18.0 percent of breakfasts to 19.7 percent of lunches and suppers claimed at Tier I rates.

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[43] 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 122 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 2008

State	Tier I Breakfasts	Tier I Lunches/Dinners	Tier I Snacks
1	43.7%	43.2%	42.2%
2	8.8	10.1	9.7
3	10.7	12.7	11.2
4	0.0	0.0	0.0
5	41.3	54.0	52.6
6	10.5	10.0	9.2
7	30.0	30.0	30.2
8	7.7	10.1	8.9
9	37.0	44.0	40.0
10	15.1	18.9	17.0
11	79.1	84.1	83.0
12	12.7	15.7	13.3
13	4.9	7.0	6.4
14	14.3	17.8	16.2
National Average	18.0%	19.7	19.1

Source: FNS National Data Bank, as of March 2009. Actual averages computed for each State and Nation from aggregate data for FY 2008. 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.,

$$ENBRK1 = (ANBRK1 + ANBRK2) \times ST\_PR\_BRK12$$
$$ENBRK2 = (ANBRK1 + ANBRK2) \times (1 - ST\_PR\_BRK12)$$

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 (MNBRK1) as:

$$MNBRK1 = ANBRK1 - ENBRK1.$$

The analogous computation was done for lunches and suppers (combined) and for snacks.[44]

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[44] This example simplifies the actual computation slightly for exposition. The Program Year (PY) 2008 reimbursement rates applied to meals claimed for August 2007 through June 2008; PY 2009 rates applied to July 2008 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:

ENBRK1=ANBRK1+ANBRK2
MNBRK1=ENBRK1-ANBRK1=ANBRK2.

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 4.4 percent of meals in Tier I FDCH and 1.51 percent of meals in Tier II FDCHs claimed at the incorrect tier due to misclassification of FDCHs by sponsors. Overall, an estimated 3.69 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 2 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 2008

	Lower Limit[a]	Estimate	Upper Limit[a]
Tier I FDCHs[b]	2.66%	4.40%	6.14%
Tier II FDCHs[b]	0.00%	1.51%	3.43%
All FDCHs	2.30%	3.69%	5.08%

[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: 2008 CACFP Tiering Assessment, weighted estimates. Sample data include FDCHs active and reimbursable meals served in August 2007–July 2008. 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 combined 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.[45]

The estimates of meals reimbursed at the incorrect rate were approximately 21 million for Tier I and 2 million for Tier II FDCHs, for a grand total of about 23 million meals, as shown in Exhibit 4.5. These estimates have substantial confidence intervals, e.g., from 13 million to 29 million meals for Tier I. The FNS totals for meals reimbursed in FY 2008 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 2008

	Lower Limit[a]	Estimate[b]	Upper Limit[a]
Tier I FDCHs[c]			
Total[d]		477,027,589	
Reimbursed at Incorrect Rate[e]	12,693,704	20,993,984	29,289,494
Tier II FDCHs[c]			
Total[d]		147,079,132	
Reimbursed at Incorrect Rate[f]	0	2,220,895	5,044,814
All FDCHs[c]			
Total[d]		624,106,721	
Reimbursed at Incorrect Rate[e,f]	14,451,889	23,214,879	31,977,870

[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 2009. 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 2009. 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 homes classified by sponsors as Tier I were computed by using each misclassified home's Tier I meal counts (by type of meal) and the state average percentage of meals served in Tier I homes reimbursed at the Tier I rate, as described in the text.

[f] For homes misclassified as Tier II, only meals reimbursed at Tier II rates are subject to error.

Source: 2008 CACFP Tiering Assessment, weighted estimates. Sample data include FDCHs active and reimbursable meals served in August 2007–July 2008. Excludes Alaska, Guam, Hawaii, and Puerto Rico.

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[45]   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.[46] 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 2.20 percent of reimbursements for Tier I FDCHs and 1.34 percent for Tier II FDCHs, resulting in an overall cost of 2.06 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 1 percentage point for Tier I and overall, and plus or minus 1.67 percent for Tier II. 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.[47]

For Tier I FDCHs, the percentage of reimbursements paid in error (in Exhibit 4.6) is half of the 4.40 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 $2.06 and the Tier II rate was $1.24 (using 2007-2008 program year rates, as shown in Exhibit 1.1); thus the cost of a lunch or supper claimed at the wrong rate was $0.82,

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[46] Costs of misclassification were calculated separately for meals claimed in August 2007-June 2008 (at PY 20007-2008 rates) and in July 2008 (at PY 2008-2009 rates). These costs were then combined to produce the totals for the assessment period.

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

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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 2008

	Lower Limit[a]	Estimate	Upper Limit[a]
Tier I FDCHs[b]	1.33%	2.20%	3.07%
Tier II FDCHs[b]	0.00%	1.34%	3.01%
All FDCHs	1.30%	2.06%	2.83%

[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: 2008 CACFP Tiering Assessment, weighted estimates. Sample data include FDCHs active and reimbursable meals served in August 2007–July 2008. 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 (based on FNS data) to estimate the total cost of misclassification errors. [48] 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 and overall. Further details of these computations are provided in Appendix A.

The estimated national FY 2008 costs of misclassification errors were $13.8 million for Tier I FDCHs and $1.4 million for Tier II FDCHs, resulting in a total cost of $15.2 million for all FDCHs. The 90 percent confidence intervals for these estimates, as shown in Exhibit 4.7, were from $8.3 million to $19.2 million for Tier I FDCHs, $0 to $3.2 million for Tier II FDCHs, and $9.5 million to $20.9 million for all FDCHs.

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[48] The FNS National Data Bank (NDB) did not provide CACFP reimbursement (dollar) totals for FY 2008 by tier. These totals were estimated by multiplying the NDB counts of meals by the average reimbursement per meal for the sample (estimated using weighted data).

Exhibit 4.7: Costs of Verified Misclassifications in 2008

| 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	$13,761,539	$8,305,781	$19,211,033	$ 626,378,639
Tier II FDCHs	1,446,463	0	3,255,625	108,268,217
All FDCHs[c]	15,208,002	9,466,047	20,949,958	734,646,856

[a] The estimated cost is the difference between the actual claims for misclassified homes and estimates of what their claims would be if correctly classified. For misclassified Tier I homes, the estimate takes into account the State average percentage of meals and snacks for which a Tier II home would be compensated at the highest (Tier I) level. For homes 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 homes misclassified as Tier I and the absolute value of underpayments to homes misclassified as Tier II.

[b] Total payments including correct and improper payments estimated from sample.

[c] Lower and upper limits of estimate for all FDCHs based on estimate of variance using variances of estimates for Tier I and Tier II FDCHs. The estimate for all FDCHs and its 90 percent confidence interval were computed using all sample data. Therefore, the estimate is more precise and has a smaller confidence interval, and the limits for each tier do not sum to the limits for the overall estimate. See Appendix A for details.

Source: 2008 CACFP Tiering Assessment, weighted estimates. Sample data include FDCHs active and reimbursable meals served in August 2007–July 2008. Excludes Alaska, Guam, Hawaii, and Puerto Rico.

4.5 Comparison of Results with Estimates from Previous Assessments

This assessment for 2008 is the fourth annual assessment of sponsor tiering determinations for CACFP FDCHs. This assessment differs from the 2005, 2006, and 2007 assessments in several ways, as discussed in Chapter 2. For this reason, and because of the potential interest in trends over time, we compared the 2008 results with those of the 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, and 2008. The estimate of 2.06 percent for 2008 is greater than the estimates for the previous years, which ranged from 1.39 percent (for 2006) to 1.80 percent (for 2005). However, the estimate for 2008 is not significantly different from the estimate for 2007 at the 10 percent level of significance (let alone the more standard 5 percent significance level). Therefore, we cannot rule out the explanation that this difference is due to sampling error and does not result either from the differences in the methods of the assessments or from changes in the behavior of sponsors. As indicated in the exhibit, the 90 percent confidence intervals for all of the estimates overlap, so we cannot rule out the possible role of sampling error in other year-to-year differences, and they should not be interpreted as clear evidence of any trends in the accuracy of sponsors' tiering determinations.

Exhibit 4.8: Estimated Cost of FDCH Misclassification as a Percentage of Total CACFP Reimbursements: 2005, 2006, 2007, and 2008 Assessments
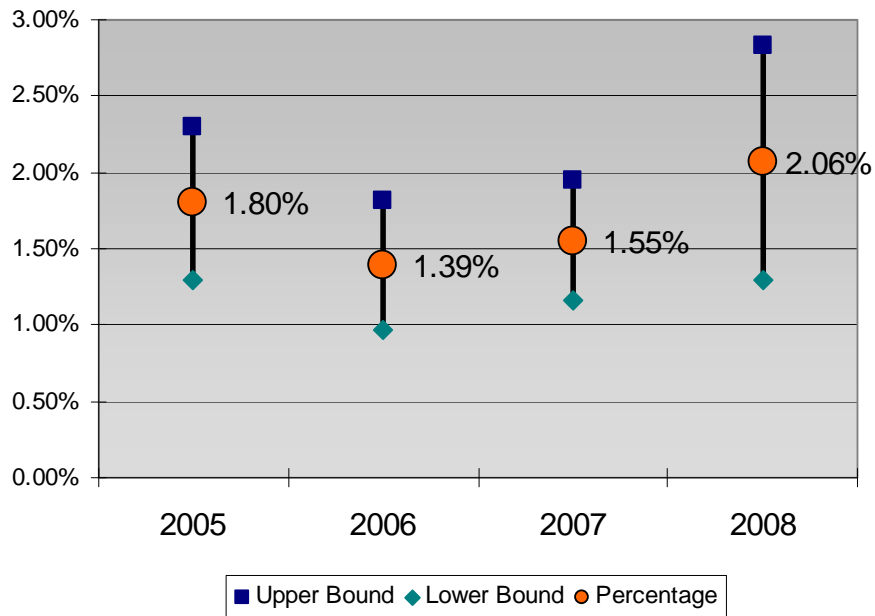
Exhibits 4.9 and 4.10 provide similar comparisons of the improper payment rate for Tier I FDCHs and the estimated total cost of misclassification for all FDCHs. Similar patterns in the variation of estimates over time appear in these exhibits, but differences between 2007 and 2008 estimates are not significant 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, and 2008 Assessments
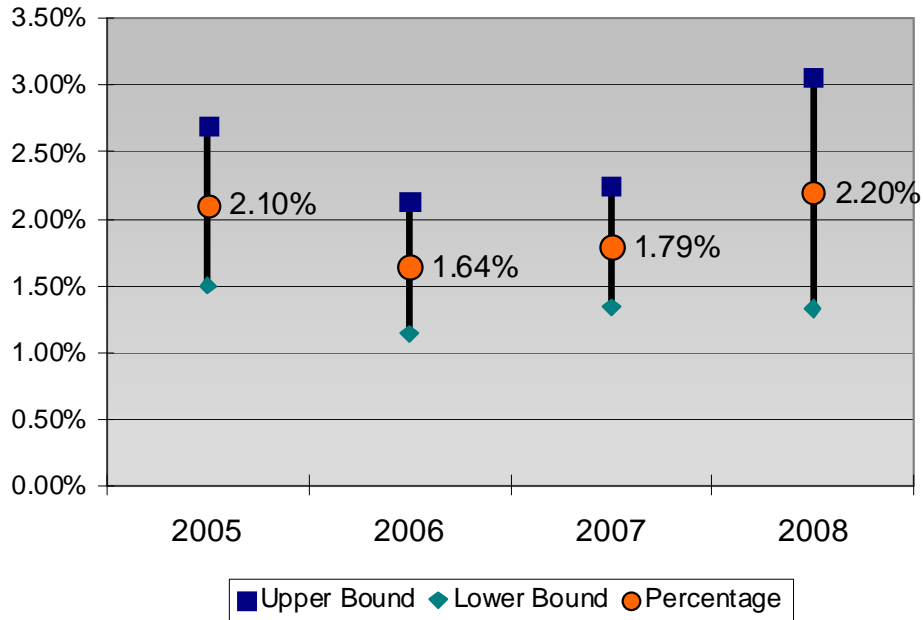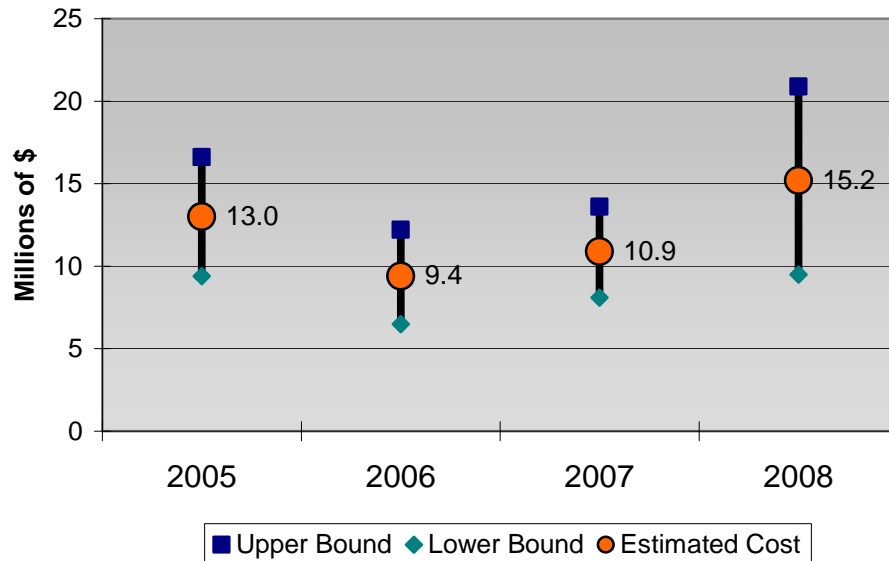

Exhibit 4.10: Estimated Total Cost of FDCH Misclassification: 2005, 2006, 2007, and 2008 Assessments

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) 2008, and the associated erroneous payments. During FY 2008, there were 140,691 family day care homes participating in the CACFP in the continental United States (the sampling universe for the assessment), including 104,324 Tier I FDCHs and 36,367 Tier II FDCHs. Reimbursements to FDCHs totaled $734.7 million (as estimated for this assessment). 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 2008 and claimed meals at some time between August 2007 and July 2008. 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 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 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 438 Tier I FDCHs, 81.7 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 70 Tier I FDCHs and 120 Tier II FDCHs. We identified 28 misclassified Tier I FDCHs and two misclassified Tier II FDCHs.

Using sample data and sampling weights, we estimated that, nationwide, 5.40 percent of Tier I FDCHs and 1.69 percent of Tier II FDCHs were misclassified in FY 2008. As a result of these misclassifications, 4.40 percent of meals claimed by Tier I FDCHs were reimbursed at the higher Tier I rate instead of the lower Tier II rate, and 1.51 percent of meals claimed by Tier II FDCHs were reimbursed at the Tier II rate instead of the Tier I rate. The estimated costs of misclassification errors were overpayments of 2.20 percent to Tier I FDCHs and underpayments of 1.34 percent to Tier II FDCHs. In total, we estimate that 6,247 FDCHs were misclassified, 23.2 million meals were reimbursed at the incorrect rate, and the overpayments and underpayments added up to $15.2 million.

The estimates of the cost of misclassification for 2008 are greater than estimates for prior years. In particular, the estimated overall erroneous payment rate of 2.06 percent for 2008 is greater than the estimates for the previous years, which ranged from 1.39 percent (for 2006) to 1.80 percent (for 2005). However, the estimate for 2008 is not significantly different from the estimate of 1.55 percent for 2007 at the 10 percent level of significance, so we cannot rule out the null hypothesis that this

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difference is due to sampling error. We conclude that the results are substantially consistent with those of previous 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 2008 assessment produced results comparable to those of previous assessments, while substantially reducing the burden on sponsors and the cost to FNS. Previous assessments collected sponsor documents for over 3,000 FDCHs per year through site visits; school and Census data were used to confirm tiering determinations if the documents indicated procedural errors. This assessment reversed the process, using independent verification with school and Census data first, followed by review of documents collected by mail from sponsors. This shift of methods, combined with the reduced sample size justified by error rates estimated in previous assessments, resulted in the average sponsor providing documents for less than 4 FDCHs. The new approach also eliminated the cost and intrusiveness of site visits to sponsors. The sample size was 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 new approach meets FNS' primary requirements with substantially reduced burden and costs, it has some limitations that must be noted. First, it 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; the documents collected in 2008 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 – over 95 percent in 2008 – 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.

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 these 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, the assessment does not address erroneous payments to child care centers or adult day care programs. Thus, the estimates of this assessment likely 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 2007, 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

The probability of selection for sponsor j in State i was a conditional probability:

$$P\{\text{Sponsor } j \mid \text{State } i\} = \frac{n_i \times (\text{Number of FDCHs of Sponsor } j)}{\text{Number of FDCHs in State } i},$$

where n_i denotes the number of sponsors selected in State i ($n_i = 8$ for *, and $n_i = 4$ for each of the other States). For this stage of selection, the numbers of FDCHs came from the lists of sponsors provided by the States as of May or June 2008. In seven 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. Two States each had two such self-representing sponsors; and five 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.

In the primary sample of sponsors, a total of three sponsors refused to participate. As described in Chapter 2, the selection probabilities for the FDCHs in each State's backup sample (all non-self-representing) were calculated according to the same formula as the FDCHs in the State's primary sample. Thus, the selection probabilities for the replacement sponsors required no adjustment.

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 * 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 the four 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 three States, 20 FDCHs were allocated to the self-representing sponsor, and 8 to each of the other three sponsors; in one State, 16 and 10 FDCHs were allocated to the self-representing sponsors, and 9 to each of the other two sponsors.

On the basis of the lists of FDCHs that the participating sponsors provided (as of August 2008), 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 15 sponsors in eight 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, 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 2008, so it was possible that some FDCHs were inactive during the reference period. In the primary sample of 660 FDCHs a total of 29 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 Poststratification

The total number of FDCHs reported by the States as of May or June 2008 generally differed from the corresponding totals in the FNS National Databank for FY 2007. Similarly, the numbers of FDCHs on the sponsors' lists (as of August 2008) differed from the corresponding numbers reported by the States. Because this assessment aims to provide estimates for FY 2008, the base sampling weights were adjusted by poststratification 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 2008 (as of March 2009). 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:

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

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

We originally planned to report the estimates of total meals claimed in error and total erroneous payments directly from our sample, using the value of c_k and p_k for each tier k as defined above. The sample estimate of total meals claimed by FDCHs (correctly or in error) underestimated the known totals from the FNS data. Therefore, using sample data yielded 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. 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 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.

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.[49] 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 2008 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 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) $ap_1 = NTM_1 \times R_1$

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 then estimated the national totals of reimbursements and the cost of misclassification for Tier I FDCHs as follows:

$$CPM_1 = STR_1 / t_1$$
$$NRM_1 = NTM_1 \times CPM_1$$
$$NCM_1 = NRM_1 \times ER_1$$

where:

STR_1 = total reimbursements to Tier I FDCHs estimated from sample[50]
t_1 = total meals claimed by Tier I FDCHs estimated from sample
CPM_1 = cost per meal for Tier I FDCHs
NTM_1 = total meals claimed by Tier I FDCHs from NDB
NRM_1 = total reimbursements to Tier I FDCHs estimated using CPM_1 and NTM_1
ER_1 = error rate for Tier I FDCHs (percentage of reimbursements paid in error)

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[49]   We acknowledge the possibility that the FNS totals are affected by non-sampling error.

[50] STR_1 and STR_2 were calculated in a manner analogous to t_1 *and* t_2. 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.

NCM$_1$ = national cost of misclassification for Tier I FDCHs

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.

Ideally, this procedure would have used the actual total reimbursements for each FDCH tier (as reported by the States to FNS). However, these totals were not available from the FNS National Data Bank (NDB). Therefore, it was necessary to estimate NRM$_1$ using NTM$_1$ (from the FNS NDB) and CPM$_1$ (estimated with weighted sample data).

A.6   Why Sample-Based Estimates Diverged from FNS Totals

The procedure described above uses a ratio estimator based on information on total meals (at each Tier) from the FNS National Databank. As we noted, our original approach called for estimating totals (at each Tier) directly from our survey. However, that approach yields weighted sample estimates of total meals that were approximately 11 percent less than the national totals from FNS National Databank for Tier I FDCHs and 7 percent less for Tier II FDCHs. This in contrast to the weighted estimates of the numbers of FDCHs by tier, which were essentially identical to the FNS National Databank totals (after adjusting the weights). Thus, the average number of meals per FDCH in the sample was less than the average in the population as determined from FNS National Databank data.

It appears that the divergence between the estimates is related to how the two sources of information deal with FDCHs that do not claim meals in all twelve months of a fiscal year. This subtle difference in sampling frame explains the difference in the estimates of the number of meals between the weighted sample data and the FNS reports.

The FNS National Databank data are based on a series of censuses, each representing the FDCHs participating (i.e., claiming meals) in a single month. States report counts of FDCHs participating in December, March, June, and September. The fiscal year data provide the total meals for all months and the average of the counts of participating FDCHs for the four reporting months.

In contrast, our sampling universe comprised all FDCHs that (a) were currently on sponsor lists at the time that the lists were provided (October or November 2008), and (b) had claims for at least one month between August 2007 and July 2008. Thus, the universe of FDCHs eligible for sampling was different from and more inclusive than the universe reflected in the FNS reports, which is a cross-section of FDCHs participating in a specified month. (Previous assessments have sampled from such a cross-section.)

Our sample includes FDCHs with between one month and 12 months of participation. We estimate that, on average, 11 percent of FDCHs in the sample universe do not participate in a given month.

Even if the average number of meals for sample FDCHs in **participating months** were equal to the FNS average, therefore, the average number of meals in **all months** would be less.[51]

The ratio-estimation procedure adopted for this assessment a simple and widely-accepted solution to this problem. The total number of meals in error estimated through ratio estimation is more efficient than the simple weighted estimate in the sense that it will have a smaller variance (under the highly reasonable assumption that the correlation between the number of meals in error and the total number of meals is positive and high).

We note that an alternate solution would begin with the recognition that the FNS totals represent the average numbers of participating FDCHs. One could adjust the sample weights so that the estimate of the average **participating** FDCHs in each tier matches the FNS totals. If our sample estimate of the average meals per participating FDCH were equal to the FNS average, our sample estimates of the totals would match the FNS totals. However, if the sample average meals per FDCH did not match the FNS averages, due to sampling error, the estimated totals would diverge, and we would still face the issue of adjusting the estimates. Therefore, we prefer the ratio-estimation approach, which allows us to produce estimates of the total FDCHs, meals, and reimbursements affected by misclassification that are consistent with the known FNS totals of all FDCHs, meals, and reimbursements.

A.7   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 will require second order probabilities of selection at first and subsequent stages.

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:

$$MM\_LOW_1 = NTM_1 \text{ x } ER\_LOW_1$$
$$MM\_HIGH_1 = NTM_1 \text{ x } ER\_HIGH_1$$

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[51]   Of course, sampling error may also affect the average number of meals per FDCH and thus the estimated total meals.

where

NTM_1 = total meals claimed by Tier I FDCHs from NDB

ER_LOW_1 = lower bound error rate for Tier I FDCHs (percentage of reimbursements paid in error)

ER_HIGH_1 = upper bound error rate for Tier I FDCHs (percentage of reimbursements 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

September 2, 2008

«Contact_Person»
«Sponsor_Name»
«Address»
«City», «State» «Zip»

Dear «Contact_Person»:

The USDA Food and Nutrition Service (FNS) needs your help for the **2008 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. This year, Abt Associates Inc. is conducting the 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 56 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 15, 2008*:

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 2007 through July 2008. 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/II eligibility for a sampled home 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 previous CACFP sponsor tiering assessments, we will not come to sponsors' offices to obtain documentation. This year's approach will reduce the burden on participating sponsors. 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 Sponsors 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 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 at 617-349-2820 or toll-free at 1-800-517-5736, or send an e-mail to CACFP@abtassoc.com.

Sincerely,

Nancy Cole
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.

For Abt, this agreement assures that the SPONSOR 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 study.

C. SPONSOR AGREES TO:

Provide the following to Abt Associates:

1. **List of family day care homes**—due September 15, 2008. SPONSOR will provide a list all
   homes under sponsorship as of August 2008, regardless of whether the home received CACFP
   reimbursements for August 2008. 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 2008. 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 2007-July 2008.
   SPONSOR will respond to this request for information within 15 business days.

3. **Documentation of tiering determination**—due January 2008. Abt will attempt to independently verify the Tier I or Tier II eligibility of the selected homes using Census and school data. If Abt is unable to verify Tier I/II 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 strictly confidential, to the full extent allowed by law, and will use the information only for the purposes of the Assessment. Abt will not reveal the identities of participating sponsors or selected family day care homes to USDA/FNS or any third party. 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.

7. DURATION OF AGREEMENT
The confidentiality provisions of this agreement shall remain in effect until Abt destroys the data provided by SPONSOR (expected date). All other provisions shall be in effect for one year from the date of signature.

PRINCIPAL CONTACTS:

Abt Associates Contact	**SPONSOR Contact**
Nancy Cole, Project Director	Name: _____
Abt Associates, Inc.	Address: _____
55 Wheeler Street	City, State, Zip: _____
Cambridge, MA 02138	
Phone: 617-349-2820	Phone: _____
FAX: 617-386-8363	E-Mail: _____
E-Mail: CACFP@abtassoc.com	

_____   8/20/08   _____   _____
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 2009 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 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
Abt Associates Inc.

55 Wheeler Street
Cambridge, MA 02138-1168
Phone (617) 492-7100
Fax (617) 386-8363

CACFP Assessment of Tiering Determinations

Assessment conducted for the Food and Nutrition Service.

USDA

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 2006, only 3 percent of homes were misclassified and less than 2 percent of payments were associated with errors.

CACFP Family Day Care Homes, 2006

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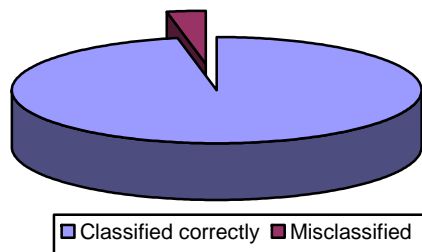
CACFP provides over $700 million in meal benefits annually, and therefore the Improper Payments Information Act of 2002 requires continued measurement of error rates.

This year the study of CACFP tiering determinations gets 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 56 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 15, 2008 (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, 2008:

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 2007 to July 2008. This information can be provided electronically or by sending us paper forms copied from your file.

By January 15, 2009:

4. **Certification documents.** In December, we will let you know if we were unable to verify a home and need more information from you. This is unlikely because we anticipate that most homes can be identified as Tier I based on Census or school information.

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

July 22, 2008

Dear Colleague:

I am writing on behalf of the National CACFP Sponsors Forum to encourage you to participate in the *CACFP Program Assessment of Sponsor Tiering Determinations*. You are one of only 56 sponsors that have been selected randomly to participate in this study.

As you may know, USDA must report to Congress estimates of the percentage of family day care homes that are misclassified as Tier I or Tier II, and the resulting improper payments. In previous years, error rates have been quite low—in 2005 only 4% of homes were misclassified, and in 2006 it was only 3%. This year the study is being conducted by Abt Associates. Abt has conducted many studies of the CACFP for USDA, and in each study has worked cooperatively with the National Sponsors Forum to minimize the burden placed on sponsors and homes and to produce accurate, unbiased results.

This year, Abt Associates has redesigned the annual *CACFP Program Assessment of Sponsor Tiering Determinations* to reduce the burden on sponsors and speed the delivery of results to USDA. Unlike previous years, this year's study will not involve on-site visits to sponsors to review their tiering documentation. In fact, the tiering status of most of the homes selected will be verified independently using only census information or school eligibility—all that will be required from you is the names and addresses of about 20 of your homes that will be randomly selected by Abt. What's more, you will receive a $100 honorarium in recognition of your time and effort.

This study is important—it has helped establish the integrity of the CACFP. The National Sponsors Forum encourages you to participate in this study. Remember, you are one of only 56 sponsors across the country randomly selected to represent all CACFP sponsors.

Sincerely,

Glenda Overfelt
President

C A C F P

The Child
& Adult Care
Food Program

Sponsor's Association

www.cacfp.org

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Association

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. Good news for the CACFP!

With reauthorization occurring in 2009 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 years' *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 have agreed on a process for this years study that will minimize the burden to the sponsors who participate. Some improvements to the procedure include:

- No on-site reviews.
- Verification of the tier status by first using census information and school eligibility, requiring only that you supply names and addresses 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 1 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 www.cacfp.org when they are published.

Sincerely,

Linda Leindecker, President

May 29, 2009

«Contact_Person»
«Sponsor_Name»
«Address»
«City», «State» «Zip»

Dear «Contact_Person»:

On behalf of the Food and Nutrition Service (FNS) and Abt Associates Inc., I want to thank you for agreeing to participate in the **2008 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 October 20**, 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 2007-July 2008. 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**.**

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,

Nancy Cole
Project Director

«Sponsor»

Instructions: Below are listed the family day care homes that have been selected for the 2008 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 2007 through July 2008**. 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 2007–July 2008
«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 2007–July 2008
«h14»	«t14»			
«h15»	«t15»			
«h16»	«t16»			
«h17»	«t17»			
«h18»	«t18»			
«h19»	«t19»			
«h20»	«t20»			

Abt Associates Inc.

May 29, 2009

«Contact»
«Sponsor»
«Address»
«City», «State» «Zip»

Dear «Contact»:

Abt Associates is nearing completion of the **2008 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 under your sponsorship that we selected for the assessment and were unable to verify as Tier I using Census or school data. These homes 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. We list these FDCH on the next page.

We ask you to **provide the following information for each listed FDCH by December 15**, using the enclosed FedEx materials:

1. Tier I FDCHs: please provide <u>copies</u> of the documentation that you have on file for the most recent tiering determination. 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 FDCHs' 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 - 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. Tier II FDCHs: please tell us the elementary school whose attendance area includes the FDCH, and indicate whether the provider's tier status was determined or redetermined during the period from September 2006 to June 2008. If a tier determination was made between September 2006 and June 2008, 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 revaluated 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**.**

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,

Nancy Cole
Project Director

2008 CACFP Assessment of Sponsor Tiering Determinations

Request for Documentation of Tiering Determinations

NAME OF SPONSOR: «Sponsor», «State»

Tier I Family Day Care Homes

Instructions: For each Tier I FDCH listed below, please indicate the method of tiering determination. 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 – block group boundary map, documentation showing that block group is income-eligible

- 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, 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 certification letter, income tax form, or wage stubs.

Name of Provider	Method of Tiering Determination	Explanation If Documentation is Not Provided
«ti1»	☐ School data ☐ Census data ☐ Income ☐ Program partic.	
«ti2»	☐ School data ☐ Census data ☐ Income ☐ Program partic.	
«ti3»	☐ School data ☐ Census data ☐ Income ☐ Program partic.	
«ti4»	☐ School data ☐ Census data ☐ Income ☐ Program partic.	
«ti5»	☐ School data ☐ Census data ☐ Income ☐ 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.

2008 CACFP Assessment of Sponsor Tiering Determinations

Request for Documentation of Tiering Determinations

NAME OF SPONSOR: «Sponsor», «State»

Tier II Family Day Care Homes

Instructions: Please complete the grid below for each Tier II FDCH listed.

If Tier II status was determined or redetermined at any time between September 2006 and June 2008, please provide copies of all documents associated with the Tier II determinations. Documents may include:

- 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, 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 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 between Sept. 2006 and June 2008?	If documents are not provided, explain.
«tii1»		☐ Yes – provide documents ☐ No	
«tii2»		☐ Yes– provide documents ☐ No	
«tii3»		☐ Yes– provide documents ☐ No	
«tii4»		☐ Yes– provide documents ☐ No	
«tii5»		☐ Yes– provide documents ☐ No	

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.