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# Family Child Care Providers in the CACFP—Operational Effects of Reimbursement Tiering

## A Report to Congress on the Family Child Care Homes Legislative Changes Study

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### Abstract

Family child care providers who participate in the Child and Adult Care Food Program (CACFP) receive reimbursement for qualifying meals served to children in their care. The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 mandated a two-tiered reimbursement structure designed to target benefits more narrowly to low-income children and called for a study of its effects on program participants and on meals offered to children. Participating providers who receive the lower Tier 2 reimbursements tend to charge higher hourly fees and spend somewhat less on food, according to analyses controlling for provider's location and operating characteristics. The pattern of meals and snacks that providers offered was not altered by tiering, however.

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# Executive Summary

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Family child care providers who participate in the Child and Adult Care Food Program (CACFP) receive reimbursement for qualifying meals served to the children in their care. The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 mandated a two-tiered reimbursement structure—designed to target the program more narrowly to low-income children—and called for a study of its effects on program participants and on meals offered to children. Participating providers who receive the lower Tier 2 reimbursements tend to charge higher hourly fees and spend somewhat less on food, according to analyses controlling for provider’s location and operating characteristics. The pattern of meals and snacks that providers offer was not altered by tiering, however.

To comply with the PRWORA study mandate, the U.S. Department of Agriculture (USDA) contracted with Abt Associates Inc. to conduct the *Family Child Care Homes Legislative Changes Study*. This report, one of several prepared as part of the study, presents findings pertaining to the effect of the legislative changes on the operators of family child care homes that participate in the CACFP. It is based on a survey of a nationally representative sample of 1,171 CACFP providers in 1999, together with comparable data from a 1995 study. (See References, p. 34, for a list of the other reports in this series.)

## The CACFP and Tiering

The CACFP is a Federal program, administered by USDA, that subsidizes meals and snacks in participating child care and adult day care facilities. Providers of care are reimbursed a fixed amount for each qualifying meal they serve.

Seeking to focus CACFP benefits more narrowly on low-income children, the PRWORA established a two-tier structure of meal reimbursement rates for family child care homes. Homes that are located in low-income areas or are operated by persons with incomes at or below 185 percent of the Federal poverty guidelines are designated as Tier 1. Meal reimbursement rates for Tier 1 homes are comparable to the rates that existed for all CACFP homes before PRWORA. Family child care homes that do not meet the low-income criteria are designated as Tier 2. They have lower reimbursements, although they can be reimbursed at Tier 1 rates for meals served to children whose household income is at or below 185 percent of the poverty guideline.

For providers classified as Tier 2, CACFP meal reimbursement rates after July 1997 were set at approximately half the Tier 1 level, which was also approximately half of the pre-tiering level for all providers. In fiscal year 1999, Tier 2 homes received meal reimbursements averaging \$177 per month (including some meals reimbursed at the Tier 1 rate). Had they been reimbursed at the Tier 1 rates for all meals, their monthly reimbursements would have averaged \$326.

It was unknown how Tier 2 providers would respond to the lower revenue from CACFP reimbursements. If no other change occurred from pre-tiering operating patterns, the lower CACFP reimbursements would simply translate into lower net income for providers. Alternatively, Tier 2 operating patterns might change in ways that would yield greater revenues or lower costs. (Note that this could occur either by existing CACFP providers changing their operating practices or by a gradual replacement of departing providers with new providers who had different operating practices.) One possible response of particular interest to the CACFP would be a reduction in providers’ food expenditures, which could occur through a reduction in the number of meals and

snacks offered during the day, through menus offering less food or less costly food, or through more economical shopping strategies. Increased child care fees charged to parents would be a result leading to increased revenues, as would operating changes such as increased average children in care or operating hours.

The analyses presented in this report explore these and related aspects of CACFP providers' operations and experiences potentially affected by tiering. Separate reports examine two other key questions about providers: the extent to which the reduced financial benefit led to less provider participation in the CACFP, and the extent to which the nutrition package offered to children was changed. Those analyses show a significant reduction in participation among Tier 2 providers, but no material change in the nutritional value of meals and snacks offered in CACFP homes.<sup>1</sup>

## **Provider Responses: Reducing Food Expenditures**

Tier 2 providers appear to have responded to the lower CACFP meal reimbursements by incurring lower food expenditures than would be expected at Tier 1 reimbursement rates. Weekly food expenditures in Tier 2 homes averaged \$91, significantly less than average Tier 1 expenditures (\$110). Even after controlling for differences in the number of children, number of meals, and number of operating days per week, expenditures for Tier 2 providers are estimated to be \$16 less than Tier 1 expenditures, or around \$0.50 less per child per day.

Among providers who had been in the CACFP since at least January 1997 (6 months before tiering took effect), significantly more Tier 2 than Tier 1 providers said they had reduced their food expenditures over the period (16 percent vs. 10 percent), and most of those Tier 2 providers specifically mentioned low CACFP reimbursements as a reason. In addition, among providers who said their expenditures had not changed despite rising food prices over the 2 years, Tier 2 providers were significantly more likely to report economical purchasing strategies such as buying food on sale, or buying canned or frozen rather than fresh food.

## **Provider Responses: Meal Service Patterns**

The reduction in expenditures did not result in a smaller number of meals and snacks served in CACFP homes. Almost identical proportions of providers in 1999 and 1995 offered breakfast, lunch, morning snack, and afternoon snack. The proportion of providers offering evening snack increased significantly from 1995 to 1999, whereas suppers showed a small but nonsignificant increase.

Among providers who had been in the CACFP since 1997, a small proportion said they had stopped serving morning snack. This proportion was significantly greater for Tier 2 than Tier 1 providers, suggesting that some providers may have been responding to the reduced reimbursement. Nonetheless, this did not translate into a difference from 1995 in the proportion of providers offering morning snacks.

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<sup>1</sup> Hamilton *et al.*, *E-FAN-02-002*; Crepinsek *et al.*, *E-FAN-02-006*.

## **Provider Responses: Increasing Fees**

Some Tier 2 providers responded to the reduced CACFP reimbursement by raising their child care fees. More than 40 percent of Tier 1 as well as Tier 2 providers had raised fees since 1997 for reasons not specifically related to CACFP reimbursements. An additional 15 percent of Tier 2 providers, however, said they raised fees at least partly because of low CACFP reimbursements.

Average provider fees in 1999, at \$2.12 per hour per child, were not significantly higher than inflation-adjusted 1995 fees. Average fees were \$0.51 higher for Tier 2 than Tier 1, however, a statistically significant difference. Analysis controlling for factors such as the number of children in care and characteristics of the provider's location showed significantly higher fees for those providers receiving the lower reimbursement rate. The effect is estimated at \$0.31 per hour, or \$10 per week for a child in care for 33 hours (the median for children in the study).

## **Other Provider Characteristics**

Little change in CACFP provider operating patterns occurred between 1995 and 1999. The average number of children served and the age ranges served are not significantly different between the two years.

The most notable difference is that a significantly larger proportion of providers in 1999 than 1995 operate for more than 5 days per week. This operating pattern is observed mainly for Tier 1 providers, however, and does not appear to be an effect of the reduced reimbursements in Tier 2 homes.

## **CACFP Perceptions and Experiences**

Although tiering's most obvious effect on providers was the reduced reimbursement level, it also affected some of the program's administrative operations. For example, providers applying for CACFP participation now have to supply the information necessary to determine their appropriate tier. Tier 2 providers, if they wish to be reimbursed at the higher rate for low-income children in their care, must distribute (or have the sponsor distribute) income eligibility forms to parents or request that the sponsor use other available documentation to establish that children are eligible for Tier 1 reimbursement rates. If the income eligibility forms are used, low-income parents must complete the forms and send them to the sponsor in order for the provider to receive the higher reimbursement.

These requirements do not appear to have created substantial differences in the CACFP experiences of Tier 1 and Tier 2 providers, nor between providers in 1999 and those in 1995. Tier 1 providers tended to report going to slightly more training sessions and receiving slightly more home visits from their sponsors than Tier 2 providers. This appears to reflect differences in the providers' interests and experience, rather than different administrative requirements.

Tiering does seem to have led to more negative provider perceptions of the CACFP. Fully 65 percent of Tier 2 providers find the meals reimbursement rates "not very satisfactory" or "not at all satisfactory," compared with 12 percent of Tier 1 providers and just 6 percent of providers in 1995.

# Family Child Care Providers in the CACFP: Operational Effects of Reimbursement Tiering

## Introduction

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The Child and Adult Care Food Program (CACFP) is a Federal program supporting nutritious meals and snacks in participating child care and adult day care facilities. It is administered by the Food and Nutrition Service (FNS) of the U.S. Department of Agriculture (USDA). Under CACFP, care providers receive a fixed reimbursement per meal served, with different reimbursement rates for different types of meals, such as breakfasts and lunches.

The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA) changed the meal reimbursement structure for family child care homes. The law established two tiers of reimbursement rates, with higher rates applying to homes in lower-income areas or operated by lower-income persons. The intent of these changes to the CACFP was to target program benefits more closely to low-income children.

The law also called for a study of how the CACFP changes affected the family child care homes, their sponsoring organizations, and the families participating in the program. This report presents information in response to that congressional request, specifically addressing the experiences and perspectives of family child care providers participating in the CACFP. The report is one in a series of reports on the *Family Child Care Homes Legislative Changes Study*, which was carried out by Abt Associates Inc. under contract to the U.S. Department of Agriculture, Economic Research Service. (See References, p. 34, for a list of other reports in the series.)

## Description of the Child and Adult Care Food Program

To provide healthful meals and snacks in child and adult day care facilities, the CACFP reimburses child care providers for their meal costs and, in some cases, provides them with USDA commodity food. Reimbursement is limited to a maximum of two meals and one snack or one meal and two snacks per child per day.<sup>1</sup> The program operates in nonresidential day care facilities including child care centers, after-school-hours child care centers, family and group child care homes, and some

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<sup>1</sup> Prior to enactment of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (P.L. 104-193), CACFP centers were allowed to claim reimbursement for an additional meal or snack for children in care 8 or more hours per day.

adult day care centers.<sup>2</sup> Eligibility for the child care portion of the CACFP is limited to children age 12 and under. In fiscal year 1999, the child care component of the program served an average of 2.5 million children daily at a cost of \$1.6 billion. Thirty-six percent of these children were served through child care homes and 64 percent through centers. The CACFP is administered at the Federal level by the Food and Nutrition Service. State agencies generally oversee the program at the local level.

When the program was first established by Congress in 1968 under Section 17 of the National School Lunch Act (42 U.S.C. 1766), participation was limited to center-based child care in areas where poor economic conditions existed. Beginning in 1976, family child care homes became eligible to participate provided that they meet State licensing requirements where these exist, or otherwise obtain approval from an appropriate State or local agency. In addition, homes must be sponsored by a nonprofit organization that assumes responsibility for ensuring compliance with Federal and State regulations and that acts as a conduit for meal reimbursements.

Initially, reimbursement rates for meals and snacks served in homes, like those served in centers, were based on a means test of the family incomes of individual children.<sup>3</sup> Providers complained that the means test was overly burdensome and too invasive for their relationship with the families for which they provided child care. In addition, sponsors claimed that meal reimbursements were insufficient to cover their administrative costs and allow for adequate reimbursement to the homes.<sup>4</sup> As a consequence, very few homes participated in the program—fewer than 12,000 by December 1978.

The 1978 Child Nutrition Amendments (P.L. 95-627) incorporated wide-ranging changes to the program with the purpose of expanding participation, particularly among family child care homes. Most significantly, the 1978 amendments eliminated the means test for family child care homes. In addition, the amendments separated the reimbursement of sponsors' administrative costs from the meal reimbursement for family child care homes.<sup>5</sup>

In the years following the elimination of the means test, the family child care component of the CACFP experienced tremendous growth. At the same time it increasingly became a program serving middle-income children. The *Early Childhood and Child Care Study*, conducted in 1995, reported that over 190,000 homes were participating in the program, and more than 75 percent of the children

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<sup>2</sup> As of July 1999, the CACFP also provides reimbursements for meals and snacks served to eligible children in homeless shelters.

<sup>3</sup> Three categories of reimbursement were established for participating homes, corresponding to family incomes of participating children of the following: 125 percent or less of the applicable Federal poverty guideline for households of a given size, 126 to 195 percent of the poverty guideline, and more than 195 percent of the poverty guideline.

<sup>4</sup> Meal reimbursements generated by participating homes were paid directly to the sponsoring agency. The sponsor was permitted to deduct administrative costs before passing the remaining reimbursement on to the providers.

<sup>5</sup> Other changes included the establishment of alternative procedures for approving homes and the provision of startup and expansion funds for family child care sponsors.



served in these homes were from families with incomes above 185 percent of the Federal poverty guideline.<sup>6</sup>

## The Legislative Changes Implemented in 1997

Among the many changes included in the PRWORA, the Congress acted to refocus the family child care component of the CACFP toward low-income children. The Act changed the reimbursement structure for the family child care component of the program to target benefits more specifically to homes serving low-income children. The new rate structure for family child care homes took effect July 1, 1997. The applicable rates in 1999, when the data were collected for this study, are shown in Exhibit 1.

Under the new reimbursement structure, family child care homes located in low-income areas have reimbursement rates that are similar to the rates that existed for all family child care homes before PRWORA. A low-income area is defined operationally as either an area served by an elementary school in which at least half of the enrolled children are eligible for free or reduced-price school meals or a 1990 census block group in which at least half of the children live in families with incomes at or below 185 percent of the poverty guideline.<sup>7</sup> Homes where the provider's own income is at or below 185 percent of the poverty guideline have the same reimbursement structure as homes located in low-income areas. Homes meeting at least one of these criteria are designated as Tier 1 homes.

All other homes are reimbursed at substantially lower rates. This latter group of homes, referred to as Tier 2 homes, includes those that are neither located in a low-income area nor operated by a low-income provider. Tier 2 homes can receive the higher Tier 1 reimbursement rates for meals served to children from families with incomes at or below 185 percent of the poverty guideline, but the individual children's eligibility must be determined.

**Exhibit 1**  
**Meal Reimbursement Rates by Tier,<sup>a</sup> July 1, 1998–June 30, 1999**

Meal	Tier 1 Rate	Tier 2 Rate	Difference Between Tier 2 and Tier 1 Rate	
			Amount	Percentage
Breakfast	\$0.90	\$0.34	-\$0.56	-62.2%
Lunch/Supper	1.65	1.00	-0.65	-39.4
Supplement (snack)	0.49	0.13	-0.36	-73.5

<sup>a</sup> Reimbursement rates are higher in Alaska and Hawaii.

<sup>6</sup> F. Glantz *et al.*, 1997.

<sup>7</sup> This criterion is applied using data from the 1990 decennial census for the provider's census block group.

Under the new reimbursement structure, CACFP reimbursement rates for Tier 2 homes are roughly half of the rates for Tier 1 homes. In fiscal year 1999, Tier 2 homes received meal reimbursements averaging \$177 per month (including some meals reimbursed at the Tier 1 rate). Had they been reimbursed at the Tier 1 rates for all meals, their monthly reimbursements would have averaged \$326.<sup>8</sup>

Tiering changed the economics of family child care for existing CACFP homes that were now reimbursed at the Tier 2 rates. Lower rates would translate into lower net income from the business unless the providers could raise fees or reduce expenses. Providers newly entering the CACFP as Tier 2 providers would not experience a change but would have to establish their fees, operating scale, hours, and expenditures in the context of the Tier 2 rates. Hypotheses about Tier 2 effects, therefore, suggest that Tier 2 providers might charge higher fees, be open for longer hours, take on more children, serve fewer meals, or more often encourage families to send food with the children than if the providers were operating under Tier 1 rates. This report examines the extent to which these factors have changed since 1995 and the extent to which they differ between Tier 1 and Tier 2 providers.

## The Family Child Care Homes Legislative Changes Study

After mandating changes in the CACFP reimbursement structure, the PRWORA also called for a study of the effects of those changes. The Act posed a number of specific questions about effects on CACFP sponsors, participating family child care homes, and the families served by those homes. USDA accordingly designed, and contracted with Abt Associates Inc. to implement, the *Family Child Care Homes Legislative Changes Study*. The study began in late 1997, and is scheduled for completion early in 2001.

The *Family Child Care Homes Legislative Changes Study* involved extensive data collection from nationally representative samples of family child care homes, their sponsors, and the parents of children they serve. A multistage probability sampling approach was used. In the first stage, 20 States were selected. A sample of sponsors was drawn within each of the selected States, and the sampled sponsors provided lists of the child care homes that they sponsored. A sample of family child care homes was drawn from each sponsor. In the final sampling stage, a subsample of the family child care homes was used to draw a sample of households whose children were in the care of those providers. The sample design and weighting procedures are described in Appendix A.

Conducted in January-August 1999, the data collection included a **survey of family child care providers**, which is the principal data source for analyses in this report. The survey was a self-administered mail survey. The analysis sample includes 576 Tier 1 and 595 Tier 2 providers. Response rates for these two strata were 86.4 percent and 79.8 percent, respectively.

The survey and the sampling approach were closely modeled on a survey conducted in 1995 as part of the *Early Childhood and Child Care Study*. That survey reached a nationally representative sample of 532 family child care homes. The 1995 data are used in combination with the 1999 data to examine changes since the introduction of tiering in 1997.

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<sup>8</sup> W. Hamilton *et al.*, 1999.

Because of the complex structure of the sample, survey responses must be weighted in order to portray distributions in the overall population appropriately. All percentages, means, and other distributional statistics presented in this report have been weighted using procedures described in Appendix A. Tables also show the unweighted number of observations upon which the statistics are based. Standard errors and significance tests are estimated with correction for the complex sample design.

Differences between groups are reported as statistically significant if they have less than a 10 percent probability of arising by chance. Some disciplines conventionally consider differences to be significant only if their probability of arising by chance is less than 5 percent. Accordingly, differences that are significant at the 10-percent level but not the 5-percent level are indicated as ( $p < 0.10$ ). Differences that are significant at the 5-percent level or better are simply reported as statistically significant. In the tables, three levels of statistical significance are noted, 1-percent, 5-percent, and 10-percent.

# Characteristics of CACFP Family Child Care Homes

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About 175,000 family child care homes participated in the CACFP in 1999. Two thirds of the homes were classified as Tier 1 and received meal reimbursements at the higher rate. Most of the remaining homes, classified as Tier 2, had meals reimbursed at the lower rate, although 28 percent of these homes received Tier 1 meal reimbursements for one or more low-income children in their care.

This chapter reviews some of the basic characteristics of the homes participating in 1999—the number and ages of children they serve, the hours and days they operate, the provider’s household income, and the proportion of low-income children in the provider’s location.

Tiering could have affected this profile of providers in either of two ways. First, tiering reduced the incentive for Tier 2 providers to participate in the CACFP, shifting the composition of the CACFP towards a higher proportion of Tier 1 and a lower proportion of Tier 2 providers.<sup>9</sup> To the extent that Tier 1 and Tier 2 providers have different personal and operating characteristics, one would expect the 1999 profile to differ from the 1995 CACFP profile. Second, participating providers reimbursed at the Tier 2 rates might operate differently—for example, operating for different numbers of hours or enrolling different numbers of children—than if they received more revenue from meal reimbursements.

The analysis reveals only modest differences between 1995 and 1999, and some of those differences are probably unrelated to tiering. The most notable difference is an increase in the proportion of providers operating for more than 5 days per week, with Tier 1 providers accounting for most of the weekend operations.

## Number and Ages of Children Served

CACFP home care providers surveyed in 1999 reported having an average of 8.1 children enrolled, with an average of 6.5 children usually in attendance (Exhibit 2).<sup>10</sup> About half of the providers had between five and nine children usually attending. The differences between 1995 and 1999 in the average numbers enrolled and in attendance are small and not statistically significant, although a

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<sup>9</sup> Hamilton *et al.*, 2001.

<sup>10</sup> Program administrative data indicate that the average daily attendance was 5.5 children per home in 1999, and 5.0 children in 1995. According to the administrative data, Tier 1 homes had a slightly higher average daily attendance than Tier 2 homes, with 5.7 in Tier 1 and 5.3 in Tier 2 in 1999. Differences between the figures reported above and the administrative figures stem partly from differences in measurement. The administrative data are based on aggregate counts of homes and daily attendance that are filed monthly. If a home operates for some but not all days during the month, it will appear to have a lower average daily attendance than the average for those days in which it operated. In addition, nonresponse analysis shows that the Tier 2 survey respondents have fractionally more enrolled children than the average in the original sample (see Appendix A).

**Exhibit 2**  
**Attendance and Enrollment in CACFP Family Day Care Homes in 1995 and 1999**

Characteristic	1995	1999	Difference 1999-95
Percentage of providers reporting usual attendance of:			
Fewer than five children	19.8%	30.4%	10.6%*
Five to nine children	59.2%	51.5%	-7.7%
More than nine children	21.0%	18.1%	-2.9%
Median attendance	5.7	5.4	0.0
Mean attendance	7.0	6.5	-0.5
Median enrollment	6.5	6.4	-0.1
Mean enrollment	8.3	8.1	-0.2
Unweighted sample	501-532 <sup>a</sup>	1,152-1,169 <sup>a</sup>	

<sup>a</sup> Sample size varies because of item-specific missing values. Entries in all tables represent the range of item-specific sample sizes.

Significance levels:

\* = <.10

\*\* = <.05

\*\*\* = <.01

larger percentage of homes in 1999 had fewer than five children attending ( $p < 0.10$ ). Similarly, no significant differences were seen in the numbers of children served by Tier 1 and Tier 2 providers in 1999 (not shown in the exhibit).

Most providers care for children in a fairly large age range. About 85 percent of CACFP providers in 1999 had children aged 1 to 2 years in their care, and the same proportion cared for children aged 3 to 5 years (Exhibit 3). These patterns appear roughly similar to those found in the 1995 study, but precise comparisons are not possible because the two surveys defined age categories differently. The only fully comparable category in the two studies is infants (under 1 year of age), served by 43 percent of providers in 1995 and 42 percent in 1999.

Because infant formula is quite costly, it was hypothesized that some providers operating under the lower Tier 2 meal reimbursement rates might not enroll infants.<sup>11</sup> The survey data, however, do not support this hypothesis. The proportions of providers serving infants were virtually identical in 1995

<sup>11</sup> Alternatively, providers might encourage parents to send formula with their infants. Since the infant meals would not be reimbursed, the infant would not count as a CACFP participant. However, the survey question asked about the number and ages of children "enrolled in your family child care home," not the number for whom CACFP meals are reimbursed. Thus the question counts all infants in the provider's care, regardless of their CACFP status.

**Exhibit 3  
Age Groups Served by CACFP Providers**

Percent of Providers Serving Age Group	Tier 1	Tier 2	All 1999	Difference Tier 2-Tier 1
< age 1	38.7%	47.5%	41.6%	8.8%
Age 1 to 2	82.9	89.0	84.9	6.1
Age 3 to 5	82.6	89.2	84.7	6.6
Age 6 to 12	62.3	65.4	63.3	3.1
<b>Age group combinations:</b>				
1 to 5, 6 to 12	34.4	36.2	35.0	1.8
<1, 1 to 5, 6 to 12	22.2	28.0	24.1	5.8
1 to 5	20.9	15.4	19.1	-5.5
<1, 1 to 5	16.5	19.1	17.3	2.6
6 to 12	5.9	0.8	4.2	-5.1*
Other	0.1	0.5	0.3	0.4
Unweighted sample	569-572	581-593		
Significance levels: * = <.10 ** = <.05 *** = <.01				

and 1999. Moreover, the proportion of Tier 2 providers serving infants was slightly, although not significantly, greater than the proportion of Tier 1 providers serving this group.

The profile of age groups served is very similar for Tier 1 and Tier 2 providers. The only statistically significant difference is that about 6 percent of Tier 1 providers serve only children aged 6 to 12, whereas almost none of the Tier 2 providers serve this group exclusively ( $p < 0.10$ ). Around one-third of both Tier 1 and Tier 2 providers serve preschoolers (age 1 to 5) and school-age children (age 6 to 12), but not infants.

## Operating Schedules

In 1999, a typical CACFP home was open for about 11 hours daily, with most homes operating 5 days a week (Exhibit 4). Significantly more Tier 1 than Tier 2 homes operated on weekends as well as weekdays. Tier 1 homes also reported a greater variety of daily operating schedules, with a significantly smaller proportion of Tier 1 providers operating for 10-12 hours, and a significantly larger proportion operating more than 12 hours ( $p < 0.10$ ).

Relative to 1995, the 1999 survey shows a substantial increase, from 10 percent to 19 percent, in the proportion of homes operating more than 5 days per week. Furthermore, the average hours of operation per day grew slightly. These increases may reflect a general shift toward a demand for longer and more flexible hours of care. In addition, because the proportion of Tier 2 providers has declined over time, the 1999 Tier 1 providers contribute more heavily to the overall average than their 1995 counterparts (i.e., providers who would have been classified as Tier 1 if tiering had been in effect). Thus, if providers did not change their operating hours at all, the shifting proportions of Tier 1 and Tier 2 homes would have increased the overall average number of hours.

**Exhibit 4**  
**Operating Schedules of the CACFP Family Day Care Homes in 1995 and 1999**

	1995 Total	1999 Total	Difference 1999-95	1999		Difference Tier 2–Tier 1
				Tier 1	Tier 2	
<b>Hours of operation (Monday-Friday) – percentage of providers operating:</b>						
< 10 hours	20.4%	18.2%	-2.2%	19.8%	15.0%	-4.8%
10-12 hours	69.4%	68.0%	-1.4%	64.0%	76.0%	12.0%**
> 12 hours	10.1%	13.8%	3.7%	16.2%	9.0%	-7.2%*
Mean hours	10.7	11.1	0.4*	11.2	10.8	-0.4
Median hours	10.7	10.8	0.1	10.9	10.5	-0.4**
<b>Days of operation – percentage of providers operating:</b>						
Monday-Friday only (5 days)	86.7%	77.8%	-8.8%**	72.1%	89.5%	17.4%***
Monday-Friday and weekend (6- 7 days)	9.9%	19.0%	9.2%***	25.0%	6.7%	-18.3%***
Not all weekdays	3.5%	3.2%	-0.3	2.9	3.8	0.9
Unweighted sample	509- 510	1,153- 1,154		563-564	590	
Significance levels: * = < .10 ** = < .05 *** = < .01						

One tiering hypothesis was that Tier 2 providers would respond to their lower revenue from meal reimbursements by increasing their hours of care and thereby generating additional revenue. The data do not support this hypothesis, as Tier 2 providers report fewer weekly operating hours than Tier 1 providers. This pattern does not rule out the possibility that Tier 2 providers operated for even fewer hours before tiering, but there is no direct support for such a proposition.<sup>12</sup>

## Tiering-Related Characteristics of Providers

Tiering reduced the financial incentive for certain kinds of family child care homes to participate in the CACFP. Homes that are classified as Tier 2—or that have characteristics likely to make them classified as Tier 2—would be expected to be less likely to participate, and hence to make up a smaller proportion of the provider population in 1999 than 1995.

Two of the three criteria used to assign tier status are measured for both the 1995 and 1999 providers: the provider's income relative to the Federal poverty guideline, and the percent of low-income children in the provider's census block group.<sup>13</sup>

Partial data are available on the third criterion, the percent of children qualifying for free or reduced-price meals in the elementary school attendance area where the provider operates. Of the 20 States in the 1999 study sample, 14 have data available on the percent of children qualifying for free and reduced-price lunches in specific elementary schools.<sup>14</sup> In those 14 States, two proxies for residence in a low-income elementary school attendance area were created. As a broadly defined proxy, a provider was considered to be living in a low-income elementary school area if *any* one of the elementary schools with the provider's zip code had 50 percent or more of its children receiving free or reduced-price school lunches. As a more narrowly defined proxy, a provider was considered to be living in a low-income elementary school area if *all* the schools with the provider's zip code had 50 percent or more of their children receiving free or reduced price lunches.

As would be expected, Tier 1 providers in 1999 are much more likely to have low incomes and to operate in low-income areas than Tier 2 providers, as shown in Exhibit 5.<sup>15</sup> Relatively small

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<sup>12</sup> No providers were classified by tier before July 1997. Reference to "Tier 2 providers" in the period before tiering refers to those homes that would have been classified as Tier 2, had tiering been in effect.

<sup>13</sup> Providers whose household income is at or below 185 percent of the Federal poverty guideline may be classified as Tier 1. Providers located in census block groups in which at least 50 percent of children had household incomes at or below 185 percent of the guideline, based on the 1990 decennial census, may also qualify as Tier 1. The survey-based measure of providers income involves a less detailed examination of income components than the measure of income actually used in CACFP tier classification.

<sup>14</sup> The school data are from the U.S. Department of Education, National Center for Educational Statistics, Public Elementary/Secondary School Universe Survey Data, school year 1997-98. Elementary schools were selected from the universe as those schools having a lowest grade of 5 or lower. This analysis is limited to providers in the 1999 sample because too few providers in the 1995 sample could be matched with school data.

<sup>15</sup> Eleven percent of Tier 2 providers reported income levels that would apparently qualify them for Tier 1 classification. Although some may qualify, much of the apparent discrepancy probably stems from the fact that the survey captures much less detailed information than the CACFP income verification process.



differences are seen between the 1995 and 1999 provider groups, however. The differences are in the expected direction, with more low-income providers and providers in low-income census block groups in 1999, but the differences are not statistically significant.

It is likely that the composition of CACFP providers changed more than is suggested by the available tiering-related measures, because program administrative data indicate that the share of Tier 1 providers has grown considerably since tiering (Hamilton *et al.*, E-FAN-02-002). The change would probably be seen best by examining the most commonly used criterion for tier assignment, the proportion of low-income children in the provider's elementary school attendance area.<sup>16</sup> No measure of that criterion is available, however.

**Exhibit 5  
Tiering-Related Characteristics CACFP Providers**

	1995	1999	Difference 1999-95	Tier 1	Tier 2	Difference Tier 2- Tier 1
<b>Estimates based on full sample</b>						
Percent of providers who have low income <sup>a</sup>	38.2%	41.0%	2.8%	55.3%	11.8%	-43.5%***
Percent of providers in low-income census block groups (1990)	15.2	16.1	0.9	23.1	1.6	-21.5***
Unweighted sample	470-519	1,069-1,070		524-576	545-594	
<b>Estimates for 14 States with measures of low-income elementary school areas</b>						
Percent of providers who have low income <sup>a</sup>	na	39.2%	na	53.7%	23.4%	-40.3%***
Percent of providers in low-income census block groups (1990)	na	16.8	na	24.9	2.3	-22.6***
Estimated percent of providers in low-income elementary school areas						
Lower bound	na	26.1	na	38.9	3.1	-35.8***
Upper bound	na	63.7	na	83.4	28.3	-55.1***
Unweighted sample		692-764		336-373	356-391	

<sup>a</sup> Income at or below 185 percent of the Federal poverty guideline is defined as low income.

na = low-income elementary school estimates not available for 1995.

Significance levels:

\* = < .10

\*\* = < .05

\*\*\* = < .01

<sup>16</sup> Over two-thirds of Tier 1 homes are so classified on the basis of their elementary school attendance area (Crepinsek *et al.*, E-FAN-02-005).

# Meals and Snacks Served in Family Day Care Homes

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One way that Tier 2 providers might respond to the lower meal reimbursement rates would be to offer fewer meals and snacks, thereby reducing their operating costs. The providers would of course not be reimbursed for meals they did not serve. But because CACFP will reimburse only two meals and one snack (or one meal and two snacks) per child per day, a provider might not serve a particular meal or snack that would not be reimbursed. Moreover, if the CACFP reimbursement would not cover the provider's full cost, omitting even a reimbursed meal would yield a net financial gain.

The analysis reported below finds relatively little evidence of such adjustments. The overall profile of meal service shows no reductions from 1995 to 1999. Nonetheless, a small but statistically significant fraction of Tier 2 providers said that they stopped providing morning snacks between 1997 and 1999, suggesting that some providers did adjust to the lower rates in this way.

## Meals Served

Over 90 percent of CACFP family child care homes reported in 1999 that they served breakfast, lunch, and afternoon snack, as shown in Exhibit 6. More than half the providers served morning snack, and smaller proportions served supper and evening snack (40 percent and 17 percent, respectively).

The 1999 meal service pattern was found to be almost identical to the 1995 pattern for the daytime meals (breakfast, lunch, and morning and afternoon snack).<sup>17</sup> However, supper and evening snack show some increase over time. Significantly more of the 1999 providers reported serving evening snack. A larger proportion in 1999 also reported serving suppers, although this difference is not statistically significant. The larger proportions of evening meals may reflect the longer average hours of operation reported in 1999.

Similar proportions of Tier 1 and Tier 2 providers in 1999 reported serving breakfast, lunch, and morning and afternoon snack. Slightly more Tier 2 than Tier 1 providers report serving each of these meals, and the differences are statistically significant for breakfast and lunch ( $p < 0.10$ ). Supper and evening snack are much more likely to be served in Tier 1 homes, which is consistent with the larger proportion of Tier 1 homes that are open for more than 12 hours.

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<sup>17</sup> The 1995 figures in Exhibit 6 differ from those reported in Glantz, *et al.* (1997). Certain cases with ambiguous responses, treated as "not served" in the earlier analysis, were treated as "missing" in the present analysis to make the logic of the 1995 and 1999 questions as comparable as possible. Differences in question structure mean that, even with this recoding, we cannot be sure that the items are fully comparable.

**Exhibit 6  
Meals and Snacks Served in the CACFP Homes in 1995 and 1999**

Meals/Snacks	1995	1999	Difference 1999-95	1999		Difference Tier 2- Tier 1
	All	All		Tier 1	Tier 2	
Breakfast	90.8%	92.8%	2.0%	91.1%	96.1%	5.0%*
Morning snack	56.4	58.2	1.8	58.0	58.6	0.6
Lunch	98.1	97.6	-0.5	96.9	99.0	2.1*
Afternoon snack	96.6	96.0	-0.6	95.8	96.6	0.8
Supper	31.7	40.3	8.6	49.9	20.5	-29.4***
Evening snack	9.3	16.8	7.5**	21.2	7.6	-13.6***
Unweighted sample	469-482	1,163-1,169		571-575	592-594	

Significance levels:

\* = < .10

\*\* = < .05

\*\*\* = < .01

The 1995-99 comparison offers no support for the hypothesis that providers would respond to the lower Tier 2 reimbursement rates by reducing the number of meals they offer. If CACFP providers had responded in this manner, there would presumably be a lower proportion of providers serving one or more of the meal types after tiering was implemented. In fact, the proportion of providers serving each meal type held steady or increased from 1995 to 1999. The difference between Tier 1 and Tier 2 meal service patterns therefore appears to reflect pre-existing differences in the markets they serve rather than a cutback in meal service by Tier 2 providers.

## Self-Reported Changes in Meal Service

The vast majority of providers reported offering the same meals in 1999 that they served in January of 1997, 6 months before tiering took effect.<sup>18</sup> For each meal and snack, over 85 percent of providers made no change—either they served the meal in both 1997 and 1999 or they did not serve it in either year. Small percentages of providers began and stopped serving each meal and snack. With the exception of the morning snack, however, the net change is very small for both Tier 1 and Tier 2 providers (Exhibit 7).

<sup>18</sup> Providers who were not operating in January 1997, about 7 percent of the sample, are excluded from this analysis. Excluding these providers does not materially change the pattern of meal service by tier in 1999.

**Exhibit 7**  
**Percent of Providers Reporting Changes in Meals and Snacks Served, 1997-99**

	Tier 1			Tier 2			All Providers		
	Start	Stop	Net Change	Start	Stop	Net Change	Start	Stop	Net Change
Breakfast	2.7	3.7	-1.0	2.7	1.5	1.1	2.7	3.0	-0.3
Morning snack	2.4	5.2	-2.8	1.9	11.3*	-9.4*	2.2	7.2	-5.0
Lunch	1.9	0.5	1.4	0.2**	0.6	-0.4**	1.4	0.5	0.9
Afternoon snack	1.4	1.5	-0.1	0.9	0.8	0.1	1.2	1.3	-0.1
Supper	5.2	8.3	-3.1	3.9	7.7	-3.8	4.7	8.1	-3.4
Evening snack	3.4	3.7	-0.3	1.7	3.2	-1.5	2.8	3.5	-0.7
Un-weighted sample	543			550			1,093		

Significance of difference between tiers:

\* = < .10

\*\* = < .05

\*\*\* = < .01

About 7 percent of providers report stopping morning snack service between 1997 and 1999, while only 2 percent introduced this snack. This pattern was significantly stronger for Tier 2 than Tier 1 providers ( $p < 0.10$ ), with a net reduction of 9 percentage points in the proportion of Tier 2 providers serving the morning snack.

The reported cutback in morning snacks might reflect a response to tiering, since the pattern was more evident for Tier 2 than Tier 1. Providers who either introduced or ceased one or more meals or snacks were asked a set of questions about possible reasons, including changes in the number of children in care, operating hours, the number of children bringing meals or snacks from home, and cost. Among the relatively small fraction reporting any cessation, about two-thirds of Tier 2 providers cited higher costs, while less than one-third of Tier 1 providers noted this reason. (The questions did not specifically ask about lower meal reimbursements as a reason for changing the meals and snacks offered. The question on "cost of providing meals/snacks" is the only one specifically referring to financial issues, and so would be the most likely to capture providers' concern about the difference between the reimbursement level and the cost of the food.) Tier 1 providers more frequently cited operational factors such as having fewer children in care or operating for fewer hours. However, because just 17.0 percent of Tier 1 providers and 19.8 percent of Tier 2 providers reported ceasing to serve one or more meals, the numbers of respondents citing particular reasons are quite small and differences by tier are not statistically significant.

The data also show a statistically significant but very small difference between Tier 1 and Tier 2 providers with regard to lunch. Tier 2 providers reported a small net reduction (to 99 percent) in the

proportion serving lunch, while Tier 1 providers reported a small net increase (to 97 percent). The proportion serving lunch is so close to 100 percent in both groups that these small differences have little substantive importance.

Despite the self-reported reduction in service of morning snacks by providers from 1997 to 1999, the overall proportion of providers offering morning snacks was essentially the same in 1999 as in 1995.<sup>19</sup> Thus, any tiering adjustment did not lead to a major difference in the profile of meals served.

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<sup>19</sup> Moreover, a separate analysis of meals served during a sample week found that Tier 2 providers were no less likely to serve morning snack than similar providers in 1995. (Crepinsek *et al.*, *E-FAN-02-006*)

# Economics of the Family Day Care Operations

The tiered reimbursement rates mean that, other things being equal, a Tier 2 provider will have less total revenue than a Tier 1 provider, and hence less net income from the business. In order for the two providers to have equal net income, assuming that they care for the same number of children for the same number of hours, the Tier 2 provider would have to be charging higher fees or incurring lower operating expenses than the Tier 1 provider. Once tiering was implemented, therefore, one might expect to find that Tier 2 providers charge higher average fees than their Tier 1 counterparts, or that they have lower average expenditures, or both.

This chapter reviews the survey data pertaining to child care fees and providers' expenditures for food. The data support the expectation of higher average fees and somewhat lower food expenditures in Tier 2 homes, controlling for operating characteristics and location. Among Tier 2 providers who were participating in the CACFP before tiering took effect, some subsequently raised their fees and some reduced or made efforts to control food expenditures specifically in response to tiering.

## Child Care Fees

The average CACFP provider in 1999 reported charging \$2.12 per hour for a child in full-time care. This is slightly more than the hourly fee reported by providers in 1995 (\$1.98), but the difference is not statistically significant. Moreover, when the 1995 data are adjusted for inflation, as shown in Exhibit 8, the 1995 average (\$2.19) is actually slightly higher than that in 1999, although again the difference is not statistically significant.

**Exhibit 8**  
**Hourly Fees Charged by CACFP Providers in 1995 and 1999 (in 1999 dollars)**

	1995	1999	Difference 1999-95	1999		Difference Tier 2 - Tier 1
				Tier 1	Tier 2	
Average full-time fee	\$2.19	\$2.12	-\$0.07	\$1.95	\$2.45	\$0.50***
Median full-time fee	\$2.06	\$1.98	-\$0.06	\$1.88	\$2.25	\$0.37
Average part-time fee	N/A	\$2.81	N/A	\$2.66	\$3.10	\$0.44**
Median part-time fee	N/A	\$2.47	N/A	\$2.44	\$2.94	\$0.50**
Unweighted sample	331	837- 1,010		393-475	444-535	

Significance levels:

\* = < .10

\*\* = < .05

\*\*\* = < .01

Tier 2 providers did report charging significantly higher fees than Tier 1 providers in 1999. Compared with Tier 1 providers, Tier 2 providers charged an average of \$0.50 more per hour for children in full-time care and \$0.44 for those in part-time care. This difference might result from tiering, but it is equally plausible that the difference would occur simply because the Tier 2 providers serve a higher-income market that demands services that are more costly to deliver. To investigate further we estimated a regression model in which the fees were predicted by a set of variables representing tiering, factors used in determining tier status, and location. Variables representing operating scale and hours were also examined but did not enter the final model.

The results, summarized in Exhibit 9, indicate that Tier 2 providers in 1999 charged fees that were about \$0.31 higher than what would otherwise be expected. The other measured factors that contribute to the difference are aspects of the market in which the provider operates: the urban character, geographic region, and relative prosperity of the provider's census block group.

Some caution is needed in interpreting the regression results. The variable used to represent the provider's market (percent of children in the 1990 census block group who were low-income) may not accurately capture the market differences that existed at the time of the survey. Thus, the "Tier 2" variable may be capturing some effect of market differences as well as the difference in

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**Exhibit 9**  
**Factors Affecting Hourly Fees Charged by CACFP Providers for Full-time Care: Regression Results**

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Variable	Coefficient
Intercept	1.81***
Tier 2 in 1999	0.31**
1999	-0.15**
Any children subsidized	-0.08
% low-income children in census block group in 1990	-0.84***
% in urbanized area	0.53***
Geographic region (Midwest omitted):	
Northeast	0.84***
South	-0.25***
West	0.23**

Unweighted sample = 1,703

R<sup>2</sup> = 0.319

Significance levels:

\* = < .10

\*\* = < .05

\*\*\* = < .01

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reimbursement rates.<sup>20</sup> Nonetheless, the Tier1-Tier 2 fee gap is consistent with a similar analysis of surveys of the parents of children in care. That analysis estimated that parents pay an additional \$0.59 per hour of care for children served by Tier 2 homes in 1999, controlling for characteristics of the provider’s location (Crepinsek *et al.*, E-FAN-02-005).

About 39 percent of providers in 1999 reported caring for children whose fees were partially or entirely paid by a government agency or other organization. A significantly larger proportion of Tier 1 than Tier 2 providers had one or more subsidized children in their care, as would be expected. The overall percentage in 1999 was not significantly different from that in 1995.

## Changes in Fees Since Tiering

Nearly half of all providers in 1999 who had been operating since January 1997 said that they had raised their fees since that time (Exhibit 10). Most of those providers—43 percent in both tiers—did not mention CACFP reimbursement rates as a reason, typically responding simply that their costs had gone up over time. In Tier 2, however, 15 percent of providers said that they raised fees at least

**Exhibit 10**  
**Percent of Providers Reporting Changes in Child Care Fees from 1997-99**

	All Providers (1999)	Tier 1	Tier 2	Difference Tier 2 - Tier 1
Higher fees since 1997, reimbursement not mentioned as a reason	43.2	43.2	43.2	0.0
Higher fees since 1997, mentioned reimbursement as a reason	5.2	0.1	15.0	14.9***
Fees unchanged since 1997	48.9	54.6	38.2	-16.4**
Lower fees since 1997	2.7	2.2	3.6	1.4
Unweighted sample	1,064	520	544	

Significance levels:  
 \* = < .10  
 \*\* = < .05  
 \*\*\* = < .01

<sup>20</sup> Other analyses in this study have used provider income in addition to the census block group as a control variable. Provider income could not be used in this instance because causation could flow in either direction (i.e., people could have higher income because they charge higher fees). Another approach considered was to include a variable representing the average household income of children in the provider’s care, based on the survey of parents (Crepinsek *et al.*, E-FAN-02-005). This was not feasible because only 254 of 1,703 providers in the regression analysis had enough children included in the household survey to obtain a usable measure. Only some providers were in the subsample for the survey of parents, and the number of children sampled was often too small to construct a credible average.



in part because of the reduction in CACFP reimbursements. Providers who said they raised fees were asked "Why?" and wrote in their own reasons, which means that this 15 percent of providers mentioned CACFP in an unprompted context. For at least these providers, then, raising fees was a conscious response to tiering.

## **Spending on Food in 1999**

Another way that Tier 2 providers might respond to the lower reimbursement rates would be to spend less on food. Although they did not offer fewer meals, as shown above, they might have used particular meal menus or shopping strategies to keep their costs low.

Tier 2 providers report average weekly expenditures of \$91, about \$19 less than the average reported by Tier 1 providers (Exhibit 11). No comparison with 1995 is possible because the earlier survey did not ask about food expenditures. Although the responses are consistent with the hypothesized effect of tiering, other factors than tiering might explain the difference in expenses. Most importantly, one would expect the provider's expenses to reflect the number of meals and snacks the provider offers to children during the week. A multivariate analysis was therefore conducted to control for these factors as well as for characteristics of the provider location (proportion of low-income children, urban-rural area, and geographic region).

The analysis indicates that Tier 2 providers do spend significantly less for food than Tier 1 providers. Expenditures of Tier 2 providers are estimated to be \$16 per week lower than Tier 1 expenditures after controlling for other factors (Exhibit 12). For a provider serving an average of 6.5 children daily in a 5-day week, this would amount to \$0.50 per child per day.

## **Changes in Spending on Food Since 1997**

About 65 percent of the providers in 1999, regardless of tier status, said that their food expenses had increased since January 1997 (Exhibit 13). The overwhelming majority attributed the increase to higher food costs, presumably reflecting the general slow rise in consumer price levels over the period.<sup>21</sup>

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<sup>21</sup> The Consumer Price Index (CPI-U) increased 4.5 percent from January 1997 to June 1999.

**Exhibit 11**  
**Weekly Food Expenses for 1999 Providers by Tier Status**

	All	Tier 1	Tier 2	Difference Tier 2 - Tier 1
Mean weekly food expenses	\$104.09	\$110.36	\$91.16	-\$19.19**
Median weekly food expenses	\$94.98	\$101.73	\$85.26	-\$16.47**
Unweighted sample	1,154	567	587	

Significance levels:  
 \* = < .10  
 \*\* = < .05  
 \*\*\* = < .01

**Exhibit 12**  
**Factors Affecting Food Expenditures of CACFP Providers in 1999: Regression Results**

Variable	Coefficient
Intercept	60.02***
Tier 2 (vs. Tier 1)	-16.08***
Number of breakfasts served in week	0.73***
Number of lunches served	0.41
Number of snacks served	0.08
Number of suppers served	0.14
Any children with subsidized fees	3.92
% low-income children in census block group in 1990	-9.37
% urban	-0.52
<b>Geographic region (Midwest omitted):</b>	
Northeast	0.13
South	9.01*
West	6.78

Unweighted sample = 1,171  
 $R^2 = 0.336$

Significance levels:  
 \* = < .10  
 \*\* = < .05  
 \*\*\* = < .01

**Exhibit 13**  
**Changes in Food Expenditures Since 1997**

<b>Percent of 1999 Providers Who Reported:</b>	<b>All</b>	<b>Tier 1</b>	<b>Tier 2</b>	<b>Difference Tier 2 -Tier 1</b>
Increased food expenses since 1997	64.6	64.6	64.8	0.2
Reduced food expenses, with reimbursement as a reason	7.1	3.8	13.7	9.9***
Reduced food expenses, reimbursement not cited as a reason	4.8	6.0	2.4	-3.6***
Same expenses in 1997 and 1999, with economical purchasing strategies	12.3	12.9	10.9	-2.0
Same expenses in 1997 and 1999, economical purchasing strategies not cited	11.2	12.7	8.2	-4.5
Unweighted sample	1,072 <sup>a</sup>	521	551	

<sup>a</sup> Providers not serving food in 1997 were excluded from the analyses.

Significance levels:

\* = < .10

\*\* = < .05

\*\*\* = < .01

A relatively small fraction of providers (12 percent of the total) reported decreased food expenses since 1997. Expenditure declines were reported by significantly more Tier 2 than Tier 1 providers, however (16 percent *vs.* 10 percent). This suggests that about 6 percent of Tier 2 providers may have adjusted to the lower reimbursement rates by reducing their spending on food. Supporting this interpretation, most of the Tier 2 providers who reported reduced food expenses cited the amount of CACFP meal reimbursements as a reason. (A few Tier 1 providers also gave this response, perhaps indicating that some providers felt that the reimbursement was not keeping pace with inflation.)

Other providers may have held spending constant in the face of rising prices by seeking ways to stretch their food dollars. Providers who reported no change in expenditures—nearly a quarter of the total—were asked about eight shopping behaviors that might affect cost efficiency, such as buying food on sale, buying generic brands, and buying food in bulk. Substantial fractions of both Tier 1 and Tier 2 providers reported using these strategies more in 1999 than they had in 1997. Tier 2 providers were somewhat more likely to report increased use of most of the strategies, and the difference was statistically significant for two: buying food on sale, and buying frozen or canned instead of fresh foods. These differences involve very small fractions of all Tier 2 providers, however, and do not appear to have translated into systematic changes in the types of food offered to children (Crepinsek *et al.*, E-FAN-02-006).

Providers' spending on food may also be affected by the extent to which children brought food from home to eat while in child care. Overall, 24 percent of providers in 1999 reported that one or more children in their care brought food from home (Exhibit 14). Of those providers, most said that only one child brought food from home, suggesting that parents were deciding individually whether to send food rather than responding to any provider encouragement for all children to do so.

Food brought from home was reported mainly by providers with infants in their care: 46 percent of providers with infants reported that some parents sent food, compared with just 8 percent of the providers with no infants enrolled. Among those caring for infants, significantly more Tier 2 than Tier 1 providers said that one child brought food from home, but the proportion with two or more children bringing food was almost identical for the two groups of providers.

## Proportion of the Providers' Household Income from Child Care

Although the available data do not include a direct measure of providers' net income from the child care business, the surveys in 1999 and 1995 did ask how much of the provider's total household income comes from child care. Exhibit 15 summarizes the results.

Income from child care typically accounts for less than half of the CACFP provider's household income. In 1999, 68 percent of providers reported that their child care income made up less than half of the household total, while only 17 percent said that child care provided more than three fourths of their household income.

<b>Exhibit 14</b>				
<b>Percentage of Providers with Some Children Bringing Food From Home</b>				
	<b>All</b>	<b>Tier 1</b>	<b>Tier 2</b>	<b>Difference Tier 2 - Tier 1</b>
All providers	24.3	20.9	31.4	10.5***
Providers serving infants (age < 1)	46.4	40.8	56.0	15.2***
Providers not serving infants	8.4	8.2	9.4	1.2
Unweighted sample	457- 1,162	208- 570	249- 592	

Significance levels:  
 \* = < .10  
 \*\* = < .05  
 \*\*\* = < .01

**Exhibit 15**  
**Proportion of Providers' Total Household Income from Child Care**

Child Care Income as Proportion of Total Household Income	1995	1999	Difference 1999-95	1999		1999 Difference Tier 2-Tier 1
				Tier 1	Tier 2	
Under 25%	20.5%	30.3%	9.8%**	26.0%	39.0%	13.0%*
25% to 49%	40.5	37.5	-3.0	36.4	39.6	3.2
50% to 74%	11.6	15.5	3.9*	17.3	11.9	-5.4**
75% to 100%	27.3	16.7	-10.6***	20.3	9.6	-10.7**
Unweighted sample	457	1,116		542	574	

Significance levels:

\* = < .10

\*\* = < .05

\*\*\* = < .01

Tier 1 providers depended more heavily on their child care income than did Tier 2 providers. This might be consistent with a hypothesis that tiering reduced the Tier 2 providers' revenue, while leaving other sources of income unaffected. However, one would expect Tier 2 providers to be less dependent on their child care income even if all providers received the same reimbursement rate. Because one of the criteria for being classified as Tier 1 is low household income, any provider with substantial income in addition to the child care income is more likely to be classified as Tier 2. The difference in dependency between the tiers therefore cannot be taken as an effect of tiering.

Providers in 1999 tended to be less dependent on their child care income than those in 1995, on average. The proportion for whom child care accounted for at least three-fourths of their income declined significantly from 1995 to 1999, while the proportion with less than one-fourth of their income from child care increased. Because both Tier 1 and Tier 2 dependence on child care income is less in 1999 than the overall average in 1995, tiering does not appear to be the main cause of this pattern. It seems likely that the improving economy over this period offered better employment opportunities and income to other adults in the providers' households. If child care revenue stayed approximately constant, increases in other adults' income would cause child care income to make up a smaller part of the total.<sup>22</sup>

<sup>22</sup> Whether child care revenues grew, shrank, or remained level cannot be judged from the data. Hourly fees went up slightly, as did operating hours. But average attendance was slightly lower in 1999 and, for Tier 2 providers, CACFP reimbursements were lower.

## Providers' Satisfaction with the CACFP Reimbursement Rate

Both the 1995 and 1999 surveys asked providers about their satisfaction with the CACFP reimbursement rate. The providers' responses, presented in Exhibit 16, show a dramatic reduction in satisfaction between the two periods. Overall, the proportion of providers who found the reimbursement rates "very satisfactory" decreased by half, while the proportion of "not very satisfactory" or "not at all satisfactory" views increased from 5 to 20 percent and from 1 to 10 percent, respectively.

Not surprisingly, Tier 2 providers were particularly dissatisfied, with only 35 percent finding the CACFP reimbursement "very" or "somewhat" satisfactory. Even the Tier 1 providers, however, expressed less satisfaction in 1999 than the overall provider population did in 1995. This might reflect some unhappiness with the rate reduction for Tier 2, or it might stem from a general perception that economic opportunities in the child care business were not keeping pace with those elsewhere in the economy. Whatever the cause, it is clear that the reduction in satisfaction is not limited to those providers who actually face the reduced reimbursement rates.

**Exhibit 16**  
**Providers' Satisfaction with CACFP Reimbursement Rates in 1995 and 1999**

	1995 All	1999 All	Difference 1999-95	1999		1999 Difference Tier 2 -Tier 1
				Tier 1	Tier 2	
Very satisfactory	53.3%	28.3%	-25.0%***	39.4%	5.9%	-33.5%***
Somewhat satisfactory	41.1	41.9	0.8	48.3	29.0	-19.3***
Not very satisfactory	5.1	19.5	14.4***	10.7	37.1	26.4***
Not at all satisfactory	0.5	10.3	9.8***	1.6	28.0	26.4***
Unweighted sample	492	1,147		559	588	

Significance levels:

\* = < .10

\*\* = < .05

\*\*\* = < .01

# Providers' Experiences in the CACFP

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Although tiering's most obvious effect on providers was the lower reimbursement level for Tier 2 providers, it also affected some of the program's administrative operations. In applying for CACFP participation, providers now have to supply the information necessary to determine their appropriate tier. Tier 2 providers, if they wish to be reimbursed at the higher rate for low-income children in their care, must distribute or have the sponsor distribute income eligibility forms to the children's parents or request that the sponsor use other available documentation to establish that children are eligible for meals reimbursed at Tier 1 rates. If income eligibility forms are used, parents must complete and send them to the sponsor in order for each child's eligibility to be determined. Because providers are not told which children have been found eligible, Tier 2 providers with some Tier 1 children claim reimbursements by supplying records of exactly which children were offered which meals and snacks during the month. And all of these procedures must be incorporated into CACFP training and monitoring.

This chapter reviews providers' perceptions of administrative aspects of their participation in the CACFP in 1999. It generally finds little clear difference between the Tier 1 and Tier 2 providers that appears related to tiering. Tier 1 providers report more attendance at group training sessions and more sponsor visits, but these differences do not reflect specific administrative requirements associated with tiering.

## Provider Training

Program regulations require CACFP sponsoring agencies to train all providers before they begin receiving CACFP reimbursements, and at least annually thereafter. The training may be conducted in either group or individual sessions, the latter typically occurring during a sponsor visit to the provider's home.

### *Group Training*

More than 80 percent of the 1999 providers reported attending group training sessions during the previous year, as shown in Exhibit 17. Nearly half of providers report attending more than a single training session, and 22 percent attended three or more. Tier 1 providers reported attending significantly more training classes, on average, than Tier 2 providers. Training sessions lasted a median of 2 hours, according to the providers. Nearly all of the providers who attended training said that their sponsors required them to attend at least one session.

Group training sessions cover a variety of topics in nutrition and administration. Among the nutrition-related topics, providers most commonly recalled being trained in menu planning, types and amounts of food to serve, and the nutrient content of foods (Exhibit 18). Tier 1 and Tier 2 providers reported essentially the same training topics. For two topics, menu planning and the types of food to serve, significantly more Tier 1 than Tier 2 providers reported the topic being discussed.

Among the administrative topics, food safety (85 percent) and menu records (73 percent) were at the top of the list. Both Tier 1 and Tier 2 providers reported being informed about changes in the meal reimbursement structure (68 percent).

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**Exhibit 17**  
**Percent of 1999 Providers Attending Group Training Classes**

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<b>Number of Classes</b>	<b>All</b>	<b>Tier 1</b>	<b>Tier 2</b>	<b>Difference Tier 2 - Tier 1</b>
None	17.8	16.1	21.4	5.4
One class	34.0	29.5	43.9	14.4**
Two classes	25.9	28.6	20.2	-8.4*
Three or more classes	22.3	25.9	14.4	-11.5**
Mean classes attended	1.8	1.9	1.4	-0.5***
Unweighted sample	1,037	512	525	

Significance levels:

\* = < .10

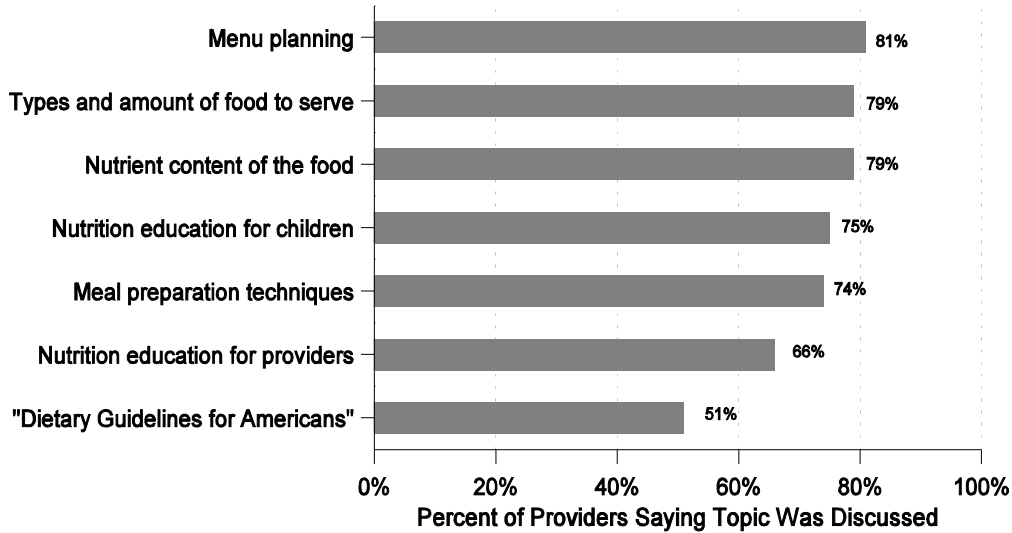
\*\* = < .05

\*\*\* = < .01

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**Exhibit 18**  
**Percent of Providers Reporting Selected Topics Discussed in Training**



***Individual Training***

Apart from the group training, about one-third of the providers reported receiving one-on-one training. In addition, four out of five providers stated receiving newsletters or written materials for self-study, and one in five mentioned studying videotapes.

**Monitoring by the Sponsoring Agency**

CACFP homes are monitored by their sponsoring agency for compliance with the CACFP regulations. Regulations require sponsors to visit the CACFP homes at least three times per year, and many sponsors report making more than three visits (Bernstein and Hamilton, 2001).

In 1999 as in 1995, 9 out of 10 providers reported that their sponsor visited them at least the required minimum of three times, and most reported more than the minimum (Exhibit 19). A median of just over three sponsor visits was reported in both years. The similarity of the 1995 and 1999 responses contrasts somewhat with sponsors' survey responses indicating that they conducted more visits to providers in 1999 than before the implementation of tiering in 1997, although these measures are not fully comparable.<sup>23</sup>

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<sup>23</sup> The sponsor and provider measures refer to different time periods. Sponsors were reporting on changes they experienced from 1997 to 1999, while the provider responses are from separate surveys in 1995 and 1999. Also, sponsors who reported conducting four or more visits per year tended to be smaller (i.e., sponsor fewer providers), so one would expect the average provider to receive fewer visits than the average sponsor makes.

**Exhibit 19**  
**Monitoring Visits by the Sponsoring Organization**

Number of Sponsor Visits	1995	1999	Difference 1999-95	1999		Difference Tier 2-Tier 1
				Tier 1	Tier 2	
Fewer than 3 visits	11.1%	8.4%	-2.7%	8.9%	7.5%	-1.4%
3 visits	29.4	33.2	3.8	29.5	40.8	11.3*
More than 3 visits	59.5	58.4	-1.1	61.6	51.7	-9.9
Median	3.2	3.2	0.0	3.3	3.0	-0.3
Unweighted sample	518	1,149		559	590	

Significance levels:

\* = < .10

\*\* = < .05

\*\*\* = < .01

In addition to monitoring compliance, sponsor visits provide a further opportunity for training. The survey therefore asked providers about topics discussed during these visits, using essentially the same list of topics as for group training.

Providers' reports of the topics covered in the visits follow a very similar pattern to that reported for group training. The two most commonly covered topics were menu planning and the types and amounts of food to serve, with over three-quarters of providers mentioning each topic. This pattern is essentially unchanged from 1995, as well. From the most widely addressed to the least, the relative ranking of the nutrition topics discussed during sponsor visits is the same in 1999 as in 1995, implying more continuity than change in the issues of greatest interest to sponsors and providers.

## Providers' Perception of the CACFP Requirements

Child care providers have to perform various administrative tasks in order to receive CACFP reimbursement and comply with regulations. The survey asked about eight such responsibilities, asking providers in each case to rank the activity on a four-point scale from "not at all burdensome" to "very burdensome." Exhibit 20 shows the ranking of each activity in terms of the proportion of providers considering the activity "somewhat" or "very" burdensome.

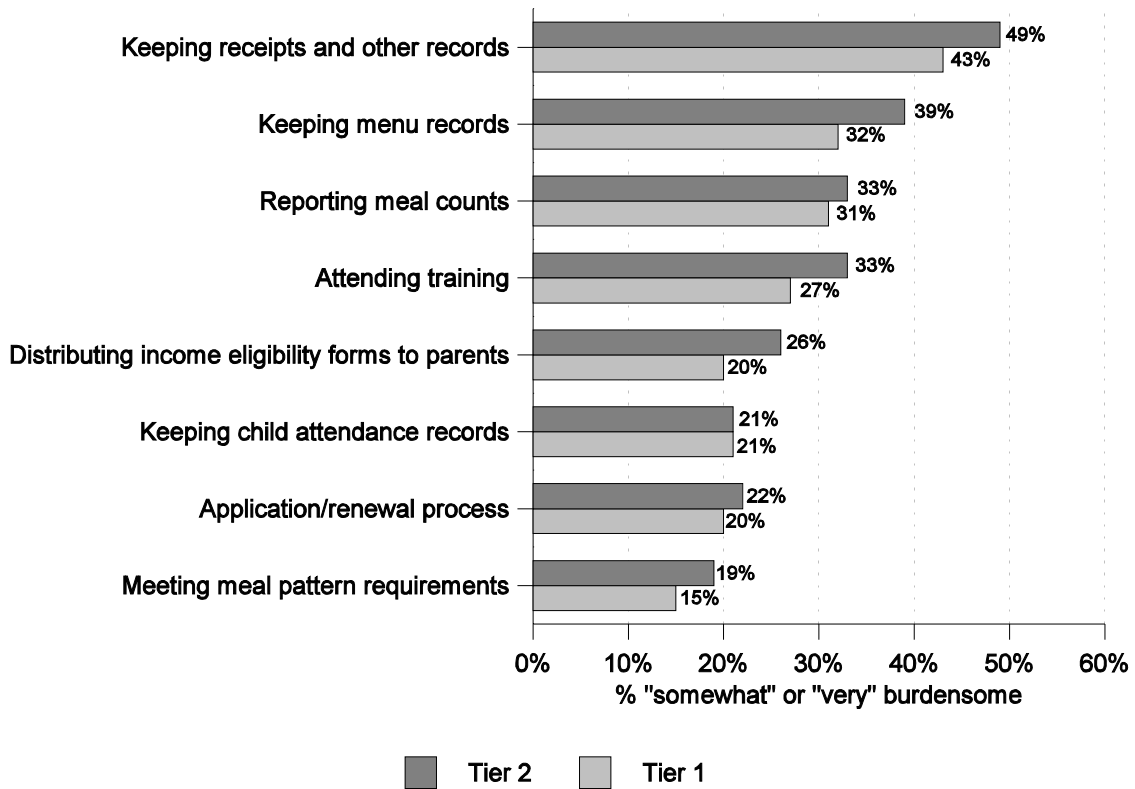
The activities perceived as most burdensome are those involving detailed record-keeping. Larger shares of Tier 2 than Tier 1 providers tend to view program requirements as somewhat or very burdensome, but the differences are not statistically significant. Tier 2 providers with some Tier 1 reimbursements might be expected to consider as burdensome the requirements for reporting meal

counts and distributing income eligibility forms to parents, but perceptions of these activities do not diverge from the overall pattern.<sup>24</sup>

Comparisons between 1995 and 1999 are very limited because the 1995 survey included only two of the burden questions. The percentage finding meal requirements burdensome was not significantly different in 1999 than 1995 (16 percent and 20 percent, respectively), but significantly more providers found the application/renewal process burdensome in 1999 than 1995 (20 percent vs. 10 percent).

These responses correspond reasonably to the fact that the application and renewal process did become more complicated after tiering was introduced, while meal pattern requirements were unchanged. One cannot, however, draw any broader inferences about the change in burden as tiering was implemented.

**Exhibit 20**  
**Share of Providers Perceiving Various CACFP Activities as Burdensome**



<sup>24</sup> Twenty percent of Tier 1 providers said that distributing income eligibility forms to parents is "somewhat" or "very" burdensome, a surprising response because Tier 1 providers do not distribute such forms. It is not known what these providers had in mind in responding to the question.

## CACFP “Dropout” Providers

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When CACFP tiering was being formulated, one concern centered on participating providers who might respond to the lower Tier 2 reimbursement by leaving the program. Some providers, it was hypothesized, might leave the CACFP but continue to operate their child care business. If they had become licensed only to participate in the CACFP, they might let their licenses lapse and provide care on an unregulated basis. Without the CACFP meal reimbursement, some might offer fewer meals and snacks to children in their care or might provide less nutritious meals and snacks.

To explore these possibilities, the *Family Child Care Homes Legislative Changes Study* included a research component specifically focused on former CACFP providers—that is, providers who were actively participating in the program in January 1997 but who were not on the program roster in January 1998. The study included a survey patterned on the survey of current providers, which is the data source for the analyses presented previously in this report.

As it turned out, the number of providers who left the CACFP between January 1997 and January 1998 and were still operating a child care business at the time of the survey in 1999 was much smaller than expected (Hamilton *et al.*, 2001b). Moreover, these providers proved hard to locate and many were reluctant to participate in the research, which included a requirement that they keep detailed records of the foods they offered to children in their care during a selected week. For these reasons, the survey obtained usable responses from only 85 former providers. Although analysis did not reveal any obvious problems of nonresponse bias, the small total number of respondents leads us to consider the former provider survey to be substantially less reliable than the survey of current providers. A limited analysis of the data is therefore presented in Appendix C, and the main results of that analysis are summarized here.

One major point emerging from the analysis is that many, and perhaps most, of the former CACFP providers in the responding sample did not leave the CACFP simply because of tiering. Between a third and a half of the former providers would apparently qualify for Tier 1 status, and therefore would not be affected by the change in reimbursement rates. Providers who would be classified as Tier 2 did, however, make up a disproportionately large share of the former provider sample, relative to the proportion of Tier 2 providers active in the CACFP program. This suggests that the former provider sample consists of some individuals who would have left the CACFP in 1997 in any event and some whose departure was motivated or hastened by tiering.

A provider who leaves the CACFP but continues to provide child care presumably has decided that the CACFP meal reimbursement and other program benefits are not worth the cost of complying with the program’s requirements, such as the requirements for meal patterns, recordkeeping, training, and monitoring. One might expect the providers who make this decision to be the ones receiving relatively little total CACFP reimbursement—that is, those serving smaller numbers of children or those offering fewer meals.

The sample of former providers generally conforms to this expectation. These providers reported smaller average daily attendance and offered somewhat fewer meals and snacks than the active CACFP providers. The former providers also operated for fewer hours per day, on average, were less likely to operate on weekends, and served a narrower age range of children.

Relatively few providers in the former provider sample had let their licenses lapse: only 13 percent said they were not licensed at the time of the survey. This may understate the true proportion, as some unlicensed providers may have been reluctant to respond truthfully. Nonetheless, it is reasonable to believe that most providers would maintain their licenses because they had already met the basic licensing requirements and would face only relatively small renewal fees. (According to data obtained from the Children's Foundation, 29 States had no renewal fee in 1999 and no State's renewal fee amounted to more than \$50 annually.) It is also possible that some providers let their licenses lapse and operated on an "underground" basis without reporting their child care income, but the data provide no basis for knowing whether or how often this happened.

The former CACFP providers offered somewhat fewer meals than current providers, on average, but breakfast, lunch, and afternoon snack were each offered by at least three-quarters of them. Moreover, most providers report serving the same meals at the time of the survey that they were serving in January 1997, when they were participating in the CACFP. For example, 80 percent of former providers report offering breakfast in January 1997, compared with 75 percent at the time of the survey (and compared with 93 percent of current providers). Thus, it appears that the providers who dropped out of the CACFP tended to be ones who were already serving fewer meals than average, and that some may have reduced their meal service further after leaving the program. Analysis shows the nutrient content of those meals and snacks served by former providers was generally quite similar to the content of meals and snacks served by active Tier 2 providers (Crepinsek *et al.*, E-FAN-02-006).

## Conclusion

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Tiering's most immediate and obvious effect was to change the economics of the child care business for Tier 2 CACFP homes. For perspective on the change, consider the following hypothetical situation. A child is in care for 33 hours per week, the median reported for children in the study sample (Crepinsek *et al.*, E-FAN-02-005). The provider charges \$1.95 per hour, the Tier 1 average for unsubsidized children, which generates \$64 in weekly revenue. The provider's main out-of-pocket expenditure for individual children is for food, which amounts to about \$17 per week for the child, again the Tier 1 average.<sup>25</sup> The provider receives CACFP reimbursements for the child's breakfast, lunch, and one snack for five days, for a total of about \$15 at Tier 1 rates. Netting out food expenditures and CACFP reimbursements, \$62 is available to cover other fixed and variable business costs (such as rent, heat, electricity, telephone, and supplies) and to make up the provider's own income.

If the same provider received reimbursement at the Tier 2 rates rather than the Tier 1 rates and nothing else changed, the CACFP reimbursement would amount to about \$7 and about \$56 would be left to cover other costs and provide income. Assuming no change in other costs, the lower CACFP reimbursements might translate into 10-20 percent less personal income for the provider.<sup>26</sup>

This change in business economics might lead actual or potential Tier 2 CACFP providers to respond in several ways. With lowered opportunity for personal income, some people might choose other employment opportunities over the child care business, either ending their existing business or deciding not to begin one. Other people might continue or open a child care business but decide not to participate in the CACFP, feeling that the smaller meal reimbursement would not be worth the trouble of complying with requirements for licensing, meal patterns, recordkeeping, training, and monitoring. Still others might continue to operate a child care business and participate in the CACFP, either accepting lower personal income or finding some other way to increase revenues or reduce costs.

The study findings suggest that all of these responses happened to some degree. Analysis reported elsewhere estimates that tiering led to a 14-percent reduction in the number of participating homes (Hamilton *et al.*, 2001b). This includes people who left the child care business (or did not start one) as well as people who continued operating a child care business but left the CACFP (or did not enroll). The available data do not permit estimates of the relative frequency of these distinct responses, however.

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<sup>25</sup> The Tier 1 average weekly expenditure was \$110, and Tier 1 providers reported average daily attendance of 6.5 children.

<sup>26</sup> The difference in CACFP reimbursements is \$7.85, which is 12.7 percent of the \$62 remaining at Tier 1 rates. The percentage reduction in income depends on the magnitude of other costs. If other costs amount to \$10 per child per week, income would be reduced by 15.1 percent. If other costs amount to \$20, the income reduction is 18.7 percent.

Tier 2 providers who remained in the CACFP or entered after tiering took effect seem to have adapted in several ways. They charged higher average fees in 1999 than similar providers charged in 1995, after adjusting for inflation. They incurred lower food expenses than their Tier 1 counterparts in 1999. The estimates suggest that the higher fees would add about \$10 per child per week in revenue, on average, while the lower food expenditures would save about \$2. Both estimates should be considered to be rough approximations, however, as they have wide confidence intervals.

A particular concern for the CACFP was whether the lower reimbursement rates would lead Tier 2 providers to offer fewer or less nutritious meals and snacks. The findings reported above show essentially no effect on the proportion of providers offering particular meals and snacks, and analysis reported elsewhere shows no substantial effect on the nutritional content of the meals and snacks offered (Crepinsek *et al.*, E-FAN-02-006). The absence of any effect on snacks is particularly interesting, because the Tier 2 reimbursement level (\$0.13 per snack in 1999) is less than a third of the Tier 1 reimbursement rate. This suggests that providers who participate in the CACFP are constrained in their meal service by the market in which they operate as well as by the requirements of the program. It also indicates that the lower food expenditures observed for Tier 2 providers result from efficiencies in shopping and menu planning rather than from fewer or less nutritious offerings.

Although tiering might have led to changes in the profile of CACFP providers' operating characteristics, only small differences were observed between the 1995 and 1999 cohorts of participating providers. One might have expected, for example, that the 1999 providers would be caring for more children or operating for more hours. This could result from Tier 2 providers attempting to increase their revenue from fees, or from reduced CACFP participation by providers who serve few children or offer few meals (and therefore receive limited CACFP reimbursements). In fact, the survey of CACFP "dropouts" suggests that smaller-scale providers were particularly likely to leave the program, but this did not result in substantial changes in the overall provider profile.

# References

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- Bernstein, Lawrence S. and William L. Hamilton, *Sponsoring Organizations in the CACFP: Administrative Effects of Reimbursement Tiering*, Washington, DC: USDA-ERS, E-FAN-02-003, March 2002. [<http://www.ers.usda.gov/publications/efan02003/>]
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## Additional References

- Glantz, Frederic B., David T. Rodda, Mary Jo Cutler, William Rhodes, and Marion Wrobel, *Early Childhood and Child Care Study: Profile of Participants in the CACFP*, Final Report, Volume 1, Alexandria, VA: U.S. Department of Agriculture, Food and Consumer Service, 1997.



# Appendix A

## Sampling and Weighting Procedures

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### Sample

The *Family Child Care Homes Legislative Changes Study* involved several surveys, including surveys of sponsors, current CACFP providers, former CACFP providers, and parents of children currently served by CACFP providers. For current CACFP providers, the study included an Operations Survey, a Menu Survey, and a Meal Observation data collection. Most of the analyses presented in this report rely on the Current Provider Operations Survey. The sample design for this survey and the weighting procedures used in the analysis are described below. The sampling and weighting for other surveys are discussed in other reports in this series. (Appendix C, which examines the Former Provider Operations Survey, describes the sample for that survey.)

The sample universe for the study consisted of family child care sponsors, family child care homes, and families participating in the CACFP. A nationally representative sample of 20 States was selected, with probability proportional to the size of each State's share of CACFP family child care home reimbursements.<sup>1</sup> All selected State CACFP agencies agreed to participate in the study and provided lists of the CACFP sponsors in their State. Sponsors were also selected within States with probability proportional to size, based on the number of homes sponsored.<sup>2</sup>

Each selected sponsor was asked for a list of the family child care homes sponsored, including three groups of homes: Tier 1 homes active (i.e., receiving CACFP reimbursement) in January 1998; Tier 2 homes active in January 1998; and all homes active in January 1997.<sup>3</sup> Sample frames for current Tier 1 and Tier 2 providers were defined to include all homes active in January 1998. Within each sponsor's list of homes in each tier, a random sample was drawn. The base number to be selected from each sponsor's list was constant across sponsors within each tier (four for Tier 1, six for Tier 2); if the total on the sponsor's list was equal to or less than the base number, all were selected.<sup>4</sup>

A sample of 300 sponsors was selected within the 20 States, comprising a representative sample of the 1,165 sponsors active in the country.<sup>5</sup> Of the selected sponsors, 289 supplied lists of current and former providers, for a response rate of 96.3 percent.

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<sup>1</sup> Four States were included with certainty (California, Michigan, Minnesota, and Texas).

<sup>2</sup> Sponsors were sampled with replacement, meaning that a sponsor could be selected more than once.

<sup>3</sup> Homes received tier designations only when tiering was implemented in July 1997.

<sup>4</sup> The number selected depended on the number of times the sponsor was selected — i.e., if the sponsor was selected twice, double the base number would be selected from the sponsor's list.

<sup>5</sup> A total of 311 were selected, but 11 were not eligible because they had left the CACFP.

From these lists, 954 Tier 1 and 1,134 Tier 2 providers were selected for survey participation. Of these, 287 Tier 1 and 388 Tier 2 providers were found to be ineligible (usually because they had left the program between sample selection and survey implementation), leaving samples of 667 and 746, respectively. The Operations Survey questionnaire was completed by 576 Tier 1 providers and 595 Tier 2 providers, for estimated response rates among eligibles of 86.4 and 79.8 percent, respectively.<sup>6</sup>

In multi-stage sampling, it is sometimes useful to consider the compound response rate, which is the product of the response rates at each sampling stage. In the present instance, the compound response rates are 80.6 and 74.4 percent for Tier 1 and Tier 2, respectively.

## Weighting

For producing population-based estimates of means and proportions of characteristics relating to providers, each respondent provider received a sampling weight. These weights combined the basic weight reflecting the probability of selection of the provider with an adjustment for unit nonresponse. The resulting weighted data yield estimates for all providers in the population.

The overall provider weight was obtained as the product of the State weight, the conditional sponsor weight (adjusted for nonresponse), and the conditional provider weight (adjusted for nonresponse), which is based on the conditional probability of selecting a provider given that the sponsor and the State have been selected.

### Basic Sponsor Weights

A preliminary first step in determining provider weights was calculation of *sponsor weights*. As described above, a sample of sponsors was selected in each of the 20 States selected in the first stage. Therefore, the overall probability of inclusion of a sponsor is the inclusion probability of the State in which the sponsor is located multiplied by the probability of including the sponsor in the sample, given that the State was selected.

Sponsor weights were computed as follows:

1. Let  $W_i$  represent the weight for the  $i$ th selected State.  $i = 1, 2, 3, 4, \dots, 19, 20$ .  $W_i = 1$  for States selected with certainty.
2. Let  $W_{ij}$  be the weight for the  $j$ th selected sponsor in the  $i$ th State. We have

$$W_{ij} = W_i W_{j/i}$$

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<sup>6</sup> This calculation assumes that all nonrespondents not known to be ineligible were eligible.

where  $W_{j/i}$  is the conditional weight of the  $j$ th sponsor given that the  $i$ th State has been selected.

We now determine  $W_{j/i}$ . Let the number of sponsors in the  $i$ th State be  $S_i$ . Let the number selected in the sample be  $s_i$ . Let the number of providers belonging to the  $j$ th sponsor in the  $i$ th State be  $P_{ij}$ .

- In 12 States, all sponsors in the State were included in the sample with certainty. In these States, we have

$$W_{j/i} = 1.$$

Therefore, the overall sponsor weight in these States is  $W_{ij} = W_i$ .

- The sponsors in the other eight States were selected with probability proportional to the number of providers and **with replacement**. Therefore, the same sponsor can get selected more than once. Let  $r_{ij}$  be the number of times ("hits") the  $j$ th sponsor gets selected in the  $i$ th State. The weight is

$$W_{j/i} = \frac{r_{ij} P_i}{n_i P_{ij}}$$

where  $n_i$  is the total number of sponsor hits in the  $i$ th State and  $P_i = \sum_{j=1}^{S_i} P_{ij}$  is the total number of providers.

The overall basic sampling weight for the  $j$ th sponsor in the  $i$ th State is given by:

$$W_{ij} = W_i W_{j/i}$$

## Adjustment for Nonresponse at the State and Sponsor Levels

There is no nonresponse at the State level.

For sponsor nonresponse adjustment, assume that  $s_i^*$  sponsors respond to the survey out of the  $s_i$  sponsors selected in the  $i$ th State. Then the nonresponse adjustment to the weights of the responding sponsors is

$$A_i = \frac{\sum_{j=1}^{s_i} W_{ij}}{\sum_{j=1}^{s_i^*} W_{ij}}$$

The nonresponse adjusted conditional weight is given by

$$W_{j/i}^a = W_{j/i} A_i.$$

The overall nonresponse adjusted basic sampling weight is given by

$$W_{ij}^a = W_i W_{j/i}^a.$$

This weight was used in sponsor tabulations.

### Basic Provider Weights

Two changes were made to the conditional sponsor weight that was determined above for sponsor tabulations. Since we selected a sample of providers for each "hit" of the sponsor, for computing the conditional weight of the sponsor for getting the provider weights, we did not include  $r_{ij}$  the number of hits. Also, the adjustment for nonresponse of the sponsor was different than for the sponsor weights used for sponsor characteristics. This was because the number of sponsors giving the list of providers for selection was slightly different from the number of sponsors responding to the survey. The number of providers in the responding and the number in the nonresponding groups were also different.

We first describe the nonresponse adjustment to the sponsor weight.

The conditional sponsor weight for provider tabulations is

$$W_{j/i}^P = \frac{P_i}{P_{ij}}$$

Let the number of sponsors responding to the provider lists be  $s_i^{**}$  out of the  $s_i$  selected. Then the nonresponse adjustment to the sponsor weight is

$$A_i^* = \frac{\sum_{j=1}^{s_i} W_{ij} P_{ij}}{\sum_{j=1}^{s_i^{**}} W_{ij} P_{ij}}$$

and the adjusted sponsor weight is

$$W_{j/i}^b = W_{j/i}^P A_i^* .$$

The overall sponsor weight is given by

$$W_{ij}^b = W_i W_{j/i}^b .$$

This sponsor weight was used for all provider tabulations.

For the selection of providers from a selected sponsor, we stratified the providers by Tier 1, Tier 2 and dropout (former providers). Let  $P_{ijk}$  denote the number of providers in the  $k$ th stratum ( $k=1,2,3$ ). Let  $p_{ijk}$  be the number of providers selected. Then the basic conditional weight for the  $l$ th selected provider in the  $k$ th stratum belonging to the  $j$ th sponsor in the  $i$ th State is

$$W_{l/ijk} = \frac{P_{ijk}}{p_{ijk}} .$$

### Adjustment for Provider Nonresponse

If out of  $p_{ijk}$  providers in the sample, only  $p_{ijk}^*$  respond, the nonresponse-adjusted conditional provider sampling weight is

$$W_{l/ijk}^a = \frac{P_{ijk}}{P_{ijk}^*} W_{l/ijk} .$$

The overall provider weight is

$$W_{ijkl}^a = W_i W_{j/i}^b W_{l/ijk}^a .$$

This weight was used for all provider tabulations in the report. To take account of the complex sampling structure, SUDAAN software is used for variance estimation.

All multivariate analyses reported here use weighted linear regressions to estimate Tier 2, weighting each observation in inverse proportion to its probability of being included in the sample. Unweighted regressions use sample variances and covariances to estimate the regression parameters for the sample (and for the hypothetical population for which it is a random sample). In sampling-weighted regression, the weights are used to estimate the population values of these variances and covariances, and the population parameter estimates are derived from these. Because sampling weights normally increase the error of estimate (unlike weighting associated with generalized least squares), unweighted estimates are preferred when they can be assumed to be unbiased. For example, if the population regression is correctly specified and the sampling probabilities are completely determined by the included variables, then the unweighted regression will yield unbiased estimates of the regression coefficients. When these conditions cannot be satisfied, as is the present case, sampling weights are commonly used to correct for differences in sampling weights, despite the associated increase in errors of estimate. Sometimes, for example, sampling rates are defined in terms of sparsely sampled categories, with category samples too small to allow them to be represented by dummy variables. In other cases, sampling rates are functions of measured characteristics, which may be added to the regression; however, the estimates then depend on correct specification of the functional form for these added characteristics. Finally, the requirement concerning the correctness of the original specification is quite stringent. In our case, for example, a regression may be mis-specified in ways that make it quite sensitive to differences in sampling rates but still offer adequate controls for characteristics associated with Tier when applied to a common population.

## Nonresponse Bias

The possibility of nonresponse bias—that is, important differences between sample members who respond to the survey and those who do not—deserves consideration in any sample survey. With compound response rates in the range of 75 to 80 percent, we would not necessarily expect nonresponse bias to be a problem, but the possibility cannot be ruled out. A series of analyses was therefore performed to assess the extent of any bias.

The analyses is necessarily based on those few items of information that are known for the nonresponding as well as the responding providers. These are the number of children enrolled in the home (as reported on the sponsor list) and the provider’s location. The latter is represented in the

analysis as the percent of homes in each census geographic region (Northeast, South, Midwest, and West).

The analysis compared the mean or percent for all selected sample members and the mean or percent for those responding to the survey. The difference can be viewed as the extent to which the respondents over- or under-represent the specified characteristics of the original sample. As a guide to the importance of the difference, we use a one sample *t*-test; that is, we compare the mean of the respondents with the mean of the total sample, taking into account the standard error of the mean of the respondents (but treating the mean of the full sample as a constant). The data are unweighted in this analysis because sampling weights were not computed for nonrespondents.

The analysis was carried out separately for Tier 1 and Tier 2 providers (the two strata were weighted separately, which corrects for any potential nonresponse bias on this dimension). The results, shown in Exhibits A.1 and A.2, generally show very small differences between the responding providers and the sample frame from which they were drawn. However, the responding Tier 2 providers had significantly more enrolled children, on average, than the sample selected (9.0 vs. 8.5 enrolled children, according to sponsor data). There is also some tendency for the western geographic region to be underrepresented among Tier 1 providers (26.1 vs. 29.5 percent,  $p < 0.10$ ). Neither of these differences appears sufficient to cause any substantive distortion of findings.

**Exhibit A.1  
Comparison of Responding Tier 1 Providers with Sample Selected**

	<b>Respondents</b>	<b>Original Sample</b>	<b>Respondent-Original Difference</b>	<b>Respondent Standard Error</b>	<b>p-value</b>
Mean number of children enrolled	8.8	8.6	0.2	0.24	0.40
Percent of sponsors that are in region:					
Northeast	27.0	25.2	1.8	1.89	0.34
South	26.0	25.3	0.7	1.87	0.73
Midwest	20.9	20.0	0.9	1.73	0.61
West	26.1	29.5	-3.4	1.87	0.08

**Exhibit A.2**  
**Comparison of Responding Tier 2 Providers with Sample Selected**

	<b>Respondents</b>	<b>Original Sample</b>	<b>Respondent-Original Difference</b>	<b>Respondent Standard Error</b>	<b>p-value</b>
Mean number of children enrolled	9.0	8.5	0.5	0.23	0.02
Percent of sponsors that are in region:					
Northeast	22.9	21.6	1.3	1.70	0.44
South	21.5	21.9	-0.4	1.66	0.80
Midwest	23.9	24.1	-0.2	1.72	0.91
West	31.7	32.3	-0.6	1.88	0.72



# Appendix B

## Provider Survey

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The provider survey questionnaire is shown on the following pages. Some minor formatting adjustments were made to make it fit in this report.

Form Approved  
OMB No. 0536-0045  
Exp. Date: 9/30/2001

## **Family Child Care Homes Legislative Changes Study**

# **FAMILY CHILD CARE HOME SURVEY**

**Abt's Toll Free Number 1-800-244-4135**

[Attach ID Label]

Public reporting burden of this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Department Clearance Officer, OIRM, AG Box 7630, Washington, DC 20250.

## How to Complete the Survey

This survey has four kinds of questions. Here is a SAMPLE of each kind.

### SAMPLE 1

**(CIRCLE ONE RESPONSE)**

**1. Is the number of children you care for now more, less, or about the same as the number you cared for in January, 1997?**

More ..... 1  
Less ..... 2  
About the same ..... 3

*If you cared for 4 children in January of 1997 and now care for 3 children, you would circle "2".*

### SAMPLE 2

**(CIRCLE MORE THAN ONE RESPONSE)**

**2. What kinds of training have you had? (Circle all that apply)**

Workshops ..... 1  
One-on-one training ..... 2  
Videotapes ..... 3

*If you attended a workshop **and** watched a videotape, you would circle "1" **and** "3".*

SAMPLE 3

**(OTHER SPECIFY RESPONSE)**

**3. Thinking back to January of 1997, what were you trained in?** (*Circle all that apply*)

- Meal counts ..... 1
- Menu planning ..... 2
- Food storage ..... 3
- Other (*Specify*) ..... 4

\_\_\_\_\_

*If you were trained in food safety, you would circle "4" and print "food safety" in the space under "Other".*

SAMPLE 4

**(FILL IN BLANK)**

**4. How many meals do you serve each day?**

\_\_\_\_\_  
# of meals

*If you served three meals per day you would write "3" in the space provided.*

Thank you for the time you will spend completing this questionnaire. If you have any questions on what a question or an instruction means, please call us toll free at 1-800-244-4135.

If you are no longer participating in the Child and Adult Care Food Program (CACFP) or are no longer operating a family child care home, please skip to question 33 on page 22.

Our first questions are about the children (including infants) who attend your family child care home.

- 1. How many children are you licensed, certified, approved or registered to serve in your family child care home?** *(Include full-time and part-time children)*

\_\_\_\_\_ 12-13/  
# of children

For questions 2 through 6, do not include your own children or any other children who are members of your household.

- 2. How many children (including infants) are currently enrolled in your family child care home?**

*When answering questions 2-5, responses should include all children (including infants) who are actively enrolled in your child care home. This should include full-time and part-time children, children who only come in one or two days per week, children who only come in occasionally, and all other children who are on your current roster of children enrolled in your child care program.*

\_\_\_\_\_ 14-15/  
# of children

- 3. How many of the enrolled children are:** *(If none, write "0")*

	Number of Children	
Under 1 year old (birth to 11 months)	_____	16-17/
1 to almost 2 years old (12 to 23 months)	_____	18-19/
2 to almost 3 years old (24 to 35 months)	_____	20-21/
3 to almost 6 years old (36 to 71 months)	_____	22-23/
6 years old or older	=====	24-25/
<b>TOTAL ENROLLED</b> <i>(This number should be the same as your answer to Question 2)</i>	_____	26-27/

4. How many of the enrolled children are in your care full-time (30 hours or more per week)?

\_\_\_\_\_  
# of full-time children

28-29/

5. How many of the enrolled children are in care part-time (less than 30 hours per week)?

\_\_\_\_\_  
# of part-time children

30-31/

6. What is your average daily attendance? (*Include full-time and part-time children*)

*When answering this question, please consider the average number of children cared for during a typical day of operation.*

\_\_\_\_\_  
# of children

32-33/

7. How many of your own children, or any other children who are members of your own household, who are age 12 and under are usually at home during the hours when you have children in care? (*If none, write in "0"*)

\_\_\_\_\_  
# of children

34-35/

**8. When do you take care of children (other than your own)?**

*Please fill in the times and circle A.M. or P.M. for each day of the week. Include all shifts. If you do not take care of children on a particular day, check (✓) the box next to "closed." Please do not leave any days blank.*

Monday	from	____:____	A.M.	to	____:____	A.M.	
			P.M. 40/			P.M. 45/	
	<i>and</i>	from	____:____	to	____:____	A.M.	<input type="checkbox"/> closed
			A.M.			P.M. 55/	56/
			P.M. 50/				
Tuesday	from	____:____	A.M.	to	____:____	A.M.	
			P.M. 61/			P.M. 66/	
	<i>and</i>	from	____:____	to	____:____	A.M.	<input type="checkbox"/> closed
			A.M.			P.M. 76/	77/
			P.M. 71/				
Wednesday	from	____:____	A.M.	to	____:____	A.M.	
			P.M. 82/			P.M. 87/	
	<i>and</i>	from	____:____	to	____:____	A.M.	<input type="checkbox"/> closed
			A.M.			P.M. 97/	98/
			P.M. 92/				
Thursday	from	____:____	A.M.	to	____:____	A.M.	
			P.M. 103/			P.M. 108/	
	<i>and</i>	from	____:____	to	____:____	A.M.	<input type="checkbox"/> closed
			A.M.			P.M. 118/	119/
			P.M. 113/				
Friday	from	____:____	A.M.	to	____:____	A.M.	
			P.M. 124/			P.M. 129/	
	<i>and</i>	from	____:____	to	____:____	A.M.	<input type="checkbox"/> closed
			A.M.			P.M. 139/	140/
			P.M. 134/				
Saturday	from	____:____	A.M.	to	____:____	A.M.	
			P.M. 145/			P.M. 150/	
	<i>and</i>	from	____:____	to	____:____	A.M.	<input type="checkbox"/> closed
			A.M.			P.M. 160/	161/
			P.M. 155/				
Sunday	from	____:____	A.M.	to	____:____	A.M.	
			P.M. 166/			P.M. 171/	
	<i>and</i>	from	____:____	to	____:____	A.M.	<input type="checkbox"/> closed
			A.M.			P.M. 181/	182/
			P.M. 176/				

**9. Thinking back to January of 1997, two years ago, is the number of children you care for now more, fewer or the same?**

- More ..... 1 183/
- Fewer ..... 2
- The same ..... 3
- Not applicable, did not operate a child care home in January, 1997 ..... 4

The following questions are about the meals and snacks provided to enrolled children.

**10. Which meals and snacks are you now serving?** *(For each meal and snack listed below, please circle 1 if you serve the meal now or 2 if you do not)*

	Serve Now?		
	YES	NO	
	▼	▼	
Breakfast	1	2	184/
Morning snack	1	2	185/
Lunch	1	2	186/
Afternoon snack	1	2	187/
Supper/dinner	1	2	188/
Evening snack	1	2	189/



**10.A Thinking back to January, 1997, two years ago, which meals and snacks were you serving then?** (For each meal and snack listed below, please circle 1 if you served this meal in January, 1997 or 2 if you did not)

If you were not operating a child care home or did not serve any meals in January 1997, check (✓) the box and skip to question 11.

190

	Served in January 1997?		
	YES	NO	
	▼	▼	
Breakfast	1	2	191/
Morning snack	1	2	192/
Lunch	1	2	193/
Afternoon snack	1	2	194/
Supper/dinner	1	2	195/
Evening snack	1	2	196/

If there has been no change in the types of meals or snacks served since January, 1997 check (✓) the box and go to question 11.

197/

**10.B What are the reasons for any changes in the types of meals or snacks you serve now compared to January, 1997?** (Please circle one number in each row. If no change or not a reason for change in types of meals or snacks served, circle "3")

**Changed types of meals/snacks because...**

	More Now	Fewer/Less Now	No Change/ Didn't Affect Types of Meals/Snacks	
	▼	▼	▼	
Hours per day you have children in care	1	2	3	198/
Number of children in your care during meal hours	1	2	3	199/
Number of children in care only during snack hours (if any)	1	2	3	200/
Number of children who bring meals or snacks from home (if any)	1	2	3	201/
Cost of providing meals/snacks	1	2	3	202/
Other reasons? (Specify)				203/
_____				204-205/
				206-207/

**11. Please answer this question only for those children who are in care when meals and snacks are served. Are there any infants or children in your care who are not served the meals and snacks you prepare?**

Yes ..... 1 ANSWER Q. 11.A  
 No ..... 2 GO TO Q. 12 208/

**11.A Why do you not serve one or more children meals or snacks?**  
*(Please circle all that apply)*

Parents want to send their own food ..... 1 209/  
 I do not provide meals and snacks for all age groups 2 210/  
 Child or children require special meals ..... 3 211/  
 Reimbursement rate is too low to cover costs of infant formula ..... 4 212/  
 Other *(Please specify)* ..... 5 213/  
 \_\_\_\_\_ 214-215/  
 \_\_\_\_\_ 216-217/

**12. On an average day, how many children bring meals (including infant formula) or snacks from home?** *(Please write one answer on each line. If none, write in "0". Do not count special occasions such as birthdays or holidays)*

\_\_\_\_\_ 218-219/  
 # children who bring a meal  
 \_\_\_\_\_ 220-221/  
 # children who bring a snack

**13. Do any children to whom you serve meals or snacks also bring food (including infant formula) from home?**

Yes ..... 1 ANSWER Q. 13.A  
 No ..... 2 GO TO Q. 14 222/

**13.A How many of the children to whom you serve meals or snacks also bring food (including infant formula) from home?**

\_\_\_\_\_ 223-224/  
 # children

Now we ask some questions on meal reimbursements and food costs.

**14. How satisfactory is the Child and Adult Care Food Program (CACFP) reimbursement rate?**

- Very satisfactory ..... 1 225/
- Somewhat satisfactory ..... 2
- Not very satisfactory ..... 3
- Not at all satisfactory ..... 4
- Don't know ..... 8

**15. Do you get a higher reimbursement for meals or snacks served to any of the children?**

- Yes ..... 1 ANSWER Q. 15.A 226/
- No ..... 2 GO TO Q. 16
- Don't know ..... 3 GO TO Q. 16
- Not applicable, I have a tier 1 home .... 4 GO TO Q. 16

**15.A For how many children do you get a higher reimbursement?**

- Don't know .....  227-228/

**16. On average, about how much do you spend per week for food and beverages for the meals and snacks you serve to all the children in your care? (Remember to include infant formula)**

- Less than \$20.00 ..... 1 229-230/
- \$20.00 up to \$39.99 ..... 2
- \$40.00 up to \$59.99 ..... 3
- \$60.00 up to \$79.99 ..... 4
- \$80.00 up to \$99.99 ..... 5
- \$100.00 up to \$119.99 ..... 6
- \$120.00 up to \$139.99 ..... 7
- \$140.00 up to \$159.99 ..... 8
- \$160.00 up to \$179.99 ..... 9
- \$180.00 up to \$199.99 ..... 10
- \$200.00 or more ..... 11

**17. Thinking back to the year before January, 1997, is the amount you spend on food for the children in your care more, less or about the same now as it was then?**

- More now ..... 1 ANSWER Q. 17.A 231/
- Less now ..... 2 ANSWER Q. 17.A
- About the same as before January, 1997 ..... 3 GO TO Q. 18
- Not applicable, not serving meals before 1997 ..... 4 GO TO Q. 19

**17.A Why did your spending on meals and snacks for children in your care change?**  
*(Please circle one number in each row. If no change or not a reason for change in spending, circle "3")*

**Changed spending on meals/snacks because...**

	More Now ▼	Fewer/ Less Now ▼	No Change/ Didn't Affect Spending on Meals/Snacks ▼	
Number of meals you serve	1	2	3	232/
Number of snacks you serve	1	2	3	233/
Number of children who bring meals or snacks from home (if any)	1	2	3	234/
Number of infants whose parents supply infant formula (if any)	1	2	3	239/
Cost of food	1	2	3	236/
Number of children in your care	1	2	3	237/
Number of older children in care (if any)	1	2	3	238/
Number of infants in care (if any)	1	2	3	235/
Amount of donated food you get (if any)	1	2	3	240/
Amount of reimbursement	1	2	3	241/
Other reasons? <i>(Please describe)</i>				242/
_____				243-244/
_____				245-246/

**18. Compared to the year before January, 1997, has your food shopping changed in any of the following ways?**

*(Please circle one number in each row. If no change, circle "3")*

	More Now ▼	Less Now ▼	No Change ▼	
Buying food items on sale	1	2	3	247/
Using coupons	1	2	3	248/
Buying store brands or generic brands	1	2	3	249/
Buying different forms of some foods (for example, frozen instead of fresh vegetables, canned fruit instead of fresh fruit, Kool Aid instead of fruit juice)	1	2	3	250/
Buying foods in larger quantities	1	2	3	251/
Shopping at a food warehouse	1	2	3	252/
Using a food co-op	1	2	3	253/
Buying convenience foods (for example, Lunchables or frozen meals, ready-made foods such as muffins or packaged cookies, prepared foods such as potato salad or fried chicken)	1	2	3	254/
Other <i>(Please describe)</i>				255/
_____				256-257/
_____				258-259/

The next questions are about your family child care home and your sponsor.

**19. How many years have you run your own family child care home?**

\_\_\_\_\_ 260-261/  
# of years

**20. How long have you received CACFP reimbursements? (If less than 1 year, write "1")**

\_\_\_\_\_ 262-263/  
# of years

**21. Do you have the same CACFP sponsor you had on January 1, 1998?**

- Yes ..... 1 GO TO Q. 22 264/  
No ..... 2 ANSWER Q. 21.A

**21A. Why did you change CACFP sponsors? (Circle all that apply)**

- Was not satisfied with former sponsor's  
services ..... 1 265/  
Liked services new sponsor offered ..... 2 266/  
Have returned to former sponsor ..... 3 267/  
Other (*Please specify*) ..... 4 268/  
\_\_\_\_\_ 269-270/  
\_\_\_\_\_ 271-272/

**22. In 1998, how many times did your sponsor visit your child care home?**

*If none, check the box and go to Question 23.* .....

\_\_\_\_\_ 273-274/  
# times

**22.A How many of these visits were unannounced?**

\_\_\_\_\_ 275-276/  
# of visits

**22.B How long did the visits usually last? (Please enter the number of hours and the number of minutes a typical visit lasted)**

\_\_\_\_\_ AND \_\_\_\_\_  
# of hours # of minutes  
277-278/ 279-280/

**22.C Thinking back to the year before January, 1997, did your sponsor visit more often, less often or about the same as in 1998?**

- More often before January, 1997 ..... 1 281/  
Less often before January, 1997 ..... 2  
The same before January, 1997 ..... 3  
Not applicable, did not have a sponsor  
before January, 1997 ..... 4

**22.D Compared to the year before January, 1997, were sponsor visits to your child care home longer, shorter or the same as in 1998?**

Longer before January, 1997 .....	1	282/
Shorter before January, 1997 .....	2	
The same before January, 1997 .....	3	
Not applicable, did not have a sponsor before January, 1997 .....	4	

**22.E Now back to last year, in 1998, what did you usually talk about during the sponsor's visits? (Circle all that apply)**

Meal counts .....	1	283/
Menu planning .....	2	284/
Menu records .....	3	285/
Food safety/sanitation .....	4	286/
Food purchasing .....	5	287/
Food storage .....	6	288/
Types and amounts of food to serve .....	7	289/
Nutrient content of foods .....	8	290/
"The Dietary Guidelines for Americans" .....	9	291/
Nutrition education for children .....	10	292/
Nutrition education for food preparers .....	11	293/
Distributing food program applications (income eligibility statements) to parents .....	12	294/
Other ( <i>Please specify</i> ) .....	13	295/
_____		296-297/
_____		298-299/

The following questions ask about the types and amount of Child and Adult Care Food Program (CACFP) training you have received during the past twelve months.

**23. Did your sponsor conduct any CACFP group classes, meetings or workshops for family child care providers during 1998?**

- Yes ..... 1      ANSWER Q. 23 A-E      300/  
No ..... 2      GO TO Q. 23.E  
Don't know ..... 3      GO TO Q. 23.E

**23.A During 1998, how many of these CACFP group training sessions did you attend?**

- .....  
# of training sessions      301-302/  
None .....       GO TO Q. 23.E

**23.B Were you required to attend one or more of these group CACFP training sessions?**

- Yes ..... 1      303/  
No ..... 2

**23.C How long did the training sessions usually last? (Please enter the number of hours and the number of minutes the sessions you attended usually lasted)**

- .....      **AND**      .....
- # of hours      # of minutes
- 304-305/      306-307/



**23.D During these group training sessions, what were you trained in?**  
*(Circle all that apply)*

Meal counts .....	1	308/
Menu planning .....	2	309/
Menu records .....	3	310/
Food safety/sanitation .....	4	311/
Food purchasing .....	5	312/
Food storage .....	6	313/
Types and amounts of food to serve .....	7	314/
Nutrient content of foods .....	8	315/
"The Dietary Guidelines for Americans" .....	9	316/
Nutrition education for children .....	10	317/
Nutrition education for providers .....	11	318/
Meal preparation techniques .....	12	319/
Family-style serving .....	13	320/
Changes to meal reimbursements .....	14	321/
Other <i>(Please specify)</i> .....	15	322/

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323-324/  
325-326/

**23.E Did you receive any of these other kinds of CACFP training during 1998?**  
*(Please circle one number in each row)*

	YES	NO	
	▼	▼	
One-on-one training/orientation	1	2	327/
Newsletters/written material for self-study	1	2	328/
Videotapes for self-study	1	2	329/
Other <i>(Please Specify)</i>			330/

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331-332/  
333-334/

**24. Did you receive any other kinds of assistance (for example, help with licensing, paperwork, referrals of parents looking for child care) from your sponsor in 1998, not counting any CACFP training?**

..... Yes	1	ANSWER Q. 24.A	
..... No	2	GO TO Q. 25	335/

**24.A What kinds of assistance did you get from your sponsor? (Circle all that apply)**

Referrals of parents looking for child care . . . . .	1	336/
Help with tax forms . . . . .	2	337/
Help with licensing . . . . .	3	338/
Information on other training and resources for child care providers (for example, CPR courses) . . . . .	4	339/
Other ( <i>Please explain</i> ) . . . . .	5	340/
_____		341-342/
_____		343-344/

**25. For each of the following activities associated with your participation in the CACFP, please indicate which best describes the level of burden each activity places on you. (When you estimate burden, please consider both the amount of work and the level of difficulty involved)**

	Not at all Burdensome	Not Very Burdensome	Somewhat Burdensome	Very Burdensome	Not Applicable	
	▼	▼	▼	▼	▼	
Completing application/ renewal process	1	2	3	4	5	345/
Reporting meal counts	1	2	3	4	5	346/
Distributing food program applications (income eligibility statements) to parents	1	2	3	4	5	347/
Meeting meal pattern requirements	1	2	3	4	5	348/
Keeping menu records	1	2	3	4	5	349/
Attending required training	1	2	3	4	5	350/
Keeping child attendance records	1	2	3	4	5	351/
Keeping receipts and other business records	1	2	3	4	5	352/

Our final questions are about your sources of funding.

**26. Does a government agency or other organization pay all or part of the fees for any of the children in your care?**

- Yes ..... 1      ANSWER Q. 26.A      353/  
 No ..... 2      GO TO Q. 27

**26.A How many children’s fees are paid by a government agency or other organization?**

\_\_\_\_\_ 354-355/  
# children

**27. How much do you charge parents who pay full fee for a preschool child in care 30 hours or more per week? (Please choose your billing rate, and answer on one line)**

- If hourly rate      →      \$ \_\_\_\_\_ per hour      356-359/  
 If daily rate      →      \$ \_\_\_\_\_ per day      360-363/  
 If weekly rate      →      \$ \_\_\_\_\_ per week      364-368/  
 If monthly rate      →      \$ \_\_\_\_\_ per month      369-374/  
 Not applicable            375/  
 (No full fee children or no children in care 30 hours or more per week)

**27.A How much do you charge parents who pay full fee for a preschool child in care less than 30 hours per week? (Please choose your billing rate, and answer on one line)**

- If hourly rate      →      \$ \_\_\_\_\_ per hour      376-379/  
 If daily rate      →      \$ \_\_\_\_\_ per day      380-383/  
 If weekly rate      →      \$ \_\_\_\_\_ per week      384-388/  
 If monthly rate      →      \$ \_\_\_\_\_ per month      389-394/  
 Not applicable            395/  
 (No full fee children or no children in care less than 30 hours per week)

**28. Do you charge higher, lower, or the same fees as you did in January, 1997?**

- Higher ..... 1 **Why?** \_\_\_\_\_ 396/
- Lower ..... 2 **Why?** \_\_\_\_\_ 397-398/
- The same ..... 3 399-400/
- Not applicable, did not operate a child care home in January, 1997  4

**29. How much of your household income would you estimate comes from your net**

These last questions are for statistical purposes only. Please keep in mind that the information you provide will be kept confidential and will have no effect on your tier status. Your sponsor will not see your answers.

**family child care business income? Net business income is all fees you receive for children in your care plus money you receive from your CACFP sponsor minus the costs of operating the business, such as money you spend on food for meals.**

- Less than 25% ..... 1 401/
- 25% to 49% ..... 2
- 50% to 74% ..... 3
- 75% to 100% ..... 4

**30. How much of your family child care total or gross business income would you estimate comes from the money you receive from your sponsor for food served? Total business income is all money received from child care fees and the CACFP before subtracting costs of operating the business.**

- Less than 25% ..... 1 402/
- 25% to 49% ..... 2
- 50% to 74% ..... 3
- 75% to 100% ..... 4

**31. What was your total household income for 1998? Household income includes your net child care business income plus money you and other household members receive from other jobs, welfare, pensions, alimony and child support payments, unemployment compensation, social security and cash withdrawn from savings, investments or trust accounts or received from friends and relatives.**

\$5,000 or less per year . . . . .	1	403-404/
\$5,001 to \$10,000 per year . . . . .	2	
\$10,001 to \$15,000 per year . . . . .	3	
\$15,001 to \$20,000 per year . . . . .	4	
\$20,001 to \$25,000 per year . . . . .	5	
\$25,001 to \$30,000 per year . . . . .	6	
\$30,001 to \$35,000 per year . . . . .	7	
\$35,001 to \$40,000 per year . . . . .	8	
\$40,001 to \$45,000 per year . . . . .	9	
\$45,001 to \$50,000 per year . . . . .	10	
\$50,001 to \$55,000 per year . . . . .	11	
\$55,001 to \$60,000 per year . . . . .	12	
\$60,001 to \$65,000 per year . . . . .	13	
\$65,001 to \$70,000 per year . . . . .	14	
\$70,001 to \$75,000 per year . . . . .	15	
\$75,001 to \$80,000 per year . . . . .	16	
\$80,001 or more per year . . . . .	17	

**32. Including yourself, how many people live in your household?**

\_\_\_\_\_ 405-406/  
# of people

**GO TO PAGE 23** [this was the last page of the survey form, page 65 in this report]

Respondents who had dropped out of the CACFP by the time this questionnaire was sent to them were asked to skip Q. 1 to 32 and go to this page to complete the following questions.

**33. Do you currently operate a family child care home?**

- Yes ..... 1 GO TO QUESTION 36  
 No ..... 2 ANSWER Q. 34-35 407/

**34. When did you stop operating a family child care home?**

\_\_\_\_\_/\_\_\_\_\_  
 month year  
 408-409/ 410-411/

**35. Why did you stop operating a family child care home? (Circle all that apply)**

- Could not make a profit ..... 1 412/  
 Changed to a different job or business ..... 2 413/  
 Could not find parents who wanted  
 family child care ..... 3 414/  
 Could not afford lowering of CACFP  
 reimbursements ..... 4 415/  
 Could not afford to meet licensing  
 requirements ..... 5 416/  
 Got tired of caring for children ..... 6 417/  
 Change in household structure (for example,  
 remarriage, divorce, own children now in school) ..... 7 418/  
 Other reasons? (Please describe briefly) ..... 8 419/  
 \_\_\_\_\_ 420-421/  
 \_\_\_\_\_ 422-423/

**36. When did you leave the CACFP?**

\_\_\_\_\_/\_\_\_\_\_  
 month year  
 424-425/ 426-427/

**GO TO PAGE 23** [this was the last page of the survey form, page 65 in this report]

Thank you for taking the time to answer the questions on this survey. Please return the completed questionnaire in the enclosed postage-paid envelope.

Please feel free to call if you have any questions about our study. Our toll free telephone number is 1-800-244-4135.

We will separate this page from your survey responses. Your name will **not** be connected with the answers you have given in the rest of this questionnaire.

Please enter your name, phone number, and the date on which you completed this survey. You may be contacted by staff from Abt Associates if we have any questions about your responses. If you would like to receive a copy of the results of this study, check (✓) the box and a report will be mailed to you.

Your Name \_\_\_\_\_ Today's Date \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Month Day Year

Telephone No. (\_\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_  Please send a copy of study results  
Area Code Number

## Appendix C

# Characteristics of Former CACFP Providers

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One component of the *Family Child Care Homes Legislative Changes Study* was designed to examine the experiences of CACFP providers who left the program shortly before or after tiering was implemented. It was hypothesized that many providers who were (or who expected to be) classified as Tier 2 might drop out of the CACFP but continue to operate a child care business. Policymakers were concerned about the possibility that, without the CACFP meal reimbursement, providers operating these homes might offer fewer or less nutritious meals and snacks to children in their care.

The study was therefore designed to include a three-part survey of these former providers: a self-administered survey of their current operating characteristics and reasons for leaving the CACFP (the Operations survey); a week-long diary of foods the providers offered at each meal and snack (the Menu survey); and on-site observations of actual portion sizes served by a subsample of providers (the Meal Observation survey). The sample would be providers who were active in the CACFP in January 1997 but who were not on the program roster in January 1998.

As it turned out, the number of providers who left the CACFP but remained in the child care business was far less than anticipated. Of those providers who left the CACFP between January 1997 and January 1998, only 10 percent were still in the child care business and not participating in the CACFP at the time of the survey (spring-summer 1999). The majority (66 percent) had stopped providing child care and 24 percent turned out to be "temporary exits" who were once again active in the CACFP at the time of the survey. These findings are discussed further in Hamilton *et al.*, 2001a.

Because of the small percentage of former providers who were still operating a child care business but not in the CACFP, the Operations survey and the Menu survey each obtained fewer than 100 respondents. The Meal Observation survey, which was to be based on a subsample of the respondents, was not implemented after it became clear that there would be too few responses for a meaningful analysis. We therefore consider the results of these surveys to have limited generalizability and do not present a full analysis of the data.

Despite their limited sample size, the surveys provide a useful picture of a group of providers who left the CACFP but continued to operate family child care businesses. This appendix therefore summarizes data from the Operations survey. Data from the Menu survey are examined in Crepinsek *et al.*, E-FAN-02-006.



## Sample Design and Nonresponse

The sample design for the Former Provider Operations Survey was parallel to that described in Appendix A for the survey of active CACFP providers. The first two sampling stages (States and sponsors) were identical for the active and former providers.

When sponsors submitted their lists of Tier 1 and Tier 2 homes active in January 1998, which became the sample frames for the active provider surveys, they were also asked to submit a list of all providers active in January 1997. The 1997 and 1998 lists were compared to identify providers who left the CACFP between January 1997 and January 1998. It was hypothesized that any providers who left the CACFP because of tiering would do so during this period, which bracketed the tiering implementation date of July 1997.

A sample of 300 sponsors was selected within the 20 States.<sup>1</sup> Of the selected sponsors, 289 supplied lists of 1998 and 1997 providers, and 280 of these had at least one former provider meeting the definition required for inclusion in the survey, for a response rate of 93.3 percent.<sup>2</sup> Within the set of homes identified as former providers for each sponsor, a random sample of five was drawn (for sponsors with fewer than five former providers, all were drawn).<sup>3</sup> From those lists, a sample of 1,971 former providers was selected.

Telephone “screening interviews” were attempted with these providers. The purpose of the screening interview was to determine the current status of the provider and, for those still providing care but not in the CACFP, to recruit them for the Operations and Menu surveys.

The former provider’s current status was determined for 1,275 providers, or 64.6 percent of the sample, through the telephone screening survey. This includes five individuals who were not actually interviewed, but who were determined to have moved or died. In-person screening was then attempted for a subsample of 195 of the 701 providers who could not be reached by telephone. Of these, a current status was determined for 123, or 63.1 percent (including 16 who had either moved or died). The remaining former providers could not be reached or definitively located.

Among the respondents reached in the telephone screener survey, 153 were determined to be eligible for the Operations and Menu surveys. Of those, 85 provided usable responses to the Operations

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<sup>1</sup> A total of 311 were selected, but 11 were not eligible because they had left the CACFP.

<sup>2</sup> The data submitted by sponsors do not always allow us to distinguish between a sponsor who had no homes leave the CACFP between January 1997 and January 1998 and a sponsor who provided insufficient data to identify these homes. For this calculation, we take the conservative approach of assuming that these 11 sponsors are all nonrespondents with regard to the list of former providers. If we assume that none of them actually had any dropouts, the response rate would be 96.3 percent.

<sup>3</sup> The number of dropouts selected depended on the number of times the sponsor was selected — i.e., if the sponsor was selected twice, 10 dropouts rather than 5 would be selected from the sponsor’s list.

survey. This represents a response rate of 55.6 percent among those determined eligible. It represents a response rate of 48.2 percent among all members of the original sample estimated to be still providing care but not in the CACFP.<sup>4</sup>

It is sometimes useful in multi-stage samples to consider the compound response rate, which is the product of the response rates at each stage. The compound response rate for the screening survey is 66.2 percent, based on the sponsor response rate of 93.3 percent and a 70.9 response rate within the provider sample.<sup>5</sup> The Operations Survey compound response rate is 45.0 percent, based on the sponsor response rate of 93.3 percent and the response rate of 48.2 percent within the former provider sample.

Because the compound response rate is low enough to raise concerns about nonresponse bias, we compared the responding former providers with nonrespondents on those dimensions which are known for both groups. This analysis was necessarily limited because the only information available for nonrespondents was their location and the characteristics of the sponsors upon whose list the former providers appeared. The analysis showed that the responding providers were distributed across the four census regions in almost exactly the same proportion as the overall sample that was drawn; the percent of respondents in each region was within two percentage points of the percent of the sample. The sponsors of responding former providers tended to be slightly larger and to sponsor slightly greater numbers of Tier 2 homes; the average number of homes sponsored was 4.5 percent greater for the respondents' sponsors, and the average percentage of sponsored homes that are Tier 2 was 8.3 percent greater for respondents. None of the differences were statistically significant in a one-sample *t*-test compare the mean of the respondents with the mean of the total sample, taking into account the standard error of the mean of the respondents. (The data are unweighted in this analysis because sampling weights were not computed for nonrespondents.)

The sample weighting procedures, which are the same for former providers as active providers, are described in Appendix A. All means, percentages, and other distributional statistics described below use weighted data. Tables show the unweighted number of observations on which the statistics are based. Significance tests and measures of variability are adjusted for the complex sample design using SUDAAN software. Multivariate analyses use weighted regression, with standard errors adjusted for the complex sample.

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<sup>4</sup> Among all subsample members whose status was determined, 3.4 percent were still providing child care and not in the CACFP. Applying this percentage to the 696 sample members whose status was not determined by the telephone survey yields an estimate of 23 providers. This is added to the 153 determined by the telephone survey to be still providing child care but not in the CACFP.

<sup>5</sup> Responses for the telephone and in-person surveys are summed in this response rate.

## Tiering-Related Characteristics of Former Providers

The hypothesis motivating the examination of former providers is that tiering would cause some providers who were previously participating in the CACFP to drop out of the program, even though they might continue to operate a child care business. It cannot be assumed, however, that everyone who left the CACFP but continued to provide child care did so because of tiering. Even in the absence of tiering, a provider may decide that the CACFP meal reimbursement is not worth the effort of complying with meal pattern requirements, the paperwork of maintaining records and filing claims, and such ancillary requirements as participating in training and being monitored. By lowering the reimbursement level for Tier 2 providers (and perhaps also by increasing their paperwork requirements), tiering would theoretically lower the threshold at which providers would decide to leave the program.

One way to distinguish tiering-induced dropouts from providers who would have left the CACFP even in the absence of tiering would be to consider the provider's tier status. Any Tier 1 dropouts may reasonably be assumed to have left for reasons unrelated to tiering,<sup>6</sup> while Tier 2 dropouts would include both those responding to tiering and those who would have left in any event.

The tier status of former providers is not known but can be crudely approximated. Because those who left the CACFP before July 1997 never had a tier status, tier classification was not captured for any former providers (although those who left between July 1997 and January 1998 presumably were assigned to a tier). Of the three criteria used to determine tier status, proxy measures for two are available for nearly all former providers: the provider's household income relative to the Federal poverty guideline, and the percent of low-income children in the provider's census block group. The third criterion, the percent of low-income children in the provider's elementary school attendance area, is available for providers in 14 of the 20 States in the sample. All of these measures pertain to the provider's situation in 1999, which may or may not be the same as the situation existing at the time the provider left the CACFP (sometime in 1997).

These data suggest that many, and perhaps a majority, of the former providers might have qualified for Tier 1 on one or more of the three criteria (Exhibit C.1). In the 14 States for which all three measures are available, 27-55 percent of the former providers would apparently qualify for Tier 1 based on their 1999 circumstances. About 26 percent in the 14 States would qualify because of low household income (31 percent in the full sample), and the estimates for the percent qualifying on the basis of elementary school attendance area range from 4 to 40 percent.

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<sup>6</sup> Tiering does affect Tier 1 providers, in that they may have to provide information on their household income and participation in assistance programs in order to qualify for Tier 1 status. We assume here that this requirement is too minor to have a perceptible impact on provider decisions to continue participating in the CACFP.

Although this estimate is imperfect, it is clear that not all former providers left the CACFP because of tiering. Still, the estimated percentage of the Tier 1 providers among the former provider sample is smaller than the percentage of Tier 1 active providers. If tiering had no effect at all, one might expect the distribution between Tier 1 and Tier 2 former providers to resemble the actual Tier 1/Tier 2 distribution in the active provider population. Program administrative data show that active providers in January-March of 1998 included 65 percent Tier 1 homes, compared with the 27-55 percent estimate above.

This analysis is generally consistent with the hypothesis that tiering caused some providers to depart CACFP before they otherwise would have done so. It cannot offer a precise estimate of the number of such providers, however, because of the numerous approximations and inferences as well as the small number of former provider survey respondents.

The remainder of this appendix presents analyses comparing "Potential Tier 1" and "Potential Tier 2" providers. In order to include the full sample in these analyses, it was necessary to define the two groups on the basis of the two measures that were available for the full sample (provider income and census block group income). Excluding the third measure (school attendance area) means that

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**Exhibit C.1**  
**Tiering-Related Characteristics of Former CACFP Providers**

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Tier 1 Qualifying Criterion	Percent of Former Providers Who Would Apparently Qualify for Tier 1 Reimbursement
<b>Full sample</b>	
• Low household income <sup>a</sup>	30.5%
• Low-income census block group <sup>b</sup>	1.6%
• Either (a) and/or (b)	31.8%
Unweighted sample	80
<b>14 States for which estimates of school attendance area low-income status are available</b>	
a) Low household income <sup>a</sup>	26.1%
b) Low-income census block group <sup>b</sup>	1.8%
c) Either (a) and/or (b)	26.8%
d) Low-income school attendance area (lower bound) <sup>c</sup>	3.7%
e) Low-income school attendance area (upper bound) <sup>d</sup>	40.2%
f) Any criterion (lower bound)	27.1%
g) Any criterion (upper bound)	54.7%
Unweighted sample	64

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<sup>a</sup> At or below 185% of Federal poverty guideline  
<sup>b</sup> At least 50% of children had household income at or below 185% of poverty line in 1990  
<sup>c</sup> At least 50% of children qualify for free or reduced-price school meals in all elementary schools in provider's zip code  
<sup>d</sup> At least 50% of children qualify for free or reduced-price school meals in one or more elementary schools in provider's zip code

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providers who might qualify as Tier 1 on this criterion, but not on the other two, are classified as Potential Tier 2. The analyses are therefore likely to underestimate the extent of differences between Tier 1 and Tier 2 former providers.

## Stated Reasons for Leaving the CACFP

The survey asked former providers why they left the CACFP, offering a list of possible reasons. The respondents could choose multiple reasons, but were also asked for a "main reason." None of the reasons explicitly referred to tiering, but two reasons—"reimbursement is too low" and "too much paperwork"—seem the most likely to be chosen by any providers for whom tiering made the program no longer worthwhile.

Overall, 80 percent of the former providers indicated that either "reimbursement is too low" or "too much paperwork" was their main reason for leaving the CACFP (49 percent and 31 percent, respectively), as shown in Exhibit C.2. The remaining 20 percent gave a variety of other reasons, such as not wanting to deal with the CACFP meal standard or not liking their CACFP sponsor.

Potential Tier 2 providers were significantly more likely than the Potential Tier 1 providers to say that either low reimbursements or excessive paperwork was their main reason for leaving (87 percent vs. 64 percent,  $p < 0.10$ ). This is consistent with the hypothesis that the lower Tier 2 rates would cause some additional providers to decide that the benefits of participating in the CACFP were not worth the cost.

**Exhibit C.2**  
**Percentage of Former Providers Reporting as the Main Reason for leaving CACFP**

Reasons	Total	Potential Tier 1	Potential Tier 2	Difference Tier 2-Tier 1
Reimbursement is too low	49.2%	38.4%	54.5%	16.1%
Too much paperwork	30.6	25.9	32.8	6.9
Other reasons	20.2	35.7	12.7	-23.0*
Unweighted Sample	71	15	56	

Significance levels:

\* = < .10

\*\* = < .05

\*\*\* = < .01

# Characteristics of Family Child Care Homes

## Licensure Status of Former Providers

Providers must be State-licensed (or certified or otherwise approved) to participate in CACFP. It was hypothesized that if tiering caused some providers to leave CACFP, these providers might let their licenses expire, rather than renewing them, in order to save money on fees.

Only 13 percent of the responding former providers said that they were not currently licensed, with no significant difference between the proportion of Potential Tier 1 and Potential Tier 2 providers giving this response (Exhibit C.3). Offered a set of possible reasons for letting their license lapse, the former providers most commonly said that it was "not worth the trouble" or "does not matter to the parents of children in my care."

## Number of Children Served

The former providers reported having an average of 6.6 children enrolled, with an average of 5.2 children usually in attendance (Exhibit C.4). The average attendance is significantly less than that reported by current CACFP providers. The difference is particularly pronounced for large providers, i.e., those with 10 or more children usually attending. Large providers accounted for 18 percent of the current providers, but just 3 percent of the former providers.

**Exhibit C.3**  
**Current Licensure Status of Former CACFP Providers**

Status	Total	Potential Tier 1	Potential Tier 2	Difference Tier 2-Tier 1
Licensed providers	87.3%	85.2%	88.2%	3.0%
Not currently licensed	12.7%	14.8%	11.8%	-3.0%
Unweighted Sample	84	19	65	

Significance levels:

\* = < .10

\*\* = < .05

\*\*\* = < .01

**Exhibit C.4**  
**Attendance and Enrollment in Former and Current CACFP Homes**

	Former CACFP Homes			Total	Current CACFP Homes	Difference Former-Current
	Potential Tier 1	Potential Tier 2	Difference Tier 2-Tier 1			
< 5 children	94.4%	20.4%	-74.0%***	40.7%	30.4%	10.3%
5 to 9 children	4.7%	76.3%	71.6%***	56.7%	51.5%	5.2%
>9 children	0.9%	3.3%	2.4%	2.6%	18.1%	-15.5%***
Mean attendance	3.9	5.7	1.6***	5.2	6.5	-1.3**
Mean enrollment	4.1	7.6	3.5***	6.6	8.1	-1.5
Unweighted Sample	19	66		84	1,152-1,169	

Significance levels:

- \* = < .10
- \*\* = < .05
- \*\*\* = < .01

Among the former providers, the Potential Tier 1 providers are significantly smaller than the Potential Tier 2 group. This would be consistent with the hypothesis that tiering lowered the threshold at which Tier 2 providers decide that CACFP participation was not worthwhile. One would expect the providers receiving lower total CACFP reimbursements to be the ones most likely to decide that CACFP participation is not worth the effort. Because Tier 2 providers receive about half as much CACFP reimbursement per child as Tier 1 providers, a Tier 2 provider must have twice as many children in care to receive the same total CACFP reimbursement as a Tier 1 provider.

Asked to compare the number of children they served at the time of the survey in 1999 with the number they had been serving in January 1997, 46 percent said they served the same number of children, 37 percent said they served fewer children, and 17 percent said they served more children. For the majority of former providers, then, departure from the CACFP was clearly not associated with a reduction in the number of children in their care. The data do not indicate whether the 37 percent whose number of children declined between 1997 and 1999 experienced the decline before or after leaving the CACFP.

**Age of Children Served**

Consistent with their smaller size, former CACFP providers serve a somewhat narrower age range of children than the current CACFP providers. A smaller proportion of former than current providers

reported serving each age group, although only the difference for children aged 3-5 was statistically significant (Exhibit C.5). Nearly all potential Tier 1 providers responding to the survey served children aged 1-2, but this unusually large proportion might result from the small sample size.

### Operating Schedule

Another indication of the more limited operating scale of former providers is their operating schedule. The former CACFP providers averaged 9.5 hours of daily operations, and just 3 percent of them operated any weekend days in addition to Monday-Friday (Exhibit C.6). Current CACFP providers, in contrast, averaged 11.1 hours, and 19 percent of them were open at least one weekend day in addition to Monday through Friday. Both differences are statistically significant. On average, Tier 1 former providers were open longer hours than Tier 2 former providers. Ninety-nine percent of the Tier 1 former providers opened only on weekdays in 1999. Tier 2 former providers had greater flexibility in days opened. In general, current providers have longer hours of operation and offer more flexible hours of care than former providers. Particularly, the variation in hours of operation mainly results from the difference between Tier 2 current providers and Tier 2 former providers. For days opened, the difference largely comes from Tier 1 current and former providers.

**Exhibit C.5**  
**Age Groups Served by Former and Current CACFP Homes**

	Former CACFP Homes			Total	Current CACFP Homes	Difference Former-Current
	Potential Tier 1	Potential Tier 2	Difference Tier 2-Tier 1			
Percentage of providers reporting usual attendance of :						
< age 1	22.0%	39.4%	17.4%	34.6%	41.6%	-7.0%
Age 1 to 2	98.4	74.1	-24.3***	80.8	84.9	-4.1
Age 3 to 5	40.1	78.8	38.7***	68.2	84.8	-16.6**
Age 6 to 12	58.1	49.6	-8.5	52.0	63.3	-11.3
Unweighted sample	18	66		84	1,150-1,165	

Significance levels:  
 \* = < .10  
 \*\* = < .05  
 \*\*\* = < .01



**Exhibit C.6**  
**Operating Schedules of Former and Current CACFP Homes**

	Former CACFP Homes			Total	Current CACFP Homes	Difference Former-Current
	Potential Tier 1	Potential Tier 2	Difference Tier 2-Tier 1			
<b>Hours of operation on weekdays—percentage of providers operating:</b>						
< 10 hours	32.8%	40.2%	7.4%	38.0%	18.2%	19.8%*
10-12 hours	53.9%	53.3%	-0.6%	53.4%	68.0%	-14.6%
> 12 hours	13.3%	6.8%	-6.5%	8.6%	13.8%	-5.2%
Mean hours	10.4	9.2	-1.2*	9.5	11.1	-1.6**
<b>Days of operation—percentage of providers operating:</b>						
Monday-Friday	98.5%	87.1%	-11.4%	90.6%	77.8%	12.8%**
Monday-Friday plus Saturday and/or Sunday	1.2%	3.3%	2.1%	2.6%	19.0%	-16.4%***
Other	0.3%	9.6%	9.3%	6.7%	3.2%	3.5%
Unweighted Sample	18	66		84	1115-1159	
Significance levels:						
* = < .10						
** = < .05						
*** = < .01						

Potential Tier 1 and Potential Tier 2 providers reported quite similar operating schedules. The only significant difference is that the Potential Tier 2 providers indicated somewhat shorter operating hours (9.2 vs. 10.4,  $p < 0.10$ ).

**Child Care Fees**

The average full-time and part-time hourly fees charged by former providers are \$2.37 and \$2.84, respectively (Exhibit C.7). Former providers reported somewhat higher full-time fees than current providers, but the difference was not statistically significant. Although the analysis of current CACFP providers indicates that Tier 2 providers charge higher fees than Tier 1 providers, we do not see this in the former provider sample. The differences in hourly rates charged by Potential Tier 1 and Potential Tier 2 former providers are small and not statistically significant.

**Exhibit C.7**  
**Hourly Fees Charged by Former and Current CACFP Homes**

Fee type	Former CACFP Homes				Current CACFP Homes	Difference Former-Current
	Potential Tier 1	Potential Tier 2	Difference Tier 2-Tier 1	Total		
Average full-time fee	\$2.26	\$2.43	\$0.17	\$2.37	\$2.12	\$0.28
Average part-time fee	2.68	2.93	0.25	2.84	2.82	0.02
Unweighted Sample	15-19	49-54		73-64	837-1,010	

Significance levels:  
 \* = < .10  
 \*\* = < .05  
 \*\*\* = < .01

Asked whether they had changed their fees since January 1997, 52 percent of former providers said their fees had gone up and 47 percent said their fees had not changed. This is not significantly different from the response pattern for current providers as a whole.

**Proportion of the Providers' Household Income from Child Care**

Income from child care accounts for a smaller portion of total household income for former providers than current providers, as shown in Exhibit C.8. About 58 percent of former providers reported that their child care income accounts for less than one fourth of their household income, compared with 27 percent of current CACFP providers.

This difference is consistent with the smaller operating scale of the former provider: with fewer children in care for fewer hours, the former providers would be expected to have less income from child care. It is also possible that providers with greater resources outside their child care business are more likely to decide that CACFP participation is not worthwhile.

**Meals and Snacks Served**

Breakfast, lunch, and afternoon snack are offered by large majorities of the former CACFP providers, at 75 percent, 80 percent, and 85 percent respectively (Exhibit C.9). Although these proportions are large, they are all significantly smaller than the corresponding proportions for current CACFP providers.

**Exhibit C.8****Proportion of Former and Current Providers' Total Household Income from Child Care**

	Former CACFP Homes			Total	Current CACFP Homes	Difference Former-Current
	Potential Tier 1	Potential Tier 2	Difference Tier 2-Tier 1			
Under 25%	67.5%	53.3%	-14.2%	57.7%	30.3%	27.4%***
25% to 49%	12.2	38.5	26.3**	30.3	37.5	-7.2
50% to 74%	9.3	5.6	-3.7	6.7	15.5	-8.8***
75% to 100%	11.1	2.5	-8.6	5.2	16.7	-11.5***
Unweighted Sample	19	65		84	1,116	

Significance levels:

\* = &lt; .10

\*\* = &lt; .05

\*\*\* = &lt; .01

**Exhibit C.9****Proportion of Former and Current Providers Offering Specified Meals and Snacks**

	Former CACFP Homes			Total	Current CACFP Homes	Difference Former-Current
	Potential Tier 1	Potential Tier 2	Difference Tier 2-Tier 1			
Breakfast	99.3%	63.3%	-36.0%***	74.7%	92.8%	-18.1%*
Morning snack	44.9	65.9	21.0	59.2	58.2	1.0
Lunch	99.6	78.1	-21.5***	84.9	97.6	-12.7
Afternoon snack	87.7	76.5	-11.2	80.1	96.0	-15.9**
Supper	0.0	6.9	6.9*	4.7	40.3	-35.6***
Evening snack	9.8	2.6	-7.2	4.9	16.8	-11.9***
Unweighted Sample	15-16	63		78-79	1,164-1,169	

Significance levels:

\* = &lt; .10

\*\* = &lt; .05

\*\*\* = &lt; .01

The lower proportion of former providers offering meals could occur for two reasons. First, the people who decide to leave the CACFP may be those who provide fewer meals, and therefore receive less in CACFP reimbursements. Second, providers who leave the CACFP might adjust to the absence of CACFP reimbursements by cutting back on the number of meals served.

Providers generally report serving the same meals at the time of the survey in 1999 as they did in January 1997, when they were in the CACFP. The proportion of providers serving each meal was slightly smaller in 1999 than 1997 (except for the evening snack), but none of the differences were statistically significant (Exhibit C.10).

### Spending on Food

Former CACFP providers reported average weekly food expenses of \$64 (Exhibit C.11). This is significantly less than the average of \$104 reported by current CACFP providers. Among the former providers, Potential Tier 2 providers reported somewhat greater average expenditures than Potential Tier 1 providers, but the difference is not statistically significant.

The former CACFP providers would be expected to have lower weekly food expenditures than the current providers simply because the former providers have fewer children in attendance and serve somewhat fewer meals and snacks. It was also hypothesized, however, that former providers might adjust to the absence of the CACFP reimbursement by reducing their average expenditures per child per meal. To test this possibility, we re-estimated the expenditure model presented in the main report, including both former and current providers.

**Exhibit C.10**  
**Meals and Snacks Served in 1997 and 1999 by Former CACFP Providers**

	1997	1999	Difference 1999-97
Breakfast	80.0%	74.7%	-5.3%
Morning snack	70.0	59.2	-10.8
Lunch	87.4	84.9	-3.5
Afternoon snack	93.4	80.1	-13.3
Supper	9.6	4.7	-4.9
Evening snack	4.5	4.9	0.4
Unweighted Sample	78-79	78-79	

Significance levels:

\* = < .10

\*\* = < .05

\*\*\* = < .01

**Exhibit C.11**  
**Weekly Food Expenses for Former and Current CACFP Homes**

	Former CACFP Homes				Current CACFP Homes	Difference Former-Current
	Potential Tier 1	Potential Tier 2	Difference Tier 2-Tier 1	Total		
Mean weekly food expenses	\$55.52	\$68.07	\$12.55	\$63.96	103.90	-\$39.94
Unweighted Sample	18	61		79	1,154	

Significance levels:  
 \* = < .10  
 \*\* = < .05  
 \*\*\* = < .01

The analysis results, shown in Exhibit C.12, suggest that former providers spent \$12 less per week than the current Tier 1 providers, controlling for the number of children and meals served and for characteristics of the provider’s location. This is consistent with the general hypothesis that the CACFP reimbursement influences providers’ food expenditures. The analysis also indicates, however, that the former providers’ expenditures were not significantly different from those of current Tier 2 providers, who were still participating in the CACFP and receiving some reimbursement. Thus the exact role of the reimbursement is not clear, although it is clear that the former providers spend less than would be expected if they were reimbursed at Tier 1 rates.

One factor that may play into providers’ expenditure patterns is the proportion of children who bring food from home rather than consuming only food supplied by the provider. About 44 percent of the former providers reported that one or more of the children in their care bring some food for meals or snacks—significantly more than the 24 percent of current providers who said that children bring food from home. The data do not indicate whether the former providers adjusted to the absence of CACFP revenue by encouraging parents to send food or whether providers who were accustomed to having parents send food were more likely to leave the CACFP.

**Conclusion**

The former provider survey suggest that, although tiering probably motivated some providers to leave the CACFP in 1997 when they would not otherwise have done so, this was by no means the only factor influencing former providers in the sample. Relative to active CACFP providers, the former providers tended to serve fewer children and offer fewer meals and snacks. Both factors would mean that the former providers would receive smaller CACFP reimbursements, on average,

**Exhibit C.12**  
**Factors Affecting Weekly Food Expenditures of CACFP Providers in 1999:**  
**Regression Results**

Variable	Coefficient
Intercept	57.05***
Former CACFP provider	-11.92**
Current Tier 2 provider	-13.92***
Number of snacks served per week	0.05
Number of breakfasts served per week	0.66***
Number of lunches served per week	0.60**
Number of suppers served per week	0.16
Any children with subsidized fees	3.38
% low-income children in 1990 census block group	-9.84
% in urbanized area	0.87
<b>Geographic region</b>	
Northeast	-1.64
South	8.86**
West	6.10
R <sup>2</sup>	0.37
Unweighted sample	1,181
Significance levels:	
* = < .10	
** = < .05	
*** = < .01	

regardless of their reimbursement rate. Some providers receiving small CACFP reimbursements may simply decide that continued participation in the program is not worth the time and energy spent in the required recordkeeping, training, monitoring, and on. This interpretation is supported by the fact that many—perhaps more than half—of the former providers would apparently qualify as Tier 1, meaning that the lower Tier 2 reimbursement rates would not have been an issue in their departure.

These conclusions must be taken with caution, however, because of the limitations of the data. Most importantly, the small sample size makes it difficult to be certain of the reliability generalizability of the results, even though little evidence of nonresponse bias was found.