

Reimbursement Tiering in the CACFP: Summary Report to Congress on the Family Child Care Homes Legislative Changes Study. William L. Hamilton, Nancy R. Burstein, and Mary Kay Crepinsek of Abt Associates Inc. for the U.S. Department of Agriculture, Economic Research Service, under contract number 53-3198-7-016 funded by ERS' Food Assistance and Nutrition Research Program and the Food and Nutrition Service, Food Assistance and Nutrition Research Report No. 22.

Abstract

The introduction of tiered reimbursement rates in the Child and Adult Care Food Program (CACFP) concentrated program benefits more intensely on low-income children, as intended. Tiering reduced the number of family child care homes participating in the program, but did not alter the number or nutritional quality of meals offered by participating providers. The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 mandated the tiered reimbursement structure and called for a study of its effects on program participation and on meals offered to children. Data were collected during the spring and summer of 1999 from nationally representative samples of participating family child care homes, their sponsors, and the parents of the children they served. This report summarizes the results of the study.

Keywords: Child and Adult Care Food Program, CACFP, child care, food assistance, meal reimbursement tiering, nutrition, welfare reform

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Executive Summary

The introduction of tiered reimbursement rates in the Child and Adult Care Food Program (CACFP) concentrated program benefits more intensely on low-income children, as intended. Tiering reduced the number of family child care homes participating in the program, but did not alter the number or nutritional quality of meals offered by participating providers. The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 mandated the tiered reimbursement structure and called for a study of its effects on program participation and on meals offered to children. Data were collected during the spring and summer of 1999 from nationally representative samples of participating family child care homes, their sponsors, and the parents of the children they served. This report summarizes the results of the study.

The CACFP and Tiering

The CACFP is a Federal program, administered by the U.S. Department of Agriculture (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 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) established a two-tier structure of meal reimbursement rates for family child care homes. Homes that are located in low-income areas or operated by persons with incomes at or below 185 percent of the Federal poverty guideline 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. Tier 2 homes receive 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.

Tiering cut meal reimbursements almost in half for those providers classified as Tier 2. 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.

Family child care homes participating in the CACFP must be sponsored by a public or private nonprofit organization that has entered into an agreement with a State agency to administer the program at the local level. Sponsors are responsible for ensuring that providers meet CACFP requirements and serve as a conduit for reimbursements to providers. With the introduction of tiering, sponsors became responsible for classifying providers as Tier 1 or Tier 2. Sponsors were also given the responsibility of verifying children's household income, upon request of any Tier 2 provider wishing to be reimbursed at Tier 1 rates for meals served to low-income children. Sponsors' administrative costs are reimbursed under rules that did not change with the introduction of tiering.

The Family Child Care Homes Legislative Changes Study

The PRWORA called for a study of the effects of CACFP tiering and its associated requirements on participating family child care homes, sponsors, and the children and families served by CACFP homes. The *Family Child Care Homes Legislative Changes Study* collected data in the spring and summer of 1999 from nationally representative samples of family child care homes, their sponsors, and the parents of children they serve. Data collection occurred in 20 States and included 268 CACFP sponsors, 576 Tier 1 and 595 Tier 2 homes, and 1,200 parents or guardians of children served in Tier 1 (576) and Tier 2 (624) homes. In addition, 1,971 former CACFP providers—providers who were participating as CACFP homes in January 1997 but not in January 1998—were tracked to determine whether they currently provide child care and their reasons for leaving the CACFP.

Where possible, data from the surveys above are compared with findings of the 1995 *Early Childhood and Child Care Study*. In addition, some analyses use data from secondary sources. These include the CACFP administrative systems operated by the Food and Nutrition Service (FNS), which provide nationwide data for 1989-99 on CACFP participation and meal reimbursements; a multiyear data series on State licensing policies and numbers of licensed family child care homes; and economic and demographic data from the Bureau of the Census, the Bureau of Labor Statistics, and the Bureau of Economic Analysis.

Because tiering was implemented nationwide at a single point in time (July 1997), the study examines the effect of tiering by comparing conditions before and after that date. In survey-based analyses, pre-post differences are represented by the difference between the 1995 and 1999 survey results. Differences over this time period may result from factors unrelated to tiering—such as the strong economy, changes in the child care industry, or changing dietary patterns—as well as from tiering.

The family child care homes component of the CACFP became substantially more focused on low-income children after tiering was introduced.

In 1995, just 21 percent of CACFP meal reimbursement dollars were for meals served to children with household incomes at or below 185 percent of the Federal poverty guideline. That figure more than doubled, to 45 percent, by 1999. The reallocation of dollars results from three factors:

- The number of low-income children served by CACFP homes grew by 165,000 (80 percent);
- The number of higher income children fell by 174,000 (23 percent); and
- Meals for nearly all low-income children were reimbursed at the higher rate, while meals for 42 percent of higher income children were reimbursed at the lower Tier 2 rate.

Tiering reduced the number of family child care homes participating in the CACFP.

Tiering substantially reduced the financial incentive for Tier 2 providers to participate in the CACFP. Program administrative data show that the number of CACFP family child care homes declined by 10 percent from 1996 to 1999. Although factors other than tiering might arguably have caused a decline, projections based on economic and demographic trends alone indicate that the number of homes would have grown slightly over this period. The study estimates that the number of participating CACFP homes in 1999 was about 14 percent less than it would have been in the absence of tiering.

Tiering might reduce the number of CACFP homes by inducing some CACFP providers to exit the program earlier than they would otherwise have done, by deterring some non-CACFP providers who would otherwise have enrolled, or both. A survey of former CACFP providers who left the program between January 1997 and January 1998 suggests that tiering was the deciding factor for some exiting providers, but not a large proportion. The deterrence of new enrollments may have been equally or more important, but the study provides no direct information on providers who never entered the CACFP.

The decline in CACFP homes was accompanied by a much smaller decline in attendance.

Attendance in CACFP homes grew at annual rates exceeding 10 percent in the early 1990s. Total attendance changed relatively little from 1995 to 1999, however, with increases of 1 percent or less in 1996 and 1997 and then decreases of similar magnitude in 1998 and 1999. The extent to which tiering influenced this trend is not clear.

Tiering did not lead to deterioration in the number or nutritional quality of meals and snacks offered to children in Tier 2 CACFP homes.

CACFP meal reimbursements and program requirements regarding the characteristics of a reimbursable meal or snack are intended to motivate and enable providers to offer healthful food to the children in their care. A key question following the introduction of tiering was whether, with the lower Tier 2 reimbursements, providers would offer fewer or less nutritionally appropriate meals or snacks.

The study found no evidence of a tiering-related decline in the nutritional package offered to children in Tier 2 homes. The analysis compared Tier 2 providers in 1999 to similar providers in 1995 by controlling for two of the three provider characteristics used in tier classification (the provider's household income relative to the Federal poverty guideline, and the percent of children in the provider's census block group with household incomes at or below 185 percent of poverty).

Key findings are:

- Tier 2 providers in 1999 offered essentially the same pattern of meals and snacks as their counterparts in 1995. Breakfast, lunch, and afternoon snack were each offered by more than 90 percent of providers. More than half offered a morning snack, while relatively small proportions offered supper or an evening snack.
- The vast majority of meals and snacks offered by Tier 2 providers in 1999 contained the meal components required by program regulations. (The four components included in CACFP meal pattern requirements are milk; fruit, vegetables, and juice; bread and bread alternates such as cereal; and meat and meat alternates such as cheese or eggs. Regulations specify which components must be included in each meal and snack.) Compliance rates for all meals and snacks in 1999 were equal to or better than those for similar providers in 1995.
- The analysis examined the percent of the *Recommended Dietary Allowances* (RDAs) for food energy and five nutrients (protein, vitamin A, vitamin C, calcium, and iron) offered in breakfasts, lunches, and morning and afternoon snacks.¹ Although no nutrient standards have been established for the CACFP, standards for the National School Lunch and School Breakfast Programs offer useful benchmarks. These standards specify that breakfast should provide one-fourth of the RDA for these nutrients and that lunch should provide one-third of the RDA. No standards have been established for snacks.

Across all of these dietary elements, the meals and snacks offered by Tier 2 providers in 1999 typically contained similar or greater percentages of the RDA than meals and snacks offered by similar providers in 1995. Breakfasts offered more than one-fourth of the RDA for all five nutrients and lunches offered more than one-third of all but iron.

Both breakfasts and lunches fell somewhat short of the target percent of the RDA for food energy. Tier 2 providers in 1999 offered significantly more food energy at both meals than similar providers in 1995, moving closer to the standard. Tier 2 providers in 1999 tended to offer larger portion sizes than those offered by similar providers in 1995, leading to significantly higher average levels of food energy in 1999 for all meals and snacks examined.

- Tier 2 breakfasts and morning and afternoon snacks generally fell within recommended ranges of the percent of food energy derived from total fat and carbohydrate and for levels of cholesterol and sodium.² Lunches typically did not meet any of the benchmarks for these nutrient measures except that for cholesterol. These patterns were essentially the same for Tier 2 providers in 1999 as for similar providers in 1995.

¹ Nutritional characteristics of suppers and evening snacks were not examined.

² The CACFP has no requirements regarding these aspects of the nutrient profile. Study benchmarks are based on current *Dietary Guidelines for Americans* and recommendations of the National Research Council. Benchmarks for cholesterol and sodium assume that no more than one-fourth of the daily maximum should be offered at breakfast, and one-third at lunch. No maximum amount for cholesterol or sodium is assumed for snacks.

- Relatively few statistically significant differences were observed between 1995 and 1999 in the number or types of food served. At lunch, Tier 2 providers in 1999 more frequently offered high-sodium condiments and foods, such as ketchup, hot dogs, processed cheese, and breaded fried chicken or fish, than similar providers did in 1995. Among other significant differences, some could be consistent with a hypothesis that providers were trying to control food costs, such as a reduction in the proportion of breakfasts including a meat or meat alternate (which is optional under CACFP regulations). Other differences would be contrary to that hypothesis, such as an increase in the proportion of lunches including fresh fruit.

Tier 2 providers raised child care fees and contained their food expenditures.

Average child care fees were higher for Tier 2 providers in 1999 than for similar providers in 1995 by about \$0.31 per hour, or \$11 per week for a child in care for 36 hours. Tier 2 providers' food expenditures were about \$2 lower per child per week than would be projected based on characteristics of their operations and location.³

These differences could reflect deliberate provider responses to the lower revenue from meal reimbursements. They could also result from selective attrition, with economic pressures driving out (or preventing entry by) Tier 2 providers who operated in markets that would not support higher fees or lower expenditures. Some Tier 2 providers reported in surveys that they had raised fees or reduced food expenditures specifically because of limited meal reimbursements, but the proportions giving these responses were relatively small (around 15 percent). No direct evidence of selective attrition is available, but it would be reasonable to believe that the observed reduction in the number of CACFP homes was concentrated among the providers whose economic situation was least favorable.

In theory, providers might also have responded to tiering by changing their operations. For example, they might seek to increase their revenue by enrolling more children or by operating for more hours per day or more days per week. No statistically significant tiering effects were observed on these dimensions. Providers in 1999 operated for somewhat more hours per day and days per week, but the increase was concentrated in Tier 1 rather than Tier 2 homes.

³ Food expenditure data are not available for 1995. The analysis compares Tier 1 and Tier 2 providers in 1999, controlling for operating characteristics (e.g., which meals are served) and characteristics of the location (e.g., percent of low-income children).

Tiering has added challenges for CACFP sponsors, but it has not led to a substantial decline in the number of sponsors.

With the introduction of tiering, sponsors became responsible for classifying homes as Tier 1 or Tier 2; determining the eligibility of children in Tier 2 homes for reimbursement at Tier 1 rates (if requested by the provider); and, for Tier 2 providers with some children reimbursed at Tier 1 rates, determining each month the number of meals to be reimbursed at each rate. To the extent that it reduced providers' incentive to participate in the CACFP, tiering would also be expected to make it more difficult for sponsors to recruit and retain providers. If the added administrative responsibility and recruitment difficulty led to higher per-provider operating costs, the economic pressures on sponsors may have increased.

Most sponsors surveyed said that the staff hours devoted to CACFP increased after tiering was introduced. In addition to time allocated to the new tiering tasks, sponsors reported that they had stepped up training, monitoring visits, and recruiting. The most common reasons for increased training and monitoring were to explain the details of tiering and to bolster recruitment and retention efforts by offering a higher level of services to providers. Sponsors said they stepped up recruitment because attracting new homes was more difficult and because of intensified competition from other sponsors.

The sponsor survey responses are consistent with the expectation that tiering would increase per-provider costs. No information is available on the actual dollar value of the increase, or how the total level of CACFP-related costs compares to the sponsors' CACFP administrative cost reimbursements.

The number of CACFP sponsors peaked in 1994-95 and declined slightly in each subsequent year. A 3.6-percent decrease occurred from 1997 to 1999. This was essentially the same as the 3.7-percent decrease in the 2 prior years, suggesting that tiering did not have a substantial effect on the number of participating sponsors.

Tiering had little effect on the total number of licensed family child care homes.

States seek to ensure the health and safety of child care facilities by requiring all or certain classes of family child care homes to be licensed, certified, or registered (terminology and licensing policies vary from State to State). Homes must meet the applicable State requirements in order to participate in the CACFP. CACFP benefits—particularly the meal reimbursements—have therefore been seen as a major incentive for homes to become licensed.

After declining 2 percent from 1995 to 1997, the total number of licensed homes in the United States increased by 4 percent from 1997 to 1999. In that 1997-99 period, the number of CACFP homes fell by 8 percent. Although one cannot rule out the possibility that the number of licensed homes would have grown even more in the absence of tiering, the national trend does not indicate a negative impact. State-level data suggest that tiering may have contributed to a decline in licensed homes in some States, but that any role of tiering was not dominant or pervasive.

Reimbursement Tiering in the CACFP: Summary Report to Congress on the Family Child Care Homes Legislative Changes Study

Introduction

The Child and Adult Care Food Program (CACFP) is a Federal program that subsidizes 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 low-income areas or operated by low-income persons. The intent of this change to the CACFP was to target program benefits more closely to low-income children.

The law also called for a study of how the new meal reimbursement structure affected the family child care homes participating in the CACFP, their sponsoring organizations, and the children in their care. USDA accordingly contracted with Abt Associates Inc. to carry out the *Family Child Care Homes Legislative Changes Study*. The results of the study are summarized in this report and presented in more detail in a series of five reports. (See References, p. 42, for a list of the other reports.)

The Child and Adult Care Food Program

To promote healthful meals and snacks in child and adult day care facilities, CACFP reimburses providers for qualifying meals served. 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 adult day care centers.¹ Eligibility for the child care portion of the CACFP is generally limited to children age 12 and under. In fiscal year 1999, the child care component of the

¹ As of July 1999, the CACFP has also provided reimbursements for meals and snacks served to eligible children in homeless shelters.

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. CACFP is administered at the Federal level by the USDA Food and Nutrition Service (FNS). State agencies generally oversee the program at the local level; in the case of Virginia, FNS' Mid-Atlantic Regional Office serves this function.

When the CACFP 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 were also 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 public or private 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. The three categories of reimbursement for participating homes corresponded to family incomes of 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.² Family child care providers complained that the means test was overly burdensome and too invasive for their relationship with the few families for whom they each provided child care. In addition, sponsors argued that meal reimbursements were insufficient to cover their administrative costs and still allow adequate reimbursement to the homes.³ As a consequence, very few homes participated in the program—fewer than 12,000 in 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. The three-level reimbursement structure was replaced with a single reimbursement rate for all participants, at a level slightly below the free-meal reimbursement rate in child care centers. In addition, the Amendments separated the reimbursement of sponsors' administrative costs from the meal reimbursement for family child care homes.⁴

The 1978 Amendments provided financial incentives for homes serving higher income children to participate in CACFP and for sponsoring agencies to recruit such homes for the program. Following

² Operationally, income eligibility levels are based on the poverty guidelines issued by the Department of Health and Human Services.

³ 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.

⁴ Other changes included the establishment of alternative procedures for approving homes and the provision of startup and expansion funds for family child care sponsors.

the implementation of these amendments in May 1980, the family child care component of the program began to experience tremendous growth. In June 1980, 17,000 homes participated in CACFP; by March 1981, this number had grown to 43,000. In March 1980, program administrative data showed that most of the children that were served in participating homes were from low-income families; only 32 percent of these children were from families with incomes above 195 percent of the poverty guideline. By January 1982, however, most of the children served in participating homes were from higher income families; 62 percent of the children in participating homes were from families with incomes above 195 percent of the poverty guideline.⁵ The family child care component of the program has continued to grow steadily. In 1995, over 190,000 homes were participating in the program and more than 75 percent of the children served in these homes were from families with incomes above 185 percent of the poverty guideline.⁶

The Legislative Changes Implemented in 1997

In the Personal Responsibility and Work Opportunity Reconciliation Act of 1996, the Congress acted to refocus the family child care component of the CACFP on low-income children. The Act created a two-tier reimbursement structure for the family child care component of the program, which took effect July 1, 1997 (Exhibit 1).

Under the new reimbursement structure, family child care homes designated as Tier 1 have reimbursement rates that are similar to the rates that existed for all family child care homes before PRWORA. Homes located in low-income areas and those in which the provider's own household income is at or below 185 percent of the poverty guideline qualify as Tier 1. A low-income area is defined operationally as either a census block group where at least half of the children live in

Exhibit 1
Meal Reimbursement Rates by Tier, July 1998 - June 1999

Meal	Tier 1 Rate	Tier 2 Rate	Difference between Tier 2 and Tier 1	
			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

Note: Reimbursements are higher in Alaska and Hawaii.

⁵ Glantz, 1983.

⁶ The three reimbursement categories for child care centers had been reset to 130 percent or less, 131 to 185 percent, and above 185 percent of the Federal poverty guideline by the time of this study (Glantz et al., 1997).

families with incomes at or below 185 percent of the Federal poverty guideline,⁷ or 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.

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 still 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.

Tier 2 providers in fiscal year 1999 received CACFP reimbursements that were, on average, 54 percent of the amount that they would have received if they had been classified as Tier 1. The actual reimbursement to a provider depends on the number and types of meals served and, in Tier 2 homes, the number of children qualifying for the higher reimbursement rate. In fiscal year 1999, Tier 2 homes received CACFP meal reimbursements averaging \$177 per month.⁸ Had they been reimbursed at the Tier 1 rates for those same meals, their reimbursements would have averaged \$326 per month.

Changes for Sponsors of Family Child Care Homes

Family child care homes can participate in the CACFP only if they are sponsored by a public or private nonprofit organization that has entered into an agreement with a State agency to administer the program at the local level. Sponsors are responsible for determining that homes meet the CACFP eligibility criteria, for providing training and other support, and for monitoring the homes to make sure that they comply with applicable Federal and State regulations. Sponsors receive and verify the homes' claims for CACFP reimbursement, forward the claims to their State CACFP offices, receive the reimbursements, and distribute the meal reimbursements to the homes. Sponsors are reimbursed for their CACFP administrative activities. The administrative payment is the lowest of four factors: the sponsor's actual costs; a budgeted amount approved by the State; a fixed amount per home based on a rate schedule established nationally; and 30 percent of the combined meal reimbursement to providers and the administrative payment to the sponsor. The national rate schedule for fiscal year 1999 is shown in Exhibit 2. PRWORA did not alter the reimbursement structure or rates for sponsors, although the national rate schedule is adjusted annually for inflation.

⁷ Based on the most recent decennial census, which has been the 1990 census and will become the 2000 census when children's family income tabulations are available.

⁸ This estimate is based on the annual total reported numbers of meal reimbursements of each type multiplied by the applicable reimbursement rate, divided by the total number of participating family child care homes. As noted previously, Tier 2 homes can receive the higher reimbursement rate for meals served to low-income children, and about 11 percent of all meals reimbursed for Tier 2 providers were reimbursed at the Tier 1 rate. The figures shown are based on the reported mix of Tier 1 and Tier 2 reimbursements in Tier 2 homes.

Exhibit 2**Administrative Payments for Family Child Care Home Sponsors, July 1998 - June 1999**

Number of Homes	Monthly Payment per Home
Initial 50 (homes 1-50)	\$76
Next 150 (homes 51-200)	58
Next 800 (homes 201-1,000)	45
All additional (homes 1,001 & over)	40

The legislative changes added new sponsor responsibilities. Sponsors were given primary responsibility for classifying providers as Tier 1 or Tier 2. In addition, for Tier 2 homes seeking reimbursement at the Tier 1 level for individual children, sponsors administer the eligibility determination. Sponsors determine individual child eligibility based on income eligibility forms submitted by parents directly to the sponsor or on other documentation that shows the child is categorically eligible for free meals under federally funded child nutrition programs.⁹ Providers are notified of the number of children approved for the higher reimbursement rates, but are not told the names of the children approved.

The Family Child Care Homes Legislative Changes Study

After mandating changes in the CACFP reimbursement structure, the PRWORA called for a study of the effects of those changes. The Act posed a number of questions about effects on CACFP participating family child care homes, CACFP sponsors, and the children and families served by CACFP 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 completed with the publication of this report.

The *Family Child Care Homes Legislative Changes Study* involved extensive data collection with nationally representative samples of family child care homes, their sponsors, and the parents of children they serve. A multistage sampling approach was used. Twenty States were selected in the first stage. A sample of sponsors was drawn within each of the selected States, and the sampled sponsors provided lists of the family child care homes that they sponsored. A sample of family child care homes was then drawn from the lists. 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.

⁹ Children who are members of households receiving food stamps, Temporary Assistance for Needy Families, or certain other types of assistance are categorically eligible to receive free meals.

Conducted in January-August 1999, the data collection included the following elements:

- A self-administered *survey of family child care sponsors* to learn about procedures through which sponsors implemented the requirements associated with the new tiered reimbursement structure, and the effects of tiering on their operations.
- An *operations survey of family child care providers*, including both current and former CACFP providers, which asks about provider operations and the effects of tiering. Tier 2 providers and former providers also completed a *menu survey* gathering information on meals and snacks offered to children during a 5-day period. For a subsample of Tier 2 providers, *meal observations* conducted by field interviewers measured the portion sizes of food items served on 2 of the 5 days covered by the menu survey.
- A telephone *household survey* obtained information from parents or guardians of children in CACFP homes concerning household income, characteristics, and experiences in the CACFP.

Where possible, data from the surveys above are compared with findings of the 1995 *Early Childhood and Child Care Study*. Many features of the 1999 data collection were modeled on the 1995 surveys, allowing analysis to combine data from the 2 years.

In addition to these primary data sources, some analyses use data from secondary sources. These include: the CACFP administrative systems operated by the Food and Nutrition Service, which provide nationwide data for 1989-99 on CACFP participation and meal reimbursements; a multiyear data series on State licensing policies and numbers of licensed family child care homes, maintained by the Children's Foundation; and economic and demographic data from the U.S. Census Bureau, the Bureau of Labor Statistics, and the Bureau of Economic Analysis.

Because of the complex structure of the study samples, 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 to reflect sampling probabilities. 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 ($p < 0.10$) in the text. Differences that are significant at the 5-percent level or better are simply reported as statistically significant. In tables, three levels of statistical significance are noted, 1 percent, 5 percent, and 10 percent.

Study Limitations

The primary objective of the analyses presented in this report is to understand the effects of the tiered reimbursement structure introduced by the PRWORA. Because tiering was implemented nationwide in July 1997, the best available evidence of tiering's effect is the difference between pre-tiering and post-tiering conditions.

The key limitation of these pre-post comparisons is that one cannot be certain that tiering has caused whatever difference is observed. A pre-post difference could stem from:

- Changes over time in the economic, demographic, and social environment in which CACFP operates;
- Changes over time in the preferences and behaviors of CACFP providers, sponsors, parents, or children; or
- Tiering, which could have two types of effects:
 - CACFP providers and sponsors could use different operating practices in response to the lower Tier 2 reimbursement rate or tiering-related requirements; or
 - The number or composition of CACFP providers, sponsors, or children could change if the lower reimbursement rate or tiering-related requirements leads some kinds of providers or sponsors not to participate in the program.

Given these multiple possible causes and our inability to take many of them into account in the following analyses, all differences (or lack of difference) between CACFP conditions and characteristics before and after tiering cannot be attributed solely to tiering and must be interpreted with caution.

Tiering's Effects on Program Targeting

The objective of the tiered reimbursement structure was to focus CACFP benefits more closely on low-income children without requiring verification of each participating child's income eligibility. Basing the reimbursement rate on the low-income status of the provider's neighborhood and the provider's own household income would necessarily be less precise than a child-by-child eligibility determination. A key question for the study, therefore, was how much tiering reallocated program benefits among children of different income levels.

The analyses summarized below show that a substantial reallocation of program expenditures has occurred. An estimated 45 percent of meal reimbursement dollars in 1999 were for meals served to low-income children (those with household incomes at or below 185 percent of the Federal poverty guideline), compared with 21 percent in 1995. This shift occurred partly because the average per-meal reimbursement declined for higher income children, but mainly because the proportion of all children participating in the CACFP who are low income grew from 21 percent in 1995 to 39 percent in 1999.

The analyses described below are based on data from household surveys and CACFP administrative records. Household income data come from a 1999 telephone survey, conducted as part of the *Family Child Care Homes Legislative Changes Study*, of 1,200 parents or guardians of children served by CACFP family child care homes (576 in Tier 1 and 624 in Tier 2 homes). Parallel data come from a 1995 survey of 384 households of children in CACFP homes. Nationwide counts of meals and children served and program expenditures for meal reimbursement come from CACFP program records maintained by USDA-FNS. The analyses are presented in full in Crepinsek et al., E-FAN-02-006.

Allocation of CACFP Reimbursement Expenditures by Income Category

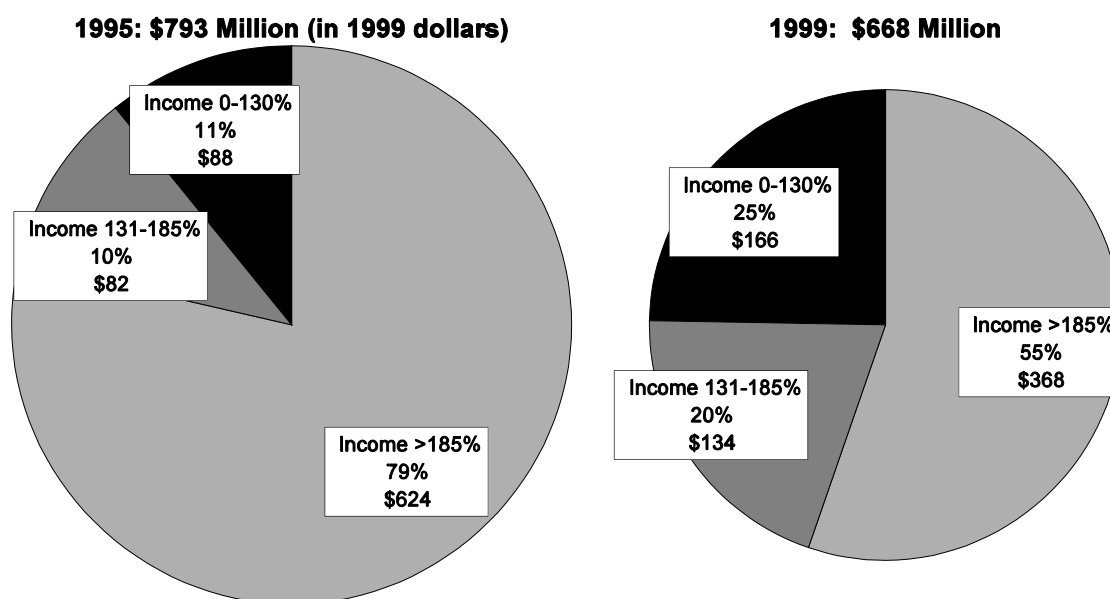
Tiering was followed by a substantial reallocation of expenditures for meal reimbursements, shifting the emphasis toward low-income children. In 1995, 2 years before tiering was implemented, just 21 percent of reimbursement expenditures were for meals served to low-income children (those with household incomes at or below 185 percent of the Federal poverty guideline).¹⁰ That figure more than doubled, to 45 percent, by 1999 (Exhibit 3). The share of expenditures for higher income children shrank correspondingly, from 79 percent in 1995 to 55 percent in 1999.

Tiering changed the allocation of expenditures across income groups in two ways, one direct and one indirect. The direct effect was simply that tiering reduced the average per capita reimbursement

¹⁰ The allocation of meal reimbursements in 1995 is based on the composition of the participant population found in Glantz et al., 1997.

Exhibit 3

Allocation of CACFP Meal Reimbursements by Participant Income (Income as Percent of Federal Poverty Guideline; Reimbursement Dollars in Millions)



Source: CACFP administrative data; surveys of CACFP parents, 1995 and 1999.

for higher income children. That is, if tiering had been introduced without affecting anything other than the rate at which some meals were reimbursed, the share of dollars allocated to low-income children would have climbed from 21 percent to 27 percent.¹¹ This is about a quarter of the change that actually occurred.

Tiering's indirect effect was its influence on the composition of the participating population, in which the proportion of low-income children grew substantially from 1995 to 1999. This effect, discussed later in this section, accounts for three-quarters of the overall reallocation of reimbursements toward low-income children.

Total CACFP meal reimbursements in family child care homes declined by 16 percent from 1995 to 1999, after adjusting for inflation. The number of children receiving CACFP meals was nearly the same in the 2 years—just 1 percent smaller in 1999 than 1995. Thus, most of the reduction in expenditures resulted from the lower average reimbursement rates in 1999.

¹¹ This analysis combines program administrative data for 1995 and 1999 with data from surveys in the same years of the parents of children served by CACFP homes. The surveys provide data on the composition of participants by income category at the two points in time, while the administrative data give accurate counts of the total nationwide number of participants and amount of meal reimbursements. The survey proportions are applied to the national totals to estimate the number of children and reimbursement dollars in each income category. The 1995-99 differences in proportions in each of the income categories are statistically significant.

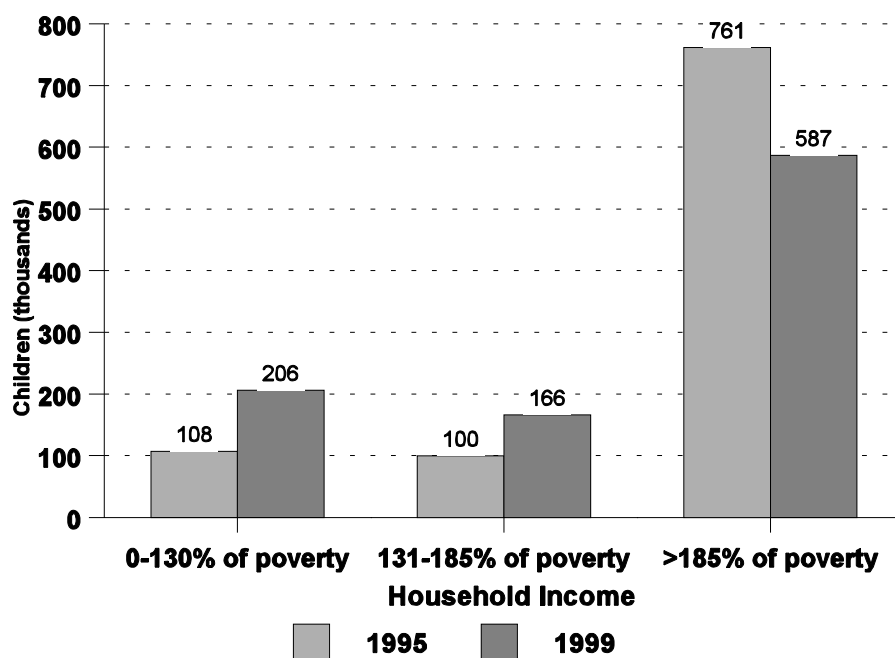
Nearly all of the meals reimbursed at lower rates were meals served to higher income children (95 percent). Some meals for low-income children in Tier 2 homes were reimbursed at lower rates, however. This occurred if the provider elected not to ask families to complete the application for CACFP eligibility or if the family never filed the application with the sponsor.¹² About 16 percent of children in Tier 2 homes in 1999 had household incomes at or below 185 percent of the poverty level, but only 11 percent of meals reimbursed in Tier 2 homes were reimbursed at the higher rate. The reimbursement of low-income children's meals at the lower reimbursement rate accounts for only a small fraction of the reduction in reimbursements, however.

Changes in the Composition of CACFP Participants

The number of low-income children participating in the CACFP grew 80 percent between 1995 and 1999. Counting all children with household incomes at or below 185 percent of the Federal poverty guideline, the number of low-income children grew from about 207,000 to 372,000 (Exhibit 4). Growth in the number of children with household incomes at or below 130 percent of the poverty line was especially strong, nearly doubling the 1995 number.

Exhibit 4

Children in CACFP Family Child Care, By Year and Income Category



Source: CACFP administrative data; surveys of CACFP parents, 1995 and 1999.

¹² Measurement error could also play a role, since the survey measured income at a different time and in a different way than it would have been measured for purposes of Tier 1 eligibility determination.

While the number of low-income CACFP children grew by 165,000, the number of higher income children shrank by 174,000, leaving total attendance in 1999 at about 1 percent below the 1995 level. This change in income composition of the CACFP participants can be attributed largely, though not entirely, to tiering.

The tiered reimbursement structure reduced the incentive for family child care homes that would be classified as Tier 2 to participate in the CACFP. The result, discussed later in this report, was a reduction in the total number of homes participating in the CACFP. In 1998 and 1999, after tiering was in place, the number of Tier 2 homes declined while the number of Tier 1 homes increased. Because Tier 1 homes serve larger proportions of low-income children, this shift in participating homes led to a higher proportion of low-income children in the total population of children enrolled in CACFP family child care homes.

Changing national patterns of child care probably also contributed to the increased proportion of low-income children in CACFP homes. From 1995 to 1999, the nationwide percentage of below-poverty children in nonrelative home care grew slightly, from 9 to 10 percent.¹³ Meanwhile, among children with household incomes above poverty, the proportion in nonrelative home care shrank from 17 to 15 percent. Although these trends would account for only a portion of the observed shift for CACFP children, they indicate that factors beyond tiering were contributing to the realignment.

The shift in income composition was not accompanied by other large changes in the CACFP participant profile. CACFP children in 1999 came from families with a slightly larger number of children, on average, than those in 1995. The 1999 group may also have included somewhat more school-age children (age 6-12) and more Black and Hispanic children, but conclusions on these points are impeded by differences between the 1995 and 1999 surveys.¹⁴

Targeting Efficiency of the Tiering Mechanism

Many programs, including the child care center component of the CACFP, direct benefits to low-income people on a household-by-household basis, using a means test to determine the income eligibility of each beneficiary. The tiering policy that PRWORA mandated for the child care homes portion of CACFP is an indirect mechanism for approximating the same result. By classifying family child care homes based on their location or the provider's household income, tiering is intended to direct the higher subsidy levels mainly to low-income children. This approximation cannot be expected to place all low-income children in Tier 1 homes, so PRWORA specified the fallback

¹³ Federal Interagency Forum on Child and Family Statistics, 2000. Percentages are based on children from birth through third grade.

¹⁴ The 1999 survey followed the 1997 OMB guidelines for questions on race/ethnicity, which allow the respondents to name more than a single racial/ethnic group. The 1995 survey asked for a single group designation, so the responses are not fully comparable. The 1995 and 1999 surveys were conducted in the spring and summer months, respectively, and children ages 6-12 may be more likely to be in child care in the summer months.

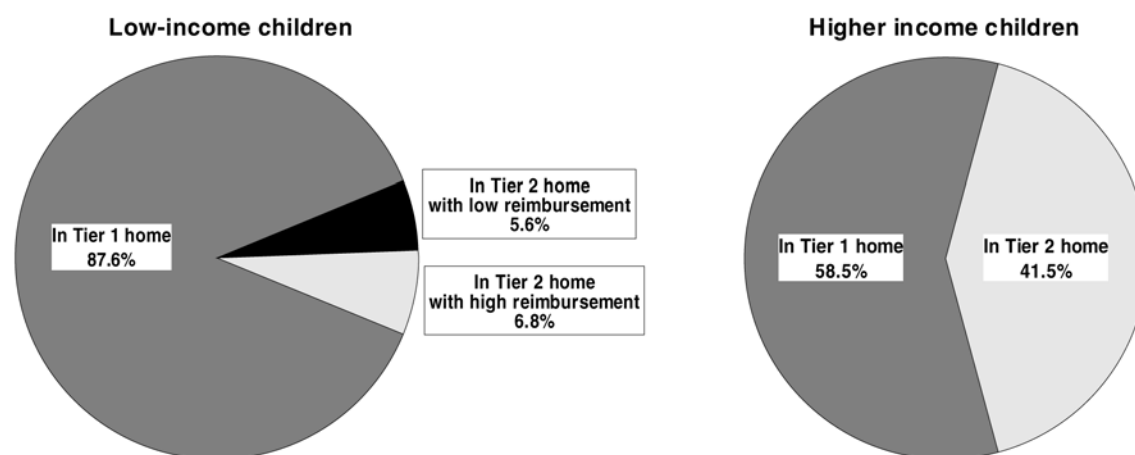
provision that Tier 2 providers may receive meal reimbursements at the Tier 1 rate for any low-income children in their care, based on a means test of each child's family income.

Because tiering is intended to approximate the results of an individual means test, it is important to ask how effectively tiering matches low-income children to the higher reimbursement rate and higher income children to the low reimbursement rate. The analysis indicates that the tiering policy is very effective in getting low-income children's meals reimbursed at the higher rate. It is somewhat less effective at limiting higher income children to the lower subsidy level.

About 88 percent of low-income children participating in the CACFP in 1999 were in Tier 1 homes, and therefore received meals reimbursed at the higher rate (Exhibit 5). Another 7 percent were in the care of Tier 2 providers who said that they received the higher reimbursement rate for one or more children's meals (the available data do not indicate the reimbursement level for individual children in Tier 2 homes). Thus, around 95 percent of low-income children in CACFP homes have their meals reimbursed at the higher rate.

All higher income children in Tier 2 homes have their meals reimbursed at the lower rate, but they account for only 42 percent of all higher income children participating in the CACFP. The other 58 percent are in Tier 1 homes, and their meals are therefore subsidized at the higher level. Thus, to the extent that the tiering mechanism falls short of perfect classification, it is more likely to apply the higher subsidy rate to higher income children than to apply the lower rate to low-income children.

Exhibit 5
Children in CACFP Family Child Care, by Income and Meal Reimbursement Level



Tiering's Effect on the Number of CACFP Family Child Care Homes

With the lower reimbursement rates, Tier 2 homes received only about half as much revenue from CACFP meal reimbursements as they would have received at the Tier 1 rates. The providers therefore had much less economic incentive to participate in the program. The question for the study was whether this reduced incentive would translate into a lower number of homes participating in the CACFP.

The analyses summarized in this section indicate that the number of CACFP homes in 1999 was significantly less than it would have been in the absence of tiering. The total number of CACFP homes declined about 10 percent from 1996 to 1999. The analysis indicates that, had tiering not been implemented, the number of CACFP homes would have grown slightly over that period.

The decrease in CACFP homes did not lead to a corresponding decrease in the overall number of participating children. Average daily attendance in 1999 was down just 2 percent from 1996, while the number of homes declined by 10 percent. The number of children in Tier 1 homes grew over this period, however, while the number in Tier 2 homes fell.

The analyses reported in this section are based principally on CACFP administrative data series maintained by USDA/FNS. Analyses controlling for economic and population trends use data from the U.S. Census Bureau, the Bureau of Labor Statistics, and the Bureau of Economic Analysis. The analyses are presented in full in Hamilton et al., E-FAN-02-002.

The Number of CACFP Family Child Care Homes

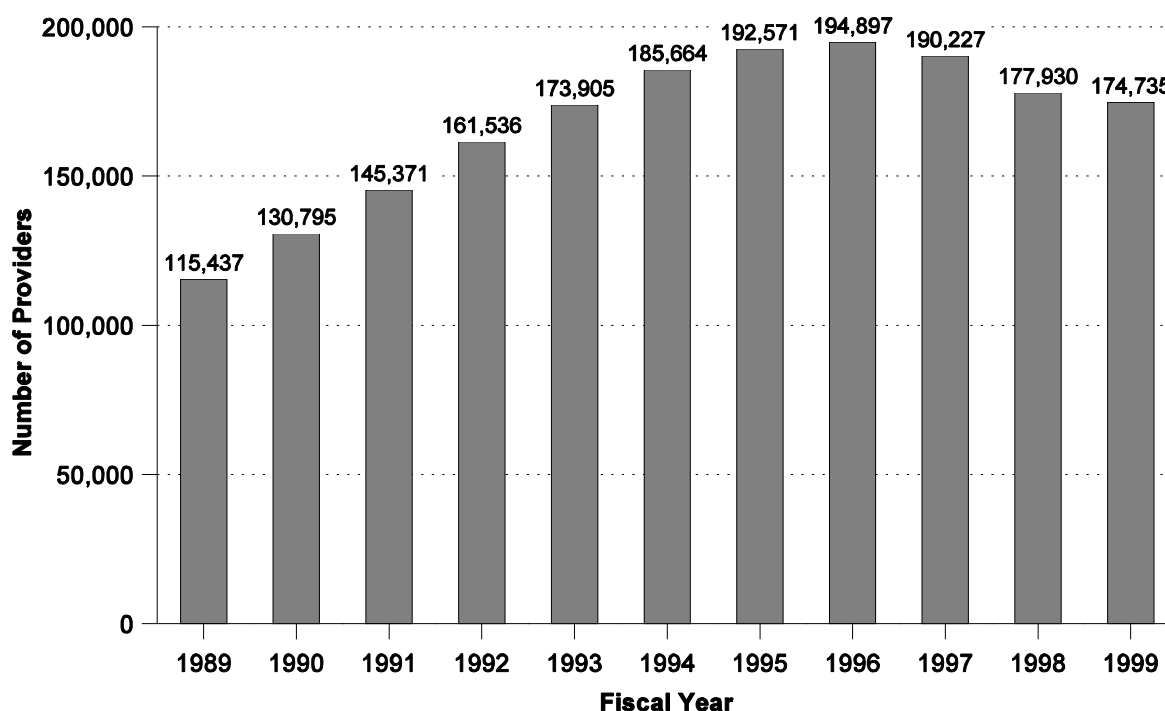
The number of family child care homes participating in the CACFP grew rapidly in the early 1990s. The growth rate slowed in the middle part of the decade, started to decline in 1997, and continued declining through 1999.¹⁵ That pattern, shown in Exhibit 6, suggests that tiering might have reduced the number of participating homes. It is inconclusive by itself, however, because several economic and policy features of the child care environment were changing in ways that could have affected the number of CACFP homes.

Chief among the possible alternative explanations for the 1997-99 decline is the strong economy. Unemployment reached the lowest levels of the decade and real wages, which had declined or

¹⁵ Data on numbers of homes come from program administrative records maintained by the USDA Food and Nutrition Service.

Exhibit 6

Number of CACFP Family Child Care Homes



Source: CACFP administrative data.

stagnated through the earlier 1990s, grew in 1997-98.¹⁶ This meant that the providers or potential providers of family child care had better alternative employment opportunities than existed previously in the decade. Another possible factor is the nationwide population of children ages 1-5 (the main age range served in CACFP homes), which grew slowly in the early 1990s and then slowly declined. Further possible sources of influence include changes in State policies for licensing homes, the growth of preschool education programs, and changing parental preferences for family child care homes or day care centers.

To isolate the effect of tiering, a multivariate analysis modeled the relationship between the number of CACFP providers in each State and an array of State-level economic, demographic, and policy factors in the 9 years before tiering (1989-97). This model was used to project the number of

¹⁶ From 1989 to 1996 the national unemployment rate rose from 5.3 percent to a peak of 7.5 percent and then fell back to about its beginning level of 5.4 percent. It then continued downward in 1997-99, reaching 4.2 percent in 1999. (Source: U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics.) Mean inflation-adjusted wages per retail job fluctuated in the range of \$15,200 to \$15,500 between 1989 and 1996, then grew to \$15,900 in 1997 and \$16,600 in 1998 (the most recent year for which data are available). (Source: calculations by USDA, Economic Research Service, based on data series maintained by the U.S. Department of Commerce, Bureau of Economic Analysis: SA07 and SA27.)

CACFP homes that would have been expected in 1998 and 1999 based on the economic and demographic trends in those years. This analysis is described in Hamilton et al., E-FAN-02-002.

The analysis indicates that, based on economic and demographic trends, one would have expected the number of CACFP homes in 1998 and 1999 to have grown slightly from the 1996 level (Exhibit 7). In fact, the actual number of homes in 1999 was 14 percent less than would have been expected. A second analysis shows that the difference between the actual and the predicted number of homes was closely related to the proportion of each State's child care providers who were likely to be classified as Tier 2 (this proportion is not known directly, but was proxied by measures of children's household income, as described in Hamilton et al., E-FAN-02-002). Thus, the evidence suggests that tiering was responsible for the observed decline in the number of CACFP homes in 1998 and 1999.

Sources of the Tiering-Related Reduction in CACFP Homes

Tiering could lead to reductions in the number of CACFP homes in two ways. First, some existing CACFP providers could elect to leave the CACFP, either quitting the child care business entirely or continuing to provide care without participating in the CACFP. Second, new providers who would previously have enrolled in the CACFP might now choose not to do so, or individuals who would have entered the child care business might not do so.

No direct information is available on nonenrollees, but survey data provide some insight into the providers leaving the CACFP. The survey tracked a nationally representative sample of 1,971 providers who were participating in the CACFP in January 1997 but who were not participating in January 1998. One key objective was to determine whether these providers stopped providing child care or left the CACFP but continued as family child care homes. Another was to get the providers' own statements about the role of tiering in their decisions.

Exhibit 7
Estimated Effect of Tiering

Year ^a	Actual Number of CACFP Homes	Predicted Number of CACFP Homes Without Tiering	Actual-Predicted Difference in Homes	Difference as Percent of Predicted Homes
1996	194,190			
1997	193,510			
1998	179,039	197,476	-18,437	-9.3%
1999	175,201	203,576	-28,375	-13.9%

a Analysis years are constructed to run from July 1 to June 30; e.g., 1996 begins on July 1, 1995.

Source: CACFP administrative data; estimates based on multivariate analysis of State-level economic and demographic data.

Projecting from the sample, about 56,000 child care homes that were participating in the CACFP in January 1997 were not participating 1 year later. This amounts to 29 percent of the nationwide total of 196,000 providers indicated in CACFP administrative records for January-March 1997. The figure corresponds closely to prior estimates of about 30 percent annual turnover in family child care homes.¹⁷

Among the former CACFP providers, 10 percent were still providing child care but not participating in the CACFP in 1999 when the survey was conducted (Exhibit 8). Although the vast majority of these providers cited low CACFP reimbursements among their reasons for leaving the program, many of the comments may not reflect an effect of tiering. In fact, one-third to one-half of the former providers apparently would have qualified for Tier 1 status (Zotov et al., E-FAN-02-004). These providers presumably decided that the CACFP reimbursement, even at the higher rate, was not worth the effort of meeting the program requirements for meal patterns, record keeping, training, and monitoring. The vast majority of the former providers who were still operating a child care business in 1999 were still licensed (87 percent), but compared with active CACFP homes, they tended to care for fewer children, operate for fewer hours per week, and serve fewer meals. The meals and snacks offered were roughly equal in nutritional value to the meals and snacks offered by active CACFP providers (Crepinsek et al., E-FAN-02-006). In short, it appears that some of the former providers dropped out of the CACFP because of tiering while others simply found that the program did not fit their situation. The relative size of these two groups cannot be determined from the available data.

Most former providers did not just leave the CACFP, but left child care entirely. The vast majority of these departures seem to represent normal turnover, in which tiering played no major role. Nonetheless, about 10 percent of all former providers had left child care and said that low CACFP reimbursement was among their reasons for doing so (though virtually never the only reason). Some of these providers probably contributed to the observed reduction in the number of participating homes.

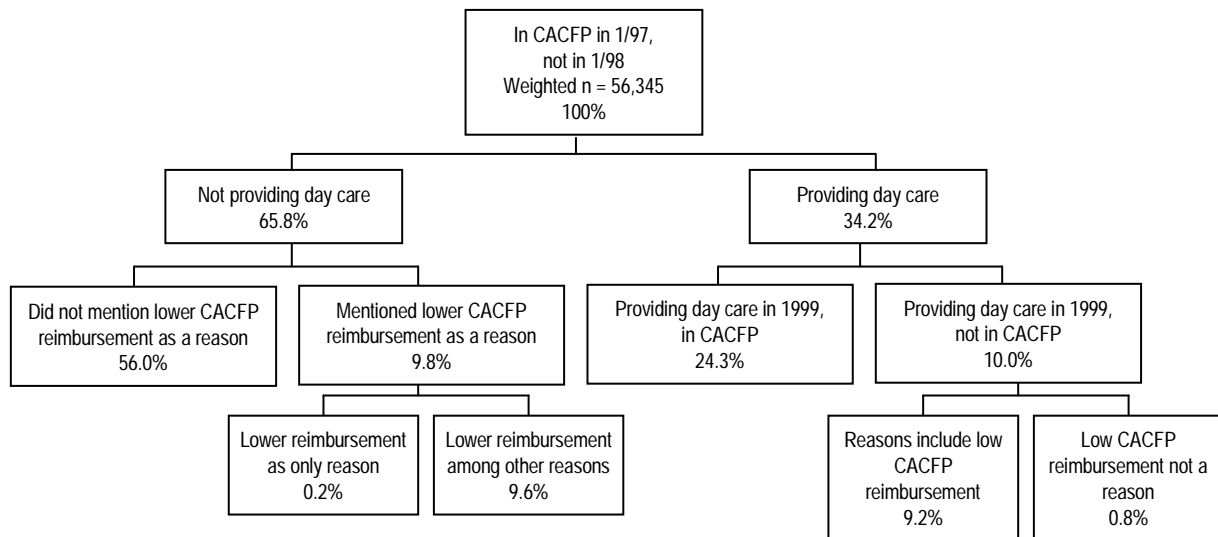
Tiering almost certainly had the additional effect of deterring some potential CACFP providers from enrolling. In fact, one would expect a program feature such as tiering to have a greater effect on potential enrollees than current participants because the latter group has already gotten past the “fixed costs” of participating, such as becoming licensed, finding a sponsor, and learning CACFP requirements and procedures. Two indirect pieces of evidence indicate the presence of a deterrent effect, although they do not allow estimates of the size of the effect:

- The total number of licensed or certified family child care homes increased in 1998 and 1999—the only time in the past decade that a rise in the number of licensed homes has not been accompanied by an increase in CACFP homes. (The pattern of growth in licensed homes is discussed further below.)

¹⁷ Kisker et al., 1991.

Exhibit 8

Status in 1999 of Former CACFP Child Care Homes



Source: Survey of former providers, 1999.

- Nearly half of all CACFP sponsors said they stepped up their recruitment activities after tiering was introduced, most commonly because they saw an increased difficulty of recruiting new homes.

Consequences for CACFP Attendance

The decline in CACFP homes was not accompanied by a corresponding drop in the number of children receiving program benefits. Average daily attendance in CACFP homes changed very little from 1995 through 1999, according to program administrative data. While the number of homes shrank by 10 percent from 1996 to 1999, average daily attendance declined by just 2 percent. The national population of children under age 6 also decreased by 2 percent during this period.

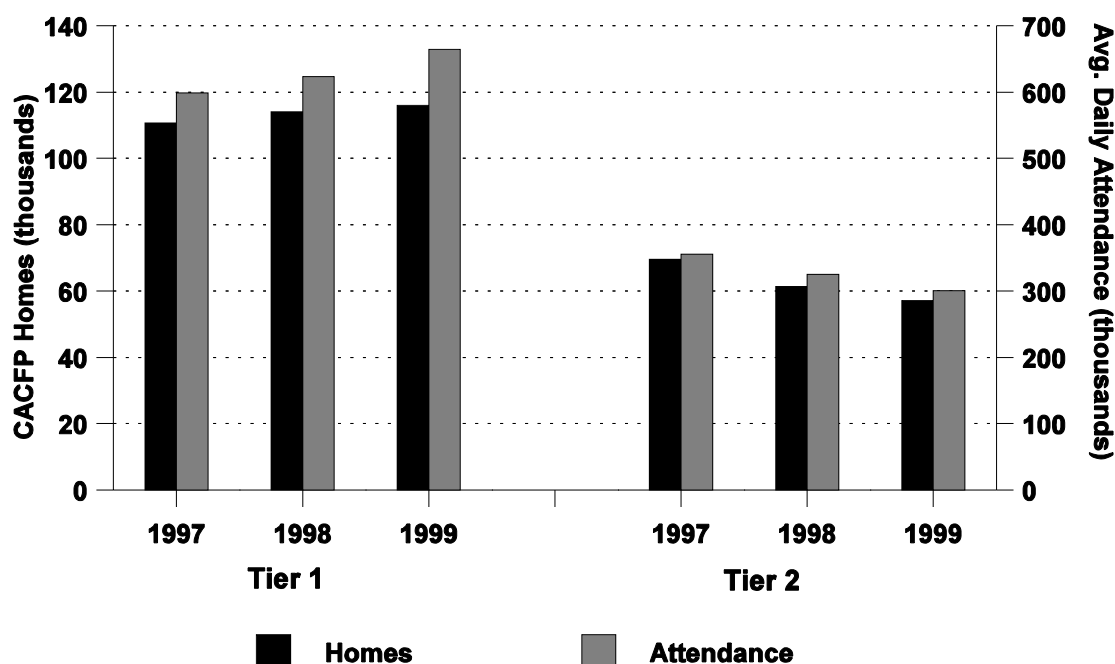
The small change in total attendance may be somewhat deceptive with respect to the effect of tiering because major changes were occurring in subgroups of the overall CACFP population. The number of low-income children served by CACFP homes increased by 80 percent from 1995 to 1999, while the number of higher income children declined by 23 percent, as described earlier. Thus the small overall decline results from a substantial growth of one subgroup of children balanced by substantial shrinkage of another.

These changes reflect the two theoretical incentives inherent in tiering's alteration of the CACFP reimbursement structure. First, tiering reduced the financial benefit of CACFP participation for Tier 2 providers. One would expect fewer such providers to participate.

Second, tiering did not alter the administrative cost reimbursement system for sponsors, which is tied to the number of homes sponsored. If a sponsoring organization were losing Tier 2 homes but desired to maintain a constant level of revenue and operations, it would have to recruit new homes. Tiering would not make it easier to recruit new Tier 1 homes, but it would presumably increase the difficulty of recruiting Tier 2 homes. Thus, sponsors would tend to maintain their operating level by replacing some Tier 2 homes with Tier 1 homes.

Consistent with these expectations, the number of Tier 1 homes and the number of children they serve has grown in the 2 years since tiering was introduced, while the numbers of Tier 2 homes and children have declined (Exhibit 9).¹⁸ Because no homes had a tier classification until tiering was introduced in July 1997, we cannot rule out the possibility that some compositional shift was occurring earlier and would have occurred in 1997-99 even without tiering. Nonetheless, the consistency of the theory and the empirical evidence make it reasonable to conclude that tiering's incentives reduced the number of Tier 2 homes and increased the number of Tier 1 homes.

Exhibit 9
CACFP Homes and Attendance by Reimbursement Tier,
Fourth Quarters of FY1997-99



Note: The fourth quarter of the fiscal year includes the months of July, August, and September.

Source: CACFP administrative data.

¹⁸ Note that the figures in Exhibit 9 pertain to the fourth quarter of each fiscal year, while previous figures have referred to the average for the entire fiscal year. Comparing with the fourth quarter of 1997, the first quarter in which tiering was implemented, gives the longest available time period for examining the tier composition of homes and attendance.

As a result of this realignment, the number of higher income CACFP children declined and the number of low-income children grew. Low-income children made up 49 percent of all children in Tier 1 homes in 1999, compared with 15 percent in Tier 2 homes. Replacing Tier 2 homes with Tier 1 homes thus tends to increase the proportion of low-income children in the CACFP population.

Tiering's Effect on Nutritional Aspects of CACFP

Tier 2 Meals

The CACFP works to ensure that children receive healthful meals and snacks while in child care. To achieve this end, the program offers providers a financial benefit in the form of the meal reimbursement, sets standards for the meals and snacks that providers serve, and trains providers to design and prepare nutritionally appropriate meals.

The lower Tier 2 meal reimbursement rate diminished the providers' incentive to participate in the CACFP, as shown in the section above. In theory, it might also reduce the incentive for those who do participate to serve nutritionally appropriate meals and snacks. With lower revenues from meal reimbursements, providers might seek to reduce their operating costs. Cost reduction strategies are likely to focus on food purchases, because this is typically the provider's largest variable expenditure.¹⁹ Thus, Tier 2 providers might respond to the lower reimbursement by not offering certain meals or snacks or by offering fewer items, smaller portions, or less costly foods. Any of these strategies might diminish the CACFP contribution to children's nutritional needs.

The analysis finds no indication that tiering has caused deterioration of the nutrient composition of CACFP meals and snacks. Tier 2 providers in 1999 offered essentially the same pattern of meals and snacks as their counterparts in 1995. The meals and snacks were equally or more compliant with CACFP requirements regarding the types of food to be served. Nutrient composition was at least as appropriate in 1999 as in 1995.

The analysis presented below is based on menu surveys completed by representative samples of 542 Tier 2 providers in 1999 and 501 providers of all types in 1995. The menu surveys indicate the foods and beverages offered at each meal and snack for a sample week, with menus recorded separately for children aged 1-2, 3-5, and 6-12.²⁰ Portion sizes were measured by on-site observers in a subsample of the child care homes (97 in 1999 and 89 in 1995) on two days during the sample week. Models estimated with the observation data were used to impute portion sizes for meals and snacks in the menu surveys for the full sample. Because the 1999 menu survey was conducted only among Tier 2 homes, comparisons with 1995 use regression analyses controlling for two factors used in determining tier assignments: the provider's income relative to the Federal poverty guideline, and the percent of low-income children in the provider's census block group. The analysis methods and results are reported in full in Crepinsek et al., E-FAN-02-006.

¹⁹ Other major costs, such as facility depreciation and utilities, are less susceptible to control. See Fosburg et al., 1981.

²⁰ Menu records were requested for Monday-Friday of the sample week. Some providers did not operate on all 5 days and some failed to record their menu for 1 or more days. Only providers with 3 or more days of menus were included in the analysis.

Meals and Snacks Offered

Nearly all Tier 2 CACFP providers surveyed in 1999 offered lunch, and around 95 percent offered breakfast and an afternoon snack, as shown in Exhibit 10. Over half offered a morning snack, but relatively few offered supper (14 percent) or an evening snack (5 percent).

Two combinations of meals and snacks were particularly common. About 43 percent of providers offered breakfast, lunch, and either the morning or afternoon snack (usually the afternoon snack). Nearly an equal number offered breakfast, lunch, and both morning and afternoon snacks (38 percent).

Tiering does not appear to have affected this pattern. The proportion of Tier 2 providers in 1999 offering each meal, snack, or combination was not significantly different from the proportion of similar providers (resembling them in tier-related characteristics) in 1995. The only exception was the evening snack, which showed a small increase from 1995 to 1999 ($p < 0.10$).

A small proportion of Tier 2 providers may have responded to the reduction in reimbursements by discontinuing the morning snack. Both Tier 1 and Tier 2 providers who had been operating since January 1997 (6 months before tiering took effect) were asked whether they had started or stopped serving any meal or snack between that month and the time of the interview, which occurred in the summer of 1999 (Zotov et al., E-FAN-02-004).²¹ About 11 percent of Tier 2 providers said they had discontinued the morning snack, compared with 5 percent of Tier 1 providers. This net difference of 6 percentage points was the only difference in meals offered that approached statistical significance ($p < 0.10$).

If some Tier 2 providers did indeed discontinue the morning snack as a response to the reduction in reimbursement rates, their action did not lead to a reduction in morning snack service relative to the pattern observed in 1995. The proportion of Tier 2 providers in 1999 who offered a morning snack was not significantly different from the proportion of similar providers offering a morning snack in 1995.²²

²¹ For each meal and snack, providers were asked whether they were serving the meal/snack in January 1997 and whether they were doing so at the time of the interview. A "start" or "stop" was determined by the difference in practice at those two time points.

²² This conclusion is supported by data from the operations survey of Tier 1 and Tier 2 providers in 1999 (Zotov et al., E-FAN-02-004) and the corresponding survey of all providers in 1995 (Glantz et al., 1997). Comparing the complete provider populations in the 2 years shows no significant difference in the proportion saying they serve morning snack.

Exhibit 10**Proportion of Providers Offering Specified Meals and Snacks During the Sample Week**

	Tier 2 1999	Difference 1999-1995^a
<i>Percent offering specified meal or snack</i>		
Breakfast	94.6%	5.2%
Morning snack	56.4	4.5
Lunch	98.6	-0.9
Afternoon snack	95.6	-0.7
Supper	13.6	-4.4
Evening snack	5.1	4.4*
<i>Percent offering specified combination</i>		
Breakfast, lunch, morning or afternoon snack	42.6	-3.1
Breakfast, lunch, morning and afternoon snack	38.0	5.7
Unweighted sample	542	1,043

^a Differences between values for Tier 2 providers in 1999 and estimated values for similar providers in 1995 were calculated using regression controlling for provider income and percent of low-income children in the census block group in 1990. The technique is described in Crepinsek et al., E-FAN-02-006.

Significance levels:

* = 0.10

** = 0.05

*** = 0.01

Source: Menu records for sample week, 1999 Tier 2 and 1995 all providers.

Compliance with Meal Component Requirements

To qualify for CACFP reimbursement, meals and snacks must contain specified combinations of four major components: milk; fruit, vegetables, and juice; bread and acceptable bread alternates (such as cereal); and meat and acceptable meat alternates (such as cheese and eggs). Lunches and suppers must include all four components and must include two different items in the fruit and vegetable category. Breakfasts must include three components: milk; fruit, vegetables, and juice; and bread and bread alternate. Snacks must include any two of the four components.²³

The vast majority of meals served by Tier 2 providers in 1999 complied with these component requirements. More than 90 percent of all breakfasts, lunches, morning snacks, and afternoon snacks

²³ The meal requirements also specify minimum serving sizes for each component, with the amounts varying according to the age of the child. Compliance with these requirements was not assessed because portion sizes were observed for only a subsample of providers.

complied fully (Exhibit 11). Over 80 percent of suppers and evening snacks did so. It is not known how many, if any, of the noncompliant meals were claimed for CACFP reimbursement.²⁴

Tiering did not reduce compliance with meal component requirements. Compliance rates were generally not significantly different for Tier 2 meals in 1999 than for meals offered by similar providers in 1995. The few statistically significant differences showed better compliance in 1999 than in 1995.

Exhibit 11
Percent of Meals Complying with CACFP Meal Component Requirements

Meal	Unweighted sample ^a	All Ages	
		Tier 2 1999	Difference 1999-1995 ^b
Breakfast	4,480	97.3%	2.3%*
Morning Snack	2,440	96.8	5.4**
Lunch	4,899	91.5	3.4
Afternoon Snack	4,578	95.3	-0.1
Supper	968	82.3	3.2
Evening Snack	219	85.5	12.5

^a Menus are recorded separately for children in three age groups: 1-2; 3-5; and 6-12. Sample size includes all three groups for 1999 and 1995.

^b Regression estimate controlling for provider income and percent of low-income children in the census block group in 1990.

Significance levels:

* = 0.10

** = 0.05

*** = 0.01

Source: Menu records for sample week, 1999 Tier 2 and 1995 all providers.

²⁴ Because CACFP reimburses no more than two meals and one snack (or one meal and two snacks) per child per day, not all meals and snacks served are reimbursed by CACFP. The menu records do not indicate which children received each meal, so it is not possible to determine which meals were candidates for a reimbursement claim for one or more children.

Nutrient Composition of Meals and Snacks Offered

CACFP regulations do not define nutrient standards for meals or snacks. Particular nutrients were selected for study on the basis of previous research and priorities established for the National School Lunch and School Breakfast Programs. Nutrient quantities are examined as a percent of the *Recommended Dietary Allowances* (RDAs) (National Research Council, 1989a) for food energy and five nutrients: protein, vitamin A, vitamin C, calcium, and iron.²⁵ Useful benchmarks come from the school-based programs, which call for breakfast to offer at least one-fourth of the RDA and for lunch to provide at least one-third of the RDA for these dietary elements. The study also examines the percent of food energy from total fat, saturated fat, and carbohydrate, as well as the total amounts of cholesterol and sodium in the meals and snacks offered. Benchmarks for this group of measures are based on recommendations in the current *Dietary Guidelines for Americans* (U.S. Departments of Health and Human Services and Agriculture, 2000) and the National Research Council's *Diet and Health* report (1989b).

Nutrient characteristics of breakfast, lunch, and morning and afternoon snacks were analyzed separately for meals and snacks offered to children in the three age groups distinguished in CACFP meal requirements: ages 1-2, 3-5, and 6-12.²⁶ Exhibit 12 summarizes the results for children aged 3-5, who are the largest group. Results for the other two age groups were quite similar.²⁷

In 1999 the average Tier 2 breakfast offered to children ages 3-5 substantially exceeded the benchmark of one-fourth of the RDA for the five nutrients, but food energy was slightly below that level. Lunch similarly exceeded the benchmark of one-third of the RDA for all nutrient measures except food energy and iron. Morning and afternoon snacks, for which no standard is defined, offered around 30 percent of the RDA for protein and vitamin C and 13-20 percent of the RDA for other nutrients and food energy.

The average composition of Tier 2 breakfasts and snacks offered in 1999 met most other nutrient benchmarks as used in this analysis, but lunch did not. Lunches, on average, substantially exceeded the *Dietary Guidelines* recommendation of less than 10 percent of food energy from saturated fat. The average Tier 2 lunch also fell outside the recommended ranges for percent of energy from total

²⁵ The new *Dietary Reference Intakes* (DRIs) might have been appropriate benchmarks for this study, but they were not available for most nutrients when this analysis was done.

²⁶ Menu data were not collected for infants under 1 year old. Nutrient composition of supper and evening snack are not analyzed because they are offered by only a small fraction of providers, making sample sizes too small for useful analysis.

²⁷ See Crepinsek et al., E-FAN-02-006, for results for all age groups and for additional measures. *Dietary Guidelines* and NRC Recommendations apply only to children age 2 and older. Analyses of these dimensions are limited to children ages 3-5 and 6-12.

Exhibit 12

Nutrient Composition of Meals and Snacks Offered to Children Ages 3-5

		Breakfast		Lunch		Morning Snack		Afternoon Snack	
Daily			Differ-		Differ-		Differ-		Differ-
Recommen-		Tier 2	ence	Tier 2	ence	Tier 2	ence	Tier 2	ence
dation		1999	1999-95 ^a	1999	1999-95 ^a	1999	1999-95 ^a	1999	1999-95 ^a
% of RDA for:									
Food energy	100%	21.2	1.5***	28.8	2.1***	13.5	1.1**	14.6	1.2***
Protein	100%	54.4	1.5	100.1	4.5	30.1	2.5	31.7	-0.2
Vitamin A	100%	62.9	4.4	74.5	-0.9	18.6	-2.6	17.9	-5.5**
Vitamin C	100%	79.2	2.8	48.4	6.6**	30.9	-7.3	28.8	-1.0
Calcium	100%	37.0	0.7	42.5	1.4	19.4	2.3	18.8	-0.7
Iron	100%	41.1	2.0	26.6	1.5*	14.0	0.4	13.4	0.9
% of food energy from:									
Fat	≤30%	22.0	0.1	37.0	1.0*	27.1	2.3**	28.7	-1.3
Saturated fat	<10%	10.4	0.0	15.4	0.7**	11.2	1.0	11.4	-0.6
Carbohydrate	>55%	66.5	0.5	46.2	-0.3	63.7	-2.4	62.1	2.0*
Milligrams of:									
Cholesterol	≤300	52.9	8.5	59.4	4.0	17.6	1.6	15.5	0.9
Sodium	≤ 2,400	460.1	45.1	936.4	131.8	237.5	23.2	267.2	21.6
Unweighted sample									
		441	830	483	931	244	460	455	874

a Regression estimate controlling for provider income and percent of low-income children in the census block group in 1990.

Significance levels:

* = 0.10

** = 0.05

*** = 0.01

Data source: Menu records for sample week, 1999 Tier 2 and 1995 all providers.

fat and carbohydrate, and exceeded one-third of the recommended daily maximum amount of sodium. Breakfasts, in contrast, slightly exceeded the recommendation for percent of energy from saturated fat but were within the recommended limits for the other measures.

In most of these respects, Tier 2 meals in 1999 did not differ significantly from those offered by similar providers in 1995. The two most consistent differences were:

- **Food energy** was significantly greater in meals offered by Tier 2 providers in 1999 than those offered by similar providers in 1995. This stems from a general tendency for portion sizes to be larger in 1999.

- Point estimates for **sodium** were consistently greater for Tier 2 providers in 1999 than similar providers in 1995 across all meals and age groups, although the differences were not statistically significant. This pattern reflects differences in the foods served in 1999 as well as larger portion sizes. In particular, increases were observed in 1999 in the proportion of lunches offering high-sodium condiments (such as ketchup), hot dogs, processed cheese (such as American cheese) and breaded fried foods (such as chicken nuggets).

The comparisons between 1999 and 1995 do not suggest that lower meal reimbursement rates led Tier 2 providers, on average, to offer meals and snacks with diminished nutrient content. Portion sizes tended to increase—the opposite of what would be expected from a cost-cutting strategy. The menu changes leading to increased sodium levels seem more likely to represent catering to children’s preferences than economizing. Examining the foods commonly served at each meal, some observed differences between 1995 and 1999 would be consistent with an effort to cut costs (such as a significant reduction in the offering of meat and meat alternates at breakfast). But other differences move in the opposite direction (such as a significant increase in the proportion of lunches including fresh fruit), leaving no clear and consistent pattern.

Tiering's Effect on Provider Operations

The lower meal reimbursement rates for Tier 2 providers caused some providers not to participate in the CACFP who would otherwise have done so. Those Tier 2 providers who continued to participate, or who enrolled after tiering was introduced, faced a different economic situation. The lower meal reimbursements would translate into lower net income from the business unless they could make some adjustment. In principle, they had three options: increasing revenue from non-CACFP sources, reducing costs, or accepting a lower net income.

The analyses summarized below indicate that tiering led to higher average child care fees charged by Tier 2 providers and also to some efforts to limit food expenditures. Higher fees appear to be the more dominant response, although average fees may have increased because of attrition of low-fee providers as well as explicit fee increases. The average reduction in food expenditures appears relatively small, estimated at about \$0.50 per child per day, which probably accounts for the absence of substantial nutritional impacts shown previously. Whether the adjustments to fees and food expenditures were sufficient to offset the reduction in CACFP reimbursements, or whether a substantial proportion of providers experienced a reduction in their net child care income, cannot be determined from the available data.

The analyses are based on a survey of 576 Tier 1 and 595 Tier 2 providers conducted in the spring and summer of 1999, together with a generally comparable survey of 532 CACFP family child care providers of all types in 1995. The surveys asked not only about child care fees and food expenditures, but about general operating characteristics such as the scale and hours of operation and about providers' experiences with and perceptions of the CACFP. The analyses summarized here are presented in full in Zotov et al., E-FAN-02-004.

Child Care Fees

One way that Tier 2 providers could compensate for their lower meal reimbursements was to raise the fees that they charge to parents. The analysis indicates that some providers did indeed adopt this strategy.

The average CACFP provider in 1999 charged \$2.12 per hour for a child in full-time care, as shown in Exhibit 13. This was not significantly different from the average fee charged in 1995, which was \$1.98 before adjusting for inflation and \$2.19 with the adjustment.

Tier 2 providers charged significantly higher fees than Tier 1 providers, with an average difference of \$0.50 per hour. Multivariate analysis indicates that part of this difference occurs because the Tier 1 and Tier 2 providers are located in different kinds of areas, with Tier 2 providers generally located in higher income neighborhoods and higher cost regions of the country. Even taking these factors into

Exhibit 13
Hourly Child Care Fees Charged by CACFP Providers (in 1999 dollars)

Fee	1995 ^a	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***
Unweighted sample	331	1,010		475	535	

^a Adjusted for inflation using CPI-U.

Significance levels:

* = 0.10

** = 0.05

*** = 0.01

Source: Provider surveys, 1995 and 1999.

account, however, Tier 2 providers in 1999 reported hourly fees that were \$0.31 higher than the inflation-adjusted fees reported by similar providers in 1995.²⁸

This result is corroborated by parents' reports of the child care fees they pay. Analysis of data from the household survey, controlling for the age of the child and characteristics of the provider's location, showed that fees for children in Tier 2 homes in 1999 were significantly greater than those for children served by similar providers in 1995.²⁹

Survey responses indicate that some Tier 2 providers raised fees as an explicit response to the lower meal reimbursements. Providers who were active in January 1997, 6 months before tiering was implemented, were asked whether they had changed their fees between that date and the time of the survey, which occurred in the summer of 1999. About 43 percent of providers in both Tier 1 and

²⁸ Explanatory variables in the regression analysis included year (1995 or 1999), an indicator for Tier 2 in 1999, the percent of low-income children in the census block group in 1990, urban/rural, geographic region (using the four census regions), and whether any children in the provider's care received subsidies. Only the Tier 2 interaction term and the location variables were statistically significant. The R-squared was 0.319. A weighted regression model was estimated using SUDAAN software (Zotov et al., E-FAN-02-004).

²⁹ The mean hourly fee for a single child in care in 1999 was reported as \$2.17, not significantly different from the inflation-adjusted 1995 average of \$2.19. The regression model included: year, an indicator for Tier 2 in 1999, child age (0-2, 3-5, 6-12), full-time vs. part-time care, household income relative to the poverty guideline, the percent of low-income children in the census block group in 1990, the percent of the census block group in an urbanized area, and census region. Households whose child care fees were subsidized by other government programs were excluded from the analysis. The estimated effect of tiering was \$0.59, a statistically significant effect that is not significantly different from the estimate of \$0.31 from the provider model. A weighted regression model was estimated using SUDAAN software (Crepinsek et al., E-FAN-02-005).

Tier 2 said they had raised their fees for reasons typically related to increased costs but not specifically connected to CACFP reimbursements. An additional 15 percent of Tier 2 providers (and less than 1 percent of Tier 1 providers) had raised fees and explicitly cited lower meal reimbursements as a reason.

Child care fees may have increased not only because some providers took action to raise them, but also because of selective CACFP participation. The number of Tier 2 providers in the CACFP declined after tiering was introduced. It is quite possible that the shrinkage was disproportionately concentrated in providers who charged below-average fees. The lower CACFP reimbursements would put greater pressure on such providers, and if they were operating in markets where they felt they could not raise fees, they would have a greater incentive to leave the child care business, or less incentive to enter the field. Although it is theoretically likely that selective attrition occurred, the data offer no direct evidence on the point.

Food Expenditures

Another possible response to lower CACFP reimbursements would be to reduce operating costs. Food expenditures, which generally represent the largest day-to-day expenditure for providers, would be an obvious target for cost savings.

CACFP providers reported spending an average of \$104 per week on food for meals and snacks served to the children in their care in 1999. Tier 2 providers spent less, on average, than Tier 1 providers. Controlling for factors such as the number of children and meals served and characteristics of the provider's location, Tier 2 providers reported spending an estimated \$16 less per week than Tier 1 providers.³⁰

Up to 14 percent of Tier 2 providers may have adjusted to the lower reimbursement rates by reducing their spending on food, while others may have fended off inflationary increases by switching to more economical purchasing strategies. Providers who had been active since January 1997 were asked whether their food expenditures had increased or decreased over that period. About two-thirds of providers in both Tier 1 and Tier 2 reported that expenditures had increased, the expected result of modest inflation over the 2½ years.³¹ Only a small fraction of providers (12 percent of the total) said that their food expenditures had declined, but significantly more Tier 2 than Tier 1 providers gave this response. And among those who said their food expenditures had not changed in spite of inflation, Tier 2 providers were more likely to mention purchasing strategies such as buying food on sale, buying generic brands, and buying in bulk.

³⁰ Data on food expenditures are available only in the 1999 survey. The regression model included: tier, variables indicating the number of children to whom each meal is served over the week (e.g., the number of days breakfast is served times the average daily attendance), the presence of any children whose fees are subsidized, urban/rural, geographic region (indicators for Northeast, South, and West), and the percent of low-income children in the census block group. The model, fit as a weighted regression using SUDAAN, had an R-squared of 0.336.

³¹ The CPI-U rose 4.5 percent from January 1997 to June 1999.

Curbing food expenditures appears to be a less important part of the response to tiering than raising fees. An increment of \$0.31 in hourly fees would amount to \$11 per week for a child in care for 36 hours during the week. A savings of \$15 in weekly food expenditures would amount to about \$2 per child, assuming average daily attendance of 6.5 children. Although these estimates are not fully comparable and have wide confidence intervals, they suggest that the fees provided a greater part of the economic response than the food expenditures.

Other Operating Adjustments

Apart from raising fees or cutting food expenditures, Tier 2 providers might have attempted to increase their net child care revenue by enrolling more children or operating for longer hours. The data suggest that neither of these responses occurred at a discernible level.

CACFP providers in the 1999 survey reported having 6.5 children in attendance, on average (Exhibit 14). They operated an average of 11 hours daily. Most provided care for a 5-day week (78 percent), but about a fifth operated at least 6 days weekly.

Average attendance and enrollment were not significantly different in 1999 from the levels reported in 1995, and levels for Tier 1 and Tier 2 homes were statistically indistinguishable. Significantly more providers in 1999 reported operating more than 5 days per week, however, and a small increase in average daily operating hours was also observed ($p < 0.10$). Although increased operating hours would be a possible response to lower meal reimbursements, the longer days and workweeks are

Exhibit 14

Operating Scale and Schedules of the CACFP Family Day Care Homes in 1995 and 1999

	1995	1999		1999		
	Total	Total	Difference 1999-95	Tier 1	Tier 2	Difference Tier 2 - Tier 1
Operating scale—average (mean) number of:						
Children attending	7.0	6.5	-0.5	6.5	6.7	0.2
Children enrolled	8.3	8.1	-0.2	7.7	8.9	1.2
Hours of operation	10.7	11.1	0.4*	11.2	10.8	-0.4
Days of Operation— percent of providers operating:						
5 days (Monday-Friday)	86.7%	77.8%	-8.8%**	72.1%	89.5%	17.4%***
5 weekdays plus some weekend	9.9	19.0	9.2***	25.0	6.7	-18.3***
Unweighted sample	510	1,154		564	590	

Significance levels:

* = 0.10

** = 0.05

*** = 0.01

Source: Provider surveys, 1995 and 1999.

concentrated among the Tier 1 rather than the Tier 2 providers. This suggests that the profile of provider operating characteristics was shifting as a response to consumer demand rather than a response to tiering.

CACFP Experiences and Perceptions

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, which the parents must complete and send to the sponsor.

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 since the administrative requirements were not greater for Tier 1 than Tier 2 providers.

Tiering seems to have led to more negative provider perceptions of the CACFP, however. Fully 65 percent of Tier 2 providers find the meal reimbursement rates "not very satisfactory" or "not at all satisfactory," compared with 12 percent of Tier 1 providers and just 6 percent of all providers in 1995 (Exhibit 15).

Exhibit 15
Providers' Satisfaction with CACFP Reimbursement Rates in 1995 and 1999

Response	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	.5	10.3	9.8***	1.6	28.0	26.4***
Unweighted sample	492	1,147		559	588	

Significance levels:

* = 0.10

** = 0.05

*** = 0.01

Source: Provider surveys, 1995 and 1999.

Tiering's Effect on CACFP Sponsors

Family child care homes can participate in the CACFP only if they are sponsored by a public or private nonprofit organization that has entered into an agreement with a State agency to administer the program at the local level. Sponsors are responsible for enrolling homes into the program, training the care providers, monitoring compliance with program requirements, receiving the homes' CACFP reimbursement claims, and distributing the reimbursements.

The PRWORA explicitly gave sponsors three new responsibilities. They must now:

- Classify all participating child care homes as Tier 1 or Tier 2 homes. This classification may be based on the low-income status of the school attendance area or census block group in which the home is located, or on the provider's own low-income status. Most homes' tier classification must be reviewed every 1 to 3 years.
- Upon the request of Tier 2 homes, determine the eligibility of individual children for the higher reimbursement level. This involves obtaining information about the child's household income or participation in programs that confer categorical CACFP eligibility (such as the Food Stamp Program or Temporary Assistance to Needy Families). Children's eligibility must be reviewed annually.
- In filing claims for meal reimbursements for Tier 2 homes, indicate the number of meals to be reimbursed at the lower rates and the number at the higher rates.

In addition to the entirely new responsibilities, sponsors had to integrate issues related to tiering into their ongoing responsibilities for training and monitoring providers. Further, because the lower Tier 2 reimbursement rates constitute a lesser incentive for some providers to participate in the CACFP, sponsors might find themselves losing homes or having to intensify their recruitment of homes.

The analyses reported below show that tiering has not significantly reduced the number of sponsors participating in the CACFP, but that participating sponsors perceive that tiering and its related requirements have made their role more difficult. They report that their total staff hours for CACFP activities have increased, they rank the new tasks added by tiering as among the most burdensome of their responsibilities, and they say they have had to increase their efforts for training, monitoring, and outreach. Meanwhile, most sponsors have experienced a decline in the number of homes they sponsor.

The analyses are based principally on a survey of a nationally representative sample of 268 sponsors of CACFP family child care homes, conducted in the spring and summer of 1999. The analysis is reported in Bernstein and Hamilton, E-FAN-02-003. In addition, nationwide data on the numbers of participating sponsors and homes come from CACFP administrative systems maintained by FNS, described in Hamilton et al., E-FAN-02-002.

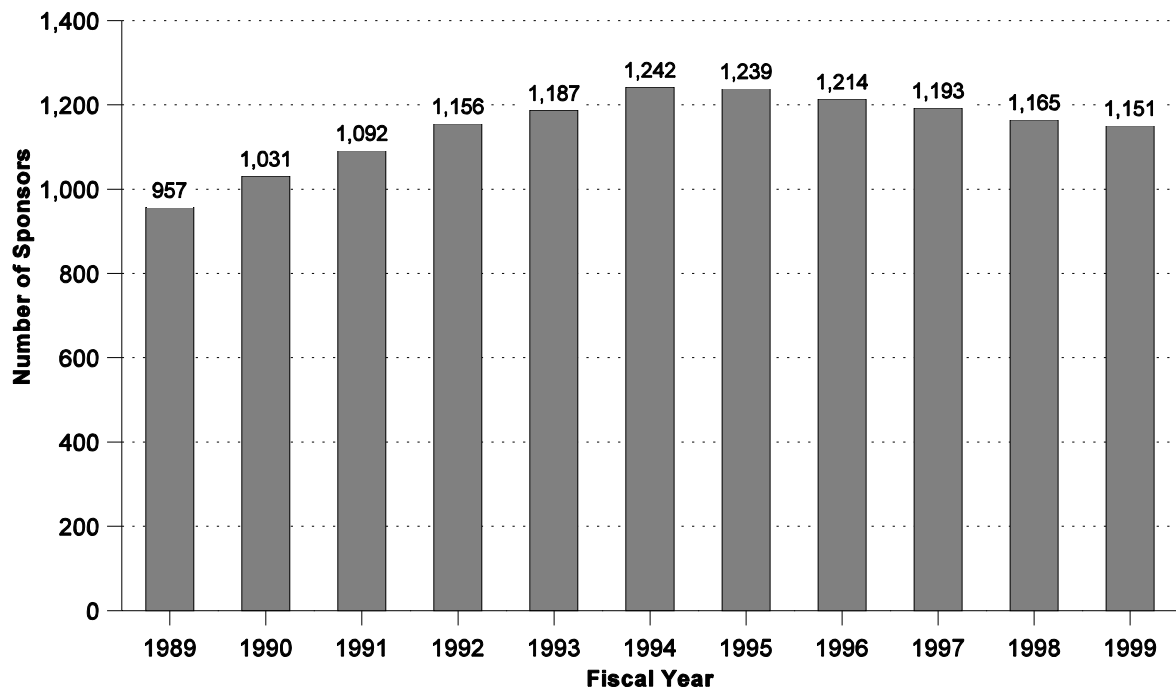
Number and Size of Participating Sponsors

National data do not indicate that tiering has led sponsors to abandon the CACFP in substantial numbers. As shown in Exhibit 16, the number of participating sponsors declined from 1,193 in 1997 to 1,151 in 1999. But this 3.6-percent reduction appears to be the continuation of a trend. It is about the same as the previous 2-year period (1995-97), which saw a decrease of 3.7 percent. The decline in the number of sponsors began not only before the legislative changes were implemented in 1997, but also before the legislation was formulated (Hamilton et al., E-FAN-02-002).

The average number of homes per sponsor grew during most of the past decade, but declined slightly after 1996 as the total number of CACFP homes shrank. The average sponsor in fiscal year 1999 had 152 enrolled homes, down 6 percent from the peak of 161 homes in 1996. From 1989 to 1996, the average had climbed steadily from 121 to 161 homes.

The experience of surveyed sponsors reflects the pattern in the national data. The median sponsor saw an 8-percent reduction in the number of homes it sponsored between January 1997 and January

Exhibit 16
Number of Sponsors of CACFP Family Child Care Homes



Source: CACFP administrative data.

1998.³² This was the net result of the departure of 32 percent of the homes and a new home enrollment rate of 25 percent.³³ Sponsors with substantial numbers of Tier 2 homes were hardest hit. Among those sponsors with at least one-third of their homes classified as Tier 2, the median sponsor had a net loss of 14 percent of its homes between 1997 and 1998.³⁴

Administrative Effort

Despite the general reduction in number of homes served, 72 percent of the surveyed sponsors said that the number of staff hours their organization devoted to CACFP activities had increased since 1997. Of the remaining sponsors, 23 percent reported no change in staff hours and just 5 percent saw a decrease.

Multiple factors contribute to the reported increase in administrative effort. Asked why staff hours had increased, 42 percent of the sponsors said that one reason was increased services they offer to providers, 36 percent mentioned providing more training, and 29 percent cited increased monitoring. Apart from their responsibilities for enrolled homes, 19 percent of the sponsors reporting increased staff time said that more outreach to recruit low-income providers was a factor. And as might be expected, 91 percent said that their administrative responsibilities in general had increased.

Sponsors viewed their new tiering-related responsibilities as particularly burdensome. The survey asked them to rate each of 10 activities on a scale from 1 (not at all burdensome) to 4 (very burdensome). The three activities introduced by tiering—certifying provider income, determining the income eligibility of children, and assigning tier status based on area data—ranked at or near the top of the burden list (Exhibit 17). This subjective ranking cannot be taken to mean that a highly ranked activity is necessarily more costly or time-consuming than others, but it does indicate a high level of sponsor sensitivity regarding their newly added responsibilities.

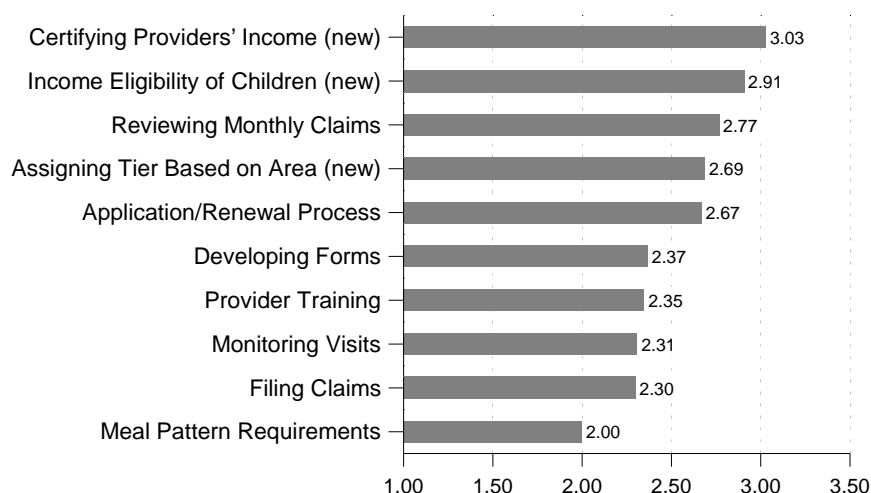
Although the new regulations related to tiering did not require sponsors to conduct additional training or monitoring of providers, sponsors tended to report that they had increased effort in these areas. For individual training and for monitoring, more than half of the sponsors said that they had increased the frequency of sessions, the duration, or both (see Exhibit 18). Individual training received particular emphasis, with 62 percent of sponsors reporting a net increase in activity.

³² Surveyed sponsors provided lists of the number of participating homes (i.e., those receiving CACFP reimbursement) in January 1997 and January 1998. These figures are based on comparing the two lists for each sponsor.

³³ Because the reported figures are medians, the net loss is not exactly equal to the difference between the exit rate and the new enrollment rate.

³⁴ Proportion of Tier 2 providers is measured at the time of the survey, in 1999.

Exhibit 17
Burden Scores for Sponsors' CACFP Activities
(Mean Rating on 1-4 Scale)



Source: Sponsor survey, 1999.

Exhibit 18
Shares of Sponsors Reporting Changes in Training and Monitoring Efforts from 1997 to 1999

Change	Group Training	Individual Training	Monitoring
Increase in effort	43.7%	62.1%	56.9%
More and longer sessions	17.3	35.9	18.2
Longer sessions, no change in frequency	8.6	17.5	28.2
More sessions, no change in duration	17.8	8.7	10.5
No change in frequency or duration	44.4	29.7	31.2
Increase in either frequency or duration, decrease in the other	1.3	3.5	2.6
Decrease in frequency and/or duration with no increase	10.6	4.6	9.3
Unweighted sample	265	241	267

Source: Sponsor survey, 1999.

Sponsors gave two main reasons for increasing their training and monitoring efforts: to explain the details of tiering and to offer greater support or services to the providers. Sponsors who lengthened their training or monitoring sessions most often cited the need to explain tiering. Those who increased the number of sessions, or who increased both frequency and duration, tended to emphasize additional services. Increased services—such as assistance with licensing or CACFP procedures, or parent referrals—apparently formed a part of many sponsors’ strategies for recruiting and retaining providers.

Common sense as well as the sponsor survey responses indicate that the new requirements and the added complexities of tiering would increase the sponsor’s average cost of handling a CACFP home. Any cost increase might intensify the economic pressure on sponsors. No data currently exist, however, on the dollar operating costs of the various sponsor activities. Thus, it is impossible to determine whether tiering simply reduced the sponsors’ average operating margin or placed them in a situation where costs exceed administrative reimbursements.

Recruiting Providers

With the reduced participation incentive for Tier 2 providers and the decline in CACFP homes, many sponsors stepped up their recruitment efforts. Asked whether the focus of their operations had changed since 1997, most sponsors (58 percent) answered in the affirmative. Of those, 80 percent said they had increased recruitment activities. Their reasons for stepping up recruitment included the increased difficulty of attracting new homes (58 percent), the need to retain already-enrolled homes (41 percent), a desire to find more Tier 1 homes (36 percent), and increased competition from other sponsors (29 percent). Typical strategies for intensified recruitment included additional outreach techniques such as newspaper advertisements, offering new services, and a greater focus on low-income neighborhoods.

Perhaps surprisingly, fewer than half (42 percent) of sponsors report targeting outreach toward providers serving low-income families. Tiering offers a stronger participation incentive for providers potentially qualifying for Tier 1 than for Tier 2 reimbursement, and USDA makes special outreach and expansion funds available to pay for the administrative expense of recruiting homes in low-income or rural areas. Only 10 percent of sponsors, mainly those sponsoring relatively large numbers of homes, reported taking advantage of the outreach and expansion funds.

Tiering's Effect on the Number of Licensed Child Care Homes

CACFP tiering naturally has its most direct effects on the child care providers, sponsors, and children who participate in the CACFP. Another hypothesis, explored in the analyses described below, was that tiering would reduce the number of family child care homes that would be licensed, certified, or registered according to the applicable regulations of the 50 States.

A licensed (or certified or registered) home is one that has been granted formal permission to operate by virtue of meeting applicable State health, safety, and other requirements.³⁵ Unlicensed homes generally fall into two categories: those that are exempt from State regulation because they do not receive public funds (including CACFP reimbursements) or because they serve a small number of children; and those that should be licensed, but instead operate without the knowledge or approval of the State ("underground" operations).

Concerned about the health and safety of all child care facilities, State child care regulatory agencies have attempted to minimize the number of underground homes, primarily through educating caregivers about the value of a license and how to obtain one. In promoting licensure, State agencies and child care sponsors have traditionally used the CACFP as a major attraction. Only licensed, certified, or otherwise approved homes may participate in the CACFP, and CACFP meal reimbursements can amount to several hundred dollars per month in additional revenue for the provider.³⁶ Indeed, some providers may feel that the main reason to be licensed is to receive the CACFP reimbursements, or that their business would be viable only with the CACFP reimbursement. The lower Tier 2 reimbursements reduced this incentive to licensing for some providers, raising the possibility that the overall number of licensed homes would decline.

The analysis finds little evidence of a tiering effect on the number of licensed homes. Nationwide, the number of licensed homes increased after the introduction of tiering, even though the number of CACFP homes declined. Some States did experience a decrease in the number of licensed homes, but officials in those States generally felt that tiering was only one contributing factor (Hamilton et al., E-FAN-02-002).

The analysis is based principally on a data series maintained by the Children's Foundation. The Children's Foundation conducts an annual survey of the 50 States and the District of Columbia to obtain, among other information, the number of currently licensed homes in the State. To verify major changes from 1997 to 1998 and to obtain information on possible reasons for the changes, Abt

³⁵ For simplicity, the term "licensed" is used here to include "certified" or "registered" homes. Terminology as well as requirements for approval vary from State to State.

³⁶ Homes that are exempt from licensing may participate in the CACFP, but the State must establish an alternate approval process for determining eligibility for participation.

Associates staff conducted followup correspondence and interviews with officials in 41 States. The analysis is reported in Hamilton et al., E-FAN-02-002.

Trends in Numbers of Licensed Homes

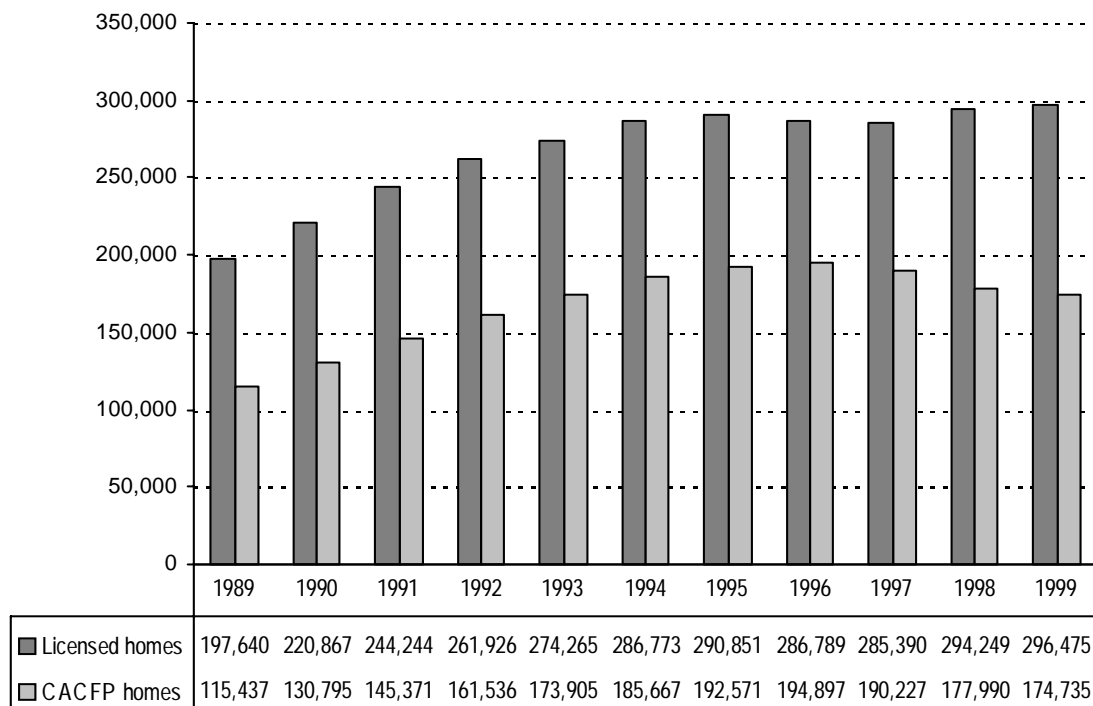
The number of licensed child care homes in the United States rose steadily each year from 1989 to 1995, declined slightly in 1996 and 1997, then increased in 1998 and 1999, as shown in Exhibit 19. From 1997 (the year the CACFP changes were implemented) to 1999, the total number of licensed child care homes grew about 4 percent. The 1998 increase was the first since the 1994 to 1995 period.

The tiering-related decline in the number of CACFP homes clearly did not prevent growth in licensure. The numbers of licensed and CACFP homes follow similar patterns of growth from 1989 to 1994, and both experience a plateau from 1995 to 1997.³⁷ After that point they diverge, with licensed homes showing modest increases and CACFP homes turning downward in 1998 and 1999. Although one cannot rule out the possibility that the number of licensed homes would have grown even more in the absence of the CACFP changes, the national trend does not demonstrate a negative impact.

Examining trends on a State-by-State basis yields much the same result. The number of licensed homes either increased or remained fairly stable from 1997 to 1999 in most States. Of the 50 States and the District of Columbia, 18 had increases of more than 5 percent, 19 had essentially stable numbers (between a 5-percent gain and a 5-percent loss), and 14 had declines of more than 5 percent.

Licensing officials from all States were asked to explain changes in their States' number of homes from 1997 to 1998, and 41 States responded to the request. In seven of the States with declines in licensure between 1997 and 1998, officials mentioned the lower Tier 2 CACFP reimbursements as being one factor in the decline. All but one of those officials mentioned other reasons in addition to CACFP, including increased stringency of licensing standards, pre-existing trends toward shrinkage in the number of smaller child care homes, and improved employment opportunities offered by the strong economy. These responses suggest that, while tiering may have exerted a downward pressure on the number of licensed homes, it was not a dominant force in most States or nationwide.

³⁷ Data on CACFP homes and licensed homes are not fully comparable. Licensure data reflect the number of homes licensed to operate, but not all may actually be operating at any given time. Also, licensure data are maintained separately by the States, while the CACFP data come from a uniform Federal reporting system.

Exhibit 19**Number of Licensed or Certified Family Child Care Homes and CACFP Homes in the U.S., 1989-1999**

Source: Children's Foundation; CACFP administrative data.

Conclusion

The principal objective of the PRWORA mandate for tiered reimbursements in the CACFP was to focus the program's benefits more narrowly on low-income children. A second objective may have been to contain cost, although this is not explicit in the legislation. The choice of the tiering mechanism rested on the premise that these objectives could be achieved by an indirect method—i.e., categorization based on the provider's location or income—without imposing an individual means test in most cases.

The new policy entailed some risk, which was recognized in the legislated requirement for an evaluation of the effects of tiering. A principal concern was that tiering might undermine the CACFP's fundamental objective of promoting the provision of healthy meals and snacks to children in family child care settings. This could occur if participating providers reduced the number or quality of meals offered, or if providers left the program (or declined to enroll) and offered fewer or lower-quality meals than those offered by providers operating under CACFP requirements. Additional concerns were that tiering might prove too burdensome for sponsors to continue playing their critical role in the program, or that it might change the economics of the family child care business sufficiently to reduce the nationwide supply of care.

The general message of the study findings is that substantial movement occurred in the direction of tiering's desired objectives with little evidence of negative consequences. The proportion of meal reimbursements going to low-income children doubled from 1995 to 1999, and the number of low-income children in the program grew by 80 percent. Expenditures for meal reimbursements declined while attendance held steady. The tiering mechanism was very effective in having low-income children's meals subsidized at the high rate, though less effective in applying the lower subsidy to higher income children. The number and nutritional characteristics of meals and snacks that Tier 2 providers offered were essentially the same as the offerings by similar providers before tiering. The national numbers of licensed providers grew, even though the number of CACFP homes declined.

If there is an area for concern in this generally positive picture, it relates to the providers and children who are not in the CACFP, but who might have participated if tiering had not been adopted. If tiering had not been adopted, the analysis indicates that the number of providers would have grown slightly rather than declining sharply. One would like to know what happened to the children who would have been served by those "missing" providers, but the study provides only fragmentary evidence on this point.

Some children were served by providers who dropped out of the CACFP when tiering was instituted but continued providing child care. The limited information available about these providers suggests that they did not account for most of the observed decline in participating homes. It also suggests that they tended to serve fewer children for fewer hours per week than was the average for active CACFP providers and, perhaps because of these operating patterns, they tended to offer fewer meals and snacks. The meals and snacks that these former CACFP providers offered were nutritionally similar to those offered by active CACFP providers, however.

The more important question is what happens to children in the care of providers who would otherwise enroll in the CACFP but choose not to do so because of the lower Tier 2 reimbursement rates. Such providers seem likely to have accounted for most of the decline in CACFP homes in 1998 and 1999. And if tiering continues to depress the number of CACFP providers in the future, it is logical that the effect would occur mainly through non-enrollments rather than early departures. The study affords no information on whether these non-enrollees will offer meals and snacks of a quality similar to those offered by CACFP providers—or by former CACFP providers, who have received CACFP training and been required to follow CACFP meal patterns in the past. Research on this question would be important in understanding whether the absence of these providers from the CACFP is an important impediment to the program goal of ensuring that children in family child care receive healthful meals and snacks.

An issue not addressed by the present study concerns the CACFP sponsors, whose role in recruiting, training, monitoring, and reimbursing providers is critical to the operation of the program as currently designed. Tiering clearly added new sponsor responsibilities and probably increased sponsors' per-home operating costs. This raises the question of whether administrative reimbursements are adequate to cover costs, and thus to ensure long-term viability of the sponsor role. Although this study provides no information on the question, USDA has undertaken a separate study to examine it.

Finally, beyond the impact of tiering, some of the study findings raise interesting questions about how CACFP family child care providers make decisions about the food they offer to children in their care. One might expect these decisions to reflect the provider's pre-existing knowledge and motivation about children's nutritional needs, the expectations of the provider's customers (i.e., the children's parents), the economic resource represented by the CACFP subsidy, and the information and motivation provided by the CACFP requirements. The complexity of these relationships is highlighted by the study finding that the lower subsidy for Tier 2 providers did not lead them to offer fewer or less nutritious meals and snacks. Numerous speculations might be offered about the role of the subsidy, but the present body of knowledge is insufficient to advance beyond speculation. Further research in this area could inform future efforts to enhance the efficiency and effectiveness of the CACFP.

References

Other Reports from this Study

- 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/>]
- Crepinsek, Mary Kay, Nancy R. Burstein, Ellen B. Lee, and William L. Hamilton. *Meals Offered by Tier 2 CACFP Family Child Care Providers: Effects of Lower Meal Reimbursements*, Washington, DC: USDA-ERS, E-FAN-02-006, March 2002. [<http://www.ers.usda.gov/publications/efan02006/>]
- Crepinsek, Mary Kay, Linda M. Ghelfi, and William L. Hamilton, *Households with Children in CACFP Child Care Homes: Effects of Meal Reimbursement Tiering*, Washington, DC: USDA-ERS, E-FAN-02-005, March 2002. [<http://www.ers.usda.gov/publications/efan02005/>]
- Hamilton, William L., Eric M. Stickney, Nancy R. Burstein, and Lawrence S. Bernstein, *Family Child Care Home Participation in the CACFP: Effects of Reimbursement Tiering*, Washington, DC: USDA-ERS, E-FAN-02-002, March 2002. [<http://www.ers.usda.gov/publications/efan02002/>]
- Zotov, Natasha, Shao-hsun Keng, and William L. Hamilton, *Family Child Care Providers in the CACFP: Operational Effects of Reimbursement Tiering*, Washington, DC: USDA-ERS, E-FAN-02-004, March 2002. [<http://www.ers.usda.gov/publications/efan02004/>]

Additional References

- Federal Interagency Forum on Child and Family Statistics, *America's Children: Key National Indicators of Well-Being, 2000*, Washington, DC: U.S. Government Printing Office, 2000.
- Fosburg, Steven, with Judith B. Singer, Barbara Dillon Goodson, Donna Warner, Nancy Irwin, Lorelei R. Brush, and Janet Grasso, *Family Day Care in the United States: Summary of Findings*, Final Report of National Day Care Home Study, Volume I, Cambridge, MA: Abt Associates Inc., 1981.
- Glantz, Frederic B., *Evaluation of the Child Care Food Program: Results of the Child Impact Study Telephone Survey and Pilot Study*, Cambridge, MA: Abt Associates Inc., 1983.
- 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 I, Alexandria, VA: USDA-Food and Consumer Service, July 1997.

Kisker, Ellen Eliason, Sandra L. Hofferth, Deborah A. Phillips, and Elizabeth Farquhar, *A Profile of Child Care Settings: Early Education and Care in 1990*, Washington, DC: U.S. Department of Education, 1991.

National Research Council, *Recommended Dietary Allowances*, 10th edition, Washington, DC: National Academy Press, 1989a.

National Research Council, *Diet and Health: Implications for Reducing Chronic Disease Risk*, Washington, DC: National Academy Press, 1989b.

U.S. Departments of Health and Human Services and Agriculture, *Nutrition and Your Health: Dietary Guidelines for Americans*, Fifth edition, Washington, DC: U.S. Government Printing Office, 2000.