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Households with Children in CACFP Child Care Homes—Effects of Meal Reimbursement Tiering

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

By Mary Kay Crepinsek of Abt Associates Inc., Linda Ghelfi of the Economic Research Service, and William L. Hamilton of Abt Associates Inc.

ERS contact: Linda Ghelfi

Abstract

Within the family child care home portion of the Child and Adult Care Food Program (CACFP), low-income children increased from 21 to 39 percent of all participating children between 1995 and 1999. The Personal Responsibility and Work Opportunities Reconciliation Act of 1996 mandated a tiered reimbursement structure for CACFP child care homes—designed to target benefits more narrowly to low-income children—-and called for a study of its effects on program participants and on meals offered to children. The study finds that the proportion of dollars allocated to low-income children's meals more than doubled, from 21 percent to 45 percent.

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Contact for further information

ERS' contract representative on this study is Linda Ghelfi. For further information, e-mail her at lghelfi@ers.usda.gov; write to her at ERS-FRED-Room 2081, 1800 M Street NW, Washington, DC 20036-5831; or call her at (202) 694-5437.

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Executive Summary

Low-income children increased from 21 percent of all children participating in the Child and Adult Care Food Program (CACFP) in 1995 to 39 percent in 1999. The Personal Responsibility and Work Opportunities Reconciliation Act of 1996 mandated a tiered reimbursement structure—designed to target benefits more narrowly to low-income children—and called for a study of its effects on program participants and on meals offered to children. The study finds that the proportion of dollars allocated to low-income children more than doubled, from 21 percent to 45 percent.

In accord with the PRWORA mandate, the U.S. Department of Agriculture (USDA) contracted with Abt Associates Inc. to conduct the *Family Child Care Homes Legislative Changes Study*. This report, one of several prepared as part of the study, presents findings pertaining to the effect of the legislated changes on the characteristics of children under care in CACFP family child care homes (see References, p. 38, for a list of the other reports).. It is based principally on a 1999 survey of 1,200 parents or guardians of children being served by family child care homes participating in the CACFP, together with comparable data from a 1995 survey.

The CACFP and Tiering

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

The PRWORA established a two-tier structure of meal reimbursement rates for family child care homes. Homes that are located in low-income areas or operated by persons with incomes at or below 185 percent of the Federal poverty guidelines are designated as Tier 1. Meal reimbursement rates for Tier 1 homes are comparable to the rates that existed for all CACFP homes before the 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 children of families whose income is at or below 185 percent of the poverty guideline.

The intent of Congress in establishing tiering was to focus CACFP benefits more narrowly on low-income children. A 1995 study, the *Early Childhood and Child Care Study*, showed that more than three-quarters of the children served in CACFP family child care homes came from families with incomes above 185 percent of the Federal poverty guideline. Meal reimbursement rates were the same for all income categories, which meant that less than a quarter of program benefits were going to low-income children. Reducing reimbursement rates for meals served to higher-income children would, in principle, allocate a greater share of program resources to the low-income group and reduce overall costs of the program.

The tiering procedure was designed to minimize the use of a means test—that is, an official determination of individual children's eligibility, which requires obtaining information on individual households' income. Although the household means test is used in CACFP child care centers and in numerous other programs, it was argued that this process would be unduly intrusive in the context of a family child care home, where many providers care for the children of their friends and neighbors. By basing Tier 1 criteria on local area income levels and the provider's own income level, it was assumed that most low-income children would tend to be served by Tier 1 homes. Some low-income children would still be served by Tier 2 providers, and a means test would be used to qualify these

children's meals for reimbursement at the higher Tier 1 rate. Privacy could be preserved in these situations by having the provider's sponsor, rather than the provider, administer the means test.

Effects on Targeting

The proportion of CACFP meal reimbursement dollars allocated to low-income children more than doubled between 1995 and 1999, from 21 percent to 45 percent. Much of this change resulted from a shift in the income composition of households served by CACFP family child care homes. Average daily attendance in CACFP homes was about the same in 1995 and 1999 (969,000 and 959,000 children, respectively). But the number of children with family incomes at or below 185 percent of the poverty level grew by about 165,000 from 1995 to 1999, while the number of children with family incomes above that threshold shrank correspondingly. The change in income composition was particularly evident in the category of children with household incomes at or below 130 percent of the poverty level, which went from 11 percent of all children in 1995 to 25 percent in 1999.

In addition to the change in the composition of participating households, the differential reimbursement levels further concentrated meal reimbursement dollars on low-income children. Meals for higher-income children in Tier 2 homes were reimbursed at the lower rate (although meals for those higher-income children served by Tier 1 homes continued to be reimbursed at the higher rate). Thus while 61 percent of the participating children in 1999 had family incomes above 185 percent of the poverty level, this group accounted for only 55 percent of meal reimbursement dollars.

The tiering policy as specified and implemented appears to be quite effective at making sure that low-income children's meals are subsidized at Tier 1 rates. About 88 percent of low-income children participating in the CACFP in 1999 were in Tier 1 homes, and about 7 percent were in Tier 2 homes that received some meal reimbursements at the higher rates. About 58 percent of participating higher-income children (i.e., those with household income over 185 percent of poverty) are in Tier 1 homes and have their meals reimbursed at the higher rate. Thus the tiering mechanism is more likely to apply the higher subsidy rate to higher-income children than to apply the lower rate to low-income children.

Effects on Households

It was hypothesized that tiering might affect households participating in the CACFP in several ways. Tier 2 providers might respond to lower meal reimbursements by not participating in the CACFP or, if they participated, by raising their fees, taking on more children, altering their hours of operation, or not providing some meals or snacks. Any of these responses could change the child care opportunities open to families seeking care. Tier 2 providers wishing to obtain the higher reimbursement for low-income children in their care would initiate the means testing process, which would result in participating families being asked to complete application forms with their income and other pertinent information. More indirectly, the shift towards a lower participant income profile might be accompanied by other changes in the demographics of the participant population.

Among these possibilities, the main effect seen in the analysis is a significant increase in inflation-adjusted hourly child care expenditures by families served by Tier 2 homes. This effect is observed in a multivariate analysis controlling for the age of the child, the weekly hours in care, and characteristics of the area in which the provider operates. The effect may result from some Tier 2 providers raising their fees, from fewer Tier 2 providers who charge below-average fees participating in the program, or from a combination of both factors.

There is no indication that tiering affected the number of hours that parents have their children in care or the proportion of parents who send food with their children. Likewise, survey responses do not suggest that the means test was an important issue for parents of children in Tier 2 homes.

As would be expected from the increased proportion of low-income households, a higher proportion of families in 1999 than in 1995 participated in other food assistance programs, such as Food Stamps and WIC. Families of children participating in the CACFP in 1999 were also somewhat larger, on average, than those participating in 1995.

Households with Children in CACFP Child Care Homes: Effects of Meal Reimbursement Tiering

Introduction

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

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

The law also called for a study of how the new meal reimbursement structure affected CACFP family child care homes, their sponsoring organizations, and the families of children participating in the program. This report specifically addresses issues related to the children cared for in CACFP family child care homes and their families. It describes the effectiveness of reimbursement tiering on income targeting of CACFP participation and benefits, characteristics of participating children, and households' CACFP child care experience. The report is one in a series of reports on the *Family Child Care Homes Legislative Changes Study*, which was carried out by Abt Associates Inc. under contract to the U.S. Department of Agriculture, Economic Research Service.[1]

Description of the Child and Adult Care Food Program

The CACFP reimburses child care providers for qualifying meals served. The program operates in nonresidential day care facilities including child care centers, after-school-hours child care centers,

[1] Other reports in the series include a summary report (Hamilton *et al.*, FANRR-22) and examinations of the effect of tiering on sponsors (Bernstein and Hamilton, E-FAN-02-003), participating providers (Zotov *et al.*, E-FAN-02-004), nutritional aspects of CACFP meals (Crepinsek *et al.*, E-FAN-02-006), and trends in the number of providers participating in the CACFP (Hamilton *et al.*, E-FAN-02-002).

family and group child care homes, and some adult day care centers.[2] Eligibility for the child care portion of the CACFP is limited to children age 12 and under. In fiscal year 1999, the child care component of the program served an average of 2.5 million children daily at an annual cost of $1.6 billion. Thirty-six percent of these children were served through child care homes and 64 percent through centers. The CACFP is administered at the Federal level by the Food and Nutrition Service (FNS), an agency of USDA. State agencies generally oversee the program at the local level.

From its inception, the goal of CACFP has been to ensure that low-income children in child care would receive nutritious meals. When the program was first established by Congress in 1968 under Section 17 of the National School Lunch Act (42 U.S.C. 1766), participation was limited to center-based child care in areas where poor economic conditions existed. Beginning in 1976, family child care homes became eligible to participate, provided that they meet existing State licensing requirements or, in the absence of licensing or certification procedures, 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.[3] Providers complained that the means test was overly burdensome and too invasive for their relationship with the families for whom they provided child care. In addition, sponsors claimed that meal reimbursements were insufficient to cover their administrative costs and still allow for adequate reimbursement to the homes.[4] 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. In addition, the amendments separated the reimbursement of sponsors' administrative costs from the meal reimbursement for family child care homes.[5]

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

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[2] As of July 1999, the CACFP also provides reimbursements for meals and snacks served to eligible children in homeless shelters.

[3] Three categories of reimbursement were established for participating homes, corresponding to family incomes of participating children 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.

[4] 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.

[5] Other changes included the establishment of alternative procedures for approving homes and the provision of startup and expansion funds for family child care sponsors. Also, income eligibility thresholds for child care centers were changed from 125 and 195 percent of the poverty guideline to 130 and 185 percent.

children served in these homes were from families with incomes above 185 percent of the Federal poverty guideline.[6]

The Legislative Changes Implemented in 1997

As part of the PRWORA, the Congress acted to refocus the family child care component of the CACFP on low-income children. PRWORA changed the reimbursement structure for the family child care component of the program to target benefits more specifically to homes serving low-income children. The new rate structure for family child care homes took effect July 1, 1997.

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

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

The new reimbursement structure set CACFP reimbursement rates for Tier 2 family child care homes at about half the Tier 1 level. In fiscal year 1999, Tier 2 homes received meal reimbursements averaging $177 per month (including those meals for low-income children that were 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.

Hypotheses Regarding the Effect of Tiering on Children and Families

The impetus for the changes in the family child care component of the CACFP included in the welfare reform legislation was the rising proportion of participating children from higher-income families (that is, families with incomes above 185 percent of the poverty guideline). The experience of providers and sponsors in the late 1970s suggested that means testing of individual children was not a feasible basis for determining meal reimbursements and might severely reduce program participation rates. Thus, tiering was instituted as an alternative to the household means test. In theory, information about the provider's income relative to Federal poverty guidelines or the poverty status of the provider's geographical location would be a rough guide to the income level of children in the provider's care. Reimbursement rates were then reduced for providers unlikely to be caring for low-income children. A primary question to be addressed in this report is, "How well is this approximation working to refocus CACFP benefits to low-income children?"

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[6] Glantz *et al.*, 1997.

Secondary issues relate to the potential effects on participating children and families that might result from the responses of providers and sponsors to tiering. The new CACFP meal reimbursement structure changed one aspect of the economics of family child care homes. Those homes participating in the CACFP that became classified as Tier 2 received substantially smaller CACFP reimbursements than they would have received at the Tier 1 rates. Unless the providers could raise fees or cut costs, the lower revenue would translate into a lower net income from the business. Higher fees, fewer meals or snacks, and longer operating hours have all been suggested as possible responses of providers who receive the lower levels of meal reimbursements. Each of these would affect the families of children in care with these providers and is addressed in this report. The question of whether the reduction in reimbursements for Tier 2 providers would ultimately affect the nutritional adequacy or quality of meals served to children in family child care homes is also important and is addressed in a separate report (Crepinsek *et al.*, E-FAN-02-006).

Finally, prior to the PRWORA, a child's participation in the CACFP did not require any special actions on the part of the parents. However, as described above, the legislative changes do provide for individual means testing of families in Tier 2 homes if the provider requests it. Parents of children may be asked, by either their provider or the provider's sponsor, to complete an income verification form and return it to the provider's sponsoring organization. This study examines the extent to which this provision is being implemented, whether parents are cooperating, and, if not, their reasons for not doing so.

The Family Child Care Homes Legislative Changes Study

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

The study involved extensive data collection with nationally representative samples of family child care homes, their sponsors, and the parents of children they serve. A multistage probability sampling approach was used. In the first stage, 20 States were selected. A sample of sponsors was drawn within each of the selected States, and the sampled sponsors provided lists of the family child care homes they sponsor. A sample of family child care homes was then drawn from each sponsor's list. In the final sampling stage, a subsample of the family child care homes was used to draw a sample of households whose children were in the care of those providers. The sample design is described in more detail in Appendix A.

A telephone household survey of the parents of children served by CACFP family child care homes was conducted during May-September 1999. The survey obtained information on household income and composition, the number of children in care and the hours of child care, characteristics of the children and household, and whether an application for Tier 1 reimbursement was completed. (Appendix B contains a copy of the survey instrument.) The survey sample included 1,298 eligible households, of whom 1,200 completed an interview.

The household survey is the primary data source used in this report. Many of the analyses combine data from the 1999 household survey with data from a parallel survey conducted in 1995 as part of the *Early Childhood and Child Care Study*. Because the sampling approach and the content of the two surveys are quite similar, it is possible to compare 1999 and 1995 data to gain insights into the effect of tiering.

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

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

Impact of Tiering on Income Targeting of CACFP Participation and Benefits

The intent of tiering was to focus the benefits provided through CACFP family child care homes on low-income children. This chapter examines the extent to which participation patterns and patterns of meal reimbursement expenditures changed between 1995 and 1999. The analysis shows striking growth in the proportion of participating children whose families have low incomes, and even greater growth in the proportion of program dollars allocated to low-income children.

Change in the Percentage of Low-Income CACFP Children

A key finding of the *Early Childhood and Child Care Study* was the large proportion of higher-income children participating in CACFP family child care homes in 1995. Data from the current study indicate that although the majority of CACFP participants still have household incomes above 185 percent of the Federal poverty guideline, there has been a sizeable increase in the percent of low-income children served by the program.

Exhibit 1 shows that 22 percent of children participating in 1999 had family incomes at or below 130 percent of the Federal poverty level. Another 18 percent had a household income between 131 and 185 percent of poverty. These figures combined represent nearly a doubling of the proportion of participating children who are low-income, from 21 to 39 percent. The proportion of higher-income participants (i.e., household incomes in excess of 185 percent of poverty) shrank from 79 percent in 1995 to 61 percent in the 1999 study.[7]

The income distribution of participants in CACFP child care centers, where reimbursement is based on household means tests, provides a useful point of comparison for the participants in family child care homes. In 1995, 39 percent of children in CACFP centers had family incomes of 130 percent or below poverty and another 14 percent had incomes from 131 to 185 percent of poverty.[8] Using this benchmark, it appears that tiering has moved the share of low-income children in CACFP homes closer to that seen in centers. The proportion of low-income children in family child care homes in 1999 was about halfway between the 1995 proportions for homes and centers.

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[7] The survey questions asking for income information were almost identical in 1995 and 1999 (see Appendix B, Question 15 for the 1999 version). The wording of the introductory question differed slightly, with more specifications in 1999 about including income for all members of the household and including particular types of income (for example, "cash withdrawn from savings" was specified in 1999 but not mentioned in 1995). If any bias were to result from these differences in wording, one would expect the 1999 income responses to be biased upward. Both years' questions asked about income in intervals of $5,000. For this analysis, each respondent's income was taken as a randomly chosen value within the $5,000 range.

[8] Glantz *et al.*, 1997.

Exhibit 1
Household Income Relative to the Poverty Guideline for Children Served by CACFP Homes: Percentage of Children in Each Income Category

Household Income as Percent of Federal Poverty Guideline	1995	1999	Difference 1999-1995	1999		Difference Tier 2-Tier 1
				Tier 1	Tier 2	
185% and below	21.4%	39.1%	17.8%***	49.7%	15.5%	-34.2%***
0-130%	11.1	21.7	10.6**	27.5	8.6	-19.0***
131-185%	10.3	17.5	7.2**	22.2	6.9	-15.3***
Above 185%	78.6	60.9	-17.8***	50.3	84.5	34.2***
Unweighted sample[a]	360	1,167		561	606	

a The full number of respondents for 1999 is 1,200 (576 in Tier 1, 624 in Tier 2). The full sample for 1995 is 384 for that portion of the survey dealing with income questions and 246 for other parts of the survey. Sample numbers reported in tables indicate the number who provided usable responses for the items in the table. Respondents who did not provide usable information are excluded from the calculation of percentages unless otherwise noted.

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

The tier status of the family child care provider is clearly related to the income level of the participating families, although the correlation is by no means perfect. About 85 percent of families with children in Tier 2 homes have household incomes above 185 percent of poverty. Among families with children in Tier 1 homes, 50 percent have incomes above 185 percent of the poverty guideline—considerably less than the proportion in Tier 2 homes, but certainly not zero. Similarly, 16 percent of children in Tier 2 homes are low-income.[9]

The tiered reimbursement structure reduced the incentive to participate in the CACFP for family child care homes that would be classified as Tier 2. As a result, the number of Tier 2 homes has declined since tiering was implemented, while the number of Tier 1 homes has increased.[10] 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 receiving CACFP benefits.

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 percentage of poor children in nonrelative home care grew slightly, from 9 to 10 percent. Meanwhile, among children with household incomes above poverty, the proportion in nonrelative home care shrank from 17 to 15

9 Recall, however, that these children's meals may be reimbursed at the Tier 1 rate if the provider asks the sponsor to determine the child's eligibility and the child's parents provide the necessary information to the sponsor.

10 Hamilton *et al.*, E-FAN-02-002.

percent.[11] Although these trends would account for only a portion of the observed population shift for CACFP homes, they indicate that forces beyond tiering were contributing to the realignment.

Change in the Number of Low-Income CACFP Children

The total number of children receiving CACFP meals in family child care homes was almost the same in 1999 as it was in 1995, with average daily attendance of 959,181 and 968,581 children, respectively.[12] The number of low income children grew, however, while the number of higher-income children shrank.

Combining the survey results with administrative data, we estimate that the average number of low-income children receiving CACFP meals increased from 1995 to 1999 by about 165,000 children, from 207,000 to 372,000, an increase of 80 percent (Exhibit 2). A large component of this change occurred among children with family incomes below 130 percent of the Federal poverty level, where the number of children receiving CACFP meals almost doubled. The increase in low-income participants was offset by an approximately equal decrease in the number of children from higher-income families. From 1995 to 1999, the number of higher-income children declined by 175,000, or 23 percent.

Exhibit 2
Estimated Average Daily Number of Children Served by CACFP Family Child Care Homes, by Income Category[a] (in thousands)

Household Income as Percent of Federal Poverty Guideline	1995	1999	Percent Difference
185% and below	207.3	372.3	79.6%
0-130%	107.5	206.1	91.7
131-185%	99.8	166.2	66.6
Above 185%	761.3	586.8	-22.9
Total	968.6	959.2	-1.0

a The average number of children is based on national CACFP administrative data on daily attendance. The number of children in each category is estimated by applying the distributions shown in Exhibit 1 to the administrative data totals. The distributions are applied separately for Tier 1 and Tier 2 in 1999 and then aggregated.

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

[12] For more information on trends in the number of participating children, see Hamilton *et al.*, E-FAN-02-002.

Change in Total Meal Reimbursements for Low-Income and Higher-Income Children

Total meal reimbursement expenditures for the family child care portion of CACFP in fiscal year 1999 were approximately $668 million, according to program administrative data. This represents a reduction of about $125 million, or 16 percent, from expenditures in fiscal year 1995 (adjusted for inflation using the Consumer Price Index). The total number of participating children declined by only 1 percent, so most of the reduction in expenditures was caused by the lower reimbursement rates for Tier 2 meals.

Meal reimbursements declined by $256 million, or 41 percent, for children whose family incomes exceed 185 percent of the poverty level (see Exhibit 3). This large reduction reflects both the smaller number of higher-income children in CACFP homes and the lower reimbursements for these children's meals in Tier 2 homes. As a result, reimbursements for higher-income children made up only 55 percent of the 1999 total, as compared with 79 percent in 1995.

At the same time, total reimbursements for low-income children grew by $131 million, a dramatic 77-percent increase. This approximates the 80-percent increase in the number of low-income children participating in the program. Because some meals for low-income children in Tier 2

Exhibit 3
Estimated Distribution of CACFP Meal Reimbursement Dollars to Child Care Homes Across Income Categories of Children Served[a]

Household Income as Percent of Federal Poverty Guideline	Millions of 1999 Dollars (% of total dollars)		Percent Difference
	1995	1999	
185% or below	$170 (21%)	$301 (45%)	77.0%
0-130%	88 (11)	166 (25)	88.9
131-185%	82 (10)	134 (20)	64.2
Above 185%	624 (79)	368 (55)	-41.0
Total	$793	$668	-15.8%

a Total meal reimbursements are based on CACFP national administrative data. For 1995 and for Tier 1 in 1999, dollars in each income category are estimated by applying the proportions in Exhibit 1. For children in Tier 2 homes, reimbursements at the Tier 1 rate are allocated only to low-income children, and are allocated between the two low-income categories proportional to the distribution in Exhibit 1. Reimbursements at Tier 2 rates are allocated to higher-income children in Tier 2 homes based on the proportions in Exhibit 1, adjusting for the proportion of meals reimbursed at the Tier 1 rate.

homes are not reimbursed at the Tier 1 rates, total reimbursements for low-income children grew slightly less than the number of low-income participants.[13]

Two factors contributed to the greater allocation of expenditures to low-income children. First, simply reducing the reimbursement for some higher-income children (those in Tier 2 homes) increased the proportion, though not the absolute amount, allocated to low-income children. This is the direct effect of the tiered reimbursement structure. Second, with a growing number of low-income children and a shrinking number of higher-income children, the proportion of expenditures for low-income children would increase even if all children's meals were reimbursed at the same rate. This is the indirect effect of tiering, assuming that tiering caused much or all of the shift in the composition of CACFP participants.

The changing composition of participants, tiering's indirect effect, had by far the greater impact on the allocation of expenditures. If the reimbursement rate had changed but the participant composition had remained unaltered, the proportion of expenditures allocated to low-income children's meals would have climbed by just 5.6 percentage points, as shown in Exhibit 4. This amounts to slightly less than a quarter of the observed increase. The remaining three quarters of the difference stemmed from the change in the income composition of the children participating in CACFP family child care homes.

Exhibit 4
Influence of Changed Reimbursement and Changed Participant Composition on Allocation of Expenditures

Household Income	Proportion of 1995 Reimbursement Expenditures	Change in Percentage Points Resulting From: Lower Reimbursement Rate Only	Change in Percentage Points Resulting From: Participant Composition Only	Proportion of 1999 Reimbursement Expenditures
At or below 185% of poverty	21.4%	5.6%	18.0%	45.0%
Above 185% of poverty	78.6	-5.6	-18.0	55.0

[13] Survey results indicate that 15.5 percent of children in Tier 2 homes have family incomes at or below 185 percent of the Federal poverty guideline. Program administrative records show that 10.7 percent of meals in Tier 2 homes are reimbursed at Tier 1 rates. Meals for a low-income child are reimbursed at the lower Tier 2 rate if the provider elects not to have the family fill out an application for Tier 1 reimbursement or if the provider makes the request but the family fails to provide the information to the sponsor.

Tiering's Targeting Efficiency

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 for the child care homes portion of CACFP mandated in the PRWORA 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. Because any approximation cannot be expected to place all low-income children in Tier 1 homes, the policy includes the fall-back provision that Tier 2 providers may receive meal reimbursements at the Tier 1 rate for meals served to children from families who have been determined by the provider's sponsor to have incomes at or below 185 percent of the Federal poverty guidelines.

The analysis below examines the extent to which the tiering mechanism actually placed low-income children in Tier 1 homes and higher-income children in Tier 2 homes. It shows that tiering has been very effective in placing low-income children in Tier 1 homes, with 88 percent of low-income children so classified. Another 7 percent of low-income children are in Tier 2 homes that receive some meal reimbursements at the higher rate, indicating that only about 5 percent of low-income children in the CACFP do not have their meals subsidized at the higher rate. Tiering is less effective at limiting the higher reimbursement rate to low-income children. More than half of the participating children with household incomes above 185 percent of the poverty guideline are in Tier 1 homes.

Sensitivity of the Tiering Mechanism

Sensitivity is a measure of how fully a program captures the population subgroup it is meant to reach. In this case, tiering targets low-income children, so the sensitivity measure is the share of low-income children participating in the CACFP whose meals are reimbursed at Tier 1 rates.

In principle, the policy allows all participating low-income children's meals to be reimbursed at Tier 1 rates. If that occurred in practice, the tiering mechanism would be 100-percent sensitive. As it turns out, some low-income children receive meals that are not reimbursed at Tier 1 rates. These are children in Tier 2 homes in which either the provider has elected not to have the sponsor assess the income level or qualifying assistance program participation of the children's families, or the child's parents declined to report their family income or qualifying assistance program participation to the provider's sponsor.

Survey data analysis shows that the tiering mechanism is very sensitive—that is, the overwhelming majority of low-income children in the CACFP are served meals that are reimbursed at Tier 1 rates. The key factor is that 88 percent of low-income children are cared for by Tier 1 providers, who are always reimbursed at Tier 1 rates, as shown in Exhibit 5. This is a minimum or lower-bound measure of tiering's in-practice sensitivity.

In addition, some low-income children in Tier 2 homes had their meals reimbursed at the Tier 1 rate. This number cannot be measured precisely because sponsors are not permitted to tell their Tier 2 providers which children in their care qualify for Tier 1 reimbursement. The analysis therefore focuses on those low-income children who are in the care of Tier 2 providers who said in the survey that they receive some meal reimbursements at the higher rate. This amounts to 55 percent of all low-income children in the care of Tier 2 providers, or 6.8 percent of all low-income children. If all

of these low-income children receive meals reimbursed at the Tier 1 rates, then 95 percent of CACFP low-income children would have their meals subsidized at that higher level.

The 95-percent estimate must be considered somewhat imprecise. It may slightly underestimate the true share if some of the low-income children cared for by Tier 2 providers who were not sure about or did not report their meal reimbursement status actually received some Tier-1-reimbursed meals. The estimate may be somewhat high if some of the providers who reported higher reimbursements did not receive those reimbursements for all of the children shown by the survey to be low-income. Nonetheless, an in-practice sensitivity measure no lower than 88 percent, and probably in the neighborhood of 95 percent, indicates that the tiering mechanism is very effective at having low-income children's meals reimbursed at Tier 1 rates.

Specificity of the Tiering Mechanism

Specificity is the complementary concept to sensitivity. A specificity measure indicates how effectively a program or benefit is limited to that population to which it is targeted. In this case, specificity is measured as the share of higher-income children participating in the CACFP that have their meals reimbursed at Tier 2 rates. If the targeting mechanism were to have perfect specificity, 100 percent of participating higher-income children's meals would be reimbursed at Tier 2 rates and none at the Tier 1 rates.

In contrast to the tiering mechanism's extremely high sensitivity, it has only moderate specificity. The survey analysis indicates that 42 percent of higher-income children participating in the CACFP are cared for by Tier 2 providers, and therefore have their meals reimbursed at the lower Tier 2 rates (Exhibit 5). Since no children in Tier 1 homes are reimbursed at the lower rate, 42 percent is the full value of the specificity measure.

Moderate specificity means that the tiering mechanism does not tightly exclude higher-income children from the higher Tier 1 reimbursement rates. More than half of all higher-income children participating in the family child care portion of the CACFP are served by Tier 1 homes and receive meals reimbursed at the Tier 1 rates.

Exhibit 5
Income Status of Children by Tier of Their CACFP Child Care Providers

	Child's Household Income			
Provider status	**Low[a]**	**Higher**	**Not Reported**	**Total**
Tier 1	87.7%	58.5%	58.5%	68.9%
Tier 2:				
Some Tier 1 reimbursement	6.8	9.7	16.4	8.8
No Tier 1 reimbursement	5.6	31.8	25.1	22.3
Unweighted sample	296	855	33	1,184

[a] Income at or below 185% of Federal poverty guideline.

Utilization of the Various Tier 1 Classification Criteria

Sponsors may classify a provider as Tier 1 based on any one of three criteria: residence in a low-income census block group area; residence in a low-income elementary school attendance area; and low income of the provider household, regardless of where it is located.

Residence in a low-income elementary school attendance area is by far the most common criterion by which providers have been classified as Tier 1. Sponsor-provided data indicate that more than two-thirds of the Tier 1 homes in the study (68 percent) were qualified by this criterion, as shown in Exhibit 6. Low provider income, although it was the second most commonly used criterion, was reportedly the qualifying method for just 17 percent of providers. Residence in a low-income census block group was very infrequently used to qualify homes as Tier 1, with only 2 percent of Tier 1 providers reportedly qualified on this basis. This low usage reflects FNS regulations that instruct sponsors to use the census block method only when busing, wide geographic coverage of rural areas, or other anomalies make the elementary school data less representative of the provider's location. Because sponsors provided no information on the qualifying criterion for 13 percent of the Tier 1 homes, it is likely that these figures understate somewhat the true proportions qualified by each criterion.[14]

The number of children in Tier 1 homes is split among the homes qualified by the different methods in parallel to the proportion of homes qualified by each method, with only small differences resulting from differences in the average number of children per provider. Tier 1 homes that qualified because they were in a low-income elementary school attendance area served a significantly higher percentage of low-income children than homes qualifying on the basis of low provider income (44 *vs.* 33 percent).

Exhibit 6
Utilization Characteristics of the Three Tier 1 Qualifying Criteria

	School Attendance Area	Provider Household Income	Census Block Group	Qualifying Criterion Not Reported
Tier 1 providers qualified by the criterion	68.4%	16.8%	2.1%	12.7%
Children in Tier 1 homes qualified by the criterion	69.4	18.8	0.9	10.8
Low-income children as a share of all children in Tier 1 homes qualified by the criterion	44.7	33.2	75.3[a]	73.2

[a] Percentage calculated for all homes that would qualify as Tier 1 by this criterion, because the number of cases actually qualified as Tier 1 on this basis is too small to permit separate estimation.

[14] In addition, 4 percent of providers were reported by their sponsor to have been qualified on both the low-income school attendance area and low household income criteria. Sponsors are only required to report one qualifying criterion to their State agency even if a sponsor qualifies on multiple criteria. The double-reported cases are counted as being qualified by school attendance area in this analysis.

Sensitivity and Specificity of the Three Tier Classification Criteria

To understand better how each of the three tier classification criteria contributes to the overall policy result, it is useful to examine separately each criterion's sensitivity and specificity. Ideally, the analysis measure for each provider in the sample would be whether or not the provider met each of the three criteria. Such measures are available for all sample members for two of the three criteria: provider income (based on survey questions) and percentage of low-income children in the census block group (based on providers' 1999 addresses).

More limited data are available for the third criterion, the percent of children qualifying for free and reduced-price lunches in the elementary school attendance area in which the provider resides. Of the 20 States in the study sample, 14 have data available on the percent of children qualifying for free and reduced-price lunches in specific elementary schools.[15] In those 14 States, two proxies for residence in a low-income elementary school attendance area were created. As a broadly defined proxy, a provider was considered to be living in a low-income elementary school area if ***any*** one of the elementary schools with the provider's zipcode had 50 percent or more of its children receiving free or reduced-price school lunches. As a more narrowly defined proxy, a provider was considered to be living in a low-income elementary school area if ***all*** the schools with the provider's zipcode had 50 percent or more of their children receiving free or reduced-price lunches.

These independent measures of elementary schools' low-income status were constructed for 70 percent of the overall weighted sample of providers and 67 percent of the overall weighted sample of children, the slight difference again arising from a slightly lower average number of children cared for per provider in the 14 States compared with the overall 20 States. The measures were calculated for all sample members in the 14 States regardless of whether the sponsor reported classifying the provider as Tier 1 on the basis of elementary school attendance area. Because CACFP regulations indicate that this is normally the first criterion to be considered, most providers who could be classified as Tier 1 because they reside in a low-income elementary school attendance are likely to be reported by the sponsor as having qualified on those grounds. However, the sponsor measure may understate the true proportion of providers that live in low-income school areas because sponsors did not report their qualifying methods for all providers.

Exhibit 7 shows sensitivity and specificity measures for the three classification criteria. The top panel includes the full sample, using the sponsor's reported classification as the basis for deciding whether the provider would meet the elementary school attendance area criterion. The middle panel uses the same measures but limits the analysis to the 14 States for which the independent measures of elementary school low-income status are available. The bottom panel is also limited to the 14 States and uses the independent measures of elementary school low-income status to show the ranges of sensitivity and specificity between the broad and narrow definitions of that status.

Among the three criteria, elementary school attendance area and provider low income are more sensitive than the low-income census block group criterion. The difference in sensitivity between the elementary school and census block group criteria is statistically significant. The ranking is

[15] The school data are from the U.S. Department of Education, National Center for Educational Statistics, Public Elementary/Secondary School Universe Survey Data, school year 1997-98. Elementary schools were selected from the universe as those schools having a lowest grade of 5 or lower.

Exhibit 7
Sensitivity and Specificity of the Three Classification Criteria, Singly and in Combination

	Percent of Providers Who Would Qualify	Percent of Low-Income Children Who Would Be Included (Sensitivity)	Percent of Higher-Income Children Who Would Be Excluded (Specificity)
All States, elementary school qualification based on sponsor report:			
Single criterion			
Qualified for Tier 1 on elementary school area basis	46.7%	60.0%	58.4%
Survey measure of low-income provider	41.2	55.4	68.2
Low-income census block group residence	15.6	32.2	94.1
Either of two criteria			
Qualified elementary school area or survey provider income	65.3	85.3	39.0
Qualified elementary school area or census block group	51.5	75.2	56.0
Survey provider income or census block group	46.9	62.0	65.2
Any of three criteria			
Qualified elementary school area or survey provider income or census block group	67.6	86.5	37.5
14 States, elementary school qualification based on sponsor report:			
Single criterion			
Qualified for Tier 1 on elementary school area basis	56.4%	56.3%	54.1%
Survey measure of low-income provider	36.6	53.1	69.4
Low-income census block group residence	17.2	33.1	93.3
Either of two criteria			
Qualified elementary school area or survey provider income	73.9	84.7	36.4
Qualified elementary school area or census block group	60.6	73.9	51.8
Survey provider income or census block group	42.1	58.2	66.3
Any of three criteria			
Qualified elementary school area or survey provider income or census block group	74.8	85.3	35.6
14 States, independent measures of elementary school low-income status[a]:			
Single criterion			
Estimates of low-income elementary school areas	25.9-73.1%	46.4-85.3%	78.4-32.1%
Survey measure of low-income provider	48.5	53.5	68.3
Low-income census block group provider residence	18.8	33.7	93.3
Either of two criteria			
Estimated elementary school areas or survey provider income	50.4-83.1	61.2-91.1	58.5-24.3
Estimated elementary school areas or census block group	36.3-73.8	53.7-85.6	74.4-31.2
Survey provider income or census block group	53.8	59.9	64.9
Any of three criteria			
Estimated elementary school areas or survey provider income or census block group	53.7-83.5	65.8-91.4	55.9-23.9

[a] The first percentage in the ranges of percentages shown for low-income elementary school areas is based on provider location in a zipcode area with **all** low-income schools, the second percentage is based on provider location in a zipcode area with **any** low-income school.

about the same with the independent elementary school measures, if the mid-point between the broad and narrow definitions is used in the comparison. The narrow definition restricts the number of

qualifying providers to a much lower number than the number given Tier 1 status on that basis by their sponsors while the broad definition qualifies many more providers on this basis than sponsors do. The number of providers who actually live in qualifying elementary school areas is probably larger than the narrow definition allows, but smaller than the broad definition allows, and probably not far from the number sponsors have defined as living in such areas.

As is often the case when program policies are subjected to sensitivity and specificity tests, those indicators of the tiering mechanisms' policy fit are inversely related. Low-income census block residence has the highest specificity rating, as over 90 percent of higher income children are not served by providers in these areas. Provider low income and low-income elementary school have significantly lower specificity ratings, 68 percent at best.

Survey data suggest that many sponsors approach the tier classification process in a hierarchical manner, considering elementary school area first, provider income second, and census block group third. The first stage of this process would classify about half of providers as Tier 1, which would put about 60 percent of low-income children in Tier 1 homes, and exclude about an equal percentage of higher-income children from Tier 1. The second stage, which considers providers' low-income status, would classify about another 20 percent of providers as Tier 1, bringing the percentage of low-income children placed in Tier 1 up to about 85 percent, and causing specificity to drop below 40 percent—both statistically significant changes. The final stage, including providers in low-income census block groups, changes very little. It adds a further 2 percent or so of providers to Tier 1, places about 87 percent of low-income children in Tier 1 homes, and leaves specificity still essentially unchanged at around 38 percent.

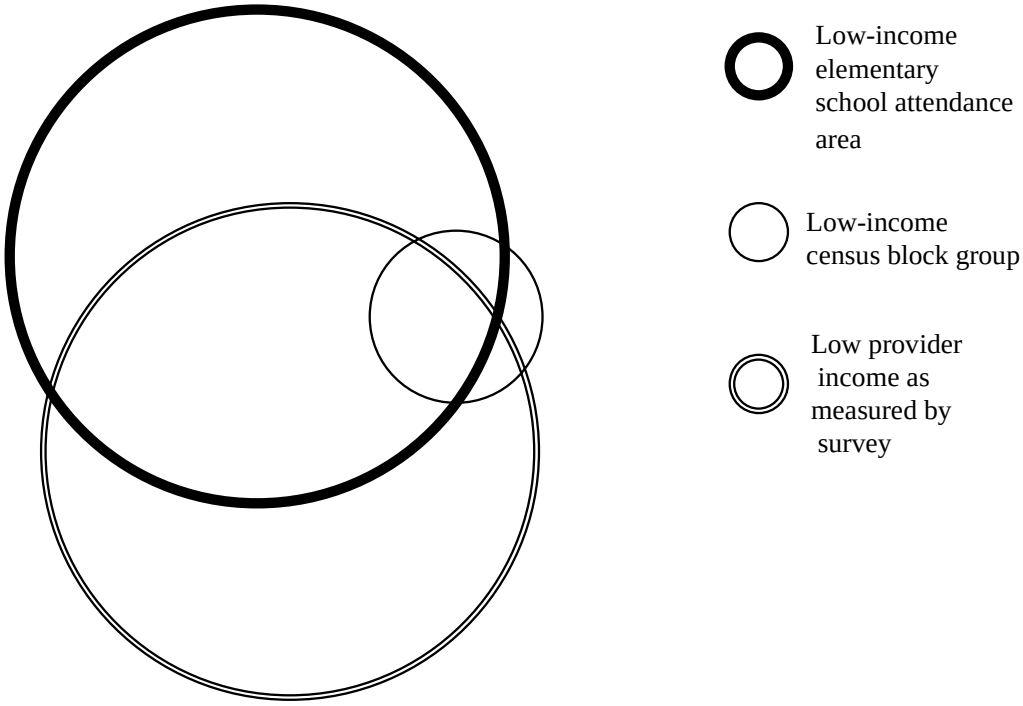
Overlaps Among the Classification Criteria

The three classification criteria overlap substantially in terms of the providers whom they would classify as Tier 1. Nonetheless, both low-income elementary school and provider low income make substantial independent contributions to the overall Tier 1 classification. Roughly a third of providers qualify for Tier 1 based on their elementary school attendance area (either sponsor-defined or defined by the independent measures in the 14 States), but not on the other two criteria. Roughly one quarter of providers would qualify only on the basis of their own low income.

The low-income census block group criterion has the greatest overlap with the other two. About 2 percent of providers would be classified as Tier 1 only on the basis of their census block group location. These relationships among the classification criteria are graphically illustrated in the Venn diagram in Exhibit 8.

Exhibit 8

Overlap of Tier 1 Provider Qualifying Methods



Note: The area of the circles is proportional to the included population; the area of the overlap is approximate.

Tier 1 Reimbursements for Tier 2 Providers

Tier 2 providers may ask their sponsors to determine the eligibility of children in the provider's care for meal reimbursements at the Tier 1 rates. This "safety net" provision is designed to allow low-income children who are not served by a Tier 1 provider to receive meals reimbursed at the higher level. Because children's eligibility is determined individually, it is reasonable to assume that the specificity of this mechanism is almost 100 percent—that is, practically all higher-income children in Tier 2 homes have their meals reimbursed at the Tier 2 rate rather than the higher Tier 1 rate. The sensitivity of the mechanism is not predictable, however, because it depends on whether providers ask their sponsors to determine the children's eligibility and, if so, whether the children's parents supply the information that sponsors request.

Asked whether they received higher reimbursement for any children in their care, 23 percent of Tier 2 providers answered that they did (73 percent answered that they did not and 4 percent said they did not know or failed to answer the question). This is reasonably consistent with national administrative data, which indicate that 28 percent of all Tier 2 providers participating in March-June 1999, had some meals reimbursed at the higher level.

The low-income children in the care of providers reporting some Tier 1 reimbursements comprise 56 percent of all low-income children served by Tier 2 providers. Thus, 56 percent is a rough estimate of the sensitivity rate of the safety net mechanism. The true rate could be higher if some of the uncertain or nonreporting providers actually receive some Tier 1 reimbursements.

The providers reporting some Tier 1 reimbursements have substantial proportions of low-income children. About 27 percent of the children in their care are low-income. In contrast, the providers who said they received no Tier 1 reimbursements had only 9 percent low-income children, a statistically significant difference. (For purposes of comparison, 45 percent of children in Tier 1 homes are low-income.)

The relatively high proportion of low-income children served by the Tier 2 providers receiving some Tier 1 reimbursements raises the question of whether some of these providers might actually qualify as Tier 1 but are erroneously classified. The study cannot answer this question precisely, however, because the information available to sponsors is likely to be more accurate than the measures used here (for example, the information that sponsors use to determine provider income is considerably more detailed than that obtained in the survey). Among the Tier 2 providers reporting that they receive some Tier 1 reimbursements, 19 percent had low income as measured by the survey, 2 percent resided in low-income census block groups, and about 32 percent (of those for whom school area information is available) resided in low-income school areas. These figures are much lower than the corresponding figures for Tier 1 providers (59, 23, and about 60 percent, respectively), suggesting that there is no widespread failure to apply the Tier 1 qualifying criteria.

Characteristics of Children Served by CACFP Family Child Care Homes

Because tiering led to substantial changes in the composition of CACFP households in terms of their income, it is interesting to review selected characteristics of those children and families. This information was reported by the child's parent or guardian as part of the household survey. The discussion below summarizes demographic and household characteristics of participants in 1999 and notes differences between children in Tier 1 and Tier 2 homes as well as differences between the 1999 and 1995 profiles of children and households.

The median or "typical" child participating in CACFP family child care in 1999 was about 4 years old, White, and lived in a household consisting of two adults and two children, with both children in family child care. The annual household income was $42,000. Children served by Tier 1 homes were more likely than those in Tier 2 homes to come from one-adult households, households with more children, households with low income, and households participating in other food assistance programs or receiving other forms of unearned income.

Apart from the difference in household incomes discussed earlier, the overall profile of participants shows only modest differences between 1995 and 1999. The data suggest that the program may have served a larger proportion of school-age children in 1999, although differences in the timing of the two surveys make the extent of the difference unclear.

Age of Participating Children

Eligibility for the child care component of the CACFP is limited to children ages 1 to 12 and infants under 1 year of age.[16] As has been the case historically, the largest proportion of children participating in the CACFP in 1999 were preschoolers, with 42 percent aged 3 to 5 years (Exhibit 9). The median age of children in CACFP homes was about 4 years. Very few infants were enrolled in the program, accounting for just about 2 percent of participants. Children between the ages of 6 and 12 made up a larger proportion of Tier 1 than Tier 2 participants, leading to a slightly higher mean age of children in Tier 1 homes than in Tier 2 homes (5.1 and 4.2 years, respectively, $p < 0.10$).

The data in Exhibit 9 suggest that the age distribution of children in CACFP homes shifted from 1995 to 1999, with substantially more children aged 6-12 in 1999 and substantially fewer infants and toddlers (children aged 1-2). A difference in the timing of the two surveys makes this comparison inconclusive, however. The 1995 parent interviews were conducted in February-May of that year, while the 1999 interviews occurred in May-September, and school-age children may be more likely to be in child care in the summer months.[17]

[16] An exception is made for children of migrant workers and children with disabilities, who may participate through ages 15 and 18, respectively.

[17] Some evidence of this effect is found in the fact that the interviews conducted in May 1999 found 30 percent of the children were age 6-12, as compared with 37 percent for the June-September interviews.

Exhibit 9
Age of Children Served by CACFP Family Child Care Homes

	1995	1999	Difference 1999-1995	1999		Difference Tier 2-Tier 1
				Tier 1	Tier 2	
Proportion of children in age group:						
Under 1 year	8.9%	1.9%	-7.0%***	1.2%	3.5%	2.3%*
1-2 years	32.0	21.9	-10.1**	21.0	23.9	2.9*
3-5 years	42.5	41.9	0.6	39.8	46.6	6.8
6-12 years	16.6	34.3	17.7***	38.1	26.0	-12.0*
Mean age (years)	3.4	4.8	1.5***	5.1	4.2	-0.9*
Median age (years)	2.6	4.2	1.6***	4.4	4.0	0.4
Unweighted sample	246	1,200		576	624	

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

One concern that has been raised about tiering is that the reimbursement rates would be too low to cover the cost of infant formula, leading to lower participation by infants in Tier 2 homes. The study does not provide clear evidence on this point. On the one hand, the proportion of infants (less than 1 year old) was significantly smaller in 1999 than 1995, which would be consistent with the concern. On the other hand, infants made up a slightly larger portion of the participant population in Tier 2 than Tier 1 homes, and the proportion in both Tier 1 and Tier 2 homes in 1999 was less than the overall proportion in 1995. Although it is theoretically possible that the 1995-99 difference could be caused simply by a reduction in the proportion of infants in Tier 2 homes, the pre-tiering proportion of infants would have to be a great deal larger than that observed in 1999.[18] It is more plausible that some or all of the lower participation by infants in 1999 results from other factors, such as general changes in participation patterns over time that would reduce the proportion of infants participating in both Tier 1 and Tier 2 homes.[19]

[18] For example, if infants made up 26.0 percent of all children in the 1995 homes that would be classified as Tier 2, and if that proportion fell to the observed 3.5 percent in 1999, the overall proportion of infants would be reduced from 8.9 percent to 1.9 percent (assuming a constant ratio of Tier 1 to Tier 2 homes over the time period).

[19] Again it is possible that the different timing of the two surveys contributes to the observed age difference. If fewer infants are in child care during summer months, this would confound the 1995-99 comparison.

Race/Ethnicity

The racial/ethnic composition of children in CACFP homes is presented in Exhibit 10. The survey item used to collect race/ethnicity data in 1999 was based on new OMB classification standards (*Federal Register*, October 30, 1997), which allow respondents to report more than one race. To facilitate comparisons with the 1995 survey, in which the survey item asked for only a single race, the 1999 estimates are presented as ranges. The minimum value in each range is the percent of children reported as exclusively in that category, and the maximum is the percentage of children reported to be in that category as well as one or more other categories. Approximately 12 percent of the children were described by two or more racial/ethnic categories.

Children in CACFP homes in 1999 were predominantly White, with other groups accounting for up to 35 percent of the children enrolled. Blacks and Hispanics were more heavily represented in Tier 1 homes, where they made up from 17 to 21 percent and 11 to 19 percent of the children, respectively. In contrast, Blacks and Hispanics accounted for 5 to 9 percent and 1 to 5 percent of children in Tier 2 homes. Tier 1 homes also had a larger proportion of the multiracial children.

Although differences between 1995 and 1999 cannot be described precisely, it appears likely that Black and Hispanic/Latino children made up a larger portion of all participants in 1999 than in 1995. The proportion of White participants appears correspondingly smaller in 1999. The statistical significance of these differences is not tested, however, because of the noncomparability of the survey items.

Exhibit 10
Race/Ethnicity of Children Served by CACFP Family Child Care Homes

		1999[a]		
	1995	All	Tier 1	Tier 2
Proportion of CACFP children in racial/ethnic group:				
White	82.7%	65.3% 74.8	56.9% 67.8	83.9% 90.2
Black	7.9	13.2 17.5	16.8 21.2	5.3 9.1
Hispanic or Latino	6.1	8.1 14.5	11.3 18.8	1.0 4.9
Asian or Pacific Islander	1.1	0.4 1.5	0.4 1.3	0.4 1.8
American Indian or Alaska Native	0.1	0.9 4.7	1.0 5.7	0.6 2.4
Other	2.1	nr	nr	nr
Two or more races	nr	11.9	13.5	8.4
Unweighted sample	246	1,200	576	624

a Values shown for 1999 are (top) proportions of respondents reporting *only* that category and (bottom) proportions reporting that category with or without other categories.

nr = Not reported

Household Size and Composition

Children in CACFP family child care homes have 4.1 members, on average (Exhibit 11). Households with children in Tier 1 and Tier 2 homes are very similar in total size, but noticeably different in composition. Children in Tier 1 homes are significantly more likely to live in households with just one adult, but their households include significantly more children. Households of Tier 1 children also have more children being cared for in family child care homes.[20]

Differences between the 1995 and 1999 patterns in overall household characteristics are generally modest, though some are statistically significant. The average number of adults in the household is essentially the same in both years. The average of 2.2 children per household in 1999 is significantly larger than the 1995 average of 1.9.

Income and Sources of Income

In 1999, the majority of children served by the program (about 60 percent) were from families with an annual household income below $50,000 per year, with about 15 percent below $15,000, as shown in Exhibit 12. The median income for a family with a child in CACFP family child care in 1999 was about $42,000.

As the legislation intended, children in Tier 1 homes tend to come from families with lower incomes than children in Tier 2 homes. The median child in a Tier 1 home had a household income of $33,925, far less than the Tier 2 median of $59,261. In addition, almost four times as many children in Tier 1 as Tier 2 homes had household incomes at the low end of the distribution, below $15,000. Conversely, while the majority of children in Tier 2 homes had family incomes above $50,000, only 28 percent of children in Tier 1 homes had household incomes that high.

[20] Not shown in exhibit. The mean number of children in family child care homes is 1.80 for Tier 1 and 1.62 for Tier 2 households, a statistically significant difference ($p < 0.10$).

Exhibit 11
Household Composition of Families with Children in CACFP Child Care Homes

	1995	1999	Difference 1999-1995	1999		Difference Tier 2- Tier 1
				Tier 1	Tier 2	
Proportion of households where the number of *members* is:						
2	7.3%	5.4%	-1.9%	5.7%	4.8%	-0.8%
3	36.0	24.6	-11.4***	24.8	24.3	-0.5
4	35.7	41.2	5.5	38.2	47.7	9.5
5 or more	21.0	28.8	7.8**	31.4	23.2	-8.2
Mean number of members	3.8	4.1	0.4***	4.2	4.0	-0.2
Median	3.2	3.5	0.3***	3.5	3.4	-0.1
Unweighted sample	383	1,200		576	624	
Proportion of households where number of *adults* is:						
1	19.8%	19.2%	0.6%	22.5%	12.0%	-10.5%***
2	74.0	73.1	-0.9	69.3	81.5	12.2***
3 or more	6.2	7.7	1.5	8.3	6.5	-1.7
Mean number of adults	1.9	1.9	0.0	1.9	2.0	0.1
Median	1.4	1.4	0.0	1.4	1.5	0.1
Proportion of households where the total number of *children under 18* is:						
1	39.0%	21.5%	-17.5%***	18.6%	27.9%	9.3%**
2	40.1	49.8	9.7*	49.8	49.9	0.1
3 or more	20.9	28.7	7.7*	31.6	22.2	-9.4*
Mean number of children	1.9	2.2	0.3***	2.3	2.0	-0.3**
Median	1.3	1.6	0.3***	1.6	1.4	-0.2***
Unweighted sample	246	1,200		576	624	

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

Exhibit 12
Household Income of Families with Children in CACFP Child Care Homes

	1995[a]	1999	Difference 1999-1995	1999 Tier 1	1999 Tier 2	Difference Tier 2-Tier 1
Proportion of families with income that is:						
Less than $15,000	8.4%	15.0%	6.6%	19.6%	4.8%	-14.8%***
$15,000 to less than $30,000	16.4	20.9	4.4	25.7	10.0	-15.7***
$30,000 to less than $50,000	33.6	24.9	-8.7*	26.6	21.2	-5.4
$50,000 or more	41.6	39.2	-2.4	28.1	64.0	35.9***
Mean income	$43,912	$43,117	-$795	$37,348	$56,038	$18,690***
Median income	$45,725	$42,263	-$3,462	$33,925	$59,261	$25,336***
Unweighted sample	360	1,167		561	606	

a In 1999 dollars.

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

The income profile for all 1999 children combined is similar to the inflation-adjusted profile for 1995. Incomes tended to be somewhat lower in 1999, but most differences are not statistically significant. Nonetheless, the slightly lower incomes and slightly larger household sizes are related to the substantial increase in the proportion of households at or below 185 percent of the poverty guideline.

Tier 1 families, as would be expected from their lower incomes, are more likely to have various types of unearned income than Tier 2 families. Significantly higher proportions of Tier 1 households received benefits from Medicaid, AFDC/TANF/foster care payments ($p < 0.10$), and Social Security ($p < 0.10$), as shown in Exhibit 13. None of these forms of income is very common, however, even among Tier 1 families.[21]

[21] The 1995 survey did not ask about these sources of unearned income.

Exhibit 13
Receipt of Selected Forms of Unearned Income by Families with Children in CACFP Child Care Homes in 1999

	All Households	Tier 1	Tier 2	Difference Tier 2-Tier 1
Proportion of children whose families receive:				
Unemployment compensation	1.5%	1.3%	1.9%	0.7%
Social Security	2.5	3.1	1.3	-1.7*
Housing subsidies	5.8	7.4	2.3	-5.1
AFDC/TANF/foster care payments[a]	6.0	7.7	2.2	-5.6*
Medicaid	13.7	18.2	3.6	-14.6***
Child support/alimony	17.1	18.1	14.9	-3.2
Unweighted sample	1,200	576	624	

a AFDC (Aid to Families with Dependent Children) was replaced by TANF (Temporary Assistance for Needy Families) by PRWORA. This category includes families that reported receiving benefits from either AFDC or TANF and/or reported receiving payments for caring for foster children.

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

Participation in Other Food Assistance Programs

The proportion of children in CACFP family child homes whose families participate in other food and nutrition assistance programs is fairly low (see Exhibit 14). One-fourth of the CACFP families in 1999 said they had a household member who was eligible for free or reduced-price meals through the National School Lunch Program or School Breakfast Program.[22] Approximately 14 percent have at least one family member in the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) and 11 percent receive Food Stamp Program benefits.

[22] The question was asked of all families, some of whom presumably had no school-age children and hence could not have had anyone eligible for free or reduced-price school meals (no information is available on the ages of children not in child care). A similar question was asked in 1995, but only for families with one or more school-age children.

Although most of these patterns are not significantly different between 1995 and 1999,[23] participation is much higher among Tier 1 than Tier 2 households, as expected. The proportions participating are three to five times as great in Tier 1 as in Tier 2 for all programs.

Exhibit 14
Participation in Other Food Assistance Programs By Families with Children in CACFP Child Care Homes

	1995	1999	Difference 1999-1995	1999 Tier 1	1999 Tier 2	Difference Tier 2-Tier 1
Proportion of children eligible for free or reduced-price school lunch[a]		25.2%		33.8%	6.2%	-27.6%***
Proportion of children whose families receive:						
Food Stamps	8.9%	10.8%	1.9%	14.5%	2.8%	-11.7%***
WIC - any family member	11.6	13.7	2.1	17.7	4.9	-12.7***
WIC - sample child	10.6	7.5	-3.1	9.1	4.0	-5.1*
WIC - other family member	4.1	8.3	4.3	10.6	3.3	-7.4**
Unweighted sample	246	1,200		576	624	

a Question in 1995 was not comparable to question in 1999.

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

[23] Although the difference is statistically significant for the proportion of households with a member eligible for NSLP or SBP, differences in question structure between the two surveys make the numbers not strictly comparable.

Households' CACFP Child Care Experience

Most families with children in CACFP family child care homes do not encounter tiering directly. The meal reimbursement goes to the provider, not the family. The majority of CACFP children are served by Tier 1 providers and have no paperwork or other requirements directly related to tiering.

Families with children served by Tier 2 providers, however, might experience some direct and indirect effects of tiering. The direct effect is that families may be asked to provide information on their income and participation in assistance programs (if their provider asks the sponsor to determine children's eligibility for meal reimbursement at Tier 1 rates). The indirect effects would depend on how providers responded to the lower Tier 2 reimbursement rates. For example, it was hypothesized that some Tier 2 providers might raise their fees, stop providing some meals or snacks, alter their operating hours, or enroll more children. If any of these actions occurred on a widespread basis, it would change the options available to families shopping for child care.

This chapter summarizes the survey responses of parents concerning their use of CACFP family child care. The analysis indicates that tiering did not affect the number of hours that children are in care per week, nor the proportion of families that send food with their children. Tiering was, however, associated with higher hourly child care expenditures by families with children in Tier 2 homes in 1999. Both of these findings are consistent with findings from the operations survey of providers, which are reported elsewhere (Zotov *et al.*, E-FAN-02-004). The process of means testing for families in Tier 2 homes did not appear to be an issue on parents' minds.

Hours of CACFP Care

The typical pre-school child enrolled in CACFP family child care homes is in care for approximately a full-time work week. In 1999, CACFP children under age 6 spent an average of 8 hours per day and 36 hours per week in care (Exhibit 15). The amount of time spent in CACFP family child care does not appear to differ by the tier status of the provider.

Children under 6 spent about half an hour less per day in CACFP family child care in 1999 than they did in 1995, and the average hours per week dropped similarly. While most children spent more than 30 hours per week in both periods, children spent an average of 6 fewer hours per week in CACFP care in 1999 compared with 1995 (Exhibit 15, $p < 0.10$). This difference does not appear to be an effect of tiering, as the Tier 1 and Tier 2 average hours per week are not significantly different.

School-age children (ages 6-12) typically spend considerably less time in child care relative to infants, toddlers, and preschoolers, on both a daily and weekly basis. For example, in the 1995 study, the vast majority (80 to 82 percent) of children aged 6-12 spent less than 5 hours per day and 15 hours per week in care. The 1999 data likewise show that school-age children spend fewer hours in child care than the younger children.

The difference in timing of the 1995 and 1999 surveys prevents a clear comparison of the hours in care of children aged 6-12. The 1995 survey was conducted in February-May, when most school-age children would presumably be in school for most of the day. The 1999 survey, in contrast, was conducted in May-September, with most interviews completed in the school vacation months of June and July. Interviews conducted in June-August 1999 indicated that nearly half (47 percent) of the children aged 6-12 were in child care for at least 30 hours per week, compared with just 5 percent for the interviews conducted in May 1999. The latter figure is quite close to the 1995 proportion of 8 percent, but the sample sizes are too small to be confident of a comparison.[24]

Exhibit 15
Amount of Time Children Under 6 Years Old Spend in CACFP Child Care Homes

	1995	1999	Difference 1999-1995	1999 Tier 1	1999 Tier 2	Difference Tier 2-Tier 1
Hours per *day* in care, percent of children spending:						
Less than 5	6.6%	5.2%	-1.4%	6.5%	2.6%	-3.9
5 to 7	21.4%	18.5%	-2.9%	18.4%	18.7%	-0.3
8 or more	72.0%	76.3%	4.3%	75.2%	78.7%	3.5
Mean hours	8.1	7.5	-0.6**	7.3	7.9	0.6**
Median hours	8.7	7.8	-0.9***	7.8	7.8	0.0
Unweighted sample	205	873		407	466	
Hours per *week* in care, percent of children spending:						
15 or less	5.3%	6.4%	0.9%	5.7%	7.3%	1.6%
16 to 29	9.8%	22.2%	12.4***	23.7%	19.3%	-4.4%***
30 to 50	79.3%	70.0%	-9.3%	69.4%	71.1%	0.7%
More than 50	5.7%	1.7%	-4.0%	1.3%	2.4%	1.1%
Mean hours	38.8	33.1	-5.7***	32.4	34.6	2.2
Median hours	40.0	37.4	-2.6	37.3	37.4	0.1
Unweighted sample	205	920		434	486	

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

[24] Seventy-three interviews concerning children aged 6-12 were conducted in May 1999, and 41 were conducted for this age category in 1995.

Interestingly, the 1999 data suggest that school-age children in Tier 2 CACFP family child care homes spend somewhat more time in care than those in Tier 1 homes, even though no Tier 1-Tier 2 difference was seen for preschool children. About 64 percent of children aged 6-12 in Tier 2 homes spent 8 or more hours per day in care, compared with 40 percent for those in Tier 1 homes, a statistically significant difference. A similar pattern is seen for the hours per week school-age children are in care. We cannot determine from these data whether or not the differences by tier also exist during the school year.

Food Sent From Home

One concern raised about tiering was that some Tier 2 providers would serve fewer meals or snacks (or less infant formula), or serve meals of lower quality, in response to the lower CACFP reimbursements. If that happened, some parents might respond by sending food with their child to child care (such as a brown bag meal, a snack, or infant formula).

Consistent with analyses of provider surveys (Zotov *et al.*, E-FAN-02-004; Crepinsek *et al.*, E-FAN-02-006), the parents' survey responses do not indicate that tiering had this effect. In fact, very few parents of children in CACFP family child care report sending food from home (6 percent), and the practice is no more common among families with children in Tier 2 than Tier 1 homes, as shown in Exhibit 16. The percentage of families saying they send food was somewhat higher among Tier 1 respondents, but the difference between tiers is not statistically significant. Similarly, the 1995 and 1999 rates are not significantly different.

The most common reason for sending food, given by 2 percent of all parents in 1999, was "to provide something as backup." Fewer than 1 percent of the parents with children in either Tier 1 or Tier 2 homes report sending food from home because the provider does not supply a meal/snack or infant formula or does not serve enough food for their child. None of the parents reported sending food with their child because they felt the provider did not serve the quality of food they wanted.

Household Expenditures for Care

Another hypothesized impact of tiering on families participating in the CACFP relates to the fees they pay for child care. The hypothesis is that some Tier 2 providers would raise their fees to help counterbalance a decrease in income from CACFP meal reimbursements. Provider survey responses indicate that average fees in were in fact higher in Tier 2 than Tier 1 homes in 1999, controlling for neighborhood and other operating characteristics (Zotov *et al.*, E-FAN-02-004). One would expect these higher fees to translate into higher costs reported by families with children served by Tier 2 homes.

Exhibit 16
Households that Send Food with Child to CACFP Family Child Care[a]

	1995	1999	Difference 1999-1995	1999 Tier 1	1999 Tier 2	Difference Tier 2-Tier 1
Proportion of all homes that send food from home	9.2%	5.7%	-3.5%	6.0%	4.9%	-1.1%
Reasons:[b]						
To provide something as backup		2.2		2.7	1.2	-1.5
To reduce provider's costs		1.3		1.6	0.6	-1.0
Provider does not supply infant formula		0.6		0.4	0.9	0.5
Provider does not serve meal/snack while child in care		0.4		0.2	0.8	0.5
Unfinished meal		0.5		0.1	1.2	1.0
Child has special dietary needs		0.2		0.2	0.3	0.2
Provider does not serve enough food		0.2		0.2	0.0	-0.2
Provider does not serve the quality of food I want for my child		0.0		0.0	0.0	0.0
Unweighted sample	246	1,200		576	624	

a Includes a brown bag lunch, a snack, or infant formula.
b Not asked in 1995.

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

Families with a single child in care spent an average of $2.17 per hour of care, virtually the same as the 1995 average of $2.19 (inflation-adjusted), as shown in Exhibit 17.[25] The average for families using Tier 2 homes is significantly higher than for the families using Tier 1 homes.

The average hourly expenditures reported by households are roughly comparable to those reported by providers. For example, Tier 1 providers in the 1999 provider operations survey reported charging average hourly fees of $1.91 for a child in full-time care, while the Tier 2 average was $2.45 (Zotov *et al.*, E-FAN-02-004). Correlation analysis was carried out for those households with a single child in full-time care and yielded a correlation coefficient of 0.47 between the hourly fee amount reported by parents and providers.[26]

About 20 percent of families in 1999 reported that they received either a full or partial government subsidy for child care expenses (4 percent and 16 percent, respectively). This is more than double the proportion with subsidies in 1995. For households without subsidies, the average reported expenditure in 1999 amounted to $2.53 per hour per child. Average expenditures were higher for 1999 than for 1995, and higher for Tier 2 than Tier 1, but only the difference between tiers is statistically significant.

The descriptive data in Exhibit 17 are inconclusive with regard to the hypothesis that families using Tier 2 homes would pay higher fees because of provider adjustments to the lower CACFP reimbursement rates. To investigate the question more directly, a multivariate analysis was conducted. For households not receiving child care subsidies, reported household expenditure per hour per child was modeled as a function of the year and the CACFP provider reimbursement level (Tier 1, which applies to all providers in 1995 and Tier 1 providers in 1999, and Tier 2, which applies to Tier 2 providers in 1999). The model also incorporated several factors considered likely to be related to provider fees. These included the child's age group (0-2, 3-5, or 6-12) and the number of hours per week the child was in care (less than 35 hours *vs.* 35 or more hours). Three characteristics of the provider's location were also included: the percent of children in the census block group with household incomes at or below 185 percent of the Federal poverty guideline (1990

[25] Respondents were asked how much they paid in child care fees for the sampled child. (Alternatively, they could say how much they paid for all children in the provider's care; these responses were excluded from the present analysis.) Respondents could answer in terms of dollars per hour, per day, per week, or per month. A separate question asked how many hours per week the child was in care, and this information was used to estimate hourly fees when the fee was not initially reported in hourly terms. The weekly number of hours was divided by five to estimate the daily hours, and multiplied by four to estimate the monthly hours.

[26] Differences in the construction of the question for parents and providers would be expected to make the parent and provider response differ. In addition, both parents and providers could respond in terms of dollars per hour, week, or month. The derivation of hourly fees for those not reporting on an hourly basis would be expected to introduce estimation error that would further weaken the correlation.

Exhibit 17
Hourly Rates that Households Paid for CACFP Family Child Care

	1995[a]	1999	Difference 1999-1995	1999 Tier 1	1999 Tier 2	Difference Tier 2-Tier 1
Mean amount paid per hour for a single child in care	$2.19	$2.17	-$0.02	$1.84	$2.85	$1.01***
Median	$1.97	$1.97	$0.00	$1.75	$2.33	$0.58***
Unweighted sample	142	741		342	355	
Mean amount if **not receiving** subsidy	$2.13	$2.53	$0.40	$2.19	$3.11	$0.92**
Median	$1.91	$2.24	$0.33	$2.00	$2.48	$0.48
Mean amount if **receiving** government subsidy	(b)	$0.87		$0.89	$0.79	-$0.10
Median	(b)	$0.38		$0.39	$0.32	-$0.07
Proportion of household's whose child care expenses are subsidized:						
Fully subsidized	5.9%	3.8%	-2.1%	5.0%	1.4%	-3.6%**
Partly subsidized	3.3	15.9	12.6***	20.1	7.2	-12.9***
Don't know[c]	na	2.2		1.5	3.5	2.0
Unweighted sample	246	1,185		576	624	

a In 1999 dollars
b Sample size too small to report result (unweighted n=6).
c Not a response option in 1995.

na = Not applicable

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

census data); urban/rural[27] (1990 census data); and geographic region (Northeast, South, Midwest, and West). A weighted regression model was estimated.

The analysis indicates the lower reimbursement rates for Tier 2 providers did result in higher child care expenditures for families with children in Tier 2 homes, as shown in Exhibit 18. On average, the added expenditure is estimated at around $0.59 per hour (the 95-percent confidence interval is fairly wide, at $0.14-$1.04). Apart from the reimbursement rate effect, the analysis shows virtually no difference in inflation-adjusted hourly expenditures in 1995 and 1999.

Tiering could have affected household expenditures in two ways. First, some Tier 2 providers may have raised their fees in response to the lower reimbursement rates. Second, some Tier 2 providers (or potential providers) who charge lower fees may have left the CACFP (or failed to enroll), perhaps because they were operating on narrow margins and felt unable to raise fees within their market. It is quite possible that both processes contributed to the observed result, but the available data provide no way to distinguish between them.

Exhibit 18
Effect of Tiering on Hourly Expenditures for Family Child Care: Regression Results[a]

Independent Variable	Coefficient
Intercept	1.28
Tier 2 reimbursement	0.59**
1999	-0.00
Child age 0-2	-0.31*
35+ hours in care	-0.66***
Household income relative to poverty guideline	0.33***
Percent low-income children in census block group	-0.52
Percent urbanized	0.67***
Geographic region = Northeast	0.99***
Geographic region = South	-0.40**
Geographic region = West	0.19

a Model estimated for households with only one child in provider's care and no government subsidy, pooling 1995 and 1995 observations.

Unweighted sample: 701.
R^2: 0.30

Significance levels:

* = .10
** = .05
*** = .01

[27] Urban/rural status is defined at the census block level. The variable used here was the population-weighted percent of census blocks in the provider's census block group that were classified as urban.

The analysis also indicates that household expenditures for child care are influenced by several other factors:

- *Age of child*: hourly expenditures are significantly lower for children under age 3 ($p < 0.10$);
- *Hours in care*: the hourly rate is significantly lower for children in care at least 35 hours per week than for children in part-time care;
- *Household income*: expenditures are significantly higher for families with higher incomes;
- *Urban-rural*: urban areas have significantly higher expenditures; and
- *Geographic region:* relative to the Midwest, expenditures are significantly higher in the Northeast, and significantly lower in the South.

Perceptions of CACFP

The intent of the tiering legislation was to target CACFP benefits to low-income children and their families without requiring a means test for all participants. Since provider tier determinations were not expected to perfectly classify children according to family income, the legislation allowed Tier 2 providers to receive meal reimbursements at the Tier 1 rate for eligible low-income children. A household income at or below 185 percent of the Federal poverty guideline qualifies the child, as does participation in specified programs such as Food Stamps and Temporary Assistance for Needy Families (TANF).

To apply this test without requiring providers to obtain sensitive information from families who are often their friends or neighbors, CACFP regulations call for the provider's sponsor to make the determinations of a family's eligibility for Tier 1 reimbursement. Tier 2 providers may ask the sponsor to obtain income and/or program participation information from all families with children in the provider's care. Or, they may choose not to have the sponsor collect any information from families (in which case all children's meals are reimbursed at the Tier 2 rate).

Survey responses suggest that parents were generally aware of their providers' participation in the CACFP, but that the means test was not a notable part of their child care experience. Most CACFP households (70 percent) are aware that their family child care provider receives reimbursements through the CACFP for meals and snacks they serve (Exhibit 19). The tier of the provider does not seem to be related to level of awareness of the CACFP among participating families—the difference in awareness is small and not statistically significant.

Parents were also asked whether they were "given an application to the Child and Adult Care Food Program that asks questions about your household size and income." One would expect no more than a few Tier 1 respondents to answer this question in the affirmative, since there is no individual means testing in Tier 1. Contrary to expectations, about half of the families in both Tier 1 and Tier 2 homes said they received an income eligibility application, and the vast majority of those respondents said they completed the form and turned it in (data not shown). This is within the plausible range for Tier 2 families, but far above the expected proportion for Tier 1 families. This

may indicate a problem with the phrasing of the question, and it is possible that some parents were confusing CACFP applications with some other form.

In any event, the data provide no indication that the means test was a major issue or concern. If the presence of the test in Tier 2 were a substantial issue, it should have generated different response patterns for Tier 1 and Tier 2 households. However, the response patterns for Tier 1 and Tier 2 families are not significantly different with respect to either receiving the application or filing it. And among the small percentage of respondents who said that they received but did not file an application, the stated reasons for not filing the form do not suggest problems with the concept of testing. Responses to this open-ended question were principally "I never got around to it," "I'm still planning to do it," and "I didn't think I would be eligible."

Exhibit 19
Household Awareness of CACFP in 1999

	All Households	Tier 1	Tier 2	Difference Tier 2- Tier 1
Aware that the provider participates in the CACFP	70.4%	68.9%	73.7%	4.8%
Unsure if provider participates in CACFP	26.2	26.7	25.3	-1.4
Does not believe that provider participates in the CACFP	3.4	4.4	1.0	-3.4
Unweighted sample	1,200	576	624	

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

Conclusion

The major objective of the Congress in mandating tiering was to focus the family child care component of the CACFP more closely on low-income children. The analyses presented above make it clear that a substantial change in focus did occur. The proportion of CACFP meal reimbursement dollars allocated to low-income children more than doubled between 1995 and 1999, from 21 to 45 percent. Low-income children as a percent of all participating children increased from 21 to 39 percent.

Because the PRWORA did not establish a target for the proportion of dollars or participating children that should be low-income, it is difficult to say whether the observed change is too little, too much, or just the right amount. The changes were very substantial by any standard, however.

The sizable change is particularly noteworthy because the tiering mechanism uses only proxy indicators of the household circumstances of most children in the program. The tiering mechanism is nonetheless quite sensitive. About 88 percent of all participating low-income children were cared for in Tier 1 homes. Additional low-income children were served in Tier 2 homes but had their meals reimbursed at Tier 1 rates, bringing the overall sensitivity rate to around 95 percent. The tiering mechanism's specificity, measured as the percent of participating higher-income children whose meals are reimbursed at the lower Tier 2 rate, is a more modest 42 percent. This indicates that the tiering mechanism is considerably more likely to err in the direction of reimbursing higher-income children's meals at the high rate than to err in the direction of reimbursing low-income children's meals at the low rate.

One interesting feature of the CACFP reimbursement policy results from the fact that reimbursements go to the provider and are not passed on directly to individual children. All children in Tier 1 homes have their meals subsidized at the higher rates, and the provider presumably passes on that subsidy (in the form of lower fees, more nutritious meals, or both) equally to all children under the provider's care. In Tier 2 homes, however, the total amount of the subsidy paid to the provider depends on the mix of low-income and higher-income children in the provider's care. Because the provider does not know which are the low-income children, the subsidy must be passed on equally to all children in the provider's care. This means that a low-income child's subsidy will depend on the proportion of other children in the provider's care who are also low-income. This feature is not new to the CACFP. Child care centers know the meal subsidy levels for the individual children in their care, but are not required to pass on the subsidy individually. Indeed, to the extent that the subsidy is used to augment the food offered rather than to reduce fees, the operating reality is that the subsidy will benefit all children in the center equally.

The study provides only limited information on how the varying subsidy level affects the fees charged to parents or the food offered to children. The analysis presented here and in other study reports does indicate that providers who receive lower CACFP reimbursements tend to charge higher fees, implying that part of the meal reimbursement is passed on in the form of lower fees. Analysis reported elsewhere indicates that the amount of the subsidy has little effect on the nutrient content of

meals offered, although participation in the CACFP (i.e., receipt of any subsidy) may have an effect. This makes it plausible to hypothesize that the level of subsidy received by low-income families whose children are cared for in Tier 2 homes will depend on how many other low-income children are under the provider's care. Further research would be needed to estimate this effect.

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Appendix A
Sampling and Weighting Procedures

The *Family Child Care Homes Legislative Changes Study* involved several surveys, including surveys of sponsors, current CACFP providers, former CACFP providers, and parents of children currently served by CACFP providers. For current CACFP providers, the study included an operations survey, a menu survey, and a meal observation data collection. Most of the analyses presented in this report rely on the survey of parents (the "household" survey). The sample design for this survey and the weighting procedures used in the analysis are described below. The sampling and weighting for other surveys are discussed in other reports in this series.

Sample

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

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

Random 50-percent subsamples of the Tier 1 and Tier 2 provider samples were designated as the samples for the household survey. These providers were asked to obtain permission from the parents of children in their care for the parents to be surveyed, and to submit the list of children with consenting parents. The sample of children for the household sample was drawn from this list. All children on the list were sampled up to a maximum of eight for Tier 1 providers and 10 for Tier 2 providers. If the provider list included more than the maximum number of children, the maximum

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

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

3 Homes received tier designations only when tiering was implemented, in July 1997.

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

number was drawn randomly from the provider's list. If more than one child from a family was selected, one was designated as the "reference child" about whom most questions were asked.

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

From the lists of providers, 465 Tier 1 providers and 447 Tier 2 providers were selected for the next stage of sampling for the household survey. Of these, 109 Tier 1 providers and 137 Tier 2 providers were determined to be ineligible, mainly because they had left the CACFP between the time the sample was selected and the time that lists of children were requested. Of the remainder, 160 Tier 1 providers and 156 Tier 2 providers sent usable lists of children whose parents agreed to be interviewed. This represents response rates of 44.9 and 50.3 percent, respectively, assuming that all providers who were not determined to be ineligible were actually eligible. The response rates at this stage were lower than in any other part of the survey. Some providers simply refused to give lists, some never responded to telephone calls or mailings after the request had been sent, and some reported that all of the parents of their children refused to be interviewed.

The submitted lists comprised 1,068 children in Tier 1, all of whom were selected, and 1,220 children in Tier 2, of whom 1,038 were selected. These children were from 739 households served by Tier 1 providers, and 786 households served by Tier 2 providers. Of these households, 104 served by Tier 1 providers and 123 served by Tier 2 providers were found to be ineligible because they no longer had children in care with the CACFP providers. Interviews were ultimately completed by 576 (Tier 1) and 624 (Tier 2) households, for response rates of 92.0 and 95.0 percent, respectively.[6]

It is useful in multi-stage samples to consider the compound response rate, which is the product of the response rate at each sampling stage – i.e., the sponsor response rate, the response rate among providers asked to submit lists of children, and the parent's response rate. The compound response rates for Tier 1 and Tier 2 households are 38.6 and 44.6 percent, respectively. The major factor contributing to these low response rates is the large proportion of selected providers who did not submit lists of consenting parents, as response rates at the other two stages exceeded 90 percent.

[5] A total of 311 were selected, but 11 were not eligible because they had left the CACFP.

[6] These response rates assume that nonresponding households included the same proportion of ineligible households as the households that were reached.

Weighting

For producing population-based estimates of means and proportions of characteristics relating to households and children, each respondent gets a sampling weight. These weights combine the inverse of the probabilities of selection and nonresponse adjustments.

The subsample of providers from whom lists of children was obtained was drawn from both Tier 1 and Tier 2 providers. A subsample was selected in each stratum using probability proportional to size sampling in which the number of children enrolled was used as the measure of size.

Households represented the fifth stage of sampling: States, sponsors within States, Tier 1 and Tier 2 providers within sponsors, subsamples of the Tier 1 and Tier 2 providers, and households within providers. The overall household weight was therefore obtained as the product of the State weight; the conditional sponsor weight (adjusted for nonresponse); the conditional provider weight (adjusted for nonresponse); and the conditional household weight (adjusted for nonresponse). The conditional household weight is based on the conditional probability of selecting a provider given that the sponsor and the State have been selected.

Basic Sponsor Weights

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

Sponsor weights were computed as follows:

1. Let W_i represent the weight for the *i*th selected State. *i*= 1, 2, 3, 4, ...19, 20. W_i = 1 for States selected with certainty.

2. Let W_{ij} be the weight for the *j*th selected sponsor in the *i*th State. We have

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

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

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

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

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

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

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

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

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

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

$$W_{ij} = W_i \; W_{j/i}.$$

Adjustment for Nonresponse at the State and Sponsor Levels

There is no nonresponse at the State level.

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

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

The nonresponse adjusted conditional weight is given by

$$W^a_{j/i} = W_{j/i} \; A_i.$$

The overall nonresponse adjusted basic sampling weight is given by

$$W^a_{ij} = W_i \; W^a_{j/i} \quad .$$

This weight was used in sponsor tabulations.

Basic Provider Weights

In calculating provider weights, two changes were made to the conditional sponsor weight for sponsor tabulations. Since we selected a sample of providers for each "hit" of the sponsor, we did not include r_{ij} number of hits in computing the conditional weight of the sponsor for computing the provider weights. Also, the adjustment for nonresponse of the sponsor differs. This was because the number of sponsors giving the list of providers for sampling was slightly different from the number of sponsors responding to the survey. The number of providers in the responding and the nonresponding groups was also different.

We first describe the nonresponse adjustment to the sponsor weight.

The conditional sponsor weight for provider tabulations is

$$W^{p}_{j/i} = \frac{P_i}{P_{ij}}.$$

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

$$A^{*}_{i} = \frac{\sum_{j=1}^{s_i} W_{ij}\ P_{ij}}{\sum_{j=1}^{s^{**}_i} W_{ij}\ P_{ij}}$$

and the adjusted sponsor weight is

$$W^{b}_{j/i} = W^{p}_{j/i}\ A^{*}_{i}.$$

The overall sponsor weight is given by

$$W^{b}_{ij} = W_i\ W^{b}_{j/i}.$$

This sponsor weight was used for all provider tabulations.

For the selection of providers from a selected sponsor, we stratified the providers by Tier 1, Tier 2, and dropout (former providers). Let P_{ijk} denote the number of providers in the kth stratum ($k =$

1,2,3). Let p_{ijk} be the number of providers selected. Then the basic conditional weight for the *l*th selected provider in the *k*th stratum belonging to the *j*th sponsor in the *i*th State is

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

Adjustment for Provider Nonresponse

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

$$W^{a}_{l/ijk} = \frac{p_{ijk}}{p^{*}_{ijk}} W_{l/ijk}.$$

The overall provider weight is

$$W^{a}_{ijkl} = W_i \; W^{b}_{j/i} \; W^{a}_{l/ijk}.$$

Sampling Weights for the Subsamples of Tier 1 and Tier 2 Homes Selected for Interviews with Parents and for Children

We show below the derivation of the weights for the Tier 1 subsample of providers for household interviews and for the children served by these providers. The corresponding Tier 2 weights were generally derived similarly. Because children were subsampled from Tier 2 provider lists, however, while all children on Tier 1 provider lists were selected, an additional factor appears in the Tier 2 child weight, as discussed below.

Provider Subsample

Let the number of Tier 1 providers in the main sample in the i th State be m_{i1}. This is the number obtained by aggregating all the selected Tier 1 providers in the main sample from all selected sponsors in the i th State. Let c_{i1q} be the number of children belonging to the qth Tier 1 selected respondent provider in the i th State. Let the subsample of providers selected with probability proportional to the number of children with each provider in the State be u_{i1}. The conditional weight for the subsample of Tier 1 providers in the *i*th State is

$$W^{s}_{i1} = u_{i1} \left(\frac{c_{i1q}}{c_{i1}}\right)$$

where $c_i = \sum_{q=1}^{m_i} c_{iq}$ is the total number of children over all selected providers in the State. Out of

u_{i1} subsample of Tier 1 providers, let the number of respondents be u_{i11} . Let the number of eligible Tier 1 providers in the subsample who are nonrespondents be u_{i12}. Let the number of ineligible Tier 1 providers be u_{i13}. The nonresponse adjustment for the subsample of providers is given by

$$A^{s}_{i1} = \frac{\sum_{q=1}^{u_{i11}} W^{s}_{i1q} + \sum_{q=1}^{u_{i12}} W^{s}_{i1q}}{\sum_{q=1}^{u_{i11}} W^{s}_{i1q}}.$$

The nonresponse adjusted conditional subsampling weight is

$$W^{as}_{i1} = W^{s}_{i1} \; A^{s}_{i1} \; .$$

Each provider in the subsample of providers received this weight. Next, we identified providers in the subsample by sponsor . A Tier 1 provider in the subsample belonging to the *j*th sponsor in the *i*th State received an overall weight of

$$W^{s}_{ij1l} = W^{a}_{ij1l} \; W^{as}_{i1}.$$

Child Weight

Let the number of responding eligible children in Tier 1 be c^{*}_{i1q1}. Let the number of eligible children who are nonrespondents be c^{*}_{i1q2}. Let the number of ineligible children be c^{*}_{i1q3}.

The nonresponse adjusted child level weight is given by

$$c_{i1} = \frac{(c^{*}_{i1q1} + c^{*}_{i1q2})}{c^{*}_{i1q1}}.$$

Children from Tier 2 providers were subsampled. Let the number of children sampled from the c_{i2q} children with the qth subsampled provider be c^{*}_{i2q}. The basic conditional sampling weight at the provider level for Tier 2 children is

$$\frac{c_{i2q}}{c^{*}_{i2q}}.$$

(For Tier 1 children, this factor is simply 1.) Multiplying this by the nonresponse adjustment for Tier 2 children we have a child-level weight of

$$c_{i2} = \frac{c_{i2q}}{c^{*}_{i2q}} \frac{(c^{*}_{i2q1} + c^{*}_{i2q2})}{c^{*}_{i2q1}}.$$

The final child level weight for the child belonging to the *l*th Tier 1 provider and the *j*th sponsor in the *i*th State is given by

$$c^{f}_{ij1l} = W^{s}_{ij1l} \; c_{i1}.$$

The corresponding weight for a child in Tier 2 is the same, with the subscripts changed from "1" to "2". This weight was used for all child (household) tabulations in the report.

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

Nonresponse Bias

The possibility of nonresponse bias—that is, important differences between sample members who respond to the survey and those who do not—deserves consideration in any sample survey. With compound response rates in the range of 39 to 45 percent, the potential for nonresponse bias is very real. A series of analyses was therefore performed to assess the extent of any bias.

The analyses are necessarily based on those few items of information that are known for the nonresponding as well as the responding sample members. At all sampling stages, the sample member's location is known and is coded as being in one of the four census geographic regions (Northeast, South, Midwest, and West). For sponsors, we also know the number of homes sponsored and the proportion of Tier 1 and Tier 2 homes, as reported by the State agency. For providers, information is available on the number of children enrolled in the home, as reported on the sponsor list. For households, the available information is the number of children in the household who are in the care of the sampled provider, as reported by the provider.

The analysis compared the mean or percent for all selected sample members and the mean or percent for those responding to the survey. The difference can be viewed as the extent to which the respondents over- or under-represent the specified characteristics of the original sample. As a guide to the importance of the difference, we use a one sample *t*-test; that is, we compare the mean of the respondents to the mean of the total sample, taking into account the standard error of the mean of the respondents (treating the full-sample mean as a universe mean, with no sampling error). The data are unweighted in this analysis because sampling weights were not computed for nonrespondents.

The analysis of sponsor nonresponse is reported elsewhere (Bernstein and Hamilton, E-FAN-02-003). It showed a slight over-representation of sponsors with larger numbers of homes. No pattern of geographic bias was found.

The analysis of providers was carried out separately for Tier 1 and Tier 2 providers (the two strata were weighted separately, which corrects for any potential nonresponse bias on this dimension). The results, shown in Exhibits A.1 and A.2, generally show very small differences between the responding providers and the sample frame from which they were drawn. None of the differences are statistically significant for either Tier 1 or Tier 2. Thus there is no indication of important response bias at this sampling stage, even though this stage had relatively low response rates.

One would not expect to encounter significant nonresponse bias at the household sampling stage because of the high response rates at this stage. This expectation is borne out in Exhibits A.3 and A.4, which show no statistically significant differences between the responding household and the sample selected on those characteristics available for examination.

Exhibit A.1
Comparison of Responding Tier 1 Providers to Sample Selected[a]

	Respondents	Original Sample	Difference Respondent-Original	Respondent Standard Error	p-value
Mean number of children enrolled	11.7	11.3	0.4	0.515	0.98
Percent of providers that are in region:					
Northeast	22.3%	23.3%	-1.0%	3.33	0.76
South	22.9	21.3	1.6	3.37	0.63
Midwest	22.9	22.9	0.0	3.37	0.98
West	31.9	35.2	-3.3	3.73	0.86

[a] Responding providers are those who supplied lists of one or more parents willing to be interviewed.

Exhibit A.2
Comparison of Responding Tier 2 Providers to Sample Selected[a]

	Respondents	Original Sample	Difference Respondent-Original	Respondent Standard Error	p-value
Mean number of children enrolled	11.2	10.9	0.3	0.48	0.51
Percent of providers that are in region:					
Northeast	22.8%	22.6%	0.2%	3.31	0.94
South	16.1	19.6	-3.5	2.89	0.23
Midwest	29.6	27.3	2.3	3.60	0.52
West	31.5	30.5	1.0	3.66	0.80

[a] Responding providers are those who supplied lists of one or more parents willing to be interviewed.

Exhibit A.3
Comparison of Responding Tier 1 Households to Sample Selected

	Respondents	Original Sample	Difference Respondent-Original	Respondent Standard Error	p-value
Mean number of children in the provider's care	1.44	1.45	-0.01	0.03	0.71
Percent of households that are in region:					
Northeast	16.8%	19.1%	-2.3%	1.56	0.15
South	17.2	17.7	-0.5	1.57	0.73
Midwest	24.7	24.1	0.6	1.80	0.75
West	37.0	34.1	2.9	2.01	0.15

Exhibit A.4
Comparison of Responding Tier 2 Households to Sample Selected

	Respondents	Original Sample	Difference Respondent-Original	Respondent Standard Error	p-value
Mean number of children in the provider's care	1.37	1.38	-0.01	0.02	0.59
Percent of households that are in region:					
Northeast	24.7%	22.8%	1.9%	1.73	0.26
South	15.9	16.8	-0.9	1.46	0.54
Midwest	28.4	28.0	0.4	1.81	0.82
West	25.4	26.2	-0.8	1.74	0.62

Appendix B
Household Survey

The household survey was predominantly conducted by telephone interviews. The following questionnaire is shown in telephone interview format, including interviewer instructions.

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

Family Child Care Homes
Legislative Changes Study

HOUSEHOLD SURVEY

NOTE: WORDS AND PHRASES IN ALL CAPITAL LETTERS ARE INSTRUCTIONS TO THE INTERVIEWERS AND WILL NOT BE READ TO RESPONDENTS.

May I speak with (PERSON LISTED IN THE SAMPLE).

WHEN CONNECTED:

Hello, my name is _____. I'm calling from Abt Associates as part of a study of families who have children cared for in family child care homes. This study is for the U.S. Department of Agriculture's Child and Adult Care Food Program. (NAME OF FAMILY CHILD CARE HOME) is participating in this study and we would really appreciate your help as well. Your participation is voluntary and will not affect any current or future benefits from any government programs. We need less than ten minutes of your time. When we complete the interview, we'll send you a check for ten dollars as a token of our appreciation.

I'd like to ask some questions about (CHILD) and (CHILD)'s child care schedule.

A. Does (CHILD) currently attend child care at (NAME OF FAMILY CHILD CARE HOME)?

YES	1	(SKIP TO Q.B)
NO	2	(ASK Q.A1)
REFUSED	7	(ASK Q.A1)
DON'T KNOW	8	(ASK Q.A1)

A1. PROGRAMMER NOTE: CHECK TO SEE IF A SECOND CHILD FROM THE HOUSEHOLD IS LISTED AS ATTENDING THE FAMILY CHILD CARE HOME. IF (CHILD) WAS THE ONLY CHILD IN RESPONDENT'S HOUSEHOLD TO BE SELECTED FOR STUDY, THANK AND TERMINATE.

Does (CHILD2) currently attend child care at (NAME OF FAMILY CHILD CARE HOME)?

YES	1	(CONTINUE INTERVIEW USING (CHILD2) FOR (CHILD))
NO	2	(ASK Q.A2)
REFUSED	7	(THANK AND TERMINATE)
DON'T KNOW	8	(THANK AND TERMINATE)

A2. PROGRAMMER NOTE: CHECK TO SEE IF A THIRD CHILD FROM THE HOUSEHOLD IS LISTED AS ATTENDING THE FAMILY CHILD CARE HOME. IF NO OTHER CHILD IN RESPONDENT'S HOUSEHOLD WAS SELECTED FOR STUDY, THANK AND TERMINATE.

Does (CHILD3) currently attend child care at (NAME OF FAMILY CHILD CARE HOME)?

YES	1	(CONTINUE INTERVIEW USING (CHILD3) FOR (CHILD))
NO	2	(THANK AND TERMINATE)
REFUSED	7	(THANK AND TERMINATE)
DON'T KNOW	8	(THANK AND TERMINATE)

B. Does (CHILD) currently live in your household?

YES	1	(CONTINUE)
NO	2	(THANK AND TERMINATE)
REFUSED	7	(THANK AND TERMINATE)
DON'T KNOW	8	(THANK AND TERMINATE)

1. How old is (CHILD)? _____

MONTHS 1

YEARS 2

2. How many hours a day does (CHILD) usually spend at (NAME OF FAMILY CHILD CARE HOME)?

_____ (ASK Q. 2.A)
OF HOURS

VARIES/DON'T KNOW/REFUSED . . . . . 1 (SKIP TO Q. 2.B)

2.A On average, how many days per week is (CHILD) there?

_____ (SKIP TO Q. 3)
OF DAYS

VARIES/DON'T KNOW/REFUSED . . . . . 1 (SKIP TO Q. 2.B)

2.B About how many hours a week, in total, does (he/she) spend at (NAME OF FAMILY CHILD CARE HOME)?

15 or less 1

16 - 29 2

30 - 50 3

More than 50 4

3. Do you usually send (CHILD) to child care with a meal or snack from home such as a brown bag lunch, a snack, or infant formula?

YES	1	
NO	2	(SKIP TO Q. 4)
REFUSED	7	(SKIP TO Q. 4)
DON'T KNOW	8	(SKIP TO Q. 4)

3.A Why is that? CIRCLE ALL THAT APPLY.

PROVIDER DOES NOT SERVE MEAL OR SNACK WHILE CHILD IS IN CARE . . . 1

PROVIDER DOES NOT SUPPLY INFANT FORMULA 2

PROVIDER DOES NOT SERVE ENOUGH FOOD FOR MY CHILD 3

PROVIDER DOES NOT SERVE THE QUALITY OF FOOD I WANT FOR MY CHILD 4

CHILD HAS SPECIAL DIETARY NEEDS (SUCH AS FOOD ALLERGIES OR DIABETIC) 5

OTHER (SPECIFY) 6

_____

_____

4. Now I have some questions about the other people in your household.

4.A How many adults aged 18 or over, including yourself, currently live in your household?

_____
OF ADULTS

4.B How many babies and children 17 or younger currently live in your household?

_____
OF CHILDREN

5. So, the total number of people in your household is (ANSWER TO Q. 4.A PLUS ANSWER TO Q. 4.B). Is that correct? IF NOT CORRECT, RESOLVE BY RE-ASKING QUESTIONS 4.A AND 4.B.

6. IF NUMBER OF CHILDREN IN 4.B = 1, SKIP TO Q. 6.C.

Are any of the other children in your household cared for by (NAME OF FAMILY CHILD CARE HOME)? IF NEEDED: That is, in addition to (CHILD).

YES	1	(ASK 6.A)
NO	2	(SKIP TO Q. 6.C)
REFUSED	7	(SKIP TO Q. 6.C)
DON'T KNOW	8	(SKIP TO Q. 6.C)

6.A Can you tell me their ages and the average number of hours each one spends at (NAME OF FAMILY CHILD CARE HOME) per week?

AGE	HRS/WEEK

6.B Do you pay separate fees for (CHILD)'s child care or one fee to (NAME OF FAMILY CHILD CARE HOME) for all your children who go there?

ONE FEE	1
SEPARATE FEES	2
NOT APPLICABLE -- GOVERNMENT PAYS 100%	3
REFUSED	7
DON'T KNOW	8

6.C How much do you pay (FAMILY CHILD CARE HOME) for (CHILD/all the children who go there)?

$ _____.____ per

Hour 1

Day 2

Week 3

Month 4

OTHER (SPECIFY) 6

_____

6.D Does the government pay some or all or none of the cost of (CHILD'S/your children's) care provided at (FAMILY CHILD CARE HOME)?

SOME 1

ALL 2

NONE 3

7. Some child care homes get reimbursed by the U.S. Department of Agriculture's Child and Adult Care Food Program for the meals and snacks they serve to children in their care. Does (NAME OF FAMILY CHILD CARE HOME) participate in this program?

YES 1

NO 2

DON'T KNOW 8

8. Were you given an application to the Child and Adult Care Food Program that asks questions about your household size and income?

YES . . . . . 1 (ASK 8.A-B)

NO . . . . . 2 (SKIP TO Q. 9)

REFUSED . . . . . 7 (SKIP TO Q. 9)

DON'T KNOW . . . . . 8 (SKIP TO Q. 9)

8.A Who gave you the application? CIRCLE ALL THAT APPLY. IF NECESSARY, READ LIST.

(NAME OF FAMILY CHILD CARE HOME) 1

Your family child care provider's sponsor 2

OTHER (SPECIFY) 6

_____

DON'T KNOW/DON'T RECALL 8

8.B Did you complete and turn in the application?

YES	1	(SKIP TO Q. 9)
NO	2	(ASK 8.C)
REFUSED	7	(SKIP TO Q. 9)
DON'T KNOW/DON'T RECALL	8	(SKIP TO Q. 9)

8.C Why didn't you turn in the application? DO NOT READ LIST. CIRCLE ALL THAT APPLY.

NEVER GOT AROUND TO IT 1

DID NOT THINK I WAS ELIGIBLE 2

NOT WORTH IT/BENEFIT TOO SMALL 3

INVASION OF PRIVACY 4

OTHER (SPECIFY) 6

_____

9. Now I'd like to ask you a few questions about your household's participation in other government programs. Please keep in mind that everything you tell us is confidential and will have no effect on any current or future benefits.

Does anyone in your household receive food stamp benefits? You may receive these benefits as coupons, EBT cards or part of another check.

YES 1
NO 2
REFUSED 7
DON'T KNOW 8

10. Is anyone in your household in the WIC (Women, Infants and Children's) program?

YES . . . . . 1 (ASK 10.A)
NO . . . . . 2 (SKIP TO Q. 11)
DON'T KNOW WHAT THE WIC PROGRAM IS . . . . . 3 (SKIP TO Q. 11)
REFUSED . . . . . 7 (SKIP TO Q. 11)
DON'T KNOW IF ANYONE IS IN WIC . . . . . 8 (SKIP TO Q. 11)

10.A IF CHILD'S AGE IS 5 OR OLDER, SKIP TO Q. 10.C.

Does (CHILD) participate in the WIC program?

YES . . . . . 1 (ASK 10.B)
NO . . . . . 2 (SKIP TO Q. 10.C)
DON'T KNOW . . . . . 8 (SKIP TO Q. 10.C)

10.B How long has (CHILD) received WIC benefits?

_____ YEARS OR _____ MONTHS

SINCE BIRTH 10
REFUSED 97
DON'T KNOW 98

10.C IF NUMBER OF CHILDREN IN Q. 4.B = 1, SKIP TO Q. 11.
Do any (other) children in your household receive WIC benefits?

YES 1

NO 2

REFUSED 7

DON'T KNOW 8

11. Is anyone in <u>your household</u> eligible for free or reduced-price meals through the National School Lunch Program (NSLP) or School Breakfast Program (SBP)?

YES 1

NO 2

DON'T KNOW WHAT THE NSLP/SBP IS 3

REFUSED 7

DON'T KNOW IF ANYONE IS IN NSLP/SBP 8

12. Does anyone in <u>your household</u> receive benefits through the Food Distribution Program on Indian Reservations (FDPIR)?

YES 1

NO 2

DON'T KNOW WHAT THE FDPIR IS 3

REFUSED 7

DON'T KNOW IF ANYONE IS IN THE FDPIR 8

13. Does the government provide your housing or pay any part of what it costs to own or rent your home? (IF NECESSARY READ: For example, do you live in a government housing project or have lower rent because the government is paying part of it for you?)

YES 1

NO 2

REFUSED 7

DON'T KNOW 8

14. Does anyone in the household receive payments from any of the following sources? READ LIST. CIRCLE ONE RESPONSE FOR EACH ITEM.

	ITEM	YES	NO	REFUSED	DON'T KNOW
	Social Security IF NEEDED: This might come in the form of a green check.	1	2	7	8
	SSI IF NEEDED: This might come in the form of a gold check.	1	2	7	8
	Unemployment compensation	1	2	7	8
	Worker's compensation	1	2	7	8
	Insurance benefits including disability	1	2	7	8
	Refugee assistance	1	2	7	8
	VA payments	1	2	7	8
	Retirement pension	1	2	7	8
	Child support or alimony	1	2	7	8
	Workfare or a job where a government program pays part or all of the wages	1	2	7	8
	AFDC, TANF, foster care payments or other government cash assistance for families with children	1	2	7	8
	General assistance, home relief or any other government welfare payment	1	2	7	8
14A	Are you covered by Medicaid or other government paid health insurance?	1	2	7	8

Our last household questions are for statistical purposes only.

15. Into which of the following categories does the total 1998 income for your household fall? Please take a moment to think about all sources of income for you and other members of your household, including money from jobs, your own business (minus expenses), welfare, pensions, alimony and child support payments, unemployment compensation, social security and cash withdrawn from savings, investments or trust accounts or received from friends and relatives.

First of all, was your total 1998 household income more or less than $30,000 per year?

$30,000 OR MORE	1	(SKIP TO B)
LESS THAN $30,000	2	(ASK A)

Now I'll read a list of more income categories; please stop me when I reach the right category for your household income.

A.

Under 5,000 per year	01
$5,000 to under 10,000 per year	02
$10,000 to under 15,000 per year	03
$15,000 to under 20,000 per year	04
$20,000 to under 25,000 per year	05
$25,000 to under 30,000 per year	06

B.

$30,000 to under 35,000 per year	07
$35,000 to under 40,000 per year	08
$40,000 to under 45,000 per year	09
$45,000 to under 50,000 per year	10
$50,000 to under 55,000 per year	11
$55,000 to under 60,000 per year	12
$60,000 to under 65,000 per year	13
$65,000 to under 70,000 per year	14
$70,000 to under 75,000 per year	15
$75,000 to under 80,000 per year	16
$80,000 or more per year	17
REFUSED	97
DON'T KNOW	98

16. IF THE ANSWER TO QUESTION 15 IS A CATEGORY THAT CONTAINS THE INCOME LEVEL FOR THE RESPONDENT'S HOUSEHOLD SIZE, ASK THE FOLLOWING QUESTION. OTHERWISE, SKIP TO QUESTION 17.

HOUSEHOLD SIZE IS THE ANSWER TO QUESTION 4.A PLUS THE ANSWER TO QUESTION 4.B.

Is your total household income more or less than (READ AMOUNT IN INCOME COLUMN FOR RESPONDENT'S HOUSEHOLD SIZE.)

HOUSEHOLD SIZE	INCOME
2	$20,073
3	$25,253
4	$30,433
5	$35,613
6	$40,793
7	$45,973
8	$51,153
9 or more	$56,332

MORE 1

LESS 2

ABOUT THE SAME 3

REFUSED 7

DON'T KNOW 8

17. I am going to read a list of race and ethnicity categories. Please let me know which categories best describe (CHILD). You may select more than one. READ LIST. CIRCLE ALL THAT APPPLY.

American Indian or Alaska Native	1
Asian	2
Black or African American	3
Native Hawaiian or other Pacific Islander	4
Hispanic or Latino	5
White	6
REFUSED	7
DON'T KNOW	8

CLOSING: That's all the questions. Thank you very much for your help. Now I just need to make sure I have the correct mailing address for your $10.00 check. Is it (READ ADDRESS FROM SAMPLE LISTING AND MAKE CHANGES IF NEEDED.)

ENTER CORRECT TELEPHONE NUMBER AND ADDRESS:
PHONE: (__)_____
STREET: _____
CITY: _____ STATE: _____ ZIP: _____
Would you like to receive a copy of the study results?

YES	1
NO	2

Thanks again. Goodbye.

DATE OF INTERVIEW: _____/_____/_____

INTERVIEWER NAME: _____

RECORD WHETHER INTERVIEW WAS CONDUCTED IN ENGLISH OR SPANISH:

ENGLISH	1
SPANISH	2

INTERVIEW WAS CONDUCTED:

AT ABT'S TELEPHONE RESEARCH CENTER	1
BY TELEPHONE IN THE FIELD	2
IN PERSON	3