

Economics of the Family Day Care Operations

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

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

Child Care Fees

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

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

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

Significance levels:

* = < .10

** = < .05

*** = < .01

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

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

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

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

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

Unweighted sample = 1,703

R² = 0.319

Significance levels:

* = < .10

** = < .05

*** = < .01

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

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

Changes in Fees Since Tiering

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

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

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

Significance levels:

* = < .10

** = < .05

*** = < .01

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

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

Spending on Food in 1999

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

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

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

Changes in Spending on Food Since 1997

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

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

Exhibit 11
Weekly Food Expenses for 1999 Providers by Tier Status

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

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

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

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

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

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

Exhibit 13
Changes in Food Expenditures Since 1997

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

^a Providers not serving food in 1997 were excluded from the analyses.

Significance levels:

* = < .10

** = < .05

*** = < .01

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

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

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

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

Proportion of the Providers' Household Income from Child Care

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

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

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

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

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

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

Significance levels:

* = < .10

** = < .05

*** = < .01

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

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

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

Providers' Satisfaction with the CACFP Reimbursement Rate

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

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

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

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

Significance levels:

* = < .10

** = < .05

*** = < .01