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# Meals Offered by Tier 2 CACFP Family Child Care Providers—Effects of Lower Meal Reimbursements

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

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### Abstract

The introduction of tiered reimbursement rates in 1997 did not substantially affect the food and nutrient composition of meals offered by Tier 2 providers in the Child and Adult Care Food Program (CACFP). The Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) 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 participation and child nutrition. PRWORA reduced reimbursement rates for Tier 2 providers (providers who are not low-income themselves and do not live in low-income areas). According to our 1999 study, Tier 2 providers neither cut back on meals and snacks served nor offered less nutritious foods, despite initial concerns about how Tier 2 providers would react to the reduced rates. Tier 2 meals have not compromised the overall goal of the CACFP meal component requirements: to provide a mix of foods that make an important contribution to a child's major nutritional needs.

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# Executive Summary

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The introduction of tiered reimbursement rates in 1997 did not substantially affect the food and nutrient composition of meals offered by Tier 2 family child care providers in the Child and Adult Care Food Program (CACFP). The Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) 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 participation and on meals offered to children. The PRWORA reduced reimbursement rates for Tier 2 providers (providers who are not low-income themselves and do not live in low-income areas). According to our 1999 study, Tier 2 providers neither cut back on meals and snacks served nor offered less nutritious foods, despite initial concerns about how Tier 2 providers would react to the reduced rates. Tier 2 meals have not compromised the overall goal of the CACFP meal component requirements: to provide a mix of foods that make an important contribution to a child’s major nutritional needs.

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 legislative changes on the number and nutritional quality of meals and snacks offered to children participating in CACFP family child care homes. It is based on menu records and on-site meal observation of a nationally representative sample of 542 Tier 2 CACFP homes in 1999, together with comparable data from a 1995 study.

## The CACFP and Tiering

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

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

Tiering cut meal reimbursements almost in half for those providers classified as Tier 2. In fiscal year 1999, Tier 2 homes received meal reimbursements averaging \$177 per month (including some meals reimbursed at the Tier 1 rates). Had they been reimbursed at the Tier 1 rates for all meals, their monthly reimbursements would have averaged \$326.

It was unknown how Tier 2 providers would respond to the lower reimbursement rates. One possibility was that providers would reduce their food expenditures by offering fewer meals and snacks, or by serving smaller portion sizes, less costly foods, or a less varied menu. Such strategies might in turn reduce the quantity or quality of the foods and nutrients provided to children.

To address these hypotheses, the study examined meals and snacks offered by Tier 2 family child care home providers in 1999. It considered the frequency with which meals and snacks are offered, the extent to which they comply with CACFP requirements regarding the types of food to be served, and their nutritional content.

Overall, based on comparisons with a group of family child care homes from a 1995 study, and controlling for those characteristics that determine tier, we find that reimbursement tiering did not have a substantial effect on the quantity or nutritional quality of meals offered in the CACFP. Although some patterns suggest minor menu adjustments that could reflect an attempt to control costs, these have little impact on the overall nutrient profile of meals and snacks offered.

## Meals Offered

Virtually all Tier 2 CACFP providers offer lunch, and around 95 percent offer breakfast and an afternoon snack. Over half offer a morning snack, but relatively few offer supper (14 percent) or an evening snack (5 percent). Two meal-snack combinations are particularly common: breakfast, lunch, and one snack, usually in the afternoon; and breakfast, lunch, and both the morning and afternoon snacks.<sup>1</sup> More than 80 percent of providers offer one of these two combinations.

Each type of meal and snack was offered by about the same proportion of Tier 2 providers in 1999 as by providers in 1995, controlling for factors used in determining providers' tier status.<sup>2</sup> Estimated differences between the years were small and no meal or snack was served significantly less often in 1999.

## Compliance with CACFP Meal Component Requirements

To qualify for CACFP reimbursement, meals and snacks must contain specified minimum amounts of some or all of four major meal components included in the CACFP meal pattern: milk; fruits, vegetables, and juices; bread and bread alternates such as cereal; and meat and acceptable meat alternates. Lunches must include all four components, breakfasts must include all but meat, and snacks must include any two of the four.

The vast majority of Tier 2 meals and snacks in 1999 met the meal pattern requirements. More than 90 percent of all breakfasts, lunches, and morning and afternoon snacks complied. Over 80 percent

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<sup>1</sup> The CACFP reimburses providers for only three of these four eating occasions per child per day. However, at virtually all meals and almost 90 percent of snacks at least one child is present whose meal is eligible for reimbursement.

<sup>2</sup> The 1999 study includes only Tier 2 providers, while the 1995 study was representative of all CACFP family child care providers at the time. To separate the effect of tiering from the effect of the different study populations in 1995 and 1999, the analysis controls for two factors used in assigning tier status: the provider's income and the proportion of children in the provider's census block group who live in low-income households.

of suppers and evening snacks did so. Compliance rates were generally not significantly different for Tier 2 meals in 1999 than for meals offered by providers in 1995, controlling for tier-related characteristics. The exception was the compliance rate for the morning snack, which was significantly higher in 1999.

## Variety of Foods Served

CACFP meals seldom offer more than a single food item within a meal component (except that lunches, as required by program regulations, nearly always include two foods within the fruit-vegetable-juice category). Substantial variety occurs across days of the week, however. The average Tier 2 provider's weekly lunch menu, for example, features nine different fruits or vegetables, five different meats or meat alternates, and three different bread or bread alternates.

Most measures of variety show little difference between Tier 2 providers in 1999 and similar providers in 1995. Nonetheless, a few small but statistically significant differences in the particular meal components offered could represent menu adjustments made in an effort to control costs. Tier 2 providers less frequently offered meat and meat alternates at breakfast, and smaller proportions of snacks included more than a single kind of fruit, vegetable, or juice. These differences may reflect responses to the lower Tier 2 reimbursement rates, although that interpretation cannot be proven. In any event, the differences in the overall menu pattern are quite small and do not appear to have created any substantial reductions or improvements in the nutritional benefits of the CACFP.

## Food and Nutrient Composition of Meals Offered

CACFP regulations do not establish nutrient-based standards for meals or snacks. The required meal components, however, are aimed at contributing substantively to children's major nutritional needs. The nutrients and food components examined in this study were selected on the basis of previous CACFP research, priorities established for the National School Lunch and School Breakfast Programs, and national nutrition guidance. We examine nutrient quantities as a percent of the *Recommended Dietary Allowances* (RDAs) for food energy and five key nutrients: protein, vitamin A, vitamin C, calcium, and iron. Useful benchmarks for these nutrient measures come from the school-based programs, which call for breakfast to provide at least one-fourth of the RDA, and for lunch to provide at least one-third of the RDA. We compare the total fat and saturated fat content of the meals with the current *Dietary Guidelines for Americans* goals of no more than 30 percent of food energy from total fat and less than 10 percent of energy from saturated fat. The study also examines the percent of energy from carbohydrate and the total amounts of sodium and cholesterol in the meals. Benchmarks for these measures of nutritional quality come from the National Research Council's *Diet and Health* report. Recommendations are for at least 55 percent of total food energy from carbohydrate, no more than 2,400 milligrams (mg.) of sodium per day, and no more than 300 mg. of cholesterol per day.

The analyses summarized below assess the nutrients supplied by breakfasts, lunches, morning snacks, and afternoon snacks offered to children 1-12 years of age in CACFP homes.<sup>3</sup> They also examine the total nutrient contributions from the two predominant combinations of meals and snacks:

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<sup>3</sup> Benchmarks for fat, saturated fat, carbohydrate, cholesterol, and sodium are applied only to meals offered to children ages 3-12.

breakfast, lunch, and either the morning or afternoon snack; and breakfast, lunch, and both the morning and afternoon snacks. Other meals and combinations occur too seldom to be analyzed.

**Breakfast.** Most Tier 2 providers in 1999 offered breakfasts that supplied at least one-fourth of the RDA for the key nutrient measures; they also were consistent with the *Dietary Guidelines* and National Research Council's (NRC) recommendations for other measures of nutritional quality.<sup>4</sup> There are two exceptions. Food energy was typically provided at less than one-fourth of the RDA. And about half of the providers offered breakfasts with more than 10 percent of energy from saturated fat, while the recommendation is for less than 10 percent.

The breakfasts offered by Tier 2 providers in 1999 differed little in nutrient content from those offered by similar providers in 1995, controlling for provider income and location. The only statistically significant increases seen were in the mean percentage of the RDA and the percentage of providers offering at least one-fourth of the RDA for food energy. Despite somewhat less frequent offerings of meat and meat alternates at breakfast, there was no reduction in the total or saturated fat content, but most providers met the *Dietary Guidelines* recommendation for total fat in both 1999 and 1995.

**Lunch.** Comparisons against the benchmarks for lunch yield mixed results. Large majorities of Tier 2 providers in 1999 offered lunches with at least one-third of the RDA for protein, vitamins A and C, and calcium, and that were consistent with the *Diet and Health* report's recommendation for cholesterol. However, most providers' lunches supplied less than one-third of the RDA for food energy and iron, and most lunches were above the recommended ranges for fat and saturated fat as a percent of food energy and for sodium. Lunches generally fell short of the goal for more than 55 percent of energy from carbohydrate.

The lunches offered by Tier 2 providers in 1999 were more likely to meet the RDA benchmarks for food energy and vitamin C than lunches offered by similar providers in 1995. More Tier 2 menus in 1999 included high sodium condiments (such as ketchup), hot dogs, processed cheese (primarily American cheese), and breaded fried foods (such as chicken nuggets).

**Snacks.** Morning and afternoon snacks were quite similar in terms of the foods commonly offered and their nutrient profile. Both contributed around one-third of the RDA for protein and vitamin C, on average, and 10 to 20 percent of the RDA for food energy and other key nutrients. Although recommendations for the various macronutrients as a percent of food energy are meant to apply to a

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<sup>4</sup> While *Dietary Guidelines* and NRC recommendations are intended to apply to average total daily food intake rather than specific meals, it is common practice in child nutrition research to examine the contributions of particular meals, such as breakfast and lunch, to daily goals. For example, nutrition standards for the National School Lunch Program and School Breakfast Program include the quantitative *Dietary Guidelines* recommendations for fat and saturated fat. And USDA-sponsored research on these programs usually includes comparisons with NRC recommendations for carbohydrate, sodium, and cholesterol.



24-hour period rather than small eating occasions like snacks, the average observed values fall within the daily recommended ranges for all but saturated fat.<sup>5</sup>

Snacks offered by Tier 2 providers in 1999 show several statistically significant differences from those offered by providers in 1995. Some differences reflect larger portions, such as increases in food energy in both morning and afternoon snacks. In the opposite direction, Tier 2 providers in 1999, relative to similar providers in 1995, supplied significantly less vitamin A in afternoon snacks. This reflects reductions in the frequency with which milk and fresh vegetables are offered in the afternoon snack.

***Meal and Snack Combinations.*** Tier 2 providers offering breakfast, lunch, and either morning or afternoon snack provided a nutrient package that includes, on average, more than 100 percent of the RDA for protein, vitamin A, and vitamin C, and more than two-thirds of the RDA for food energy, calcium, and iron. Providers offering the other common combination—breakfast, lunch, and both morning and afternoon snacks—supplied somewhat larger quantities of all nutrients, including more than 100 percent of the RDA for calcium.

Less positively, the average percentage of food energy from saturated fat is about 13 percent for both meal combinations, while average daily recommendations call for less than 10 percent. Total sodium levels also seem high relative to food energy. For the combination of breakfast, lunch, and morning and afternoon snacks, average sodium levels amount to more than 85 percent of the recommended daily limit of 2400 mg.

For the combination of breakfast, lunch, and two snacks, food energy was the only measure significantly higher for Tier 2 providers in 1999 than for similar providers in 1995. The one-snack combination showed no 1995-99 differences for any of the nutrient measures.

## **Nutritional Aspects of Meals Offered by Former CACFP Providers**

Another question raised as part of the *Family Child Care Homes Legislative Changes Study* concerns the nutrition provided in meals and snacks offered by family child care providers who left the CACFP around the time tiering was implemented, but continued to provide child care. This group is estimated to amount to about 5,500 providers nationwide in 1999. The study examined the frequency with which these providers offer meals and snacks and selected nutritional characteristics of the meals and snacks.

Compared with Tier 2 providers still participating in the CACFP in 1999, the former providers show few differences that could be attributed to participation in the CACFP (or to reimbursement tiering). Former providers were somewhat less likely to offer breakfast and snacks than Tier 2 homes, although it is not clear whether this is related to CACFP participation or to differences in operating hours. The data suggest that while the foods offered by former CACFP providers differ somewhat from Tier 2 providers' offerings, the nutritional quality of the meals is basically the same. Because

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<sup>5</sup> Young children may have limited capacity for food consumption at meals and need to rely on snacks to meet their nutrient requirements. For some children snacks may just contribute to overconsumption. No specific proportions of recommended daily levels of nutrients have been suggested as goals for child nutrition programs serving snacks. The analysis describes the contribution of these eating occasions to total daily nutrient recommendations. It is important to be able to evaluate the potential for CACFP snacks to enhance or detract from the mostly positive nutrient profile based on breakfast and lunch.

the study sample of former providers was quite small (59 providers), the evidence on this group is not as strong as for the rest of the findings in this report and should be interpreted with caution.