

# Compliance with CACFP Requirements and Variety of Foods Offered

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Although Tier 2 providers apparently did not respond to lower meal reimbursement rates by reducing the number of meals they offered, they might take other actions to control their meal costs. One possibility is that they would offer fewer types of food. Because CACFP regulations call for certain classes of food to be offered at each meal, cutting back on the number of foods offered could mean that some meals would fail to meet the meal-pattern requirements. Or, even if they meet the requirements, the meals might offer less variety to the children who receive care in CACFP family child care homes.

The analysis finds no indication that the proportion of meals meeting CACFP meal-pattern requirements was affected by tiering. Compliance rates for Tier 2 meals in 1999 were very high and not statistically different from compliance rates of providers in 1995, controlling for characteristics that determine tier. The analysis also reveals very little difference in the variety of foods offered. Nonetheless, a few differences in the items offered in particular meals could reflect minor menu adjustments by providers interested in controlling costs.

## Compliance with Meal Component Requirements

CACFP regulations pose minimum requirements for the types and amounts of food that must be included in each meal and snack qualifying for reimbursement, as described in the Introduction to this report. The requirements are specified, by CACFP age group, in terms of four meal components: fluid milk; fruits, vegetables, and full-strength juices; bread and bread alternates; and meat and meat alternates.<sup>17</sup> A qualifying lunch or supper must include all four components with two servings from the fruit-vegetable-juice group. Breakfast must include servings of all components except meat or meat alternates (a meat or meat alternate is recommended but not required). Qualifying snacks must include at least two of the four components.

To determine providers' compliance with the requirements, the analysis identified the meal components that were included in each meal. For example, the 542 Tier 2 providers who completed menu surveys in 1999 recorded a total of nearly 2,100 breakfasts. Each of these breakfasts was later coded as complying or not complying with the meal component requirements for the appropriate CACFP age group. (Providers sometimes offered a different breakfast to children of different ages.) A breakfast was considered compliant if the provider offered all three of the required components (milk; a fruit, vegetable, or full-strength juice; and a bread or bread alternate).<sup>18</sup>

The vast majority of meals offered in Tier 2 homes in 1999 complied with the meal component requirements, as shown in Exhibit 6. Over 90 percent of all breakfasts, lunches, and morning and

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<sup>17</sup> Full-strength juice is a fruit or vegetable juice containing 100 percent juice. Bread alternates include whole-grain or enriched pasta, noodle products, and cereal grains, and biscuits, rolls, muffins, cornbread, etc. made with whole-grain or enriched or fortified flour. Meat alternates are defined in the CACFP regulations as poultry, fish, cheese, eggs, dry beans or peas, peanut butter, nuts, seeds, and yogurt.

<sup>18</sup> This analysis does not include a determination of whether the amount offered was in compliance with the requirement. The amount offered was measured in meal observations, which were conducted for only a subsample of providers.

afternoon snacks were found to be in compliance. Supper and evening snack showed compliance rates of over 80 percent.<sup>19</sup> These compliance rates are quite consistent across CACFP age groups, as indicated in Exhibit 6 by the similarity of the pattern for meals offered to children aged 3-5, the largest group served, and the pattern for all age groups served by the provider.

Providers were asked to record all meals and snacks offered to children in their care, regardless of whether or not they submitted a reimbursement claim. Since the CACFP reimburses providers for up to three eating occasions per child per day, theoretically meals or snacks served to children who are in care all day are not all reimbursed. This raises the question of whether some meals and snacks, particularly those served later in the day, should be held to the CACFP meal-pattern standard. To address this issue, analyses were conducted on the subsample of 1999 Tier 2 providers for whom the number of children served each meal and snack (meal observation sample) was known.<sup>20</sup>

**Exhibit 6**  
**Percentage of Meals Complying with CACFP Meal-Pattern Requirements**

	Meals Offered to Children Aged 3-5			All Meals Offered	
	Unweighted sample <sup>a</sup>	Tier 2 1999	Difference 1999-95 <sup>b</sup>	Tier 2 1999	Difference 1999-95 <sup>b</sup>
Breakfast	3,975	97.3%	1.1%	97.3%	2.3%*
Morning snack	2,192	96.5	4.7*	96.8	5.4**
Lunch	4,483	91.9	3.2	91.5	3.4
Afternoon snack	4,148	95.3	-0.4	95.3	-0.1
Supper	746	82.3	4.1	82.3	3.2
Evening snack	158	90.9	1.3	85.5	12.5

<sup>a</sup> Sample for the number of meals offered to 3-5-year-olds, 1999 and 1995 combined.

<sup>b</sup> Regression estimate. See Appendix D.

Significance levels:

\* = .10

\*\* = .05

\*\*\* = .01

<sup>19</sup> Although the numbers of sampled providers offering supper and evening snack are relatively small, these high rates are supported by examination of the 95-percent confidence intervals of the estimates. The lower bounds of the intervals were 70 percent for all evening snacks offered, and 76 to 77 percent for all suppers offered and for suppers and evening snacks offered to 3-5-year-olds.

<sup>20</sup> Some children's meals and snacks were not observed because their parents did not give consent, however this was a very small proportion of the total number of children cared for by providers on the observation days.

The proportion of child meals/snacks served that are reimbursable and the proportion of provider meals/snacks served that involve one or more reimbursable child meals were estimated. The assumptions involved were (1) providers always claim reimbursement for the maximum number of eligible meals and snacks for all children in care, and (2) when children are in care for more than three meals/snacks, the meals or snacks reimbursed are those where the reimbursement rate is the highest (e.g., lunch/supper rates are higher than breakfast rates, and breakfast rates are higher than snack rates). Since it was not possible to know which of the three possible snacks were likely to be claimed for reimbursement, morning, afternoon, and evening snacks were pooled.

The analysis suggests that providers should be aiming to meet the CACFP meal-pattern requirements at all meals and snacks offered. It is relatively rare that providers would be serving a meal or snack for which they do not receive any reimbursement. Virtually all breakfasts, lunches, and suppers served to children by Tier 2 providers were reimbursable, as indicated in Exhibit 7.<sup>21</sup> A surprisingly large proportion of snacks (83 percent) were also reimbursable. On average, all breakfasts, lunches, and suppers and nearly 90 percent of snacks are served to at least one child whose meal/snack would have been reimbursable. While it is possible the assumption that providers always claim every eligible meal they serve may be incorrect, it seems likely that this would be common practice.

The analysis provides no evidence that lower reimbursement rates made Tier 2 providers less likely to offer compliant meals or snacks. Compliance rates are similar to the rates for similar providers in 1995 (Exhibit 6). In fact, the analysis indicates that morning snacks offered by Tier 2 providers in 1999 had a significantly higher compliance rate, for all age groups served by the provider, than those offered by similar providers in 1995. This difference does not appear to be related to changes in the meal-pattern requirements between the two time periods.<sup>22</sup>

**Exhibit 7**  
**Proportion of Tier 2 Meals and Snacks Likely to be Reimbursed**

	Unweighted sample <sup>a</sup>	Proportion of Child Meals Reimbursable	Unweighted sample <sup>a</sup>	Proportion of Provider Meals Reimbursable
Breakfast	628	97.3%	169	99.6%
Lunch	742	100.0	183	100.0
Supper	69	100.0	21	100.0
All snacks	1,069	82.9	270	89.5

<sup>a</sup> Sample for number of meals offered to all age groups combined (1-2, 3-5, and 6-12-year-olds).

<sup>21</sup> This analysis does not consider compliance with meal-pattern requirements as a criteria for being “reimbursable,” only whether or not the meals and snacks fall within the three-meal/snack-per-day limit for CACFP reimbursement.

<sup>22</sup> See discussion of creditable and noncreditable foods and minimum required portion sizes in 1995 versus 1999 in Appendix C.

## Meal Components Offered

The influence of the CACFP meal-pattern requirements on the composition of meals offered can be seen clearly in Exhibit 8.<sup>23</sup> Nearly all meals include at least one food item from each of the required meal components at breakfast and lunch. At lunch, where two items from the fruit-vegetable-juice category are required, nearly all meals meet this requirement. Providers may offer any two of the four components at snacks, and the proportion of snacks including each component ranges from 83-90 percent for bread and bread alternates to 21-27 percent for meat and meat alternates. Meat and meat alternates are not required at breakfast and are comparatively rare, appearing in just 11 percent of breakfasts.

Tier 2 meals in 1999 included largely the same meal components as those offered by similar providers in 1995, but a few statistically significant differences exist. Somewhat fewer afternoon snacks in 1999 included meat or meat alternates, and somewhat more breakfasts and snacks contained bread or bread alternates. For both of these meals, fewer Tier 2 providers offered any meat or meat alternates over the course of a week than similar providers in 1995.

These effects, though not large, could conceivably reflect a response to tiering. Some providers may have attempted to control costs by cutting back on meats and meat alternates (e.g., sausage, cheese, eggs, peanut butter) at breakfast, since these are not required by the CACFP meal pattern. Similarly, some providers may have substituted bread and bread alternates at snack for the potentially more expensive meat and meat alternates.

The 1999-95 differences in meal components offered at breakfast and afternoon snack may also reflect general trends in the American diet, regardless of tiering. Unfortunately, there are no national data yet available on children's diets in 1995 and 1999. Although U.S. dietary guidance places greater emphasis on grains and less on meat (e.g., Food Guide Pyramid, *Dietary Guidelines for Americans*), these messages did not change between 1995 and 1999.

## Variety of Foods Offered

Because the CACFP meal-pattern requirements are designed to ensure adequate nutrition, the high compliance rates indicate that CACFP providers were offering children a good mix of the major classes of foods. Although CACFP regulations pose no further requirements for variety, providers may offer multiple items within a particular component category and are encouraged to vary the menus for particular components over the course of the week.

Relatively few providers offer more than a single food item within a given meal component, except to meet the requirement for two fruits or vegetables at lunch (Exhibit 8). The greatest amount of variety within particular meal components occurs at lunch, when, for each component, about a fifth of all meals include more than one item (and more than two for fruits and vegetables). In addition, 11 percent of breakfasts and 5-7 percent of snacks include more than one item in the fruit-vegetable-juice group. Practically no meals include more than a single type of milk, so these data are not shown for this meal component.

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<sup>23</sup> Supper and evening snack are omitted from this analysis. Because only a small proportion of providers offer them, the sample sizes are small.

**Exhibit 8**  
**Frequency with which Major Meal Components Are Offered and Variety Within Meal Components**

	Meals Offered to Children Aged 3-5			
	Breakfast		Lunch	
	Tier 2 1999	Difference 1999-95 <sup>a</sup>	Tier 2 1999	Difference 1999-95 <sup>a</sup>
<b>Milk</b>				
% of meals with milk offered	98.9%	0.1%	98.9%	2.1%
<b>Fruit, Vegetables, or Juice</b>				
% of meals with at least 1 offered <sup>b</sup>	98.4	0.1	94.6	1.2
% with more than 1 offered <sup>b</sup>	10.6	1.8	19.8	-0.7
% of providers offering any in week <sup>b</sup>	100.0	0.0	100.0	0.0
<i>Mean different items offered in week (if at least 1)<sup>b</sup></i>	3.8	0.0	8.6	-0.1
<b>Bread and Bread Alternates</b>				
% of meals with at least 1 offered	100.0	1.2***	98.4	0.5
% with more than 1 offered	10.9	-2.0	21.4	2.2
% of providers offering any in week	100.0	0.0	100.0	0.0
<i>Mean different items offered in week (if at least 1)</i>	3.4	0.0	3.2	0.1
<b>Meat and Meat Alternates</b>				
% of meals with at least 1 offered	10.5	-4.4*	99.3	-0.3
% with more than 1 offered	1.1	0.3	20.9	2.7
% of providers offering any in week	34.2	-13.4**	100.0	0.0
<i>Mean different items offered in week (if at least 1)</i>	1.3	0.0	5.0	0.1
Unweighted sample	180-2,093	370-3,975	483-2,305	919-4,483

<sup>a</sup> Regression estimate. See Appendix D.

<sup>b</sup> For lunch, read "at least 2" or "more than 2." The minimum requirement at lunch is two fruits or vegetables.

Significance levels:

\* = .10

\*\* = .05

\*\*\* = .01

continued...

**Exhibit 8 (continued)**  
**Frequency with which Major Meal Components Are Offered and Variety Within Meal Components**

	Snacks Offered to Children Aged 3-5			
	Morning Snack		Afternoon Snack	
	Tier 2 1999	Difference 1999-95 <sup>a</sup>	Tier 2 1999	Difference 1999-95 <sup>a</sup>
<b>Milk</b>				
% of meals with milk offered	48.9%	8.2%	44.9%	-4.2%
<b>Fruit, Vegetables, or Juice</b>				
% of meals with at least 1 offered <sup>b</sup>	64.3	-9.3	65.4	-1.2
% with more than 1 offered <sup>b</sup>	4.5	-4.2**	6.5	-3.5**
% of providers offering any in week <sup>b</sup>	94.5	-4.0*	96.5	1.2
<i>Mean different items offered in week (if at least 1)<sup>b</sup></i>	2.7	-0.2	2.6	-0.3**
<b>Bread and Bread Alternates</b>				
% of meals with at least 1 offered	83.1	4.0	83.9	7.0***
% with more than 1 offered	0.3	-0.5	1.1	0.3
% of providers offering any in week	96.9	-0.7	99.3	-0.2
<i>Mean different items offered in week (if at least 1)</i>	2.6	0.3*	2.6	0.2
<b>Meat and Meat Alternates</b>				
% of meals with at least 1 offered	21.1	-4.6	27.0	-7.2***
% with more than 1 offered	1.1	1.1*	1.8	0.6
% of providers offering any in week	59.9	-9.9	71.2	-9.2**
<i>Mean different items offered in week (if at least 1)</i>	1.4	0.0	1.7	0.0
Unweighted sample	153-1,158	302-2,192	331-2,153	650-4,148

<sup>a</sup> Regression estimate. See Appendix D.

<sup>b</sup> For lunch, read "at least 2" or "more than 2." The minimum requirement at lunch is two fruits or vegetables.

Significance levels:

\* = .10

\*\* = .05

\*\*\* = .01

CACFP meals do offer substantial variety over the week, however. A week of lunch menus, for example, features an average of nine different foods in the fruit-vegetable-juice category, five different meats or meat alternates, and three different breads or bread alternates. The weekly breakfast menu includes four different fruit-vegetable-juice items and three different breads or bread alternates. Snacks average three different items in two components: fruit-vegetable-juice and bread or bread alternate.

The variety in menus offered by 1999 Tier 2 providers differs little from that offered by similar providers in 1995. The weekly number of different items within a meal component category shows only one significant difference—a small reduction in the average number of different fruit-vegetable-juice items offered at afternoon snack. No significant differences were found in the number of items per component at breakfast or lunch, nor for bread and bread alternates or meat and meat alternates at snacks. However, the proportion of morning and afternoon snacks including more than a single fruit, vegetable, or juice (likely an extra serving over and above the CACFP requirement) was somewhat lower for Tier 2 providers in 1999 than for similar providers in 1995. Again the difference is small but consistent with the hypothesis that some Tier 2 providers may have adjusted their menus in an effort to control costs.