

## **FNS RESEARCH CORNER SUMMARY OF RESEARCH**

*Please note that this study was published before the implementation of Healthy, Hunger-Free Kids Act of 2010, which went into effect during the 2012-13 school year, and its provision for Smart Snacks Nutrition Standards for Competitive Food in Schools, implemented during the 2014-15 school year. As such, certain research may not be relevant today.*

The FNS Research Corner provides a continuing series of summaries of recently completed and current research conducted by the U.S. Department of Agriculture's Food and Nutrition Service (FNS) in the area of child nutrition. For further information, contact the Office of Research and Analysis (ORA) at (703) 305-2117. Links to published studies and reports as well as descriptions of ongoing studies conducted by ORA are available from the FNS Internet web site at <http://www.fns.usda.gov/oane/>.

### **RECENTLY COMPLETED RESEARCH**

#### **Child and Adult Care Food Program: Aligning Dietary Guidance for All**

FNS commissioned the Institute of Medicine (IOM) to convene a panel of experts to undertake a study to review and recommend revisions to the meal pattern requirements for the Child and Adult Care Food Program (CACFP). The major objective was to develop practical recommendations that would bring CACFP meals and snacks into alignment with current dietary guidance. The panel was asked to review and assess the nutritional needs of the target populations based on the Dietary Guidelines for Americans and the Dietary Reference Intakes (DRIs) and use that review as a basis for recommended revisions to the meal requirements for CACFP. The committee's goal was to develop well-conceived, practical, and economical recommendations that reflect current nutritional science; improve the content of key food groups in the meals provided, as appropriate; while limiting foods of low nutritional value; and enhance the ability of the program to effectively meet the nutritional needs of the children and adults served.

Considering the broad scope of CACFP, the committee took a broad view of its assignment by developing meal requirements that could be used for specific meals and across a full day, that covered all age groups from infants through older adults, and that could be implemented both by providers in family homes and those in large centers. The recommended meal requirements that are described in this report provide a framework that can be extended beyond CACFP and used to design and implement other food and nutrition recommendations in a variety of settings and programs as the need arises.

The committee concluded that the new recommended meal requirements (meal patterns and food specification standards) will result in menus that are more closely aligned with the Dietary Guidelines for Americans and the DRIs than are the menus based on the current regulations. Notably, the recommended meal requirements may increase the consumption of fruits, vegetables, whole grain-rich foods, and lean meats, while decreasing the intake of solid fats, added sugars, and sodium. Most providers will need considerable technical assistance in order to implement the recommended meal requirements without undue difficulty.

**Note: This is a report of the National Academies' Institute of Medicine (IOM), Food and Nutrition Board, which was commissioned by the USDA Food and Nutrition Service. It is available on the FNS**

**website by permission. It may also be obtained through the Institute of Medicine website. This is the republication version of the report.**

**Direct Certification in the National School Lunch Program -- State Progress in Implementation:** This report responds to a legislative requirement of Public Law 110-246 to assess the effectiveness of State and local efforts to conduct direct certification of children for free school meals. Under direct certification, children are determined eligible for free meals without the need for household applications by using data from other means-tested programs. The 2004 Child Nutrition and WIC Reauthorization Act required local educational agencies (LEAs) to establish a system of direct certification of children from households that receive Supplemental Nutrition Assistance Program (SNAP - formally Food Stamp Program) benefits. The mandate was phased in over three years with the largest LEAs required to establish direct certification systems for School Year (SY) 2006/07. All LEAs were required to begin directly certifying SNAP participant children by SY 2008/09. This report presents information on the outcomes of direct certification for SY 2009/10.

In SY 2009/10, 83 percent of LEAs directly certified participating SNAP students. These LEAs enroll 97 percent of all students in schools participating in the National School Lunch Program. States and LEAs directly certified more than 8 million students during SY 2009/10. This was an increase of 24 percent (1.6 million) over the number of directly certified students a year earlier, driven in part by a historic increase in SNAP participation. The percentage of SNAP participating children certified for free school meals without application increased slightly from 71 percent in SY 2009/09 to 72 percent in SY 2009/10.

States and LEAs continue to find success with different direct certification models. States with the most effective or most improved direct certification systems for SY 2009–2010 include ones that operate centralized matching systems, district-level systems, and the letter method. States and LEAs are making investments in their direct certification systems that promise improved performance in the coming years. These include mandating or facilitating computer matching of student enrollment and SNAP participation lists more frequently than once per year and providing LEAs with web-based lookup systems that allow real-time direct certification of individual students. Finally, SY 2009–2010 was the first year that categorical eligibility was extended to all children in a household if any child in the household received benefits under the SNAP, TANF, or FDPIR Programs. LEA implementation of that policy may prompt some changes to current direct certification procedures, and may impact direct certification and free certification rates in coming years.

### **Developing and Evaluating Methods for Using American Community Survey Data to Support the School Meals Programs: Interim Report**

FNS has commissioned the Committee on National Statistics (CNSTAT) of the National Academies to convene an expert panel to study the technical and operational issues that arise in using data from the American Community Survey (ACS) – a new continuous survey replacing the long-form survey of the decennial census—to obtain estimates of students who are eligible for free or reduced-price meals for schools and school districts. Such estimates would be used to develop “claiming percentages” that, if sufficiently accurate, would determine federal reimbursements to districts for the schools that provide free meals to all students under a new special provision that eliminates the base-year requirements of current provisions.

This interim report presents in detail, the panel’s technical approach to conducting the study. To develop methods for deriving eligibility estimates for the school meals programs, the panel will assess which combination of ACS variables most closely reflects the eligibility criteria of the program, working with the U.S. Census Bureau to obtain ACS estimates for school districts. To improve the precision of ACS estimates, which are likely to have large sampling errors for individual schools and even many school districts, the panel will investigate the use of small-domain estimation methods based on extensions of the methods used in the Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) Program. The panel will also determine how to use the ACS-based eligibility estimates and other data to derive claiming percentages for reimbursement that reflect the patterns of student participation and the meals that would be served under a new provision with universal free meals.

In addition, the panel will conduct case studies of five school districts. These school districts will provide digitized attendance-area boundaries and detailed information on program operations of their schools. The panel will evaluate the accuracy of the boundaries and develop estimation methods that can be applied to a single school district. The panel will evaluate the quality of estimates for school districts and schools in terms of sampling error, model bias, timeliness, and other properties that affect their fitness for use in determining reimbursements to school districts. The evaluation will compare potential errors under a new special provision with error under current procedures for operating school meals. Using data from the case studies, the panel will describe the conditions that would render a new special provision more or less attractive to school districts. Finally, the panel will consider the operational feasibility of estimation methods and identify the administrative agreements and procedures needed to ensure that the recommended methods can be implemented in practice.

A final report, expected to be released in late 2011, will present findings from empirical analyses, including results from case studies of five school districts, and the panel's recommendations for estimation methods.

**Note: This is a report of the National Academies' National Research Council, Committee on National Statistics (CNSTAT), which was commissioned by the USDA Food and Nutrition Service. It is available on the FNS website by permission. It may also be obtained through the National Research Council's website.**

#### **Regional Office Review of Applications (RORA) for School Meals 2008**

This is the fifth in a series of annual reports that examines administrative error incurred during the local educational agencies' (LEAs) approval process of applications for free and reduced-price school meals. It does not examine the accuracy of household reporting of information on the applications or errors made in counting and claiming.

School districts were stratified into 28 strata defined by seven FNS regions and four size categories within each region. A total of 2,632 applications from SY 2008/09 were selected for review. The LEA's determination of household size, total gross income, and certification status (free, reduced-price, paid) for the selected students was recorded. FNS Headquarter staff reviewed each application and made an independent assessment of household size, total gross monthly income, and certification status, based on the information on the applications. FNS' independent assessments were compared to the LEA's determinations.

About 98 percent of students submitting applications for meal benefits in SY 08/09 were certified for the correct level of meal benefits, based on information provided on the application. The percent of all students with administrative errors in the processing of their application for meal benefits dropped significantly in SY 2008/09 compared to the previous 4-year period, when administrative errors ranged between 3 and 4 percent. In SY 2008/09 LEA eligibility determinations were incorrect for 2.0 percent of students approved or denied based on information on the application. Of these students approved incorrectly, about two-thirds (64 percent) were certified for more benefits than were justified based on the documentation available. About one-third of over-certifications resulted from approval of incomplete applications.

## **RESEARCH IN PROGRESS**

The following section provides a brief description of some on-going FNS research and the current status of these studies:

**School Nutrition Dietary Assessment IV (SNDA-IV):** This study provides up-to-date information on the school meal programs, the school environment that affects the programs, and the nutrient content of meals. FNS conducts a similar study about every five years to measure the progress schools are making toward meeting school meal nutrient standards. The last School Nutrition Dietary Assessment Study (SNDA-III) was conducted in School Year 2004/05. Data for this study, collected in SY 2009/10, will enable FNS to measure the nutritional content and quality of meals offered to students and selected by students in the school meals programs. Unlike SNDA-III, this study does not include the collection of student dietary intake data that would allow for the

examination of the contribution of school meals to students' overall diets. A final report anticipated in late 2011.

**School Food Purchase Study III:** The 2008 Farm Bill requires the Secretary to carry out a nationally representative survey of the foods purchased by school food authorities participating in the National School Lunch Program (NSLP). This study will provide national estimates of the type, volume, and dollar value of food acquired by public school districts participating in NSLP. Unlike the previous two school food purchase studies, it will include school districts from Alaska, Hawaii, and Puerto Rico. The study will examine shifts in the type and mix of foods acquired compared to the previous school food purchase study (SY 1996/97). The importance of USDA commodity donations as a primary source of certain food items will be examined. School district food purchase practices will be described and their relationship to food costs will be analyzed. In addition, the food purchase data will be linked to USDA's nutrient databases to examine the food energy, nutrient, and MyPyramid equivalent availability of the mix of foods acquired by school districts. Data were collected during the 2009/10 school year. A final report is anticipated in late 2011.

**Fresh Fruit and Vegetable Program (FFVP) Evaluation:** The 2008 Farm Bill also provides for expansion of the Fresh Fruit and Vegetable Program and requires an evaluation including a determination as to whether children (a) experienced, as a result of participating in the program, increased consumption of fruits and vegetables and (b) made other dietary changes, such as decreased consumption of less nutritious foods. The study will include a process evaluation that examines what fresh fruits and vegetables are being offered students and how school districts are implementing the FFVP. Data collection is occurring in SY 2010/11. An interim report will be provided to Congress in September 2011. A final report is anticipated in 2012.

**Special Nutrition Program Operations Study:** This study will collect information needed to address current policy issues related to the Special Nutrition Programs. The study is designed to collect data from a nationally representative sample of about 1,500 school food authorities (SFAs) and all Child Nutrition State Agencies. Data collection for the base year will occur in School Year 2011-12 with optional data collection from the same sample of SFAs to occur the following two school years. This ongoing survey capability is intended to reduce FNS' information collection costs and reduce the length of time necessary to obtain required data and thus provide information in a timelier manner. The surveys will provide a cross-sectional "snapshot" of program characteristics, as well as longitudinal estimates of year-to-year changes in operations. The study will provide general descriptive information on the characteristics of the school-based Child Nutrition Programs necessary for the preparation of program budgets, data on various aspects of the program administration to inform program policy and regulations, as well as data to identify areas in need of technical assistance and training.

**Summer Food for Children Demonstrations:**

Food insecurity continues to be a problem in summer months when school is out and free and reduced-priced school meals are not available to many low-income children. USDA has created the Summer Food for Children demonstrations which will explore and test a number of alternatives to the existing Summer Food Service Program (SFSP) over the next several summers. Rigorous evaluations are planned for each demonstration alternative.

*Strengthened SFSP Demonstrations* will test changes to the existing structure and delivery mechanism of SFSP to determine if they lead to increased participation.

- Two initial demonstrations – a project in Arkansas that provides incentives to extend the duration of SFSP operations, and a project in Mississippi that enhances the program with funding for enrichment activities, began in Summer 2010.
- Two additional demonstrations, testing meal delivery in rural areas, and "backpack" food packages for consumption over weekends, will begin in Summer 2011.

USDA is also exploring *Household-Based Alternative Demonstrations* which will provide summer food benefits using Supplemental Nutrition Assistance Program (SNAP) and WIC electronic benefit transfer (EBT) technology as the delivery mechanism, to give low-income families with children more resources to use at food stores during the summer.

- Small-scale "proof-of-concept" demonstrations of EBT-based approaches will begin Summer 2011.

- Expanded operations of successful first-year models, including additional test sites and variation in operational parameters such as the value of benefits provided, will begin Summer 2012.
- USDA will also examine the feasibility and potential benefits of using cards similar to store “gift cards” to provide more purchasing power to these families, to determine if a proof-of-concept demonstration of that approach would be worthwhile.

**High Risk Indicators of Certification Error in the NSLP:** Given the results of the recent study examining erroneous payments in the National School Lunch and School Breakfast Programs (APEC Study), there is significant interest in identifying characteristics of school districts that have a higher probability of making certification errors. Exploration of various data sets including APEC, Regional Office Review of Applications (RORA), and the Verification Summary Report data will be used to develop high risk indicators of certification error. A final report is anticipated in late 2010.

**Nutrient and MyPyramid Analysis of USDA Foods in the NSLP, CACFP, CSFP, TEFAP, and FDPIR:** This study examines the nutrient content of USDA foods provided to States implementing USDA nutrition assistance programs. USDA foods offered, as well as delivered to a reference participant in the select programs were analyzed and compared with four dietary standards: Dietary Reference Intake, USDA’s Thrifty Food Plan, *Dietary Guidelines for Americans 2010*, and the Healthy Eating Index 2005.

**Healthy, Hunger-Free Kids Act of 2010 Studies:** The recently passed Child Nutrition Reauthorization legislation includes a number of studies and evaluations. Some of these studies are funded, while others are subject to appropriations or have no funds provided. There are three studies that are funded with current year funds:

- *Study of Direct Certification for Children Receiving Medicaid Benefits:* Section 103 requires demonstrations of direct certification for households receiving medical assistance under the Medicaid program beginning in School Year 2012/13 in selected LEAs nationwide. The evaluation will look at the effectiveness of direct certification with Medicaid to identify children eligible for free meals that are not currently being certified for free meals through direct certification through SNAP or through the current application process. An interim report is due to Congress by October 1, 2014.
- *Universal Meal Service in High Poverty Areas:* Section 104(a) provides an alternative to household applications for free and reduced-price meals in high poverty LEAs and schools, referred to as the Community Eligibility option. For those eligible LEAs and schools, reimbursements are based on claiming percentages derived from the percent of students directly certified. The evaluation will examine both eligible LEAs and schools that elect the special assistance payments and those that do not. The evaluation will examine the impact of electing to receive special assistance payments on program integrity, availability and type of breakfast program, nutritional quality of school meals, and program participation. A report is due to Congress by December 31, 2013.
- *NSLP Indirect Cost Study:* Section 307 requires a study to assess the extent to which school food authorities (SFAs) participating in the National School Lunch Program (NSLP) and School Breakfast Program (SBP) pay indirect costs, including assessments of the methodologies used to establish indirect costs, the types and amounts of indirect costs that are charged and not charged to the school food service account, and the types and amounts of indirect costs recovered by school districts. As school district budgets have tightened, some school nutrition programs have experienced escalating indirect charges which may affect the effectiveness of the federal child nutrition programs. This study is intended to determine whether the indirect costs charged and/or recovered are consistent with requirements for the allocation of costs to the school food service operation. A report is due to Congress by October 1, 2013.