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## Research and Evaluation Activities in USDA

### From the Economic Research Service

#### Food Assistance and Nutrition Research Small Grants Program

#### Executive Summaries of 1998 Research Grants

Food assistance programs—Food Stamps, the Special Supplemental Nutrition Program for Women, Infants and Children (WIC), the school meals programs, and others—have been a major component of public assistance to the poor since their origins in the 1930's. Food assistance and nutrition assistance have become increasingly important to the social safety net as a result of welfare reform. To stimulate new research on these programs and to broaden the participation of social science scholars in food and nutrition assistance research, the USDA Economic Research Service (ERS) partnered with five academic institutions and research institutes in 1998 to establish the Small Grants Program for Food and Nutrition Assistance Research. ERS and the partner institutions competitively award small grants for 1-year research projects. What follows is a summary compilation of the research findings related to children from the first set of small grants awarded in the summer and fall of 1998. For a listing of all projects funded and research findings to date, see [www.ers.usda.gov](http://www.ers.usda.gov).

#### *Nativity, Recency of Migration, and Legal Status Effects on Food Expenditures and Child Well-being*

Shawn Malia Kanaiaupuni, Department of Sociology, University of Wisconsin and Katharine M. Donato, Department of Sociology, Louisiana State University

Recent years have witnessed growing debate about the integration prospects of U.S. immigrants. Widespread attention has focused on the costs of immigration, especially in cities that suffered from a deep recession in the late 1980's. Since then, public concern about immigrants in the U.S. economy has led to welfare reform that limited public assistance to legal immigrants. Some studies reported that immigrants imposed costs to U.S. taxpayers through their use of educational and welfare services. Steady growth in undocumented migration has accompanied these changes. By the end of the 1980's, estimates suggested a gross inflow of 3.8 million people from Mexico alone, which represented a substantial increase from the estimated 99,000 people two decades earlier.

Research has accumulated considerable evidence about the challenges that confront individuals with uncertain legal status in the United States. Undocumented households tend to be poor, often living below established poverty thresholds. Like other immigrants, those without documents are especially likely to be medically underserved, uninsured, and relying on emergency medical care, all of which increase the risks of preventable death. Many are ineligible or afraid to use public service programs designed to help poor families. Yet to date, primarily because of data limita-

tions, we know little about the effects of undocumented legal status on social behavior and outcomes.

Kanaiaupuni and Donato address this question with new data from a longitudinal, bi-national project (Health and Migration Survey) that surveys households in Mexico and in the United States. The data from this report come from a total of 262 households randomly chosen in two neighborhoods, one in Houston and the other just north of San Diego. They use these data to examine the health effects of legal status, nativity, and recency of migration. Because children are often the ones who suffer the most in non-legal households—they are burdened with the fears and abilities of their parents in addition to overt hostility and discrimination from U.S. residents and institutions—the authors examine the effects of household legal status on child health and food security.

Kanaiaupuni and Donato use multivariate analysis to predict household food expenditures, breastfeeding behavior, current illness, and overall health status of 232 children under age 7 in their sample, all but 40 of whom are U.S. citizens. Their findings provide further evidence of the costs of illegal status for immigrants and their children: children are much better off if both parents have legal documents—having more food, more income, and consequently, better health status. Children with at least one undocumented parent suffer significant health costs. Their chances of poor health are between three and eight times higher than those of children with legal parents. Results also suggest that the advantages conferred by legal status are insensitive

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to time; net of legal status, children of recent immigrants are no healthier than those whose parents have lengthier U.S. exposure. The authors anticipate future research that will explore the mechanisms that contribute to these results. To date, their findings suggest that children living in undocumented households would benefit from targeted public health, food assistance, and nutrition policies.

***Effects of Participation in Food Assistance Programs on Children's Health and Development: Evidence From NLSY Children***

*Lori Kowaleski-Jones, Department of Family and Consumer Studies, University of Utah and Greg J. Duncan, Institute for Policy Research, Northwestern University*

Established in 1972, the goal of the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) has been to increase the nutrition level and general well-being of children. The WIC program is currently one of the fastest growing Federal assistance programs. Program expenditures for WIC have almost tripled in the past two decades, from \$1.3 billion in 1980 to \$3.7 billion in 1997. Part of the popularity of WIC has been because it is one of the most directly targeted and interventionist of the Federal welfare programs. Evaluations of this program testify to its value in reducing infant mortality, rates of low-birth weight, and early childhood anemia. However, many WIC program evaluations were conducted before 1990, and though of high quality, many either relied on data from a single State or compared results across selected States. More current research is needed to examine the potential benefits of WIC participation among a nationally repre-

sentative sample of women and their children.

Much of the previous work on the effects of WIC has focused on infant birth weight, nutrient intakes, presence of anemia, and propensity of mothers to breastfeed their infants. Because of data limitations, fewer studies have estimated the potential effects of WIC participation on developmental infant measures, such as motor and social functioning and temperament. This is unfortunate because developmental outcomes are important predictors of later childhood social and behavioral development.

This study investigates the effects of WIC participation on birth weight, motor and social skills, and temperament for a national sample of children born between 1990 and 1996 to women from the National Longitudinal Survey of Youth. The authors use sibling fixed-effect models to account for potential unmeasured heterogeneity among the mothers of children in this sample. Ordinary Least Square and fixed-effect regression results confirm the positive effect of prenatal WIC participation on infant birth weight found in other studies. Fixed-effect estimates also suggest that prenatal WIC participation is associated with lower scores on measures of difficult temperament.

***Patterns of Food Stamp and WIC Participation and Their Effects on the Health of Low-Income Children***

*Bon Joo Lee, Lucy Mackey-Bilaver, and Robert M. Goerge, Chapin Hall Center for Children, University of Chicago*

The primary purposes of this study are to examine (1) patterns of participation in the Food Stamp Program (FSP) and the Special Supplemental Nutrition Program for Women, Infants, and

Children (WIC) during the time of welfare reform in Illinois; and (2) the effects of WIC on young children's health outcomes. The authors use a unique linked data set based on population-level administrative data on all births, food stamp and WIC participation, and Medicaid eligibility and claims in Illinois between 1990 and 1998.

Lee et al. estimate that about 65 percent of all children born in Illinois during the study period received some combination of WIC, food stamps, and Aid to Families With Dependent Children/ Temporary Assistance for Needy Families (AFDC/ TANF) by age 5. While this overall program participation rate changed very little across birth cohorts, the authors found a considerable shift in participation patterns across the three programs. As welfare reform was implemented in Illinois, both FSP and AFDC/TANF participation rates declined substantially while WIC participation rates continued to increase. Further, most of the decrease in food stamp participation was due to drops in entries to TANF.

The authors found some evidence to suggest that in recent years, families with young children are turning more to WIC to provide essential food items for their young children. They also found that spells of service receipt for both food stamps and WIC have become shorter in recent years, although shorter spells are more noticeable in the Food Stamp Program than in WIC.

Two findings relate to the effects of WIC on health services and outcomes in this study. Lee et al. show first that children receiving WIC are more likely to receive preventive health care services through the Early Periodic Screening, Diagnosis and Treatment program (required of State Medicaid programs through Title XIX

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of the Social Security Act) than are those not receiving WIC. Second, among children enrolled in Medicaid, WIC participants are significantly less likely to be diagnosed with health problems associated with inadequate nutrition than are nonparticipants.

***The Consequences of Food Insecurity for Child Well-Being: An Analysis of Children's School Achievement, Psychological Well-Being, and Health***  
Lori Reid, Department of Sociology,  
Florida State University

The effect of food insecurity on child well-being has been the subject of much research in developing countries. With a few exceptions, research on food insecurity in the United States has focused on examining the causes of food insecurity, potential solutions, and more recently, on assessing the incidence of food insecurity. Very little research has attempted to analyze the effect of food insecurity on child well-being in the United States. Reid uses the 1997 Child Development Supplement to the Panel Study of Income Dynamics to examine the effects of food insecurity on the school achievement, psychological well-being, and health of children.

The analyses provide evidence that food insecurity affects a child's school achievement and psychological well-being. They do not support a hypothesized negative influence of food insecurity on child health. Reid used children's assessment scores for the letter-word, application, passage comprehension, and calculation subtests of the Woodcock Johnson test as measures for school achievement. She found that food insecurity negatively affects children's scores on the letter-word, passage comprehension, and calculation subtests.

Similarly, using indices of external and internal behavior problems as measures of psychological well-being, her results show food insecurity increases the numbers of both external and internal behavior problems that children exhibit. However, Reid finds no effect of food insecurity on child health when measured by height-for-age and weight-for-age, indicators often used in developing country studies.

***Influence of Food Stamps on the Nutritional Status of Inner-City Preschoolers From Hartford, CT, Who Receive WIC Benefits***

Rafael Perez-Escamilla, Ann M. Ferris, and Linda Drake, Department of Nutritional Sciences, University of Connecticut and Lauren Haldeman, Jessica Peranick, Marcia Campbell, Donna Morgan, Yu-Kuei Peng, Georgine Burke, and Bruce A. Bernstein, Hispanic Health Council, Inc., Hartford Hospital, Connecticut Children's Medical Center and St. Francis Hospital

Perez-Escamilla et al. compare the food and nutrition situations of low-income preschoolers who received food stamps with those who did not. The 100 children participating in the study were recruited in the waiting areas of the two largest hospitals in Hartford. The average age of the sampled children was 2.6 years. Fifty percent were female, and 84 percent were Hispanic. According to their caretakers, all had been enrolled in WIC at some point in the preceding year, and 95 percent were receiving WIC benefits at the time of the study. Groups were comparable in demographic characteristics, but the socioeconomic status of the food stamp group was lower than that of the group that did not receive food stamps.

Perez-Escamilla et al. report that among the food stamp group in their sample, the average monthly food stamp allotment of \$260 represented 96 percent of monthly food expenditures. Seventy-four percent of the households were food insecure as measured by the Radimer/Cornell hunger scale. Among those with monthly household incomes of less than \$1,000, food stamp caretakers tended to be more food secure than non-food stamp caretakers (77.8 vs. 54.5 percent). Logistic regression results indicate that "How long food stamps last each month" was positively associated with food security even after controlling for monthly income, monthly food stamp allotment, household size, maternal education, and vehicle availability. Twenty-four hour recall data indicate that food stamp preschoolers tended to have higher intakes of iron, zinc, and folate than did non-food stamp preschoolers. Among those with monthly household incomes of less than \$1,000, food stamp children had a significantly higher intake of fiber and of riboflavin, niacin, pantothenic acid, B<sub>6</sub>, and D vitamins than did non-food stamp children. Food stamp children also consumed more sodas and had a higher caffeine intake, compared with their counterparts.

The authors draw four conclusions from these results. First, among the very poor, food stamp children live in more food secure households. Second, how long food stamps last is an important determinant of food security. Third, food stamps provide children with higher intakes of essential nutrients. Fourth, they conclude that nutrition education is needed to maximize the nutritional value of foods purchased with food stamps.