Online Appendix for "The Effect of Safety Net Programs on Food Insecurity"

Lucie Schmidt, Lara Shore-Sheppard, and Tara Watson

A. Descriptions of Safety Net Programs

TANF. The Temporary Assistance to Needy Families (TANF) program (formerly Aid to Families with Dependent Children, AFDC) provides cash assistance to very low-income families headed by a single parent or (more rarely) an unemployed parent. The cash assistance program provides a state-set level of benefits, which is reduced as the parent earns other income. This basic structure began to be modified by states in the mid-1990s under waivers of the federal rules aimed at encouraging greater connection to the labor force among recipient parents. The waiver period was followed by the enactment of welfare reform in 1996, which replaced the entitlement program AFDC with TANF, giving states considerably more freedom in designing and implementing their programs. Eligibility for TANF confers automatic eligibility for the Supplemental Nutrition Assistance Program (SNAP), and the design of SNAP offsets to some extent the variation in state maximum benefits. Thus there is less variation in the combined maximum TANF/SNAP benefit across states than there is in the maximum TANF benefit alone, although SNAP benefits do not entirely eliminate differences (Currie 2003).

As described in the paper, despite the extensive literature on the effect of food programs on food sufficiency, there are surprisingly few papers focusing on the marginal impact of cash welfare on food security. Borjas (2004) uses variation induced by state responses to welfare reform and finds evidence of such an effect. Studies of "welfare leavers" following the implementation of TANF show some evidence that families leaving welfare experienced food hardships after exiting (see Acs, Loprest, and Roberts 2001, for a summary). Winship and Jencks

(2004) finds no evidence that welfare reform aggravated food-related problems among single mothers or their children between 1995 and 2002. By focusing on general trends, however, they are largely picking up effects of economic growth and stagnation, rather than on effects of cash assistance per se.

Papers examining the effect of cash assistance on consumption are also informative for our analysis. Meyer and Sullivan (2004) finds improvements in consumption of single mother families relative to comparison families following welfare reform. Gruber (2000) examines how the maximum cash assistance benefit level in a state affects consumption of families where a woman becomes a single mother through divorce. He finds that raising the state maximum benefit level by one dollar raises the level of food and housing consumption by 28 cents.

SSI. The Supplemental Security Income Program (SSI) is a federally funded program that provides income support to disabled individuals with limited financial resources. Though SSI benefits are set at the federal level, a number of states provide additional optional supplements. In 2010, 21 states provided SSI supplements that ranged in maximum dollar amounts from one dollar to $362. The SSI-disabled program has been expanding dramatically over time, with the number of adult recipients growing 89 percent between 1990 and 2010. Some of this increase is likely due to movements of individuals from AFDC/TANF to SSI in the aftermath of welfare reform (General Accounting Office 1997; Wamhoff and Wiseman 2005/2006). Individuals cannot enroll in both TANF and SSI, though many families have members participating in both programs.

There has been very little research examining the effects of SSI on either general well-being or food security, despite evidence that suggests that the disabled have high levels of overall material hardship and food insecurity (She and Livermore 2007; Parish, Rose, and Andrews

2009; Huang, Guo, and Kim 2010). Duggan and Kearney (2007) finds that enrollment of a child on the SSI program increases family income and reduces the likelihood of poverty. Coleman-Jensen and Nord (2013) finds that disability income recipients are more likely to be food insecure than other disabled individuals, but note that this likely reflects differences in the severity of their disabilities. However, Schmidt and Danziger (2012) analyzes a sample of former welfare recipients and find that disability benefit recipients are significantly more likely than unsuccessful applicants to report food insufficiency, even after controlling for detailed health conditions, activity limitations, and individual fixed effects.

EITC. The federal Earned Income Tax Credit (EITC) is a refundable credit administered through the tax system for low-income families with earned income. It has grown rapidly since its creation, from $5.0 billion (2009$) in 1975 to $60.4 billion in 2009 (Tax Policy Center 2012), in part due to a series of expansions to the credit in the 1980s and 1990s (Hotz and Scholz 2003). The EITC differs in several important ways from the other programs considered in this project. First, it is targeted at families with workers. Second, because it is administered through the tax system, most EITC recipients receive their credit in a lump sum in February or March, rather than spread throughout the year. Research that examines how recipients spend their credit focuses on the one-time nature of the cash transfer. Using the Consumer Expenditure Survey, Barrow and McGranahan (2000) finds that EITC-eligible households spend 9 percent more on durable goods in February than do similar households that are not eligible for the credit. Smeeding, Ross Phillips, and O'Connor (2000) surveyed low-income households in Chicago that filed tax returns about their plans for using their EITC. While 75 percent of those receiving credits reported plans to use at least part of their credit for "social mobility" uses, 69 percent

reported that they would use part of their EITC to make ends meet. 23 percent of those receiving credits said they would use part of it on food.

EITC benefits are set at the federal level, but a number of states have their own EITCs (Williams, Johnson, and Shure 2010). The state-level EITCs tend to be a percentage of the federal credit ranging from 3.5 percent to 50 percent in 2010. Five states have enacted new EITCs since 2006, and a number of states have recently increased their EITC subsidies. Neumark and Wascher (2001) finds large effects of state EITCs on income and income-to-needs ratios.

Food Assistance. The Supplemental Nutrition Assistance Program (SNAP, formerly known as the Food Stamp program) is the largest Federal nutrition program. Because eligibility for SNAP is not linked to family structure, it serves an important function as a safety net for disadvantaged individuals who lack access to other programs. SNAP assistance is provided in the form of an electronic benefit transfer card, which can be used to purchase non-prepared food items from stores. The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) is aimed at meeting nutritional need for children under five years of age, as well as pregnant, post-partum, and nursing women. WIC recipients receive vouchers for particular food items; the exact items provided are determined locally subject to Federal nutritional guidelines. The National School Lunch Program provides free or reduced cost meals children in school. Children are eligible if their family meets a means test or if the school has a sufficiently high fraction of low-income students.

A large literature examines the relationship between food assistance and food insecurity. Gundersen and Oliveira (2001) uses an instrumental variables technique and find that SNAP participants do not face higher rates of food insecurity after controlling for selection. Nord and

Golla (2009) uses the Current Population Survey Food Security Supplement linked across years to trace out dynamic patterns of very low food security relative to SNAP entry. They find that food security appears to deteriorate in the 6-8 months prior to entering SNAP, but that after SNAP receipt begins, the likelihood of very low food security (VLFS) declines by about one third within a month or so. Ratcliffe, McKernan, and Zhang (2011) uses recent state-level changes in SNAP rules to instrument for SNAP participation, and also find that SNAP reduces LFS and VLFS. Mykerezi and Mills (2010) uses state administrative error rates and self-reported loss of benefits while still eligible in an instrumental variables framework and find that participation in SNAP lowers rates of food insecurity. Nord and Prell (2011) finds that the temporary increase in SNAP benefits in the economic stimulus package of 2009 reduced food insecurity among SNAP-eligible families relative to non-eligible families. Herman et al. (2004) shows that food insecurity is reduced when families enter the WIC program. Gundersen, Kreider, and Pepper (2012) shows that the school lunch program improves food security.

A related literature examines the effects of food programs on food consumption. Theory predicts that food programs raise the quality and quantity of food consumed in a household in two ways: by increasing the total resources available to the household and by shifting the allocation of household resources towards food. Gundersen and Ziliak (2003) finds that due to SNAP, food consumption is significantly less volatile than income. A number of papers have found that the marginal propensity to consume food out of a dollar of food stamps is higher than that out of a dollar of cash income (for example, see Fraker 1990; Fraker, Martini, and Ohls 1995; Fraker et al. 1995; and Breunig and Dasgupta 2002). However, using the diffused introduction of the Food Stamp Program across counties, Hoynes and Schanzenbach (2009)

estimates that the marginal propensity to consume food out of a dollar of food stamps is comparable to that out of a dollar of income.

Medicaid/CHIP. These programs provide health insurance for children and some parents in low-income families. Although originally linked tightly to eligibility for AFDC or SSI, eligibility limits have steadily risen since the mid-1980s, allowing children in families with incomes as high as 200 percent of the federal poverty line or higher to be eligible for public insurance. This expansion of eligibility means that roughly a third of all children are income-eligible for Medicaid and about half of all children are income-eligible for Medicaid or CHIP (Dubay, Haley, and Kenney 2002). The income limits for eligibility vary substantially across states and, following seminal work by Currie and Gruber (1996), exogenous state variation in eligibility is typically captured by a variable measuring the fraction of a national sample that would be eligible under the rules in effect in each state.

Access to public health insurance may affect the likelihood of a child experiencing food insecurity in two ways: first, families who receive public insurance for their children do not have to pay the premium cost to cover their children, and second, Medicaid and CHIP have little to no cost-sharing. For both reasons, eligibility for public health insurance frees up resources for the family to use for other expenditures, including food. While there has been no research specifically investigating the effect of Medicaid/CHIP on food insecurity, there have been several papers studying consumption impacts of public health insurance. Gruber and Yelowitz (1999) reports an approximately $538 increase in annual consumption associated with Medicaid participation. More recently, Leininger, Levy, and Schanzenbach (2010) finds that eligibility for Medicaid/CHIP is associated with an increase in consumption, although their results suggest that most of the increase is allocated to consumption of transportation or saving for retirement. Other

work supporting a relationship between public insurance eligibility and consumption potential includes Shaefer, Grogan and Pollack (2011) and Banthin and Selden (2003). Thus, there is scope for even a non-cash program like Medicaid to affect food consumption and food insecurity.

B. Benefits Calculator

Our benefits calculator first reads in the raw December Current Population Survey (CPS) data for 2001-2009. It then reads in the Outgoing Rotation Group (ORG) files for January-March of each year, and matches the December data to the appropriate ORG. We then form appropriate family groups in the December data corresponding to the family composition rules for each safety net program to be modeled. Families are defined as single ages 18-64 and their minor children (where the definition of "minor" varies by program); extended family members and unmarried partners are not included in the family.

The resulting data are then run through the National Bureau of Economic Research's TAXSIM calculator to calculate federal and state Earned Income Tax Credits. Output from TAXSIM is run through the SSI calculator, and output from the SSI calculator is then run through the TANF calculator. The output from the TANF calculator, combined with data on children, is run through the Medicaid/CHIP calculator, and finally, the output from the Medicaid/CHIP calculator is run through the food assistance calculator. [1] We provide details on each of these steps below.

Matching of December CPS to Outgoing Rotation Groups

The December CPS lacks adequate information on earnings for this analysis. The income variable conflates earned and unearned income and, importantly, already includes any safety net benefits. For the program calculators, we need to obtain earned income from the CPS outgoing

rotation group (ORG) sample. For participants in the December CPS, the ORG is split between December, January, February, and March CPS surveys. Thus, roughly three-quarters of the sample require using CPS identifiers to match individuals across survey months. Matches are excluded if there are implausible race, age, or gender differences. The match may fail because of identifier error, because a family moves, or because an individual exits the family. Furthermore, a successful match may yield incomplete earnings information, most often because an individual is self-employed. Overall, about 85 percent of families successfully match with complete earnings information.

TAXSIM

We use the National Bureau of Economic Research's TAXSIM Version 9 program (http://www.nber.org/taxsim) with the Stata ado interface to calculate federal and state Earned Income Tax Credits (variables v29 and v35, respectively). Our sample is defined to include only families with children, so we have no single taxpayers. We assume that all single parents file as heads of household. The number of dependents for tax purposes includes all children under the age of 19, as well as disabled and full-time students between the ages of 19 and 23. For more information on TAXSIM, see Feenberg and Coutts (1993).

Transfer income (TANF, SNAP, SSI) is not counted as income towards EITC eligibility or benefits. In most states, the EITC is not counted as income for eligibility/benefit calculations of other transfer programs.[2] In a number of states, the EITC is counted as a resource after a period of time if the credit is not spent.[3]

We assume no unemployment compensation, and assume that all types of income used in tax calculations (other than own earnings and spousal earnings) are zero. This includes dividend income, other property income, taxable pensions, and gross social security benefits. We also

assume that rent paid and real estate taxes paid are zero, as well as child care expenses and other itemized deductions such as state and local taxes and deductible medical expenses. We assume no capital gains and losses. There is a TAXSIM variable for "Other non-taxable transfer Income such as welfare, and child support that would affect eligibility for state property tax rebates but would not be taxable at the federal level." We enter this as zero since it does not affect EITC calculations.

SSI Calculator

We assume that respondent families are eligible for SSI if the respondent reports a work-limiting disability and if their countable income makes them financially eligible for SSI. There are a number of issues associated with using self-reported disability measures to estimate eligibility imputation for SSI (Burkhauser, Houtenville, and Tennant 2014). Some individuals who report work-limiting disabilities may not have disabilities severe enough to pass the Social Security Administration's five-step process for determining qualifying disabilities, causing our measure of SSI potential benefits to be overstated. Conversely, some individuals who are SSI recipients (and therefore have made it through this process) may not report work-limiting disabilities, causing our measure of SSI potential benefits to be understated. See Burkhauser, Houtenville, and Tennant (2014) for a more detailed discussion. We ignore child SSI because reliable data on disability among children is not available in the dataset. This means we are potentially underestimating the effect of SSI on the well-being of families with children (Duggan and Kearney 2007). Only 1.8 percent of all children receive SSI benefits, but 58 percent of all child SSI beneficiaries live in families below 150 percent of the poverty line (Bailey and Hemmeter 2014). We assume no unearned income in our calculations of SSI eligibility and

benefits. As such, we are overstating eligibility benefits for households who are receiving Social Security or Unemployment Insurance income.

Individuals are eligible for SSI if their countable income is less than the federal benefit rate, and the benefit level is the difference between the two. In calculating countable income, there is a $20 general income exclusion. The first $65 of earned income is excluded, then 1/2 of earnings over $65. These exclusion amounts were constant in nominal terms throughout the 2000s.

Federal SSI benefit rates for couples and individuals are collected from the *Social Security Bulletin's Annual Statistical Supplement*, various years. State supplement levels for couples and individuals are collected from the 2004 *Green Book*, and *State Assistance Programs for SSI Recipients*, various years. In states with a SSI supplement, it is the federal benefit rate plus the supplement that is used as the point of reference in determining eligibility and payment amounts (Trenkamp and Wiseman 2007).

TANF Calculator

Our measure of net income for TANF eligibility and benefit calculation only includes earned income of family members. SSI recipients are not eligible for TANF, and it is generally more advantageous to enroll in SSI if possible. We exclude SSI income for SSI recipients in family when determining TANF benefits for other members of the family (Golden and Hawkins 2012). We ignore all other types of income, including Unemployment Insurance.

The size of the TANF unit varies by state. Information obtained on inclusion in the unit is from the Welfare Rules Database at the Urban Institute. For most states, this includes children under age 18, with children 18 years old included if they are full-time students. SSI recipients are not included in the TANF unit.

All TANF eligibility and benefit parameters (gross and net income and earnings thresholds, need standards, maximum payments, and earned income disregards) are collected from the Urban Institute's Welfare Rules Database. Earned income disregards differ in many states for eligibility versus benefits. For eligibility disregards, we use the rules that apply to new applicants, and ignore disregards based on earnings history. For benefit disregards, we use the rules that apply to someone who has been on the program 12 months (+one day), who is continuously employed for six months (+ one day), and is working 25 hours/week. We ignore disregards for child care expenses in our calculator. For states with no explicit income thresholds, we assume that the need standard is used as the threshold. We calculate income eligibility for TANF based on whether the family meets any gross or net earned or unearned income thresholds set by the state. For families that we determine to be TANF-eligible, we then use the benefit computation formula with parameters from the WRD to determine benefit levels.

Medicaid/CHIP Calculator

We first impute Medicaid eligibility for adults in the household. Eligibility thresholds as a percent of the poverty line for working and non-working adults vary by state. Unit size for Medicaid includes all children under the age of 19 (except in Minnesota, which includes all children ages 20 and under). Earnings include those of the single parent and all children considered to be in the Medicaid unit.

Adults are eligible for Medicaid if they are working and family income as a percent of the poverty line is below the working cutoff; or if they are not working and family income as a percent of the poverty line is below the non-working cutoff, or if they are on SSI. We thus impute Medicaid eligibility for adults in the household by comparing earned income as a percent of the federal poverty level to the eligibility threshold. Eligibility thresholds vary by state, by

year, and by whether the adult is working or not. The Medicaid family unit that is used to determine earnings and the appropriate poverty threshold includes all adults and children under the age of 19 (except in Minnesota, which includes all children ages 20 and under) who are not SSI recipients.

Children are eligible for Medicaid (or CHIP) if the income of their Medicaid family unit is below their state-specific, age-specific, and year-specific cutoff. Again, SSI recipients are not included in the family unit, nor is their income counted. Information on eligibility thresholds for both children and adults was obtained primarily from the Kaiser Commission on Medicaid and the Uninsured, which conducted a periodic 50-state survey of Medicaid and CHIP eligibility rules over the 2000-2010 period. Additional information on eligibility thresholds was obtained from previous work by Shore-Sheppard (2008) and Hamersma and Kim (2009).

Food Assistance Calculator

The food assistance calculator considers three Federal programs – SNAP, WIC, and the National School Lunch program. The smaller school breakfast program and other nutrition programs are not included.

SNAP eligibility is based on a gross income screen (130 percent of the poverty line) and a net income screen (100 percent of the poverty line). Gross income includes earned income, imputed SSI benefits, and imputed TANF benefits. Net income is equal to gross income, less 20 percent of earned income, less a standard deduction.

The SNAP unit includes all members of the family, including TANF and SSI recipients, except in California, where SSI recipients and their income are excluded. The SNAP unit includes children 21 years of age and younger regardless of their work/school status, (U.S. House of Representatives 2004), so our earned income measure includes earnings of all children

up to and including 21 year olds. Families where all members are either TANF or SSI recipients are categorically eligible.

In California, the SNAP benefit for SSI recipients is "cashed out" in the state supplement. SSI recipients living independently in California are ineligible for SNAP. Benefits for other households that include SSI recipients are calculated without including the SSI recipient in the budget unit or counting the SSI recipient's income in assessing household resources (Trenkamp and Wiseman 2007).

All relevant parameters (gross and net income screen values, standard deductions, and maximum benefits) are collected from the Food and Nutrition Service at the United States Department of Agriculture. Most parameters vary by family size. Eligibility and benefit parameters are the same for all states in the continental US but different for Alaska and Hawaii.

The SNAP benefit for families that pass the gross and net income screens are equal to the SNAP maximum benefit less 30 percent of net income. It is possible for the imputed benefit to be negative, even for eligible families. The minimum benefit level for families of one and two persons is $10 in early years. The Food, Conservation, and Energy Act of 2008 changed the minimum benefit for one and two person families to be equal to 8 percent of the maximum SNAP allotment for a one person household. This means it now differs in Alaska and Hawaii from the continental US, and changes by year. There is no minimum benefit level for families of three or more persons.

For the school lunch imputation, the unit size for eligibility determination is calculated by the number of children 21 and younger in the household plus one for a single parent or two for a married parent. Income includes SSI and TANF income. Income limits are 130 percent of poverty for free lunch and 185 percent of poverty for reduced cost lunch. SNAP and TANF

eligibility imply free lunch eligibility. To impute the value of a free lunch, we use the maximum value per lunch that the federal government reimburses the states for lunch provision.[4] The contiguous states have a fixed rate; higher rates apply in Alaska and Hawaii. Rates vary by year. Reduced lunch reimbursement rates are 40 cents lower under the assumption that schools will charge students 40 cents for these lunches.

To determine the number of lunches per year, we assume there are 180 school days except in states where laws (as of March 2013) set minimum required days at a level different than 180.[5] In those cases we use the current state minimum number of days as the number of school lunches; we do not consider historical variation in school year length. To impute the total annual value of the program to a family, we multiply the dollar value of annual lunches by the number of children ages five through 17 in households that are income eligible.

The income eligibility threshold for WIC is 185 percent of the federal poverty line. TANF and SNAP eligibility imply WIC income eligibility. Families with pregnant, postpartum, or nursing women or children under five are eligible. WIC food packages vary by whether the mother is pregnant, postpartum, or nursing, and by the age of the children. Packages also vary the local level subject to Federal nutrition guidelines.

To impute a value for WIC, we use the national average annual WIC food costs per person.[6] We apply these imputed values to all children under five in a WIC-eligible household. We do not explicitly add the value for maternal WIC. However, the food packages for nursing mothers combined with the minimal food package for a nursing infant may approximate the USDA average. Non-nursing mothers are eligible for the program for six months and their children receive formula, suggesting our imputation is likely understated in families with formula-fed newborns.

C. Additional Policy and Control Variables

State unemployment rate: Collected from the Bureau of Labor Statistics Local Area Unemployment Statistics.

Unemployment Insurance weeks: The average number of UI weeks available over the 12-month period to which the CPS Food Screener pertains. We received data from Henry Farber and Rob Valletta on the number of extended weeks of UI available, beyond the normal 26. We then calculated the average total number of UI weeks (extended weeks + 26) available by state over the 12 months from December – November before the December Food Security Supplement survey is conducted.

Unemployment Insurance dependent allowances: Maximum dependent allowances in dollars come from the US Department of Labor Employment and Training Administration (http://www.ows.doleta.gov/unemploy/statelaws.asp). Yearly data reflects the status of state law enacted as of January 1 of that year.

TANF generous asset limit: Equals one if state had an asset limit greater than $3000 or had no asset limit. TANF asset limits in dollars collected from the Urban Institute's Welfare Rules Database.

TANF family cap: Equals one if a state had a family cap in place that denied additional benefits or reduced benefit amounts to a family that had additional children while on public assistance. Data through 2005 obtained from Rebecca Blank and Jordan Matsudaira, updated with information from the Urban Institute Welfare Rules Database.

TANF strict time limit: Equals one if a state had a lifetime time limit of less than 60 months. Data through 2007 obtained from Rebecca Blank and Jordan Matsudaira, updated with information from the Urban Institute Welfare Rules Database.

SNAP standard utility allowance for a family of three: We use the dollar amount of the HCSUA, which is the standard utility allowance including heating and cooling. Data for 2005-2010 collected from SNAP Quality Control data generated by Mathematica, F Tables. Data are for fiscal years. http://hostm142.mathematica-mpr.com/fns/download.htm. Monthly data for 2001-2004 were provided by Katie Fitzpatrick, and were averaged to generate annual data. We used averages for Alaska and New York, where SUA depends upon location within the state.

Child support enforcement dollars per capita: Total administrative expenditures on child support were collected from HHS Office of Child Support Enforcement Annual Reports to Congress. 2005-2009 values from 2009 Annual Report to Congress, Table 43; 2001-2004 values from 2004 Annual Report to Congress, Table 30.

Public Housing Units and Vouchers Per Capita: Data on the number of subsidized housing units by state is available from HUD for years 2000 and 2004-2009. Linear interpolation is used for 2001 through 2003 data years.
(http://www.huduser.org/portal/datasets/assthsg.html).

D. Simulated Benefits Data

As described above, our simulated benefits data use a nationally representative sample of single-parent, non-immigrant families in the 2001 CPS. For each member of this national sample, we use our benefits calculator to impute eligibility according to the rules of each state and year. We then restrict the sample to those under 300 percent of the poverty line. This allows us to characterize generosity of the safety net for each state and year in the dataset stategen.dta. The same information is reported in stategen.xlsx, along with variable definitions. The spreadsheets in the on-line appendix provide this information for each of the safety net variables in our

sample. We hope that researchers will find these indices of safety net generosity useful. It is important to note that Alaska and Hawaii have different poverty lines, so their measures of state generosity for families under 300 percent of poverty are not directly comparable to those of the other states. Researchers using stategen.dta or stategen.xlsx should cite this *JHR* article.

References

Acs, Gregory, Pamela Loprest, and Tracy Roberts. 2001. "Final Synthesis Report of Findings from ASPE 'Leavers' Grants." The Urban Institute Working Paper, November, available at http://www.urban.org/uploadedPDF/410809_welfare_leavers_synthesis.pdf.

Bailey, Michelle Stegman, and Jeffrey Hemmeter. 2014. "Characteristics of Noninstitutionalized DI and SSI Program Participants, 2010 Update." U.S. Social Security Administration, Office of Retirement and Disability Policy, Research and Statistics Note No. 2014-02.

Banthin, Jessica S., and Thomas M. Selden. 2003. "The ABCs of Children's Health Care: How the Medicaid Expansions Affected Access, Burdens, and Coverage between 1987 and 1996." *Inquiry* 40(2):133– 45.

Barrow, Lisa, and Leslie McGranahan. 2000. "The Effects of the Earned Income Tax Credit on the Seasonality of Household Expenditures." *National Tax Journal* 53(4): 1211-1243.

Borjas, George. 2004. "Food Insecurity and Public Assistance." *Journal of Public Economics* 88(7-8): 1421-1433.

Breunig, Robert, and Indraneel Dasgupta. 2002. "Do Intra-Household Effects Generate the Food Stamp Cash-Out Puzzle?" *American Journal of Agricultural Economics* 84(4): 552-568.

Burkhauser, Richard V., Andrew J. Houtenville and Jennifer R. Tennant. 2014. "Capturing the Elusive Working-Age Population with Disabilities: Reconciling Conflicting Social Success Estimates From the Current Population Survey and American Community Survey." *Journal of Disability Policy Studies* 24(4): 195-205.

Coleman-Jensen, Alisha, and Mark Nord. 2013. "Food Insecurity among Households with Working-Aged Adults with Disabilities." Economic Research Report #142955, US Department of Agriculture, Economic Research Service.

Currie, Janet. 2003. "U.S. Food and Nutrition Programs," *in Means-Tested Transfer Programs in the United States*, ed. Robert Moffitt, 199-290. Chicago: University of Chicago Press.

Currie, Janet, and Jonathan Gruber. 1996. "Health Insurance Eligibility, Utilization of Medical Care, and Child Health." *The Quarterly Journal of Economics* 111(2): 431-466.

Dubay, Lisa, Jennifer Haley, and Genevieve Kenney. 2002. "Children's Eligibility for Medicaid and SCHIP: A View from 2000," Urban Insitute report B-41.

Duggan, Mark G., and Melissa Schettini Kearney. 2007. "The Impact of Child SSI Enrollment on Household Outcomes." *Journal of Policy Analysis and Management* 26(4): 861-885.

Feenberg, Daniel, and Elizabeth Coutts. 1993. "An Introduction to the TAXSIM Model." *Journal of Policy Analysis and Management* 12(1): 189–194.

Fraker, Thomas M. 1990. "Effects of Food Stamps on Food Consumption: A Review of the Literature." Washington, DC: Mathematica Policy Research, Inc.

Fraker, Thomas M., Alberto Martini, and James Ohls. 1995. "The Effect of Food Stamp Cashout on Food Expenditures." *Journal of Human Resources* 30(4): 633-49.

Fraker, Thomas, Alberto Martini, James Ohls, and Michael Ponza. 1995. "The Effects of Cashing-Out Food Stamps on Household Food Use and the Cost of Issuing Benefits." *Journal of Policy Analysis and Management* 14(3): 372-392.

General Accounting Office. 1997. "Welfare Reform: States' Early Experiences with Benefit Termination." Report to the Committee on Finance, U.S. Senate, HEHS-97-74.

Golden, Olivia, and Amelia Hawkins. 2012. “TANF Child-Only Cases.” Urban Institute Temporary Assistance for Needy Families Program—Research Synthesis Brief #03.

Gruber, Jonathan. 2000. “Cash Welfare as a Consumption Smoothing Mechanism for Divorced Mothers.” *Journal of Public Economics* 75(2):157–182.

Gruber, Jonathan, and Aaron Yelowitz. 1999. "Public Health Insurance and Private Savings." *Journal of Political Economy* 107 (6, pt. 1): 1249– 74.

Gundersen, Craig, Brent Kreider, and John Pepper. 2012. “The Impact of the National School Lunch Program on Child Health: A Nonparametic Bounds Analysis.” *Journal of Econometrics* 166(1): 79-91.

Gundersen, Craig, and Victor Oliveira. 2001. “The Food Stamp Program and Food Insufficiency.” *American Journal of Agricultural Economics* 84(3): 875–887.

Gundersen, Craig, and James Ziliak. 2003. “The Role of Food Stamps in Consumption Stabilization.” *Journal of Human Resources* 38(Supplement): 1051-79.

Hamersma, Sarah, and Kim, Matthew. 2009. "The Effect of Parental Medicaid Expansions on Job Mobility." *Journal of Health Economics* 28(4): 761-770.

Herman, Dena R., Gail G. Harrison, Abdelmonem A. Afifi, and Eloise Jencks. 2004. “The Effect of the WIC Program on Food Security Status of Pregnant, First-Time Participants.” *Family Economics and Nutrition Review* 16(1): 21-29.

Hotz, V. Joseph, and John Karl Scholz. 2003. “The Earned Income Tax Credit." in *Means-Tested Transfer Programs in the United States*, ed. Robert Moffitt, 141-197. University of Chicago Press and NBER.

Hoynes, Hilary W., and Diane Whitmore Schanzenbach. 2009. "Consumption Responses to In-Kind Transfers: Evidence from the Introduction of the Food Stamp Program." *American Economic Journal: Applied Economics* 1(4): 109-39.

Huang, Jin, Baorong Guo, and Youngmi Kim. 2010. "Food Insecurity and Disability: Do Economic Resources Matter?" *Social Science Research* 39(1):111-24.

Leininger, Lindsey, Helen Levy, and Diane Schanzenbach. 2010. "Consequences of SCHIP Expansions for Household Well-Being." *Forum for Health Economics & Policy* 13(1): article 3.

Meyer, Bruce, and James X. Sullivan. 2004. "The Effects of Welfare and Tax Reform: The Material Well-Being of Single Mothers in the 1980s and 1990s." *Journal of Public Economics* 88(7-8):1387–1420.

Mykerezi, Elton, and Bradford Mills, 2010. "The Impact of Food Stamp Program Participation on Household Food Insecurity." *American Journal of Agricultural Economics* 92(5): 1379-1391.

Neumark, David, and William Wascher. 2001. "Using the EITC to Help Poor Families: New Evidence and a Comparison with the Minimum Wage." *National Tax Journal* 54(2): 281-317.

Nord, Mark, and Anne Marie Golla. 2009. "Does SNAP Decrease Food Insecurity? Untangling the Self-Selection Effect." USDA Economic Research Service Research Report #85.

Nord, Mark, and Mark Prell. 2011. "Food Security Improved Following the 2009 ARRA Increase in SNAP Benefits." USDA, Economic Research Service, Economic Research Report No. 116.

Parish, Susan L., Roderick A. Rose, and Megan E. Andrews. 2009. "Income Poverty and Material Hardship among U.S. Women with Disabilities." *Social Service Review* 83(1): 33-52.

Ratcliffe, Caroline, Signe Mary McKernan, and Sisi Zhang. 2011. "How Much Does the Supplemental Nutrition Assistance Program Reduce Food Insecurity?" *American Journal of Agricultural Economics* 93(4) 1082-1098.

Schmidt, Lucie, and Sheldon Danziger. 2012. "Filling Holes in the Safety Net? Material Hardship and Subjective Well-being among Disability Benefit Applicants and Recipients after the 1996 Welfare Reform." *Social Science Research* 41(6): 1581-97

Shaefer, H. Luke, Colleen M. Grogan, and Harold Pollack. 2011. "Transitions from Private to Public Health Coverage among Children: Estimating Effects on Out-of-Pocket Medical Costs and Health Insurance Premium Costs." *Health Services Research* 46(3): 840-58.

She, Peiyun, and Gina A. Livermore. 2007. "Material Hardship, Poverty and Disability Among Working Age Adults." *Social Science Quarterly* 88(4): 970-89.

Shore-Sheppard, Lara. 2008. "Stemming the Tide? The Effect of Expanding Medicaid Eligibility on Health Insurance Coverage," *The B.E. Journal of Economic Analysis and Policy:* Vol. 8, Iss. 2 (Advances), Article 6.

Smeeding, Timothy M., Katherin Ross Phillips, and Michael O'Connor. 2000. "The EITC: Expectation, Knowledge, Use and Economic and Social Mobility." *National Tax Journal* 53(4): 1187-1209.

Tax Policy Center. 2012. "Spending on the EITC, Child Tax Credit, and AFDC/TANF, 1975-2009." (Available at http://www.taxpolicycenter.org/taxfacts.)

Trenkamp, Brad, and Michael Wiseman. 2007. "The Food Stamp Program and Supplemental Security Income." *Social Security Bulletin* 67(4): 71-87.

U.S. House of Representatives. 2004. 2004 Green Book. Washington, D.C.: GPO.

Wamhoff, Steve, and Michael Wiseman. 2005/2006. "The TANF/SSI Connection." *Social Security Bulletin* 66(4): 21-35.

Williams, Erica, Nicholas Johnson, and Jon Shure. 2010. "State Earned Income Tax Credits: 2010 Legislative Update." Center on Budget and Policy Priorities Brief, Accessed 3/8/2011 at: http://www.cbpp.org/files/11-10-09sfp.pdf.

Winship, Scott, and Christopher Jencks. 2004. "How Did the Social Policy Changes of the 1990s Affect Material Hardship among Single Mothers? Evidence from the CPS Food Security Supplement." Harvard Kennedy School Working Paper No. RWP04-027.

---

1. Our set of programs excludes Unemployment Insurance (UI), which is an important component of the safety net for the working-aged population. Unfortunately, the CPS lacks work history information, making it difficult to impute UI eligibility. Similarly, public housing is an important transfer not captured by our calculator because demand for public housing is over-subscribed and eligibility is difficult to impute. For both programs, we incorporate state-year level policy parameter controls in some analyses, and they make little difference to our results.

2. Two exceptions exist: In Connecticut (all years 2001-2010), the EITC is counted as earned income for TANF purposes in the month it is received. In Florida (from 2006-2010), the EITC is not counted for TANF eligibility, but it is counted as a lump sum in the month it is received for benefit calculation. We ignore EITC income in our TANF calculations for these states.

3. In no state is EITC counted as an asset in the month it is received. It is counted as an asset in the month after receipt in only one state. Most states that do count remaining portions as an asset do so in the second or third month after receipt.

4. These are published annually in the federal register and can be found on the USDA website: http://www.fns.usda.gov/cnd/Governance/notices/naps/naps.htm.

5. School year lengths can be found at the Educational Commission of the States, http://www.ecs.org/html/Document.asp?chouseid=10668.

6. The USDA publishes these costs by year: http://www.fns.usda.gov/pd/wisummary.htm