

The Success of SNAP (Food Stamps) and the Desirability of Taxing Food

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Abstract:

Most states either totally or partially exclude food at home from the general sales tax. This exclusion generates a debate between tax policy analysts with their emphasis on broad base, low-rate tax systems against the advocates for the poor who argue that the exemption for food is necessary on distributional grounds. States that do tax food at home are often singled out as having particularly regressive and punitive tax systems. What is missing from this debate is a serious discussion of the consequences of non-taxability of benefits under the Supplemental Nutritional Assistance Program (food stamps). We present evidence that the SNAP program effectively reaches the vast majority of the poor thus making the taxability of food at home much less important for individuals in lower income tiers. Based on calculations using the Consumer Expenditure Survey, we show that the non-taxability of SNAP benefits reduces the regressivity of the sales tax in states that tax food. Overall, including food at home in the sales tax base with a correspondent adjustment of the overall tax rate would be a beneficial change. The paper concludes with a discussion of the political and economic dimensions which may lead food at home to be excluded from the tax base.

I. Introduction

In 2012, 46.6 million individuals were enrolled in the Supplemental Nutritional Assistance Program (SNAP, formerly known as Food Stamps) which virtually equaled the number of individuals in poverty, 47.0 million.¹ The surge in the number of SNAP recipients from 26.3 million in 2007 before the Great Recession and continuing at sustained levels far past the recovery has generated considerable policy discussion on the implications of food stamp persistence.² From a different perspective, there are concerns that improvements in the unemployment picture will force states to reduce the number of recipients in 2016.³

Meanwhile, another policy debate continues in the states. As states constantly review their fiscal system, they re-visit the exemptions in their sales taxes. The largest state sales tax exemption is typically the exclusion for food at home. Tax analysts have long pointed out this exemption is costly and ill-targeted. Yet, states rarely want to tinker with this exemption as they believe it would have adverse distributional consequences. For example, the State of New York recently engaged in a major tax revision and recognized the costly exclusion for food, but did not recommend any changes for this provision.⁴

While these two policy areas may seem distinct, they do have something very important in common. Since 1987, the federal government has prohibited states and local governments from taxing SNAP benefits under their general sales taxes. This means that virtually all the 46.6 million recipients in 2012 did not pay sales tax on their purchases through the SNAP program. Since in its intent and through its structure the SNAP program is designed to reach those in

¹ Characteristics of Supplemental Nutrition Assistance Program Households: Fiscal Year 2012, United States Department of Agriculture, February 2014. , Table 2.1

² Damian Paletta and Caroline Porter, "Use of Food Stamps Swells Even as Economy Improves," Wall Street Journal, March 27, 2013.

³ Center on Budget Policy and Priorities, January 5, 2015, "Approximately 1 Million Unemployed Childless Adults Will Lose SNAP Benefits in 2016 as State Waivers Expire."

⁴ Report of the New York State Tax Reform and Fairness Commission, November 11, 2013, Available at: <http://www.governor.ny.gov/sites/governor.ny.gov/files/archive/assets/documents/greenislandandreportandappendicies.pdf>

poverty, it also means that an extremely large segment of the poor were largely free of any sales taxes using the program. A strong but largely invisible thread thus ties the SNAP program to the food at home sales tax exemption.

While experts have recognized the SNAP program and the food at home exemption, they rarely analyze its consequences in detail.⁵ For example, the New York Tax Reform Commission does mention the non-taxability of SNAP benefits in an Appendix but does not discuss it any further or justify why they are recommending changing the clothing exemption but not the food exemption. Others have deliberately downplayed the taxability link. In their book, *Taxing the Poor*, Katherine S. Newman and Rourke L. O'Brien emphasize the adverse effects from the taxation of food—blaming it in part for an obesity epidemic—and highlight what they believe are the particularly regressive policies of Alabama and Mississippi, the two states that fully tax all food purchases.⁶ The preface to their book begins with the story of the attempt of a progressive group in Alabama to repeal the tax on food for home consumption in 2007 and then details the story of an impoverished citizen. Yet, they fail to mention until ten pages into the preface that SNAP benefits are not subject to tax.

A very few policy analysts have recognized the implications of the non-taxability of SNAP benefits. In 2004, Governor Bill Richardson of New Mexico proposed to remove the state and local gross receipts tax from food at home (and some other items) while raising the overall gross receipts tax rate within municipalities. One policy analyst, voiced opposition to this change.

'The really big losers are food stamp recipients, said Kelly O'Donnell, an economist with New Mexico's Voices for Children, to the Associated Press. The gross receipts tax isn't imposed on food stamp transactions; about 80,000 households in New Mexico receive food stamps.....O'Donnell contends that those who can most afford to pay for the tax—

⁵ For example, it is only mentioned in passing three times in the excellent treatise *Sales Taxation*, Second edition, John F. Due and John L. Mikesell, 1994, Washington D.C.: The Urban Institute Press. In their first edition in 1983, the federal law exempting food stamps from tax was not in effect.

⁶ Katherine S. Newman and Rourke L O'Brien, *Taxing the Poor*, 2011, Berkeley and Los Angeles: The University of California Press. In the preface, they note that not all neighborhood stores will accept SNAP benefits. However, misleadingly they also display a picture of a receipt from a grocery store in Birmingham displaying full taxability of food benefits. (p. xxvii).

middle to upper-middle income New Mexicans—would receive the biggest benefits from elimination of the tax on food.⁷

In this paper, we examine the implications of the non-taxability of SNAP benefits for state sales tax systems using data from the Consumer Expenditure Survey. We analyze the effects of non-taxability of SNAP benefits in a typical Alabama city (a full taxing state) and also in New Orleans, which taxes food at a slightly reduced rate on the local level. Using SNAP participation rates from studies commissioned by the United States Department of Agriculture, we re-calculate the effective incidence of the sales tax (using both income and consumption as bases) to highlight the effect of the non-taxability of benefits. Since the SNAP program effectively reaches a high percentage of the poor, we find that the sales tax is less regressive once this feature of the SNAP program is considered. While there will always be some of the poor who would pay more if the food at home exemption is repealed, our work suggests that taxing food but compensating with a revenue-neutral reduction in the overall sales tax rate would provide considerable benefits to the poor and, at the same time, lead to a more rational sales tax system.

In the next section of the paper, we review the debate over exempting food at home from the general sales tax. Section III examines the structure, design, and participation rates of the SNAP program. As a prelude to our empirical analysis, we discuss the alternative ways to depict the burden of the tax—which is problematic for households reporting low income. The remaining sections of the paper present our empirical findings using the Consumer Expenditure Program and our concluding observations.

II. The Food at Home Exemption from the General Sales Tax

Exempting food at home from the sales tax is the rule rather than the exception; nonetheless, there is considerable variation across states. Here are the basic facts based on the latest data from the Federation of Tax Administrators:⁸

⁷ “Governor’s Proposal to End Food Tax Meets Opposition,” *State Tax Notes*, February 16, 2004, p. 530-31 Quotation at 531. New Mexico did eventually exempt food at home from its gross receipts tax.

⁸ Federation of Tax Administrators, “State Sales Tax Rates and Food & Drug Exemptions,” as of January 1, 2015. Available at: <http://www.taxadmin.org/fta/rate/sales.pdf>

No Sales Taxes: Alaska, Delaware, Montana, New Hampshire, Oregon

Food Taxed at Lower Rate: Arkansas, Illinois, Missouri, Tennessee, Utah, Virginia

Food Subject to Local Taxes: Arkansas, Georgia, Louisiana, North Carolina, Utah

Tax Food But Allow Credit: Hawaii, Idaho, Kansas, Oklahoma, South Dakota

Fully Tax Food (no credits): Alabama, Mississippi

Full Exemption States: All the remaining states

A few notes to this categorization. Three of the states which give credits have relatively low rates: Hawaii (4%), Oklahoma (4.5%) and South Dakota (4%). In some states that just tax food at home on the local level, the tax rates can still be significant—for example, Louisiana (4.5% in New Orleans), Georgia (2.97% average), and Arkansas (2.69% average).⁹ In addition, the credits that are available in a number of states can be restrictive.¹⁰

Policy analysts generally criticize the food at home exemption on three grounds. It is expensive (and thus necessitates higher rates to achieve revenue targets); it is poorly targeted; and exempting food at home while, as typical, taxing prepared food, snacks, and other items leads to undue complexity.

Although published estimates vary across states, a typical estimate of the reduction of the taxable base through the food at home exemption is in the neighborhood of 20 percent. Based on published data, the reduction in the base in Louisiana is 15%, John Mikesell estimates 15-20% for Indiana, and Kirk Stark uses California figures to arrive at 28%.¹¹ Earlier estimates by Due and Mikesell placed the revenue loss at 20-25%.¹² A twenty percent reduction in the base is substantial. If a state's current rate were 5%, it could be reduced to 4.16% with the inclusion of food at home in the bases.

Unlike many other business-related exemptions such as the sale for resale exemption, the food at home exemption is not justified on efficiency grounds but on purely distributional

⁹ Tax Foundation, State and Local Sales Tax Rates 2014, Available at: <http://taxfoundation.org/article/state-and-local-sales-tax-rates-2014>

¹⁰ See p. 245 in Alan Viard, "Should Groceries Be Exempt From Sales Tax?" State Tax Notes, July 35, 2011, 241-46.

¹¹ For Louisiana, I used figures from p. 6 and p. 8 of the *Louisiana Tax Exemption Budget, 2013-2014*, Louisiana Department of Revenue. For Indiana, see John Mikesell, "Reforming Indiana's Retail Sales Tax," State Tax Notes, August 11, 2014, 407-13. For California, see Kirk Stark, "Bribing the States to Tax Food," unpublished, August 2014 (available from author).

¹² Due and Mikesell, *supra* at. 75.

grounds. As we will show later in the paper, the non-taxability of SNAP benefits sharply reduces the distributional case. If the poor are generally protected, the direct benefits of the tax exemption accrue to middle- and upper-income households. Purchases of filet mignon, expensive fresh fish, or exotic organic mushrooms at Whole Foods or gourmet stores escape taxation. Of course, politicians are well aware of this. When Governor Richardson pushed for removing food from the gross receipts tax, he was quoted as saying, “This is a tax cut for middle-class families.”¹³

On purely theoretical grounds, the case for an exemption for food at home is very weak. States will always want to tax food at restaurants and prepared food so the issue is whether food at home will have a zero or lower rate. That is, the case is for differential tax rates amongst food categories. As we show later in the paper, higher income households do have a higher expenditure share of food away from home, but poor households also devote considerable expenditures to food away from home. From an optimal tax viewpoint, if there is “weak separability” between leisure and commodities, then it is more efficient to adjust overall tax rates and subsidies and maintain uniform rates to avoid other distortions.¹⁴ When there is not weak separability, taxes should be higher on goods that are complements to leisure. Food for home consumption is a complement to leisure and thus should be taxed more heavily to reduce the labor-leisure distortion in the income tax. Even if it is not possible to make adjustments in tax rates and overall subsidies, there is a further efficiency argument. Food at home and food away from home are very close substitutes. Virtually any economic theory will dictate that tax rates on close substitutes should themselves be close. Thus, exempting food at home but not food away from home will create efficiency costs.

Finally, there are the administrative issues that arise when tax authorities need to draw lines between taxable and non-taxable items. The literature on this topic is immense and by now there are well-known anecdotes that tax professionals love to share. Large vs. small marshmallows (the former taxable as candy, the latter non-taxable as food at home), the “hot

¹³ “Governor’s Proposal to End Food Tax Meets Opposition,” (op. cit.) p. 530.

¹⁴ This is the standard Atkinson and Stiglitz result in optimal tax theory. The theory allows commodity patterns to change with any level of income, but that hours of work should not affect commodity choice holding income constant. Viard (op. cit.) provides a non-technical explanation of the theory in the food context.

nuts” rule (taxable, cold nuts not) and related stories are legendary.¹⁵ Stark describes the decisions made in New York that fruit juices are exempt but fruit drinks are taxable; Tang is exempt but Kool Aid taxable; and Ovaltine is exempt but Gatorade is taxable.¹⁶

Because of this complexity, the Streamlined Sales Tax Project (whose goal is to harmonize tax bases across states) needed to issue a “Food Definition Issues” Discussion Paper to grapple with issues of what are food and food ingredients, alcoholic beverages, candy, soft drinks, prepared food and dietary supplements.¹⁷ In this paper, they concluded that breath mints are food and food ingredients and presumably untaxable, but that if a state did not exempt candy, they would be taxable. Pumpkins raised special concerns. They would be “presumed to be food or food ingredients unless decorated at the time of sale.” However, Iowa decided that most pumpkins (perhaps around October) were used for other purposes than an ingredient for pumpkin pie and generated considerable controversy as the rules differed across states.¹⁸

A particularly thorny issue was the taxability of “take and bake” pizzas which required an interpretative decision from the Compliance and Review Interpretation Committee of the Streamlined Sales and Use Tax Agreement. This case arose as a Papa John’s wished to have its take and bake pizzas exempt from sales tax on several grounds. They argued that the pizza was designed to be heated and eaten at home as the dough needed to be cooked; that they were eligible for purchase through EBT (electronic benefit transfer) cards through the SNAP program and thus presumably were viewed as food at home by the USDA and presumably not taxable. The Commission ruled against the Papa John’s request because according to their definitions for prepared foods, the pizzas contained two or more food ingredients that did not require cooking under the FDA food code.

Simplifying these provisions is difficult. California introduced a “snack tax” in the 1990s which would have reduced complexity. But it was eventually overturned by a voter approved

¹⁵ See Richard Pomp and Oliver Oldman, *State and Local Taxation*, 4th edition, 2001, p. 6-15.

¹⁶ Stark, *supra* at. 13.

¹⁷ Streamlined Sales Tax Project, “Food Definition Issues,” January 20, 2005. Available at: http://www.streamlinedsalestax.org/uploads/downloads/IP%20Issue%20Papers/IP05001_food_issues_paper_1_1_0_05.pdf

¹⁸ See John A. Swain, “The Pumpkin Tax,” *State Tax Notes*, October 29, 2007, 363-367.

constitutional amendment that defined candy, snack foods, and bottled water as food at home and exempt from tax.¹⁹ Thus, candy in California now has the same constitutional status as the property tax limitations under Proposition 13!

The eligible food items that can be purchased under the SNAP program closely match the provisions in state tax systems for food at home. Hot foods and foods consumed on the premises cannot be purchased under the SNAP program. Soft drinks, candy, cookies, snack crackers, and ice cream are counted as food items and thus are eligible under the program. There are detailed rules for energy drinks, live animals, fish, gift baskets, pumpkins, and other items which may or may not be consistent with the provisions in different states. But as a general rule, the SNAP eligibility provisions can be considered quite close to the rules for food at home in state sales tax statutes.²⁰

Not taxing food at home raises other economic issues. Stark emphasizes that removing food at home from the sales tax base renders revenues systems more cyclical. In addition, removing food at home from the base changes the long run income elasticity of the sales tax.²¹

III. The SNAP Program

In this section, we briefly discuss the history and some legal aspects of the program, the requirements for eligibility for the program, and finally the participation rates in the program. By most accounts, this is a very successful government program with a high level of participation and coverage for the targeted groups.

i. Institutional and Legal Background

The Food Stamp Act of 1964, passed by President Lyndon B. Johnson, was the program that eventually transformed into the SNAP program known today. This program required households to purchase stamps that could be used to purchase food and then a bonus amount was awarded based on the participant's income level. The federal government funded the

¹⁹ Constitutional Amendment 163, available at: [http://ballotpedia.org/California_Proposition_163,_No_Sales_Tax_on_Food_Products_Sold_for_Home_Use_\(1992\)](http://ballotpedia.org/California_Proposition_163,_No_Sales_Tax_on_Food_Products_Sold_for_Home_Use_(1992))

²⁰ For additional detail and other links, see the USDA website at <http://www.fns.usda.gov/snap/eligible-food-items>

²¹ See Stark, *supra*.

program and the state governments were in charge of authorizing applications for the stamps and distributing the benefits.

The Food Security Act of 1985 prohibited participation in the Food Stamp Program in states that assessed taxes on food stamp transactions. States were required to comply by October 1, 1987 or they were no longer allowed to participate in the program. As all states are currently in the program, all states complied with the law.

What was the constitutional basis for the federal government to require states to not tax purchases made by individuals under the SNAP program? This issue is especially pertinent after the Supreme Court's ruling in *NIFB v. Sebelius* that prohibited the federal government from requiring states to expand their Medicaid program on the grounds that it unconstitutionally coerced the states.²² Under the Affordable Care Act, states would have lost all their federal contributions for state Medicaid programs if they declined to expand their programs—the Supreme Court ruled that this crossed the line from inducement to coercion.

Did the rules prohibiting sales taxes applied to food also cross this same line? During Congressional hearings, many states objected to proposals requiring rebates of sales tax revenue from food stamps to the federal government on the ground that it would impose budgetary harm and ultimately hurt the poor themselves.²³ And the prohibition enacted in 1985 has the same “all or nothing” characteristic that the Supreme Court found objectionable in *NIFB v. Sebelius*.

From another constitutional perspective, the prohibition against sales taxation of food stamps (as they were know at that time), appear to infringe on a core governmental function-- taxation. In 1985, Thomas B. Ripy, a lawyer with the Congressional Research Service, examined the constitutionality of proposals of either requiring rebates to the federal government of revenue raised by states through the taxation of food stamps or outright prohibition of taxation

²² 132 S. Ct. 2566 (2012).

²³ See testimony from Robert Fulton of the Department of Human Service of the State of Oklahoma in Hearings before the Subcommittee on Domestic Marketing, Consumer Relation, and Nutrition of the Committee of Agriculture, House of Representatives 99th Congress., Serial No. 99-5, pp. 160-161.

of food stamp purchases.²⁴ He suggested a two-step analysis based on prior Supreme Court cases.²⁵ In particular, he focused on the analysis in *National League of Cities v. Usery* and whether such actions were invalid under the Tenth Amendment and principles of federalism. First, did the proposed laws “(1) regulate the states as states, (2) address matters which are indisputable attributes of state sovereignty, and (3) directly impairs state ability to structure integral operations of traditional governmental functions?”²⁶ Ripy concluded that, indeed, the proposed prohibition would indeed impair state power. This then required the second step in the analysis—did national interests in administering the food stamp program outweigh claims of state sovereignty?

Ripy himself considered a proposal where the states, if they taxed food stamps, would be required to rebate a presumptive amount back to the federal government or face the loss of an equivalent amount of funds from the federal government.²⁷ He opined that this method was less likely to infringe on state sovereignty than an outright prohibition on taxation.²⁸ Whether the federal government could enact a similar law today is an open question.

Beginning in 2000, the traditional stamps that were used to purchase food were replaced by Electronic Benefit Transfer (EBT) cards. These cards transferred the government benefits from a federal account to the food stamp retailers. The EBT cards were implemented in order to reduce instances of fraud and the stigma associated with the use of food stamps. The 2008 Farm Bill renamed the Food Stamps Program the Supplemental Nutrition Assistance Program and also began a pilot program to study the use of incentives to encourage healthy food purchases with SNAP benefits.

ii. Eligibility

The SNAP program is carefully designed to reach households that are poor. To qualify, households must meet certain specific requirements. To target its benefits, the SNAP program

²⁴ Thomas B. Ripy, “Constitutional Questions: Amending Federal Law to Prohibit Applications of States Sales Taxes to Food Purchases by Beneficiaries Under the Food Stamp and WIC Program,” Congressional Research Service, 85-551A.

National League of Cities v. Usery 426 U.S. 833 (1976)

²⁶ Ripy, *supra* at 6

²⁷ Ripy, *supra* at 12.

²⁸ Ripy, *supra* at 12-13.

categorically includes certain households and has specific income limits, asset limits, and selected work requirements.

Households in which all its members receive Supplemental Security Income (SSI), cash Temporary Assistance to Needy Families (TANF), or General Assistance (GA) are automatically included in SNAP. These households, which comprise 91 percent of the participating population, are exempt from asset tests.²⁹ As with all other SNAP recipients, their benefits of these recipients are tied to their income.

The income requirements are based both on gross income as well as a net income measure. The starting point is gross income, which includes most cash income but excludes noncash or in-kind benefits. Gross income must be less than 130 percent of the poverty line based on household size and composition. Households with elderly or disabled members are not subject to this test.

The asset tests consist of limits on fungible resources and vehicles. Households may have \$2,250 in countable resources, such as a bank account, or \$3,250 in countable resources if at least one person is age 60 or older, or is disabled. However, a home and a lot and assets in pension plans are not included.

There are specific rules for vehicles; however, they typically are over-ridden by state policies. Of the states plus the District of Columbia, 39 states exclude the value of all vehicles entirely while eleven totally exclude the value of at least one vehicle per household. The remaining ones exempt an amount higher than the SNAP's standard auto exemption (currently set at \$4,650) from the fair market value to determine the countable resource value of a vehicle. Overall, an analysis conducted for the USDA estimates that only 2 million individual adults are deemed ineligible through the asset tests.³⁰

Presuming the household meets the gross income test and asset tests, the next step is to allow for certain deduction to determine their net income. A household's net monthly income, the gross income minus allowed deductions, must be less than 100 percent of the

²⁹ Characteristics of Supplemental Nutrition Assistance Program Households: Fiscal Year 2012, United States Department of Agriculture, February 2014. , Table A.4

³⁰ USDA, "Trends in Supplemental Nutritional Assistance Program Participation Rates: Fiscal Year 2010 to Fiscal Year 2012," July 2014, p. 64. Available at <http://www.fns.usda.gov/trends-supplemental-nutrition-assistance-program-participation-rates-fiscal-year-2010-fiscal-year>

federal poverty level. The allowed deductions include a standard deduction based on household size, a 20 percent deduction for earned income, a dependent care deduction, a deduction for medical expenses for the elderly or disabled, and a deduction for excess shelter costs that are more than half of the household's income after the other deductions.³¹

There are a variety of non-financial eligibility standards. Two of the most important are restrictions on non-citizens and work requirements. Legal resident non-citizens under the age of 18 or who have lived in the United States for five years or more are eligible but unauthorized immigrants are not. The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 limits the receipt of SNAP benefits to 3 months in a 3-year period for able-bodied adults without dependents who are not working, participating in, and complying with the requirements of a work program for 20 hours or more each week, or a workfare program. Individuals are exempt from this provision if they are under 18 or over 50, responsible for the care of a child, pregnant or medically certified unfit for employment or otherwise exempt from the SNAP work requirements. In 2012, there were less than 4 million individuals potentially subject to work requirements.³² There are a variety of ways in which states can override the work requirements if unemployment exceeds 10 percent or there are insufficient available jobs.³³ During the last recession and through the present day, the work requirements have been effectively suspended. However, in the next several years as the job market improves, these requirements will likely once again become binding in some areas.³⁴

Once the deductions are made and eligibility has been determined for each household then benefits are determined. The amount of benefits a household can receive per month is calculated by multiplying net monthly income by 0.3 and subtracting that result from the maximum allotment set by the USDA. The 30 percent reduction exists because SNAP households are expected to spend about 30 percent of their resources on food. These benefits are adjusted for household size and composition.

³¹ For additional detail, see the eligibility section of the USDA's website for SNAP at <http://www.fns.usda.gov/snap/eligibility>

³² This is the number of non-disabled adults 18-49 living in childless households who are not otherwise exempt. See USDA "Characteristics..."supra Table A.16.

³³ See the USDA website for details and links at <http://www.fns.usda.gov/snap/able-bodied-adults-without-dependents-abawds>

³⁴ See Center on Budget Policy and Priorities, supra

Error rates for the program are relatively low. For fiscal year (FY) 2013, the USDA estimated a 2.61 percent rate of overpayment, a 0.60 percent underpayment, and a total error rate of the (rounded) sum of the two at 3.20 percent.³⁵

iii. Participation Rates

The USDA hires Mathematica Policy Research to analyze the participation rates for SNAP. The most recent report is from July 2014 and explores the trends from FY 2010 to 2012.³⁶ Their sophisticated methodology uses data from the Current Population Survey and supplements as well as the Survey of Income and Program Participation to estimate eligibility. It takes into account state specific rules, legislative changes to the program, and state-by-state estimates of undocumented immigrants.³⁷ They separately estimate the number of participants in a given year and divide this by their estimates for eligible households.

For FY 2012, the overall eligibility rate was 83.1 percent for individuals in households, 87.2 percent for households, and 95.6 percent for the benefit receipt rate (the percentage of benefits that would be paid out if every eligible household participated).³⁸ The reason the latter rate is much higher is that households eligible for higher benefits are most likely to participate.

The participation rates vary by demographic groups.³⁹ One hundred percent of eligible children participated in the program. Of those below the poverty line, the participation rate was 98 percent and for those between 100 -130 percent of the poverty line it was 50 percent. Since FY 2010, there has been a large increase in the participation rates of those subject to work requirements, from 62.4% in FY 2010, 76.5% in FY 2011, and 93.6% in FY 2012. As we noted above, in addition to the standard provisions in the program that allow states to suspend work requirements in times of high unemployment and insufficient jobs, a variety of provisions

³⁵ Data on error rates by year are available at <http://www.fns.usda.gov/pd/snap-reports#qc-error>

³⁶ See "Trends..." supra.

³⁷ See "Trends..." supra at. 51-67.

³⁸ "Trends..."supra at. 3

³⁹ These data are from "Trends..." supra Table 3, at.9.

enacted beginning in FY 2010 gave states the option to suspend work requirements through FY 2012.⁴⁰

The elderly traditionally have had lower participation rates. In FY 2012, the overall elderly participation rate was 41.6% comprised of a rate of 55.1% for those living alone and 23.8% for those living with others. Finally, those eligible for the maximum benefit rate had 95.8% participation while those with the minimum benefit or less had 30.1% participation.

Overall, both the design of the program and the participation rates indicate that this program is targeted carefully to reach the poor and is remarkably effective in meeting this goal. Both the categorical inclusions and income provisions effectively limit the provision to those most in need. And given the eligibility rules, the extremely high participation rates for those in poverty indicate the SNAP program reaches the neediest in practice as well.

As error rates for the program are low, SNAP does not provide benefits to those deliberately excluded by law. In particular, unauthorized noncitizens are not eligible for the program (although their citizen children may be); as a consequence, states with a high percentage of unauthorized noncitizens (such as California) will have lower participation rates.⁴¹ Similarly, for policy reasons and consistent with values the public holds, there are work requirements that (except in the most recent years) have also limited eligibility. However, these are deliberate policy choices based on public sentiment.⁴² There is no reason to believe that these same public values would not be appropriate for evaluating the impact of the sales tax exemption for food at home for these groups. For these reasons, we will take the SNAP eligibility criteria as coterminous with our definition of the poor.

IV. The Proper Metric: Income or Consumption?

Typically, sales taxes are said to be regressive because taxable expenditures for low-income households represent a larger fraction of their income than taxable expenditures do for

⁴⁰ See the discussion in “Trends...” supra at 4-5 and 55.

⁴¹ See Caroline Danielson and Jacob Alex Kierman, “California’s Food Stamp Program: Participation and Cost Challenges for the State,” 2011. San Francisco: Public Policy Institute of California.

⁴² For a discussion of the economic psychology of work requirements, see Steven Sheffrin, *Tax Fairness and Folk Justice*, 2013, New York and Cambridge UK: Cambridge University Press, 133-42.

middle or higher income households. However, a number of economists have challenged this account because current income may be a poor metric to measure burden.

The burden of a tax is the change in utility arising from the increase in prices. In principle, there are two distinct effects. First, at the given level of consumption, the purchased bundle of goods costs more. Second, households will typically adjust their consumption patterns in the face of new relative prices. However, for small changes, the second effect is approximately zero—if households optimize, small deviations from the optimum have zero first-order effects.⁴³ The burden can then be measured as the change in expenditures at the original quantities. To convert this burden to a utility measure, we would want to multiply this number by marginal utility. If utility can be approximated by the natural log of consumption, then marginal utility is one divided by consumption. Thus, the additional expenditure divided by consumption provides an intuitively plausible measure of the burden of a tax.

This line of argument gains extra support from the life-cycle and permanent income theories of consumption. According to these theories, consumers form estimates of their ability to consume in the long run and then set current consumption to the appropriate fraction of that estimate. This implies that a household's annual income may not be a reliable indicator of economic well-being. Instead, the same household's total expenditures are the better indicator, as consumers seek to smooth their consumption profile over time.

Using the Panel Survey of Income Dynamics, James Poterba demonstrates that low-income households in one year have a significant probability of being higher-income households in other years. This finding significantly impacts the estimated distributional burden of excise taxes. Poterba concludes that, from a longer-horizon perspective total consumption is a more reliable measure for estimating the distributional impacts of tax burdens.⁴⁴

⁴³ In a Taylor expansion, the first-order term will be zero at the optimum. If households do not optimize, there will be first-order effects.

⁴⁴ See James Poterba, "Lifetime Incidence and the Distribution Burden of Excise Taxes," 1989, *American Economic Review*, 79(2), pp. 325-30, May. The probability of leaving the lowest quintile after seven years is 46 percent.

The differences between income and expenditure based incidence measures have been documented in many studies.⁴⁵ Why are these measures so different? There are several possible explanations for the high ratio of total consumption to total income that is found for low-income households in the Consumer Expenditure Survey. One possibility may be measurement error; however, income reports from the Consumer Expenditure Survey seem consistent with data from other sources, like the Current Population Survey. Unreported income from the “underground economy” may be another important source. If this unreported income is used to purchase goods through ordinary retail channels, then it will be captured in the tax burden calculated using total consumption. There is also the potential that people reporting zero to low incomes are living off savings. This is especially relevant for elderly people who are more likely to be retired and therefore not earning any income. People could also be simply going into debt, in anticipation of future income allowing them to pay off their debts. Poterba argues that even if consumption is not set precisely in accordance with the permanent income hypothesis, for most households it is likely to reflect at least some forward- and backward-looking behavior, and therefore offsetting some of the noise in annual income.⁴⁶

As a practical matter, a high fraction of low income households report zero income. For example, twenty percent of SNAP participating households reported zero gross income.⁴⁷ Based on our analysis with the Consumer Expenditure Survey, we know that households reporting zero gross income had significant amounts of consumption, indicating that they had resources available to them. Moreover, dividing by zero income to calculate the tax burden is obviously problematic. In the analysis below, our preferred measures of burden will be arrived at using total consumption, but we also will report our measures for income as well.

⁴⁵ See Daniel Feenberg, Andrew Mitrusi, and James Poterba, “Distributional Effects of Adopting a National Retail Sales Tax,” *Tax Policy and the Economy*, v. 11. 1997, Cambridge: MIT Press, pp 49-90 and James Poterba, “Is the Gasoline Tax Regressive,” *Tax Policy and the Economy*, v. 5, 1991, pp. 145-64.

⁴⁶ Poterba, 1989, *supra*.

⁴⁷ USDA, “Characteristics.....” *supra* at xvii.

V. Calculating the Burden

In this section, we first discuss the sales tax systems in place in Alabama and in New Orleans, which are representative for the states that tax food. We then explain how we use the Consumer Expenditure Survey to calculate tax burdens. Finally, we present the results from our analysis.

i. Sales Tax Structures

Sales tax rates differ by each state and each local municipality. Typically, a state rate is applied in addition to the rate set up by the local government. There may be differences in the tax base at the state and local levels. For example, in Arizona there is no state or local sales tax applied to food purchased at retail locations for home consumption, while in Louisiana food purchased for home consumption is taxed only at the reduced local rate. In Alabama, both the state and local sales taxes apply to food purchased for home consumption. Clearly, without detailed knowledge of the residence for each household, one cannot construct exact sales tax rates. As an alternative we will use a representative rate to calculate the burden of the sales taxes for our samples.

The State of Alabama currently has a sales tax rate of four percent.⁴⁸ The local sales tax varies greatly by local municipality. In Montgomery the local sales tax is two percent; Birmingham adds a four percent rate. The total local and state sales tax, at the highest, reaches 12 percent in Alabama. All food purchases are taxed at both the state and local levels. This is a rare occurrence, even among southern states. However, prescription drugs are not taxed at any level in Alabama.

When calculating the average sales tax burden using the Alabama sales tax structure, we used the state sales tax rate, four percent, plus the average local sales tax rate of the state, four and a half percent. This total sales tax of eight and a half percent will be applied to purchases of food for home consumption, food for away from home consumption, and other goods that we estimate are taxable.

⁴⁸ Tax rates for Alabama were taken from Avalara (an online data source, available at <http://www.avalara.com/>)

In Louisiana, the state sales tax is also set at four percent. The local sales tax rate again varies, with the highest total state and local sales tax reaching eleven percent.⁴⁹ In New Orleans, the local sales tax is five percent. However, food purchased for home consumption is taxed at a reduced local rate of 4.5 percent. The sales tax burden calculations for New Orleans will differ from those of Alabama because of the exemptions in place. In Louisiana, food purchased for home use is only taxed at the reduced local level. Prescription drugs are also exempt from the state sales tax.

In calculating the average tax burdens for income groups using the New Orleans, Louisiana tax structure, food purchased for consumption away from home will be taxed at the joint state and local rate of nine percent. Food purchased for home consumption and prescription drugs will be taxed only at the reduced local level, four and a half percent.

ii. Data

We derive consumption and income data from the public use microdata from the 2012 Consumer Expenditure Survey (CEX) Quarterly Interview Survey.⁵⁰ This dataset provides information on the buying habits of American consumers and is collected by the Bureau of Labor Statistics by the United States Census. It is the only Federal level survey that provides information on a complete range of consumers' expenditures, income, and other characteristics. Data is collected at the "consumer unit" level, which refers to any of the following: (1) all members of a particular household who are related by blood, marriage, adoption, or other legal arrangements; (2) a person living alone or sharing a household with others but is financially independent; or (3) two or more persons living together who use their incomes to make joint expenditure decisions.

There have been a number of recent studies of the accuracy of the Consumer Expenditure Survey. In general, it does an excellent job of capturing consumption along most

⁴⁹ Data for Louisiana is available on the parish map from the Louisiana Association of Tax Administrators and available at http://www.laota.com/index.php?option=com_content&view=article&id=93&Itemid=101.

⁵⁰ Bureau of Labor Statistics, "Consumer Expenditure Survey, U.S. Department of Labor. Sample from 2012.. Available at: <http://www.bls.gov/cex/>

dimensions and its measures are close to other commonly used data sets.⁵¹ However, it is not accurate with respect to self-reports of government transfer programs.⁵² For these reasons, we rely on the CEX survey for our consumption data but, as we describe below, we use data from USDA studies to estimate benefit levels.

Because we are examining income and expenditure levels, it is important to be able to differentiate between households of different sizes. We are able to determine the number of people making joint financial decisions in each consumer unit through the family size variable. The Consumer Expenditure Survey is most recently available for the year 2013, however we chose to use the 2012 survey because the most extensive and recent Supplemental Nutrition Assistance Program data found was from FY 2012.

To study the tax burden on people of different income levels, a definition of “poor” is needed. The obvious and most convenient way to differentiate the poor from the non-poor is to use the poverty guidelines issued each year by the United States Department of Health and Human Services. These guidelines are what are sometimes loosely referred to as the “federal poverty level” (FPL). As we discussed, these are the guidelines used to determine eligibility for SNAP and the amount of SNAP benefits received.

Eighty-nine percent of the observations in the 2012 CEX were from consumer units with four or fewer people. We restrict our analysis to these households. We also distinguish households with only elderly persons as a household type, as they receive different average SNAP benefits than other one or two person households. We also excluded observations for consumer units living in Alaska and Hawaii, as they have different poverty guidelines than the continental states. Low-income households with rental losses are excluded as well, as they are likely not to meet the asset tests. In addition, for the two poor categories we exclude those households whose consumption was twice the poverty line based on the notion that these households would be unlikely to meet the eligibility tests for SNAP benefits.

⁵¹ For an assessment of the accuracy of the CEX for consumption data, see Adam Bee, Bruce Meyer, and James Sullivan, “The Validity of Consumption Data: Are the Consumer Expenditure Interviews and Diary Surveys Informative?” August 1, 2012, available from the authors.

⁵² See Thesia Garner, Robert McClelland, and William Pasero, “Strengths and Weaknesses of the Consumer Expenditure Survey from a BLS Perspective,” July 2009, pp. 12, available from the authors,

The poverty guidelines for 2012 are presented in Table 1. Any consumer unit reporting income at this guideline or below is considered to make 100 percent or less of the federal poverty level and will be categorized as the “poor” group. We will also consider what we term the “upper-poor,” those making gross incomes between 100 to 130 percent of the poverty line. For comparisons, we also analyze the sales tax burden on middle-income consumer units. There will be two categories for these consumer units as well, 150 to 250 percent of the federal poverty level and 350 to 450 percent of the federal poverty level. These categories will be called the “lower-middle class” and “middle class”, respectively. All variables are reported at annual levels.

To calculate the sales tax burden properly for each of these income categories, we needed to break out expenditures into specific categories to apply the sales tax structure correctly. Total expenditure levels for the year were calculated by adding the current quarter’s total expenditures to the previous quarter’s expenditure level and multiplying by two. All expenditure categories are thus transformed into yearly values.

Typically, services are not taxed at the state or local level, so as many service categories as possible need to be separated from the total expenditure level before estimating the sales tax burden. In the data, the non-taxable services available to exclude included transportation expenditures, housing expenditures (including rent and mortgage payments), medical services, health insurance payments, and expenditures on prescription drugs. Prescription drugs are taxed differently in different states, so it is important that it be a separate expenditure category.

Food is also taxed differently by states and local municipalities and depending on where the food is purchased. Food purchased to be prepared at home is considered “food at home” or food that would typically be purchased at a grocery store. This is the kind of food expenditures that SNAP benefits could be applied to. There is also the food category “food away from home” which is food purchased at restaurants. This category of food expenditures is typically taxed to the full extent at the state and local levels.

We then subtract all the service categories, prescription drugs, food at home, and food away from home from the total yearly expenditures to create an “all other spending” variable.

Throughout the analysis, we consider this category to be taxable at both the state and local levels. This is obviously not completely accurate, but we believe we have excluded as many non-taxable services as possible. Summary statistics for expenditure categories are presented below for the four income groups by household are presented in Table 2 through Table 5.⁵³

Figure 1 depicts the percentage spent on food at home for the different income categories. For a household of size two that is below the federal poverty cutoff, only 17 percent of all total expenditures are used to purchase food for home consumption.⁵⁴ As the income categories increase, the pattern shows that higher income households spend a smaller portion of their expenditures on food. This figure also presents an estimate of the taxable household food consumption taking into account the non-taxability of SNAP—we discuss the derivation of these numbers below. When the expected value of non-taxable SNAP benefits is taken out of the poor and upper-poor household’s food expenditures, the percentage of total taxable expenditures on food at home dramatically drops.

iii. SNAP Benefit Calculations

Any food bought with SNAP benefits is not subject to any state or local sales tax, as per federal law. Therefore, when calculating the tax burden food purchased with these benefits must not be taxed. Although the CEX contained self-reports of SNAP benefits, they were not plausible or consistent with the SNAP data. Instead of using the self-reports, we calculated an expected value of SNAP benefits using the average amounts given to each household type and the percentage of each income category that receives the benefits.

We estimate expected SNAP benefits for both the poor and upper-poor for five household types (elderly, single, two, three, and four members). To estimate the expected values of benefits, we need both estimates of the participation rates and average benefits for each category. The average benefits for each household type are taken from Table 3.3 and Table A.2 in the USDA report on the characteristics of SNAP Households.⁵⁵ We use these measures of benefits for the poor households. For the upper-poor households we reduce the benefits by multiplying by the 48%, which is the average, over all recipients, of the ratio of

⁵³ The entries in these tables are averages per household.

⁵⁴ This is the average of the ratio for each household.

⁵⁵ Table 3.3 and A.2 in USDA, “Characteristics....” supra

upper-poor benefits to poor benefits per household. We assume in our analysis that the higher income categories do not receive any benefits.⁵⁶

To estimate participation rates, we start with Table 3 in the USDA report on trends in SNAP participation by household type for FY 2012.⁵⁷ For single person households, we use participation rates from FY 2010, to offset the increased participation rates in 2012 due to a relaxation of the eligibility requirements during the most recent recession.⁵⁸ We make a few additional adjustments to these rates. In FY 2012, approximately 98 percent of all eligible households earning less than 100 percent of the federal poverty level received SNAP benefits; however, of those eligible earning between 101 and 130 percent of the federal poverty level, 50 percent participated in the program. For the upper-poor, we thus assumed a 50 percent participation rate for all categories. To preserve the average participation rate in each category by household type, we also adjusted upwards the average participation rates of the poor (over the average in each category).⁵⁹

As an illustration, consider a two person household whose average benefits were \$3,288. For the poor, we estimated a 91 percent participation rate. We then multiplied the average benefit by this percentage to estimate the expected benefit level. For the upper-poor, we make two subsequent adjustments. We multiply by .50 to account for the upper-poor reduced participation rate and multiply again by .48 to reflect their reduced benefit levels. With both these adjustments, the upper-poor receive relatively less expected benefits than the poor. Table 6 contains our estimates of expected SNAP benefits for all categories.⁶⁰

⁵⁶ Households with income higher than 130 percent of the poverty line can receive benefits if they are categorically eligible. However, they comprise only 4.8 percent of the recipients and receive only 1.5 percent of the benefits. See USDA, "Characteristics...." supra, Table A1.

⁵⁷ Table 3 in USDA "Trends....." op. cit. For the elderly, we make adjustments to reflect that our data contains households with only elderly members. After this adjustment, our elderly participation rate becomes 53.8 percent.

⁵⁸ Participation and eligibility rates both increased from FY 2010 to FY 2012 for this category. If participation rates do not fall materially in the future as eligibility decreases, then number of households that we assume would be enrolled in SNAP in our analysis would be the same as in FY 2010.

⁵⁹ Specifically, for each household type, we set the poor participation rate 10 percentage points higher than the average participation rates for all eligible households. This adjustment preserved the average as we reduced the participation rate for the near-poor.

⁶⁰ We experimented with other adjustments to the participation rates, but our overall results were not sensitive to the precise calculations.

iv. Tax Burden Calculations

To calculate the sales tax burden for each income category. First, we need the potential total amount of tax paid for each income category and household type. This is found using the following formula:

1. $(Potential\ Total\ Sales\ Tax)_{ih} =$
 $(food\ at\ home\ consumption)_{ih} * (tax) + (food\ away\ from\ home\ consumption)_{ih} * (tax) +$
 $(prescription\ consumption)_{ih} * (tax) + (all\ other\ spending)_{ih} * (tax)$

The tax for each consumption category may differ depending on what state and country or parish's tax structure is being applied. Once this has been calculated, the sales tax burden for each group can be calculated by summing over the total sales taxes paid by the group divided by either the sum of consumption or income from the group. The reason we need to sum by groups is that a substantial fraction of the poor and near-poor households report zero income, so it is not possible to calculate meaningful effective tax rates for income by household.⁶¹

These calculations are sufficient for the lower-middle and middle-income categories, however for the poor and upper-poor categories the SNAP benefits need to be taken into account. Because any food purchased with SNAP benefits is not taxed at the state or local level, as per federal law, it needs to be taken out of the "food at home" consumption category in the total tax formula.

2. $(Total\ Sales\ Tax\ With\ SNAP\ Credit)_{ih} =$
 $(food\ at\ home\ consumption - EV\ of\ SNAP\ Benefits)_{ih} * (tax)$
 $+ (food\ away\ from\ home\ consumption)_{ih} * (tax) + (prescription\ consumption)_{ih} * (tax)$
 $+ (all\ other\ spending)_{ih} * (tax)$

Again, the tax for each consumption category depends on specific state and local laws. After subtracting the expected value of the SNAP benefits from total food at home

⁶¹ For example, for the poor 3-person households, sixty percent of our sample reports zero income.

consumption, some consumption units in the CEX survey end up with negative total food at home consumption. We change these negative values to zero. Once the total sales tax with the SNAP credit has been calculated, the sales tax burden can be calculated in the same manner as before for the entire group.

Clearly, one would expect the tax burden with the SNAP credit to be lower than the tax burden without the SNAP credit for the poor and upper-poor income categories. In the next section, we present estimates of tax burdens with and without the credit for each income category and household type. These calculations are presented for both the sales tax structures of Alabama (with an average local tax) and prevailing rates for New Orleans, Louisiana.

Alabama Sales Tax

The total sales tax, total sales tax with the SNAP credit, and tax incidence based off both total taxes using the Alabama tax structure are calculated for each income and household category and available in an Appendix from the authors. To illustrate our findings, Figure 2 presents the average tax incidence for a two-person household for each income category. The graph presents the tax incidence as a function of total income, total income with the tax credit, total expenditures, and total expenditures with the tax credit.

SNAP benefits clearly make a difference. Expressed as a percent of income, the sales tax burden is 51 percent without SNAP but falls to 29 percent with SNAP. As expected, even with SNAP benefits, the poor pay a higher percentage of income in taxes—but that is largely because so many households in this category report zero income. Comparing the upper-poor with our two other income classes, the burden is roughly proportional even using income as a measuring rod.

However, the average tax burden based on total expenditures (our preferred measure) changes the picture and makes the sales tax slightly progressive. Taking into account the SNAP benefit, the effective tax rates as measured by consumption for our four income categories are 2.6 percent, 3.2 percent, 3.8 percent, and 4.2 percent. This is mildly progressive and there clearly is an upwards movement in effective tax rates. The SNAP benefits do make a difference—without them the poor would pay a higher effective rate than the upper-poor and comparable rates to the other categories.

In summary, once the SNAP benefits are taken into account, the sales tax appears to be slightly progressive as measured by consumption. Even using income, there is a substantial drop in measured burden. As Figure 1 revealed, the SNAP benefits do make a substantial difference in the overall tax base for the poor.

New Orleans, Louisiana Sales Tax

The total sales tax calculations for New Orleans, Louisiana differ slightly from the Alabama case. New Orleans taxes food at a lower rate than the average Alabama jurisdiction, but the sales tax for non-food goods is higher, at five percent. Despite these differences, the average tax burdens look very similar, to those calculated for Alabama. The total sales tax, total sales tax with the SNAP credit, and tax incidence based off both total taxes using the New Orleans, Louisiana tax structure are also available in an Appendix from the authors.

Figure 3 presents the key data for two-person households. This graph presents the average sales tax burden calculations for tax burden based on total income, total expenditure, and total income and expenditures with the SNAP credit taken out of the total sales tax calculations. Again, the income based tax burden is regressive, with the poor category paying about 31 percent of their income in sales tax after SNAP benefits are taken into account.

However, when looking at the tax burden based on total expenditures, this inequality appears to go away. The average sales tax burden based on expenditures without the SNAP credit is 3.5 and 3.6 percent of total expenditures for the poor and upper-poor respectively, while it is around 3.5 for the lower-middle and 4.0 percent for the middle category. Once the SNAP credit is added this incidence falls to around 2.7 percent and 3.1 percent for the poor and upper-poor categories respectively, while the lower-middle and middle burdens remain the same. With and without the SNAP credit, the sales tax seems to be proportional, if not progressive.

The effective tax rate for the poor is higher in New Orleans (2.7 percent) compared to Alabama (2.6 percent) even though New Orleans taxes food only at the local level and at slightly a reduced rate. On the other hand, for the middle-income group the effective rate is higher in Alabama than New Orleans (4.2 percent vs 4.0 percent). The middle class pays a higher effective rate in Alabama because food at home is taxable, but the SNAP benefits offset

this affect for the poor. The poor benefit from the slightly lower sales tax rate in Alabama and because of the effects of SNAP benefits. In general, broadening the sales tax rate to include food at home and lowering the rate will make the sales tax more progressive and help the poor with their SNAP benefits. Conversely, exempting food at home from the tax base will hurt the poor.

VI. Conclusion

In this paper, we have shown that because the SNAP program effectively targets poor households and SNAP benefits are non-taxable, the poor do not really benefit from the sales tax exemption for food at home. Indeed, almost surely they would be better off if food at home were included in the tax base and revenue neutral adjustments were made to the sales tax rate.

Why then have advocates for the poor (and a governor) supported removing food at home from the sales tax base? There are probably a number of possible explanations. First, the success of the SNAP program in reaching the poor may not be fully appreciated as the program has evolved over time. The SNAP program is complex and only potential recipients of SNAP benefits have a direct incentive to learn about the program.

Second, some advocates for the poor do not want to see any poor individual pay any tax. The SNAP program, although remarkably successful, will clearly not eliminate all taxable at home purchases for every single poor household. In this view, no poor person should be left behind. Moreover, the near-poor would potentially be subject to taxation on their food at home consumption.

A third potential reason is that since the sales tax is generally viewed as a regressive tax, any means to eviscerate it may be welcome, particularly if a progressive tax—say, the income tax—becomes its substitute. This rationale requires a set of optimistic political economy calculations that may not be met in practice. On a related point, many voters and politicians do not believe there are “revenue neutral adjustments.” If a government is indeed a Leviathan, then it will take any opportunity to increase its revenue. Base broadening, without an associated rate decrease would just be another way to increase government revenue.

Finally, advocates for the poor may believe that the institution of SNAP benefits may prove to be less durable than an exemption from the sales tax for food at home. Although the SNAP program historically has traditionally been supported by a stable coalition of urban Democrats and rural Republicans, anti-welfare state sentiment could potentially make the program vulnerable to legislative changes in the future. Advocates for the sales tax exemption would contend that the exemptions would be harder to reverse. One example of this political economy calculation occurred during the passage of the Australian VAT.⁶² Politicians in Australia debated whether to include food in the VAT but with a subsidy program or simply exclude food. They eventually chose to exclude food, pointing to the experience in New Zealand in which subsidies designed to offset the regressivity of the VAT were eliminated.

Regardless of these political economy rationales, excluding food at home from the sales tax is a costly exclusion. And, on balance, with the SNAP program that has been in place for near half a century, it also hurts the very poor.

⁶² See Susan C. Morse, "How Australia Got a VAT," *The VAT Reader*, Tax Analysts, 2011 at 15-17.

Table 1

2012 Poverty Guidelines for the 48 Continuous States	
<i>Persons in family/household</i>	<i>Poverty Guideline</i>
1	\$11,170
2	\$15,130
3	\$19,090
4	\$23,050

Table 2

Summary Statistics for Expenditure Categories by Household Size					
(Poor, Less Than 100% of FPL)					
<i>Household Type</i>	<i>Elderly</i>	<i>Single</i>	<i>Two</i>	<i>Three</i>	<i>Four</i>
Total Expenditure	9487.12	8243.93	13652.26	15985.16	20064.86
Food at Home	1545.31	1191.93	2026.56	2546.06	3135.78
Food Away From Home	392.06	490.44	645.24	720.13	878.73
Housing	2378.69	2481.22	3383.83	3775.78	4933.61
Utilities	1292.27	801.52	1451.31	1720.53	2019.97
Transportation	911.40	945.77	1758.41	2026.12	2707.42
Medical Services	109.66	74.35	154.62	141.68	263.12
Prescription Drugs	147.50	67.28	99.79	98.65	68.78
Health Insurance	971.65	164.63	444.25	433.83	485.19
All Other Spending	1738.60	2026.79	3687.26	4522.38	5572.27
Observations	315	436	281	234	188

Table 3

Summary Statistics (Averages) for Expenditure Categories by Household Size (Upper-Poor, 100-130% of FPL)					
<i>Household Type</i>	<i>Elderly</i>	<i>Single</i>	<i>Two</i>	<i>Three</i>	<i>Four</i>
Total Expenditure	9952.37	9329.37	12587.96	16621.37	17471.59
Food at Home	1372.52	1322.85	1912.19	2343.70	2619.50
Food Away From Home	294.39	535.57	640.98	761.66	827.00
Housing	2561.01	2721.29	2573.37	4137.54	3797.78
Utilities	1343.80	915.23	1465.17	1581.25	1692.85
Transportation	995.24	1067.88	2058.63	2407.74	3339.20
Medical Services	162.74	74.33	41.75	209.09	233.90
Prescription Drugs	187.87	43.62	94.73	68.94	110.60
Health Insurance	946.60	322.96	291.78	338.42	225.39
All Other Spending	2088.20	2325.62	3509.36	4773.04	4625.37
Observations	119	84	41	53	40

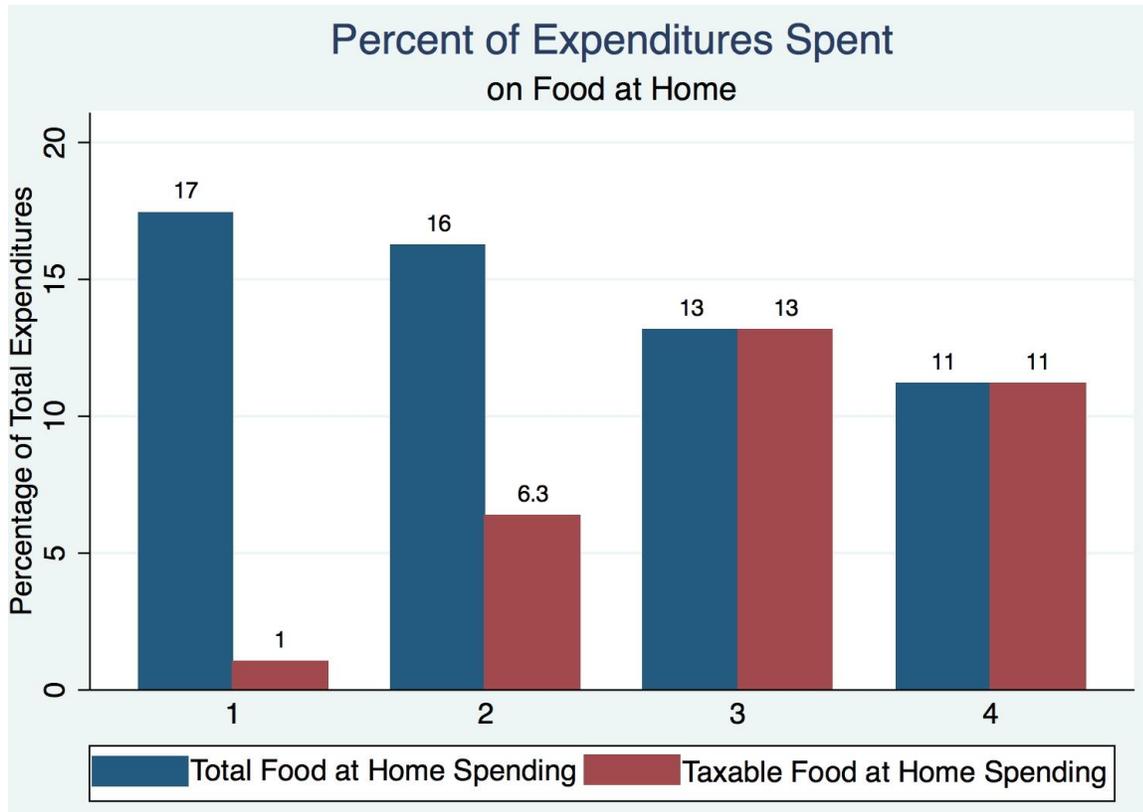
Table 4

Summary Statistics for Expenditure Categories by Household Size (Lower-Middle Class, 150-250% of FPL)					
<i>Household Type</i>	<i>Elderly</i>	<i>Single</i>	<i>Two</i>	<i>Three</i>	<i>Four</i>
Total Expenditure	16189.47	13761.12	19217.36	21399.40	23561.95
Food at Home	1758.75	1330.91	2164.61	2636.33	2840.84
Food Away From Home	719.25	664.22	835.59	1033.23	1007.12
Housing	2848.93	3384.46	4141.16	4635.75	5031.53
Utilities	1706.50	1028.65	1704.84	1888.47	2103.47
Transportation	1965.73	1971.76	4134.11	3682.33	4600.41
Medical Services	557.12	285.09	221.76	573.52	277.22
Prescription Drugs	331.52	101.25	121.19	162.02	226.49
Health Insurance	1885.64	367.91	550.63	715.99	712.94
All Other Spending	4416.02	4626.86	5343.45	6071.76	6761.94
Observations	131	202	206	131	157

Table 5

Summary Statistics for Expenditure Categories by Household Size (Middle Class, 300-450% of FPL)					
<i>Household Type</i>	<i>Elderly</i>	<i>Single</i>	<i>Two</i>	<i>Three</i>	<i>Four</i>
Total Expenditure	23028.04	15825.46	25552.37	29395.31	33058.38
Food at Home	2113.42	1483.26	2608.68	2819.91	3371.06
Food Away From Home	1022.41	939.32	1186.56	1224.79	1572.25
Housing	4154.73	4200.17	4656.62	5704.05	6933.11
Utilities	1937.99	1284.41	1830.35	2361.18	2434.31
Transportation	3269.22	2212.59	5310.74	5694.53	5193.59
Medical Services	673.36	178.00	485.09	539.24	513.62
Prescription Drugs	335.98	71.88	188.14	134.60	120.01
Health Insurance	1827.27	489.69	1059.39	1353.96	1130.51
All Other Spending	7693.65	4966.15	8226.80	9563.06	11789.92
Observations	131	202	206	131	157

Figure 1

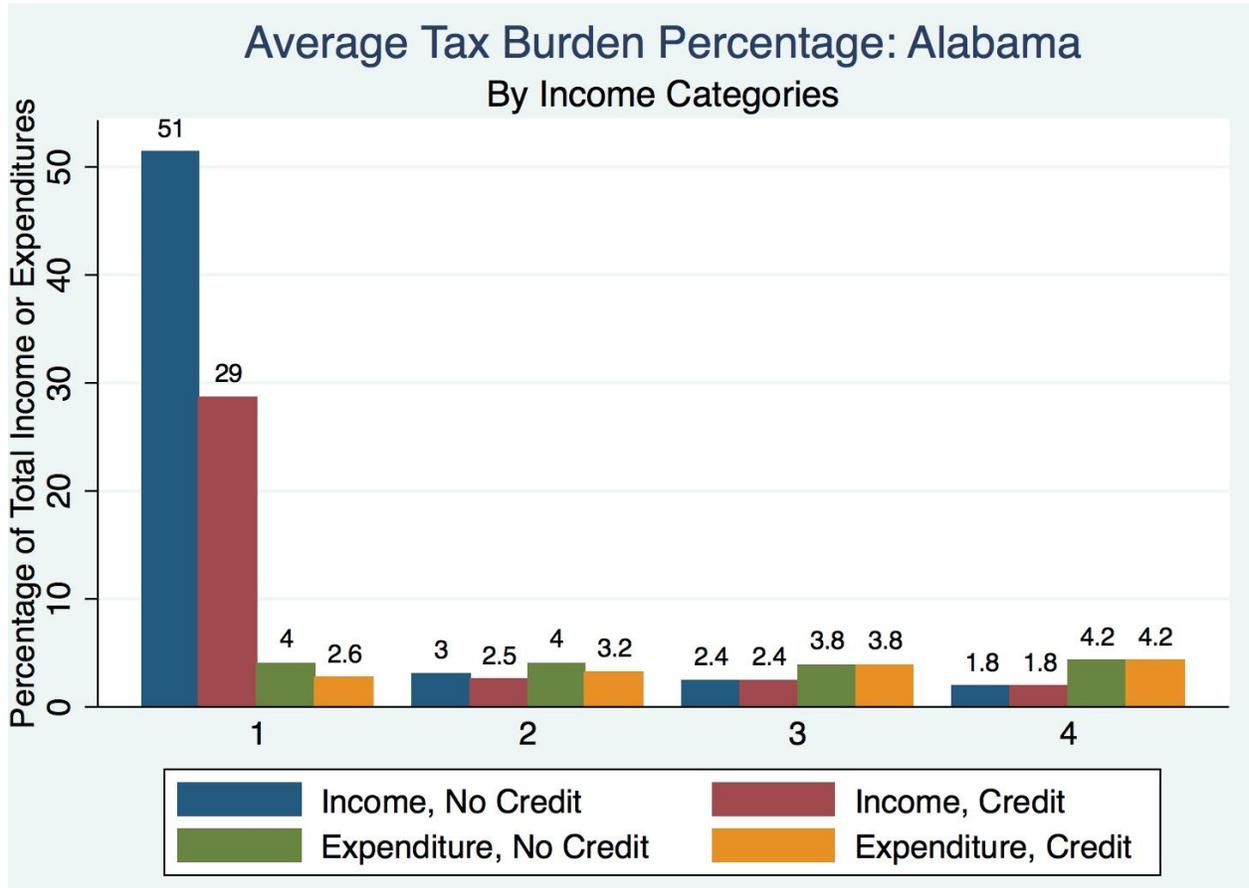


Percentage of Total Expenditures Spent on
Food for Home Consumption, By Income Categories
(For Two-Person Household)

Table 6

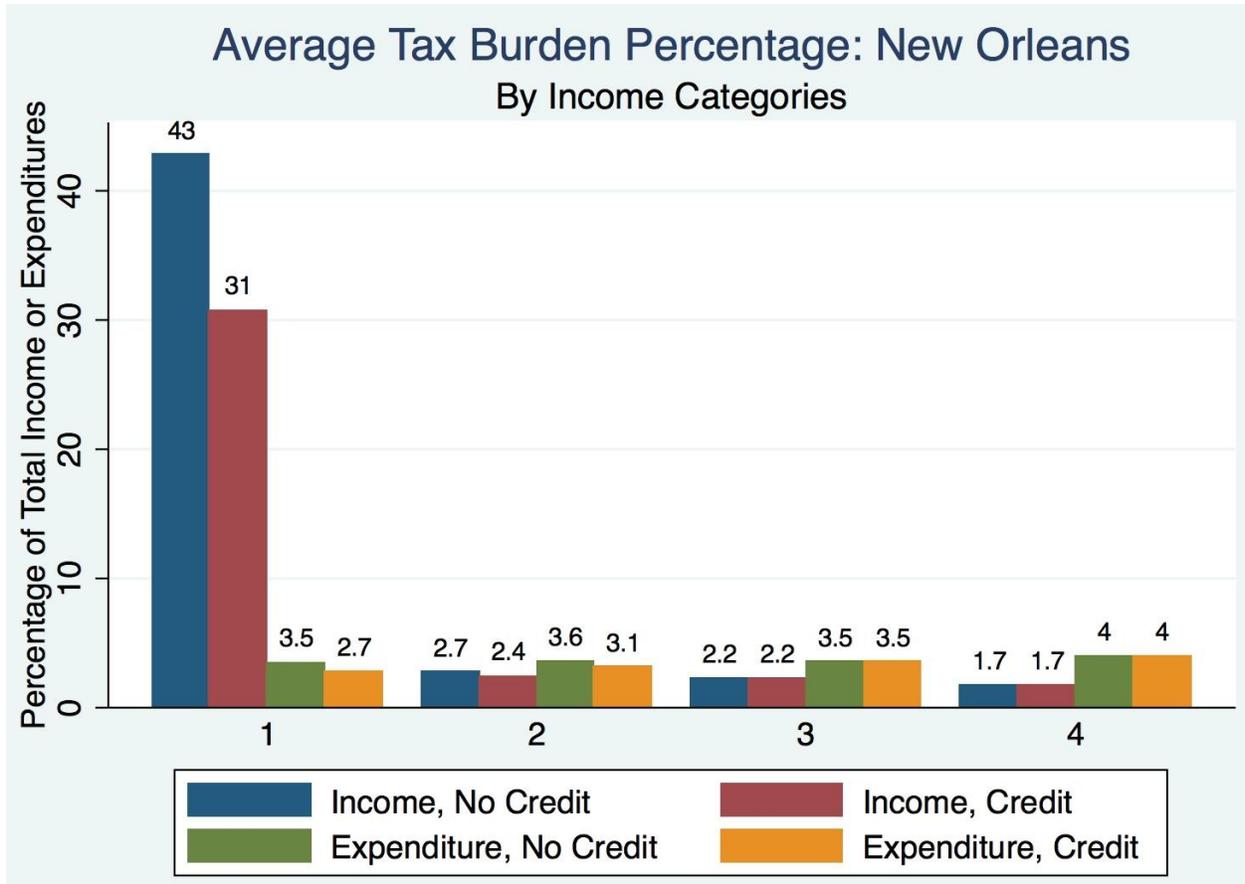
Estimated Expected Value of SNAP Benefits					
By Income Category and Household Type					
Income Category /HH Type	<i>Elderly</i>	<i>Single</i>	<i>Two</i>	<i>Three</i>	<i>Four</i>
Poor	1064.18	1380.60	2992.08	4747.85	5138.71
Upper Poor	510.81	662.69	1436.20	2278.97	2466.58
Lower-Middle	0	0	0	0	0
Middle	0	0	0	0	0

Figure 2



Average Alabama Tax Burden Faced By Two-Person Household
Over Income Categories

Figure 3



Average New Orleans, LA Tax Burden Faced By Two-Person Household
Over Income Categories