



United States Department of Agriculture

Examination of the Effect of SNAP Benefit and Eligibility Parameters on Low-Income Households

Food and Nutrition Service
Office of Policy Support
3101 Park Center Drive
Alexandria, VA 22302

October 2017

USDA is an equal opportunity provider, employer, and lender.

Examination of the Effect of SNAP Benefit and Eligibility Parameters on Low-Income Households

Final Report



DECISION DEMOGRAPHICS

MATHEMATICA
Policy Research

Joshua Leftin
Thomas Godfrey
James Mabli
Nancy Wemmerus
Stephen Tordella

Submitted to:

USDA Food and Nutrition Service
Office of Policy Support
SNAP Research and Analysis Division
3101 Park Center Drive, Room 1014
Alexandria, VA 22302

Project Officer:

Bob Dalrymple

Submitted by:

Decision Demographics
4312 North 39th Street
Arlington, VA 22207-4606

Project Director:

Stephen Tordella

This study was conducted under contract number AG-3198-C-15-0015 with the Food and Nutrition Service, U.S. Department of Agriculture.

The report is available at <http://www.fns.usda.gov/fns/research.htm>

Suggested citation:

Leftin, J., Godfrey, T., Mabli, J., Wemmerus, N., & Tordella, T. (2017). Examination of the Effect of SNAP Benefit and Eligibility Parameters on Low-Income Households. Prepared by Decision Demographics under Contract No. AG-3198-C-15-0015. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service.

Acknowledgements

This report was prepared for the U.S. Department of Agriculture's Food and Nutrition Service, Office of Policy Support by Stephen Tordella, Thomas Godfrey, and Nancy Wemmerus of Decision Demographics and Joshua Leftin and James Mabli of Mathematica Policy Research, with quality assurance review by Laura Castner of Mathematica. The authors thank Bob Dalrymple, Julia Druhan, Kathryn Law, Barbara Murphy, Kameron Burt, Mary Rose Conroy, Sasha Gersten-Paal, Sarah Goldberg, Jessica Luna, and Miles Patrie of the Food and Nutrition Service for providing guidance and reviewing the report. Editorial consultant Susan Freis Falknor, graphic designer Mannie Tobie, Priscilla Foran of Decision Demographics, and Alma Vigil, Alexander Bohn, Katherine Bencio, Bruce Schechter, and Karen Cunnynggham of Mathematica also made important contributions to the report.

Page intentionally blank

EXECUTIVE SUMMARY

This study for the U.S. Department of Agriculture (USDA) Food and Nutrition Service (FNS) examines how well the policies that determine benefit levels for the Supplemental Nutrition Assistance Program (SNAP) reflect the current spending patterns of low-income households. It is a national study that draws on Federal data resources to examine the expenditures of low-income households across the United States in 2013 and 2014.

Generally, SNAP benefit levels are based on net household income, which accounts for a set of deductions intended to capture household spending on housing, health care, work-related costs, and other specified expenses. These expenses reduce what is available for food purchases. To determine household SNAP benefit levels, FNS assumes that households spend 30 percent of their net income on food. Over the years, however, changes in household spending patterns on food, housing, health care, transportation, and other areas may have led to incongruences between SNAP eligibility criteria and benefit levels and the current circumstances of low-income households.

This study finds that SNAP's existing deduction amounts generally reflect the expenditures reported by low-income households covered by the deductions. However, this finding applies to SNAP's current deduction structure and households that qualify for those deductions. Some household types not covered by the deductions have substantial expenditures, particularly in the area of medical costs—a deduction available only to elderly and disabled participants.

This Summary provides a broad overview of a comprehensive report. For detailed analyses of the findings introduced here, see complete report, at <http://www.fns.usda.gov/fns/research.htm>

About SNAP

SNAP—the nation’s largest nutrition-assistance program—provides eligible low-income households a monthly benefit to be spent on food, with the aim to reduce food insecurity and improve nutrition. SNAP served an average of 22.5 million households with 45.8 million individuals per month in 2015. Participating households received an average monthly benefit of \$258 to supplement their spending on food. The maximum benefit available to SNAP-eligible households is based on the cost of the USDA’s Thrifty Food Plan, a national standard for a nutritious diet at a minimal cost.

Implicit in SNAP program rules are assumptions about the income available to households to spend on food; indeed, benefit amounts are keyed to a household’s net income, after certain deductions. The following box shows allowable SNAP deductions for monthly expenditures on certain nonfood items when computing net income.

Deduction type	Who is eligible?	How deduction is computed under Federal rules
Standard deduction	All households	Equal to fixed dollar amount that varies by household size and for Alaska, Hawaii, Guam, and the Virgin Islands; indexed annually to inflation
Earned income deduction	Households with earned income	Equal to 20 percent of monthly household earned income
Dependent care deduction	Households with dependents	Equal to monthly out-of-pocket expenses for the care of children and other dependents while other household members work, seek employment, or attend school
Medical expense deduction	Households with elderly individuals (age 60+) or disabled individuals	Equal to monthly out-of-pocket health care expenses that exceed \$35 incurred on behalf of elderly or disabled household members
Child support payment deduction	Households making legally obligated child support payments	Equal to monthly child support payments
Excess shelter expense deduction	All households	Equal to out-of-pocket monthly rent, mortgage payments, utility bills, property taxes, and insurance that total more than half of household income after subtracting other deductions. Households without elderly or disabled individuals are subject to a cap that varies for Alaska, Hawaii, Guam, and the Virgin Islands and is indexed annually to inflation.

Note: The box does not summarize State options pertaining to how deductions are treated.

About this study

This study, *Examination of the Effect of SNAP Benefit and Eligibility Parameters on Low-Income Households*, was funded by FNS and carried out by Decision Demographics and Mathematica Policy Research. The study analyzes household spending patterns and deduction usage among low-income households in 2013 and 2014. The study draws on national data, including the Consumer Expenditure Survey (CE), SNAP participant information from the program's Quality Control data files, and a SNAP eligibility and participation simulation model based on Survey of Income and Program Participation data.

The primary objectives of the study are to describe low-income household spending patterns across various expense categories and household types and to assess the alignment between reported spending and current SNAP policies. The study defines low-income households as those whose total income is under 200 percent of poverty.

Specifically, the study addresses the following questions:

- What share of their budgets do low-income households spend on food, housing, health care, transportation, and other items?
- How do these spending patterns vary across different types of households?
- How well do SNAP deductions and the SNAP “benefit reduction rate” (the rule that reduces SNAP benefits by 30 cents for each additional dollar of net income) reflect real costs faced by low-income households?
- Do low-income households have any major expenditures that are not captured in the current deductions?
- How do households use SNAP deductions when they are initially certified and later recertified for the program?
- Is there any evidence that households face structural barriers to claiming a deduction, such as reporting and documentation requirements or privacy concerns?

This study uses nationally representative data to compare low-income household spending to existing SNAP deductions.

Summary of findings

I. Shelter, food, and transportation dominate low-income household spending.

Of the approximately \$2,300 spent monthly by the average low-income household, nearly 40 percent is spent on housing (Figure 1). Food, both at home and away from home, accounts for almost \$1 out of every \$5 spent, as does transportation. Together, these three categories account for nearly three-quarters of the average household's spending. The next largest share is spent on health care, with other goods and services such as insurance and pensions, clothing, and entertainment accounting for smaller shares.

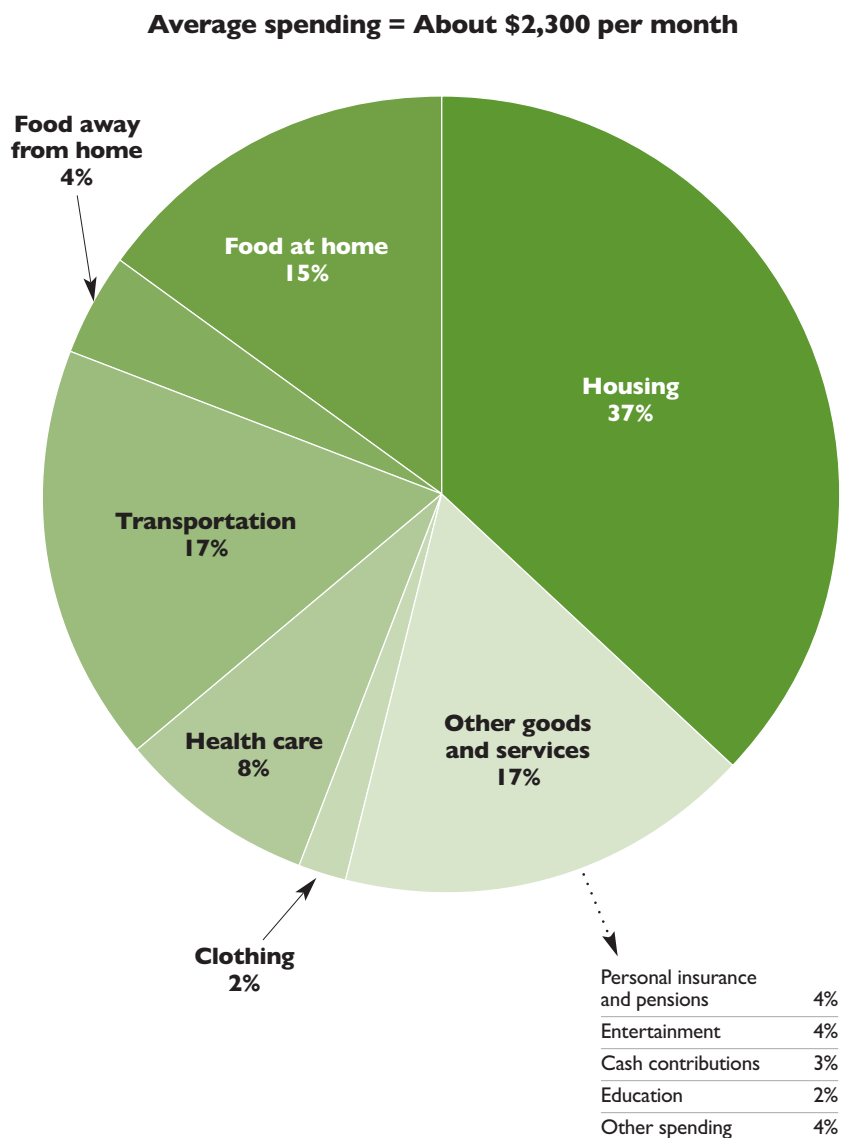


Figure I.
Low-income household
spending patterns

Source: 2013 and 2014 Consumer
Expenditure Survey.

Table 1 shows how different categories of low-income households allocate their spending as a percentage, or share, of their total expenditures. While at first glance, housing, food, and transportation generally predominate, distinguishing factors reflect the circumstances of different household types.

Table 1.
Low-income household
spending

Source: 2013 and 2014 Consumer
Expenditure Survey.

Children	36%	21%	19%	5%	19%
No children	37%	18%	15%	10%	19%
People age 60 or older	36%	18%	15%	13%	17%
No one age 60 or older	37%	20%	18%	5%	20%
0 to 49 percent	40%	21%	16%	6%	18%
50 to 99 percent	39%	21%	15%	6%	19%
100 to 130 percent	37%	19%	17%	8%	19%
Over 130 percent	35%	18%	18%	9%	20%
Employed	36%	20%	19%	5%	21%
Unemployed	46%	23%	14%	5%	13%
Not in labor force	37%	20%	17%	6%	20%
Urban	37%	19%	17%	8%	19%
Rural	30%	20%	19%	10%	20%

Households with children. The average household with children present spends relatively more on food and transportation and less on health care than when there are no children.

Households with people age 60 or older. Health care spending reaches 13 percent for the average household that has elderly members, higher than any other household type, while their transportation and food spending are relatively low.

Households by income. Income is measured in relation to the Federal poverty guidelines. Those with the lowest income devote the largest share of their spending to housing, on average. This percentage decreases

with rising income. The same pattern holds for food spending. The opposite applies to the percentages spent on health care and all other items that rise with income.

Households by employment. A larger share of household spending is devoted to the basics of housing and food when the household head is unemployed. Average spending patterns do not vary much between whether the household head is employed or not in the labor force.

Locality. Spending on housing is the principal differentiator between urban and rural households—the average rural household spends relatively less. Urban and rural households spend about the same share on food, but rural transportation and health care spending are higher.

2. Most SNAP deductions generally reflect actual expenditures. For some types of households not covered by the deductions, however, expenses may be large.

The earned income deduction closely approximates work-related expenses. The deduction is meant to approximate costs associated with working, such as commuting expenses, work uniforms, and payroll taxes. Working individuals, also called earners, report spending on gasoline and motor oil, parking and tolls, and uniforms more often than non-earners. These expenditures generally increase with increased earnings. When combined with payroll taxes, they sum to around 19 percent of average earnings—close to the existing SNAP deduction that is set at 20 percent of earned income (Figure 2).

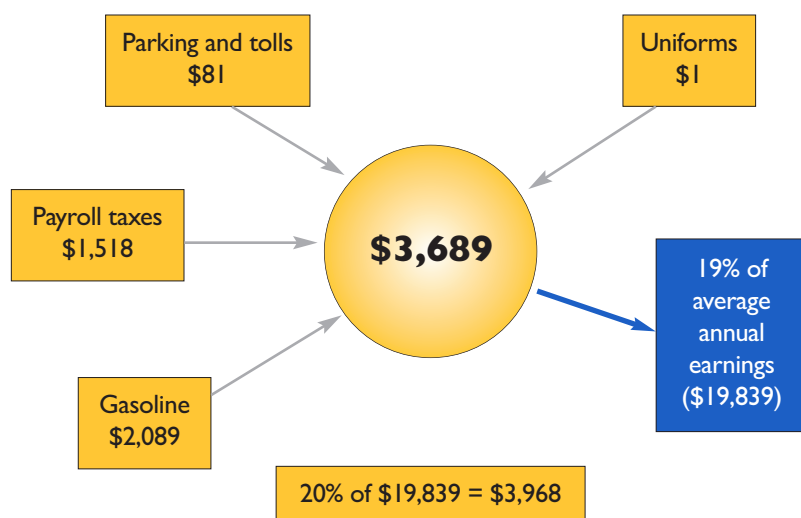


Figure 2. Work-related expenses approximate the current earned income deduction for low-income households

Note: The available data could not identify all work-related expenditures or whether all expenditures in these categories were necessarily related to working. Different methods of estimating work-related costs range as high as 30 percent of earnings.

Source: 2013 and 2014 Consumer Expenditure Survey.

However, the available data cannot identify all work-related expenditures and, for those expenditures used in the analysis above (for example, gasoline), the data cannot identify whether they were necessarily related to working. Work-related expenses may be higher or lower than 19 percent, depending on which expenditure types are classified as being associated with working.

The medical expense deduction compensates for health care expenses for elderly or disabled individuals. However, it does not apply to other household members, whose expenses can be high. Households spending more than \$35 out of pocket on the health care of elderly or disabled members may deduct that amount from gross income. Figure 3 shows that low-income households reporting health care spending average substantially more than \$35 per month.

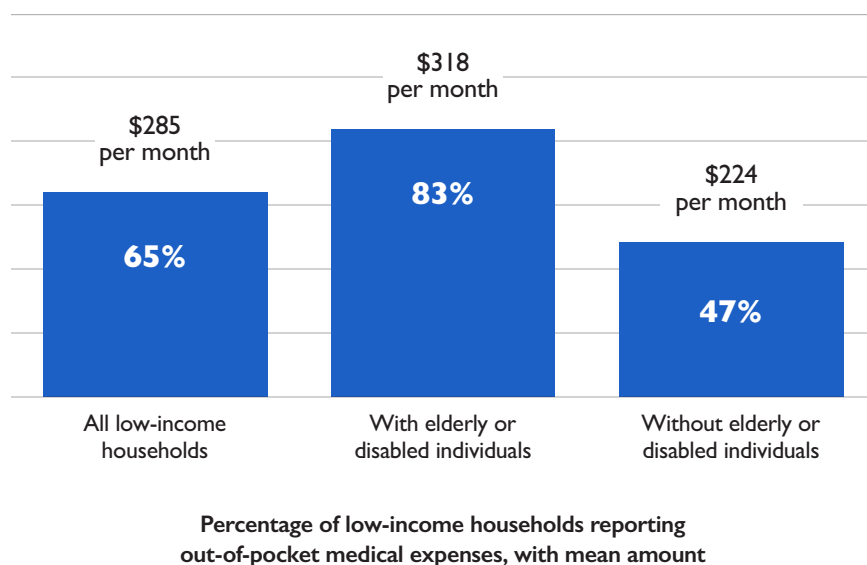


Figure 3. Low-income households with elderly or disabled members have high health care spending

Source: 2013 and 2014 Consumer Expenditure Survey.

Out-of-pocket health care expenditures are more common for households with elderly or disabled members than for those without, and they spend an average of \$318 per month. However, the data do not indicate whether the medical expenses pertained to elderly or disabled household members, whose expenses in excess of \$35 are deductible, or to other household members, whose expenses are not deductible. Households without elderly or disabled individuals also incur sizeable medical expenses, but the medical expense deduction is not available to them. Almost half of these households report spending on health care, averaging \$224 per month.

SNAP's excess shelter expense deduction is intended to offset the housing costs that low-income households face, such as rent, mortgage payments, utility bills, property taxes, and insurance, that are high relative to their income. When this spending exceeds 50 percent of net income after subtracting all other deductions from a household's gross income, households may claim this deduction. Two additional factors affect calculation of the deduction:

- Households without elderly or disabled individuals are subject to a dollar limit on the shelter deduction—a “shelter cap.” In the contiguous United States, the shelter cap was \$478 per month in 2014.
- Instead of using actual utility expenses, many States use predetermined amounts, called Standard Utility Allowances, to add to a household's actual rent or mortgage expense.

For some low-income households, the cap on the excess shelter expense deduction results in the deduction not fully covering all excess shelter expenses. Figure 4 shows that the shelter cap limits the excess shelter expense deduction amount for some participating households. In particular, 14 percent of participating households without elderly or disabled individuals would realize an increase in SNAP benefits if the shelter cap were removed.

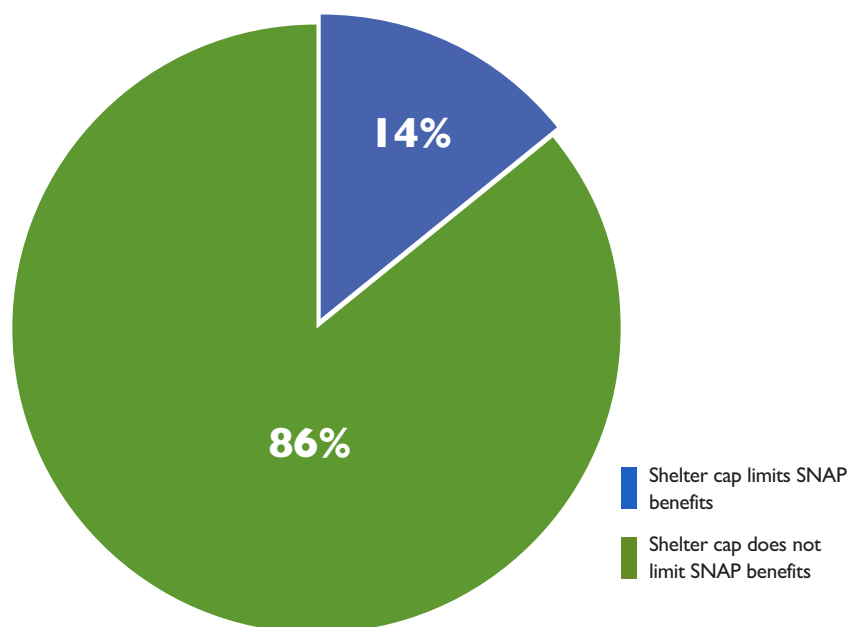


Figure 4.

The shelter cap limits the excess shelter expense deduction amount of one in seven SNAP participating households without elderly or disabled members.

Note: Only households without elderly or disabled individuals are subject to a shelter cap.

Sources: Fiscal year 2013 and 2014 SNAP QC data files and simulations using the 2013 and 2014 SNAP QC Minimodels.

While the shelter cap may limit the amount of the excess shelter expense deduction, State Standard Utility Allowances (SUAs) may inflate the amount of the deduction relative to actual costs. Figure 5 shows that utility amounts used in the SNAP excess shelter expense deduction were higher, on average, than actual utility expenses for low-income households. The utility amounts are often based on State SUAs. The

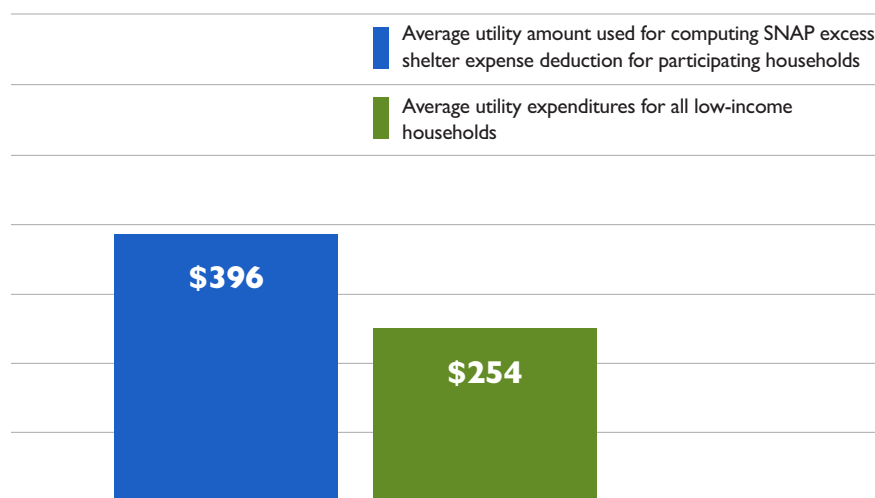


Figure 5. Utility amounts allowed by the SNAP deduction exceed actual expenditures

Note: The totals exclude households with no utility amount (SNAP QC) and households with no utility expenditures (CE).

Sources: Fiscal year 2013 and 2014 SNAP QC data files for utility amounts, and 2013 and 2014 Consumer Expenditure Survey for utility expenditures

mean utility amount for SNAP participants (based on either an SUA or actual costs) is \$396, compared to \$254 in average monthly utility spending for low-income households. These estimates exclude households with no utility amount or no utility expenditures.

3. Low-income households spend less than 30 percent of after-tax income but more than 30 percent of net income on food.

Since the inception of the program, SNAP rules have assumed that participating households spend about 30 percent of their net income on food, with SNAP providing the difference between that amount and the maximum SNAP benefit. This percentage is often referred to as the benefit reduction rate, because each dollar of net income reduces SNAP benefits by 30 cents (Figure 6).

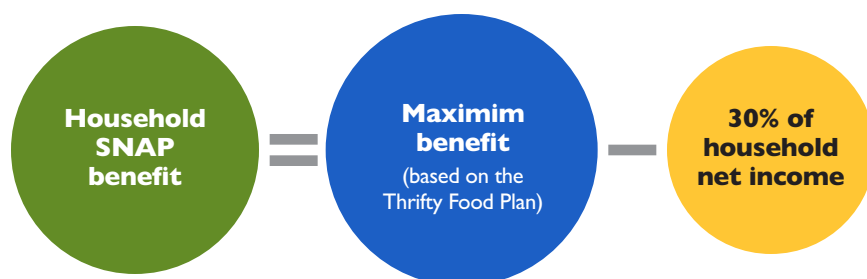


Figure 6. SNAP benefit formula

The project team evaluated whether this benefit reduction rate reflects current food spending as a percentage of after-tax income, finding that low-income households spend about 20 percent of after-tax income on food at home. This is lower than the 30 percent used as a basis for the benefit reduction rate but larger than a 12 to 17 percent range found in a recent Institute of Medicine¹ assessment.

The project team also compared food spending as a percentage of net income to the benefit reduction rate, finding that low-income households spend about 42 percent of their net income on food at home. However, the CE data show a large discrepancy between reported available income and expenditures, with expenditures exceeding gross income by about 50 percent for most low-income households. Examining an alternate assumption that total expenditures (excluding SNAP benefits) more appropriately capture households' total available resources, the project team found that food at home spending excluding the SNAP benefit is a much lower share of total expenditures (13 percent) than of net income (42 percent). Because findings vary substantially by measure of household resources and the CE data present limitations, the project team recommends caution in interpreting these findings and making comparisons with other studies.

Study findings vary widely by approach used. Results are inconclusive because of this and other data limitations.

4. Low-income households do not receive deductions for some common types of expenditures, and the proportion of SNAP participants taking certain deductions does not always match well with reported expenditure patterns for low-income households.

SNAP deductions are determined when participating households initially apply for or recertify their eligibility for SNAP benefits. Households may experience changes in earnings and income between initial certification and subsequent recertification, along with changes in housing, health care, and dependent care expenses that affect their deductions.

The project team examined deduction availability and usage by:

- Considering whether low-income households incur costs that are not included in the deductions but that could be considered
- Comparing the percentage of participating SNAP households that take each deduction type at initial certification and recertification
- Assessing whether there is evidence of structural barriers that might keep low-income households from reporting certain expenses

The project team analyzed data for low-income households and SNAP participants to explore the need for deductions, their actual usage, and actual amounts. The findings show that:

- SNAP deductions do not capture certain common household expenses that low-income households have, such as spending on housing repairs or maintenance, vehicle-related expenses not associated with commuting, and finance, late charges, or interest on student loans.
- Nearly three-quarters of SNAP households take an excess shelter expense deduction, and 32 percent have an earned income deduction. The other deductions are used much less frequently.
- Greater percentages of households use the earned income, excess shelter expense, dependent care, and medical expense deductions at recertification than households in their initial certification, but the differences are generally small. There is no significant difference in the use of the child support payment deduction at initial certification and recertification.

Figure 7 shows that the percentage of low-income households with spending on rent or mortgage, health care, and child care is often higher

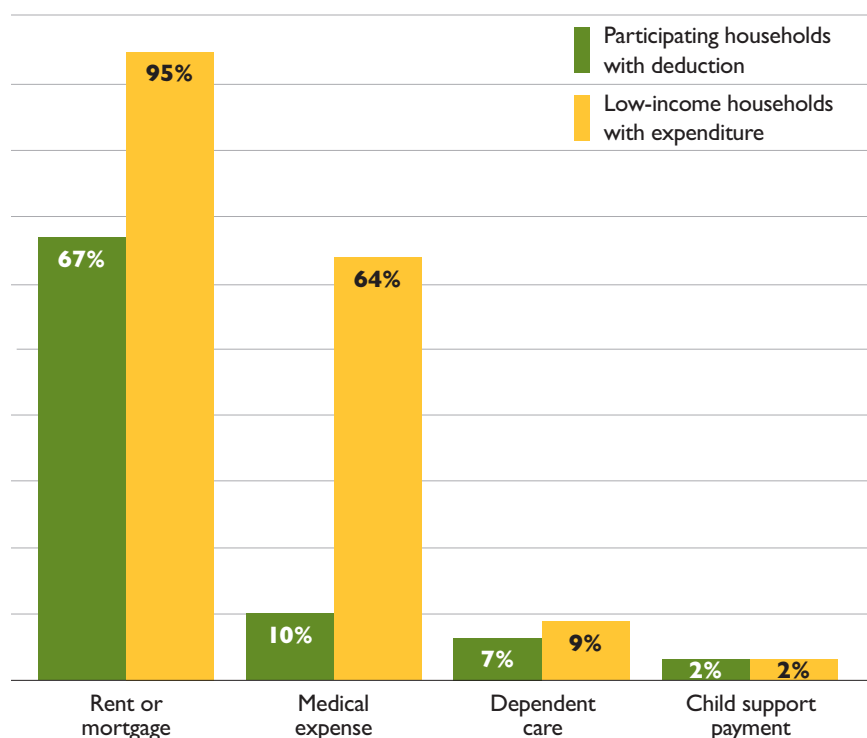


Figure 7:

The percentage of households reporting specific expenditures exceeds the percentage claiming related SNAP deductions

Notes:

Rent or mortgage: The figure for participating households represents reported rent or mortgage expenditures used toward the excess shelter expense deduction.

Medical expense: Percentages pertain to households with elderly or disabled individuals. Expenditures are in excess of \$35.

Dependent care: Percentages pertain to households with children.

Sources: 2013 and 2014 Consumer Expenditure Survey; fiscal year 2013 and 2014 SNAP QC data files.

than the percentage of SNAP participants that use the corresponding deduction. This could signify structural barriers such as difficulty acquiring or providing required documentation on expenditures, or it could reflect differences between the broader low-income population and the portion of the population that participates in SNAP. It is also possible that households with low gross incomes such that their net incomes are zero after applying the standard deduction may elect not to report expenses such as shelter and medical because they would already be eligible for a maximum SNAP benefit without any additional deductions.

Summary

This study updates information on the share of their budget that low-income households spend on food, housing, health care, transportation, and other items. It also investigates whether SNAP eligibility rules and benefit amounts accurately reflect current spending patterns for low-income households

The study finds that SNAP's existing deductions generally reflect the expenditures reported by low-income households. For example, work-related expenditures and taxes for earners sum to an amount close to the percentage of earnings that are deductible for SNAP participants. In addition, some deductions such as the child support payment deduction are equal to the expenditure amount by definition. However, this overall finding applies only to SNAP's current deduction structure and the households that qualify for those deductions.

Some household types not covered by the deductions can have substantial expenditures, particularly in the area of health care. Households without elderly or disabled individuals are not eligible for a medical expense deduction, yet those households incur sizeable health care expenses each month. In addition, some households have expenditures on items not included in the existing deductions, such as vehicle expenses, housing repairs and maintenance, and charges pertaining to education loans.

The share of after-tax income that low-income households spend on food at home is lower than the 30 percent used as a basis for the benefit reduction rate, but the share of net income spent on food at home is higher than the 30 percent benefit reduction rate. For most households,

SNAP's existing deductions generally reflect the expenditures reported by low-income households.

expenditures were much greater than income in the CE, calling into question whether reported gross income adequately captures the resources available to households with which to purchase goods and services. Consumption decisions may be based not only on current income, but on expectations of future earnings and assets, making expenditures a valid alternative measure of a household's budget. The share of total expenditures spent on food at home is lower than 30 percent. Because of the inconsistency in findings depending on which measure of resources is used, as well as other data limitations, caution should be used in interpreting these findings and making comparisons with other studies.

Differences between reported household spending patterns and the use of SNAP deductions suggest that some eligible households may not be claiming housing, medical, and other SNAP deductions to which they may be entitled.

About the data and methods

This study uses data primarily from the 2013 and 2014 Consumer Expenditure Survey (CE) public-use files² and the 2013 and 2014 SNAP Quality Control (QC) data files³, supplemented with results from the Food and Nutrition Service’s SNAP QC–based microsimulation model and Survey of Income and Program Participation–based microsimulation model.⁴ The 2013 and 2014 CE data were the most recent available at the time of the study. In discussions of spending patterns, the “household” is shorthand for the CE “consumer unit”—which is broadly defined as a single person living alone or two or more people living together who share responsibility for several major types of expenses. In discussions of expenditures and deductions for actual SNAP participants, the “household” is the SNAP filing unit as observed in the SNAP QC data. All analyses use descriptive methods, except for part of the examination of costs at certification and recertification, which uses a SNAP QC-based regression model.

¹Institute of Medicine & National Research Council. (2013). Supplemental Nutrition Assistance Program: Examining the Evidence to Define Benefit Adequacy. *Adv Nutr.* 4: 477-478. <http://advances.nutrition.org/content/4/4/477.full>

²U.S. Department of Labor, Bureau of Labor Statistics, Division of Consumer Expenditure Survey. “Users’ Documentation Interview Survey Public-Use Microdata (PUMD) Consumer Expenditure,” 2013 and 2014. <http://www.bls.gov/cex/csxmicrodoc.htm>

³Vigil, Alma, Kelsey Farson Gray, Shivani Kochhar, and Bruce Schechter. “Technical Documentation for the Fiscal Year 2014 Supplemental Nutrition Assistance Program Quality Control Database and the QC Minimodel.” Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service, Office of Policy Support, 2015.

⁴Leftin, Joshua, Joel Smith, Karen Cunyngnam, and Carole Trippe. “Technical Working Paper: Creation of the 2011 MATH SIPP+ Microsimulation Model and Database.” Final report submitted to U.S. Department of Agriculture, Food and Nutrition Service, Office of Policy Support, 2014.

Table of Contents

I. INTRODUCTION	1
A. Overview of SNAP	1
B. Historical and current SNAP deductions	2
C. Organization of the report	5
II. SUMMARY OF DATA AND METHODS	6
A. Analyses with CE data	6
B. Analyses with SNAP QC data	9
C. Analyses with the 2013 and 2014 QC Minimodels	10
D. Analyses with the SIPP and CPS-based microsimulation model	11
III. LOW-INCOME HOUSEHOLD SPENDING PATTERNS	12
A. Household spending on all goods and services	13
B. Differences in household spending for different household types	17
IV. ADEQUACY OF CURRENT DEDUCTIONS	22
A. Earned income deduction	22
B. Medical expense deduction	25
C. Excess shelter expense deduction	29
D. Standard deduction	33
V. ADEQUACY OF THE BENEFIT REDUCTION RATE	36
A. Comparison of food spending patterns to historical data	36
B. Comparison of food spending as a percentage of net income to the benefit reduction rate	38
C. Limitations	41
VI. DEDUCTION USAGE AND AVAILABILITY	43
A. Deduction usage	43
B. Expenses not included in the deductions	58
VII. CONCLUSION	61
A. Summary of key findings	61
B. Policy implications	63
C. Recommendations for future research	64
REFERENCES	69
APPENDICES	72
Appendix A: Detailed description of data and methods	
Appendices B–F: Analysis tables	
Appendix G: Summary of food expenditure estimates for low-income households	

Acronyms used in this report

ARRA	American Recovery and Reinvestment Act of 2009
BLS	Bureau of Labor Statistics
CE	Consumer Expenditure Survey
CPS	Current Population Survey
FNS	Food and Nutrition Service
GA	General Assistance
LUA	Limited Utility Allowance
MFIP	Minnesota Family Investment Program
PUMD	Public Use Microdata file
SIPP	Survey of Income and Program Participation
SNAP	Supplemental Nutrition Assistance Program
SNAP QC	SNAP Quality Control Data file
SSI	Supplemental Security Income
SSI-CAP	SSI Combined Application Project
SUA	Standard Utility Allowance
TANF	Temporary Assistance for Needy Families
TFP	Thrifty Food Plan
USDA	United States Department of Agriculture

I. INTRODUCTION

The Supplemental Nutrition Assistance Program (SNAP) provides a monthly benefit to eligible low-income households to spend on food to reduce food insecurity and improve nutrition and well-being. The SNAP allotment, based on the monthly cost of the four-person Thrifty Food Plan (TFP), is intended to provide participating households with an amount that, together with their own resources, gives them access to a healthy diet. Implicit in the SNAP rules are assumptions about the amount of households' own resources that households are able to spend on food relative to other necessary expenditures such as shelter, transportation, and health care. To the extent that these assumptions do not reflect eligible households' actual spending patterns, the SNAP benefit amount may be inadequate to allow households to purchase food that aligns with the TFP.

In this study, we examine whether SNAP eligibility rules that determine the size of the SNAP benefit allotment accurately reflect current spending patterns for low-income households. In particular, the research addresses the following three study objectives, primarily by using Consumer Expenditure Survey (CE) and SNAP Quality Control (QC) data files for fiscal years 2013 and 2014:

1. Determine the share that various categories of expenses account for in low-income households' monthly budgets
2. Determine how the shares of these categories of expenses vary by demographic, economic, and geographic subgroups
3. Assess how well the SNAP eligibility determination and benefit-level parameters capture the real costs faced by low-income households

In the remainder of this chapter, we provide background on SNAP eligibility rules and the process through which benefit amounts are determined.

A. Overview of SNAP

SNAP is the largest of the 15 domestic food and nutrition assistance programs administered by the U.S. Department of Agriculture (USDA) Food and Nutrition Service (FNS). According to FNS administrative records, the program served approximately 45.8 million people in 22.5 million households in an average month during fiscal year 2015, with an average monthly household benefit of \$258.

Individuals who live together and customarily purchase and prepare food together apply for benefits as one SNAP household (or filing unit). If eligible, they are certified for a period of time before they must reapply for benefits. Certification periods differ depending on State guidelines and household circumstances. The average certification periods in fiscal years 2013 and 2014, respectively, were 12.7 and 12.9 months.

To be eligible for SNAP, most households without elderly or disabled individuals must have monthly gross income at or below 130 percent of Federal poverty guidelines, monthly net income after allowable deductions at or below 100 percent of the poverty guidelines, and countable assets at or below a threshold (\$2,250 in fiscal year 2015). Households with elderly or disabled individuals are exempt from the gross income limit (although their net income must be at or below the net income limit) and may have up to \$3,250 in countable resources. SNAP benefit amounts are calculated by subtracting 30 percent of a household's net income from the maximum benefit for that household's size and location. The 30 percent amount, called the benefit reduction rate, represents the percentage of a household's net cash income that is expected to be spent on food, with SNAP benefits providing the difference between that amount and the maximum benefit, which is based on the cost of a nutritionally adequate diet.

Certain households receiving public assistance or related services are considered "categorically eligible" for SNAP and are subject to different SNAP income and resource limits, as determined by States individually. Income limits for categorically eligible households differ by State and range from 130 percent to 200 percent of Federal poverty guidelines, while resource limits are waived in some States and are higher than the standard SNAP resource limits in others. However, categorically eligible households must meet all other SNAP rules and have incomes low enough to be eligible for a benefit.

B. Historical and current SNAP deductions

SNAP was first authorized as a permanent program in the Food Stamp Act of 1964 (Pub. L. 88-525). To receive SNAP benefits, households were required to purchase their benefits, paying an amount commensurate with their normal expenditures for food and receiving a benefit amount such that they could more nearly obtain a low-cost, nutritionally adequate diet (FNS, 2014). An amendment (Pub. L. 91-671) later limited households' purchase requirements to 30 percent of their income. By the mid-1970s, SNAP became a nationwide program, under which households were entitled to deductions that reduced the value of their income before determining the amount of program benefits, resulting in a higher SNAP allotment. The deductions were for:

- Work allowances, up to \$30 per month
- Mandatory payroll deductions from earned income
- Medical expenses if expenditures exceed \$10 per month
- Child care payments
- Tuition and mandatory fees
- Court-ordered support and alimony payments
- Unusual expenses incurred due to disaster or casualty losses which could not be reasonably anticipated by the household
- Shelter expenses in excess of 30 percent of household monthly income, after all other allowable deductions are made (adjusted net income)

The Food Stamp Act of 1977 (Pub. L 95-113) combined some of the smaller, less frequent deductions into a \$60 standard deduction.¹ It also converted the work allowance to an earned income deduction equal to 20 percent of earnings, established a \$75 limit on the child care (dependent care) deduction, and modified the excess shelter expense deduction to equal shelter expenses in excess of 50 percent of net income, not to exceed \$80 in combination with the child care deduction. Finally, the legislation eliminated the purchase requirement, establishing the current calculation formula for the SNAP benefit.

Rules governing current deductions have changed only slightly since implementation of the Food Stamp Act of 1977. Below, we describe the current deductions and summarize them in Table I.1.

1. Standard deduction

All participating SNAP households receive a standard deduction based on household size and region (contiguous United States, Alaska, Hawaii, Guam, and the Virgin Islands). The standard deduction is indexed annually to inflation; in fiscal year 2014, it was equal to \$152 for one- to three-person households in the contiguous United States and \$163, \$191, and \$219, respectively, for households in the contiguous United States with four, five, and six or more people.

2. Earned income deduction

Households may deduct 20 percent of combined earnings from their gross income. The deduction is intended to incentivize employment and compensate households for work-related costs, excluding dependent care, which is captured in its own deduction. Costs might include those associated with commuting (such as gasoline, motor oil, parking, and tolls), uniforms, and payroll taxes.

3. Dependent care deduction

Households with dependents receive a deduction for out-of-pocket expenditures for the care of children and other dependents while other household members work, seek employment, or attend school.

¹ Deductions eliminated by the Food Stamp Act of 1977 included those for (1) court-ordered support or alimony payments; (2) tuition and mandatory fees assessed by educational institutions; and (3) unusual expenses incurred as a consequence of disaster or casualty losses which could not be reasonably anticipated by the household (U.S. House Comm. on Agriculture, 1977). The medical expense deduction and child support payment deduction were also discontinued in 1977, but they were both reinstated within a few years.

4. Medical expense deduction

Households with elderly individuals (age 60 or older) or nonelderly disabled individuals may receive a medical expense deduction.² In most States, such households may deduct combined out-of-pocket medical expenditures exceeding \$35 incurred on behalf of elderly or disabled household members. Recurring medical expenses such as doctor's visits and prescriptions are converted to a monthly amount based on frequency, and one-time medical expenses may be either prorated over the remainder of the months in the unit's certification period or deducted in the month the expense is billed or otherwise becomes due (FNS, 2012).

In 15 States as of September 2014, standard medical deduction demonstration projects used standard deduction amounts for medical expenses that exceeded \$35 but remained below a specified limit. The standard medical deduction demonstration amount ranged from \$83 in New Hampshire to \$210 in Illinois.

5. Child support payment deduction

In all States, households may receive a deduction for legally obligated child support payments made to or for a nonmember of the household. Beginning in 2002, with the implementation of the SNAP provisions in the Farm Security and Rural Investment Act of 2002, States have had the option to treat legally obligated child support payments made to non-household members as an income exclusion rather than as a deduction. Eighteen States took the option as of September 2013.

6. Excess shelter expense deduction

A household is entitled to a deduction equal to shelter expenses (such as rent, mortgage payments, utility bills, property taxes, and insurance) that exceed 50 percent of its adjusted net income. Adjusted net income is countable income after all other potential deductions are subtracted from gross income. Instead of using actual utility expenses, many States use Standard Utility Allowances (SUAs), which are specified dollar amounts set by State agencies, to calculate a household's total shelter expense.

For households without elderly or disabled individuals, the amount of this deduction cannot exceed a maximum amount (the shelter cap) which is indexed annually to inflation. The shelter cap in fiscal year 2014 in the contiguous United States was \$478. Households with elderly or disabled individuals may subtract the full value of shelter expenses that exceed 50 percent of

² Generally, a person is considered to be disabled for SNAP eligibility purposes if he or she receives Federal or State disability or blindness payments or other disability retirement benefits from a government agency under the Social Security Act, including Supplemental Security Income (SSI) or Social Security disability or blindness payments; receives an annuity under the Railroad Retirement Act and is (1) eligible for Medicare or (2) considered to be disabled based on SSI rules; is a veteran who is totally disabled, permanently housebound, or in need of regular aid and attendance; or is permanently disabled and receiving veterans' benefits as a surviving spouse or child of a veteran.

their adjusted net income. Some States also allow homeless households a deduction of \$143 for shelter expenses.

Table I.1. Summary of SNAP deductions

Deduction type	Who is eligible?	How deduction is computed under Federal rules
Standard deduction	All households	Equal to fixed dollar amount that varies by household size and for Alaska, Hawaii, Guam, and the Virgin Islands; indexed annually to inflation
Earned income deduction	Households with earned income	Equal to 20 percent of monthly household earned income
Dependent care deduction	Households with dependents	Equal to monthly out-of-pocket expenses for the care of children and other dependents while other household members work, seek employment, or attend school
Medical expense deduction	Households with elderly or disabled individuals	Equal to monthly out-of-pocket health care expenses that exceed \$35 incurred on behalf of elderly or disabled household members
Child support payment deduction	Households making legally obligated child support payments	Equal to monthly child support payments
Excess shelter expense deduction	All households	Equal to out-of-pocket monthly rent, mortgage payments, utility bills, property taxes, and insurance in excess of half of household income after subtracting other deductions, subject to a cap for households without elderly or disabled individuals that varies for Alaska, Hawaii, Guam, and the Virgin Islands; indexed annually to inflation

Note: The table does not summarize State options pertaining to how deductions are treated.

C. Organization of the report

In Chapter II, we describe the data sources and methods used for the study, and, in Chapter III, we present findings from our analyses of low-income households' spending patterns, covering the first two study objectives. In Chapters IV, V, and VI, we address the third study objective by assessing the extent to which current SNAP eligibility and benefit determination rules capture true household spending patterns. We conclude in Chapter VII with a summary of the findings, their implications and limitations, and possibilities for further research. A glossary of frequently used terms appears after Chapter VII. Appendices provide a detailed methods discussion (Appendix A) and supplemental tables (Appendices B through G).

Page intentionally blank

II. SUMMARY OF DATA AND METHODS

We drew on the most recent data available from several sources to conduct the study. To address all research questions for the first two study objectives and many research questions for the third study objective, we used the 2013 and 2014 Bureau of Labor Statistics (BLS) Consumer Expenditure Survey (CE). For the third study objective, we supplemented the CE-based analyses with analyses that used (1) the 2013 and 2014 SNAP Quality Control (QC) data files and a QC-based microsimulation model (the QC Minimodel) and (2) a Survey of Income and Program Participation (SIPP) and Current Population Survey (CPS)–based microsimulation model. In this chapter, we discuss the data sources and the analytic methodologies used to address the research questions.

A. Analyses with CE data

The CE, administered by the Census Bureau for the BLS, provides highly detailed U.S. consumer expenditure data that simultaneously measure a variety of household spending behaviors, allowing analysis of the amount and proportion of a household's budget spent on specific categories of goods and services. The survey also includes information on household characteristics, income, and financial data. We used CE data to address Objectives 1 and 2, producing a complete account of expenditures by spending category for low-income households and detailing how the shares vary by important demographic, economic, and geographic characteristics. We also used the data to address topics under Objective 3, including assessments of (1) how expenditures for low-income households compare with the SNAP deductions and the benefit reduction rate, (2) which frequently occurring expenditures are not captured by existing deductions, and (3) how the percentage of low-income households with various types of expenditures compares to the percentage of households claiming SNAP deductions for such expenses.

1. Interview structure

The CE consists of two quarterly surveys, the Interview Survey and the Diary Survey, that provide information on the purchasing habits of approximately 7,000 households. In the current study, we made exclusive use of Interview Survey data collected over five consecutive quarters; each year's data set accounts for about 35,000 household records. The initial interview collects demographic and family characteristics data. At each interview, respondents report expenditures for the three calendar months preceding the interview month. For example, interviews conducted in April 2013 provided expenditure data for January through March 2013. The second- and fifth-quarter interviews collect income and components of income; respondents provide the information as annual amounts. Even though the third- and fourth-quarter interviews generally do not collect income, the CE data file provides income amounts for these periods. These amounts are usually the same as those for the second quarter unless (1) income was imputed and the imputation changed; (2) someone in the unit started or stopped working; or (3) the composition of the CE unit changed.

2. The consumer unit

The unit of analysis in the CE is the consumer unit, defined as (1) occupants related by blood, marriage, adoption, or some other legal arrangement; (2) a single person who is living alone or sharing a household with others, but who is financially independent; or (3) two or more people living together who share responsibility for at least two out of the three major types of expenses—food, housing, and other expenses. A consumer unit can differ from a SNAP household which, under SNAP rules, is defined as individuals who live together and customarily purchase and prepare food together. For simplicity, we use “household” in place of “consumer unit” when we discuss the findings.

3. Stacking the CE data

The 2014 Public-Use Microdata were released in September 2015 and were the most recent data available at the time of our analysis. The file contains information on expenditures for January through December 2014, though the survey design is such that the data were collected through March 2015. To obtain a larger sample, we “stacked” (pooled) the 2013 and 2014 data, after confirming that there were no major changes in the design or contents between the two years. We did not make any inflation adjustments (Appendix A provides a discussion).

As described, each annual CE data file summarizes five quarters of experience. The fifth quarter overlaps the subsequent year and facilitates data file production and accommodates coding and sample design changes. Given that the fifth quarter of the 2013 CE data set overlaps with the first quarter of the 2014 data, we did not include the first quarter of 2014 in the stacked analysis file in order to avoid double counting.

4. Annualizing monthly expenditures

The CE data provide expenditures as quarterly values; however, income is an annual measure. To annualize expenditures and calculate weighted average expenditure amounts, we used a method created by the BLS that is described in the CE Interview data documentation and sample program. We first adjusted the quarterly expenditure amounts to include only those expenditures made in calendar years 2013 and 2014. For example, for respondents interviewed in February 2013 who reported expenditure data from December 2012, January 2013, and February 2013, we included only the January and February 2013 expenditure amounts. We summed the adjusted quarterly expenditure amounts to obtain a weighted expenditure total. To obtain an average annual expenditure amount, we divided the weighted expenditure total by the weighted number of households, adjusting for the number of months of expenditure data each household contributed and for the CE’s rolling sample design. In this case, given that each quarter of interviews is designed to represent an independent sample, the use of data from several quarters to estimate annual totals requires the sum of the adjusted weights to be divided by 12 (equal to three months times four quarters) when using one year of data and by 24 (equal to three months times eight quarters) when using two years of data.

In addition to presenting weighted average expenditure amounts, we present shares of total expenditures spent on specific categories of goods and services. To calculate the share of total expenditures spent on a specific expense category such as “Food at Home,” we calculated the weighted average expenditures on food at home and divided by the weighted average total expenditures for all goods and services.

In the case of uncommon, one-time large expenses such as a vehicle purchase or high medical bills, annualized expenses for the consumer units that experience such expenses can appear improbably large, such as a sample member spending \$12,000 on a car in a given quarter. When calculating average expenditure amounts across all units, these large values are offset by the lack of purchases in other quarters, and thus are smoothed over time. When estimating average expenditures among those units with positive expenditures, however, these large, one-time purchases may bias the estimate upward because the data is restricted to those quarters with positive expenditures.

For analyses of average monthly expenditures, we divided annualized expenditures by 12.

5. Defining gross income

We defined gross income as total consumer unit income in the past 12 months before taxes minus the annual SNAP benefit amount, which the CE includes in its definition of income. When calculating expenditures as a percentage of income, we modified the definition to use after-tax income, a better measure of disposable income than before-tax income.

We used an income measure that included imputations of income carried out by the BLS in combination with the income “as reported” by respondents. Exploratory tabulations that were restricted to reported income revealed inconsistencies between respondents’ employment and earnings (which form part of total income). For example, only about half of the consumer units with employed unit heads reported earnings. In many cases, the data indicated that the respondent either did not know or refused to provide the requested information. When describing income reporting in the CE, the BLS acknowledges respondents’ lack of information or refusal to report the requested information and therefore provides an imputed income measure that is used throughout this report (BLS, 2016).

6. Determining poverty guidelines

Poverty guidelines issued by the U.S. Department of Health and Human Services provide the basis for the Federal fiscal year’s SNAP gross and net monthly income eligibility standards. We identified the poverty guideline for each consumer unit based on the unit’s size, State of residence, and interview month. We used a single set of guidelines for consumer units located within the 48 contiguous States and the District of Columbia and for records on which the State was not identified; we applied State-specific guidelines for consumer units in Alaska and Hawaii. The CE interview month dictated the specific poverty guideline applied to a household. We used the guidelines that reflected the Federal fiscal year that accounted for the majority of months in

the lookback period. For the April 2013 and April 2014 interviews—with six months of lookback in each of two years—we applied the poverty guidelines of the more recent fiscal year.

7. Defining low-income households

Once we determined the appropriate poverty guidelines for a consumer unit, we calculated income as a percentage of the poverty level by dividing the gross income by the poverty level for that unit. We defined low-income households in the data as those consumer units with annual gross income (excluding SNAP benefit amounts) at or below 200 percent of poverty guidelines. Not all low-income households that we examine in this study are eligible for SNAP. Some may not satisfy the income or resource eligibility criteria, and some may be otherwise categorically ineligible for SNAP.

B. Analyses with SNAP QC data

The SNAP QC data file is derived from SNAP's QC system that measures the accuracy of State eligibility and benefit determinations. It contains detailed demographic, economic, and SNAP eligibility information, in addition to information on deduction use and amounts of deductions, for a nationally representative sample of approximately 48,000 SNAP households each fiscal year (Filion et al., 2014; Vigil et al., 2015). The data are weighted to ensure that the weighted totals match three adjusted SNAP Program Operations totals: the monthly number of SNAP households by State and stratum, the monthly number of SNAP participants by State, and the monthly total benefits issued by State. The totals are adjusted by removing benefits issued in error and benefits issued through the SNAP disaster assistance program because the SNAP QC data do not include cases with either of these conditions. We used these adjusted data to address most topics under Objective 3.

1. The SNAP unit

The SNAP unit (also called the SNAP household in the tables and in our description of the findings) was the unit of observation and the unit of analysis. SNAP units comprise individuals who purchase and prepare food together and who are together certified for and receive SNAP benefits.

2. Stacking the SNAP QC data

For all QC-based analyses, we stacked the fiscal year 2013 and 2014 SNAP QC data files so that the combined data cover October 2012 through September 2014. There were no substantial changes in the structure or content of the fiscal year 2014 file relative to the fiscal year 2013 file. We multiplied the sample weights by one-half to make the findings representative of an average month in the combined fiscal year 2013 and 2014 period. The combined data contain observations for 97,819 SNAP households.

3. Analysis restrictions

We excluded from most analyses SNAP households participating in State programs for which income is not used in their SNAP benefit determinations.³ We imposed some additional restrictions for tables that compared SNAP QC-based findings with CE findings, thereby increasing the comparability of the two groups of households (discussed in more detail in Appendix A).

4. Multivariate analysis approach

We used the stacked fiscal year 2013–2014 SNAP QC data for descriptive and multivariate regression analyses to examine whether the rates of deduction use for excess shelter costs, medical costs, and transportation costs are maintained at recertification and whether households with similar circumstances that do not deduct certain medical, shelter, or transportation costs have comparably similar SNAP allotments.

The data used for the analyses consist of the amount of the deductions and the marginal effectiveness of each deduction, which measures the amount of the increase in net income if the deduction type were not used. The data also include the SNAP benefit allotment and a variable that identifies whether the most recent action on a case was a new certification or a recertification.

In the first set of regressions, the dependent variables were the deduction amounts and the marginal effectiveness of the deductions and the main independent variable was whether the most recent certification was the initial certification or a recertification. In the second set of regressions, the SNAP allotment was the dependent variable, and the main independent variable was a measure of whether the SNAP household took the deduction.⁴ Each set of regressions included the same set of explanatory variables consisting of demographic and economic characteristics of SNAP households. Additional details are described in Appendix A.

C. Analyses with the 2013 and 2014 QC Minimodels

The QC Minimodel uses SNAP QC data to simulate the impact of various policy changes to SNAP on current SNAP participants. The 2013 and 2014 QC Minimodels use the fiscal year 2013 and 2014 SNAP QC data files, respectively.⁵

We used the 2013 and 2014 QC Minimodels to assess the effect of removing the shelter deduction cap for SNAP households without elderly or disabled individuals (presented in Chapter IV). The simulation results represent combined results from both models. With all

³ These include households eligible for SNAP through the Minnesota Family Investment Program (MFIP) or a Supplemental Security Income-Combined Application Project (SSI-CAP).

⁴ Results from the second set of regressions are not discussed in the report, but are presented in Appendix Table F.3.

⁵ The 2014 QC Minimodel simulates benefits that were in place after the sunset of the American Recovery and Reinvestment Act (ARRA) benefit amounts. Because the ARRA benefits were in place for only one month during the fiscal year (October 2013), the QC file used with the model does not differ substantially from the original fiscal year 2014 SNAP QC data file.

results presented as percentages, we did not need to use weighting adjustments to account for the use of two years of data. Fillion et al. (2015) and Vigil et al. (2015) present more information on the QC Minimodels.

D. Analyses with the SIPP and CPS-based microsimulation model

Some research questions discussed in Chapters IV and V required the calculation of expenditures in the CE as a percentage of SNAP net income. Given that we did not have sufficient information to derive net income in the CE, we used a microsimulation model database, the fiscal year 2015 Baseline of the 2011 MATH SIPP+ model, to obtain the needed information. We calculated net income as a percentage of gross income for certain household types that have income at or below 200 percent of poverty and that we simulated as eligible for and participating in SNAP. We then applied the resultant ratios to gross income of the same groups in the CE. The model calculates net income by subtracting estimated deductions from gross income. We derived the ratios by using data from 2011 and SNAP rules from fiscal year 2015, with dollar values deflated to 2011. Therefore, the estimates used to derive the ratios do not align precisely with the same 2013–2014 period of the CE data. Leftin et al. (2014a) describe the model, with additional detail presented in Appendix A.

III. LOW-INCOME HOUSEHOLD SPENDING PATTERNS

Understanding household spending patterns across a broad range of goods and services provides needed context for assessing how well existing SNAP eligibility and benefit rules capture the real costs faced by participants. Determining the share of a household's budget that it spends on food, for example, can help policymakers understand the efficacy of the 30 percent benefit reduction rate and whether the food spending patterns that were assessed when designing SNAP hold true today. Determining budget shares for other goods and services can also indicate how well SNAP deductions account for the most costly and most common types of expenses. Finally, knowing whether these spending patterns vary across different types of households can help policymakers determine whether SNAP deductions are adequately responsive to certain subgroups that tend to incur particularly large expenses.

A central challenge is how to best measure a household's budget given the available data. The CE provides information on total expenditures on goods and services, as well as gross income. As discussed in greater detail below and in Chapter V, total expenditures exceed gross income for most low-income households in the CE, suggesting that (1) expenditures reflect the true resources available to a household; (2) many households make purchases with savings and credit; or (3) expenditure or income information may be misreported. Consistent with how the BLS describes spending patterns (BLS, 2016) as well as other research on low-income household spending patterns (e.g., Mabli & Malsberger, 2013), we define budget shares spent on goods and services by calculating the percentage of total expenditures within each major category of goods and services.⁶

We present shares of expenditures for all households and low-income households across major categories of goods and services, including food, housing, domestic services, apparel, health care, transportation, and other goods and services (Table III.1). We describe total spending across all goods and services and then examine spending on specific types of goods and services as shares of total expenditures. Next, we compare household spending to household income and examine spending categories as shares of total income. We conclude by presenting spending patterns for different types of households, such as households with and without children and lower- and higher-income households.

⁶ The data do not identify whether expenditures were made with income, savings, credit, or through other means.

Table III.1. Major budget categories of goods and services

Spending category	Types of goods and services
Food at home	Food and nonalcoholic beverages purchased at grocery, convenience, or specialty stores; food and beverages purchased and prepared by household during out-of-town trips
Food away from home	Food or board at school; catered affairs; food and nonalcoholic beverages at restaurants, cafes, and fast-food places on trips; dining out at restaurants, cafeterias, and drive-ins (excluding alcoholic beverages); school meals for preschool and school-age children; meals received as pay
Apparel and apparel services	Clothing for men, women, and children; footwear; apparel services such as dry-cleaning and laundering
Housing	Mortgage, interest, property taxes, rent, other lodging expenses, maintenance, repairs, insurance; utilities such as natural gas, electricity, fuel oil, telephone services, and water; textiles, furniture, and flooring; appliances (major, small, and miscellaneous); other household expenses and miscellaneous equipment
Domestic services	Babysitting and child care, adult and older adult care, housekeeping, gardening and lawn care, pest control
Health	Health insurance, medical services, prescription drugs, medical supplies
Transportation	New or used cars, trucks, or other vehicles; gas or motor oil; vehicle finance charges, maintenance and repairs, insurance, and rentals; public transportation
Other	Fees and admissions; televisions, radios, and sound equipment; pets, toys, and playground equipment; other entertainment; personal care; reading; education; tobacco and smoking supplies; cash contributions; alcohol; personal insurance; miscellaneous goods and services

Source: Consumer Expenditure Survey Interview data files.

A. Household spending on all goods and services

Among all households in the CE, spending on goods and services averaged \$4,128 each month, or \$49,536 per year, in 2013 and 2014. The differences in spending across households were sizable, with 25.5 percent of all households spending at most \$24,000 per year (equivalent to \$2,000 per month) and 36.9 percent of all households spending more than \$48,000 (equivalent to \$4,000 per month) (Figure III.1). Compared to all households, low-income households reported lower average expenditures at \$2,319 per month, or \$27,828 per year, with over half of low-income households (53.9 percent) spending at most \$24,000 per year.

Low-income households spent the largest shares of their expenditures on housing, food, transportation, and other goods and services not categorized elsewhere (Figure III.2). As a share of total spending, they spent 36.7 percent on housing, with most of the amount allocated to rent and utilities; 19.4 percent on food; 16.8 percent on transportation; and 16.4 percent on other goods and services, made up mostly of personal insurance and pensions, entertainment, cash contributions, and education. Spending on food amounted to 15.0 percent on food at home and 4.4 percent on food away from home.⁷ Remaining household expenditures went to health care

⁷ This estimate of food at home as a percentage of total expenditures does not exclude the reported SNAP benefit amount from food at home expenditures or from total expenditures.

(7.9 percent), comprised mostly of health insurance expenses; apparel (1.9 percent); and domestic services such as child care (0.9 percent).

Relative to all households, low-income households spent larger shares of total expenditures on housing and food and smaller shares on other goods and services (Figure III.2). The share spent on food was 19.4 percent for low-income households and 15.1 percent for all households, the difference stemming from differences in food-at-home expenditures, which were 15.0 percent for low-income households and 10.3 percent for all households.⁸ Similarly, the share spent on housing for low-income households was 36.7 percent versus 31.8 percent for all households. The shares spent on other categories of goods and services were about eight percentage points smaller for low-income households than for all households (16.4 versus 24.8 percent).

It is common to assess spending patterns by comparing shares of total expenditures spent on major budget categories of goods and services, thereby ensuring that all the shares sum to 100 percent (Mabli & Malsberger, 2013). Such an approach is useful when comparing shares across different types of households, such as all households and low-income households, or when examining trends. It can, however, give rise to challenges in policy analyses focused on low-income populations. For example, components of SNAP rules such as the benefit reduction rate are based on assumptions about spending as a percentage of net income, without consideration of other potential resources such as savings and credit. Therefore, we also examined spending patterns by describing shares of spending as a percentage of total after-tax income rather than as a percentage of total expenditures.⁹

Most low-income households had higher expenditures than income. Low-income households spent 149.0 percent of total income, on average, reporting \$27,828 in annual expenditures and \$18,680 in annual income. Expenditures were higher than income for all ranges of expenditures that we used, except for households in the lowest range—\$0 to \$12,000—that spent 97.4 percent of income (Figure III.3). Households in the higher ranges of expenditures each spent substantially more than 100 percent of income.

In contrast, average spending was 77.1 percent of total income for all households (lower- and higher-income households), ranging from 71.3 to 85.4 percent of income across the five expenditure groups.

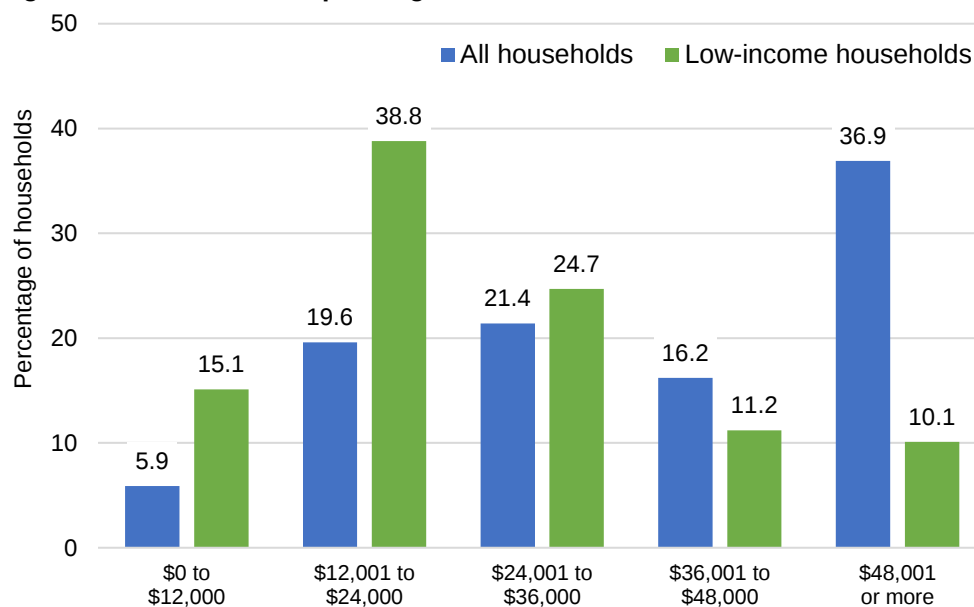
Spending on housing, food, and transportation accounted for the largest shares of income, with spending on housing exceeding half of total income for low-income households (54.7 percent) and nearly one-quarter of total income for all households (24.5 percent) (Figure III.4).

⁸ This is in line with the body of economics literature called Engel's law, which states that the proportion of total expenditures spent on food should decrease as income increases (Fraker, 1990; Castner & Mabli, 2010).

⁹ In Appendix B, we also provide tables presenting differences in spending patterns for households with savings or checking account balances and households with debt.

For low-income households, 28.8 percent of total gross income went to food expenditures—22.3 percent on food at home and 6.5 percent on food away from home.

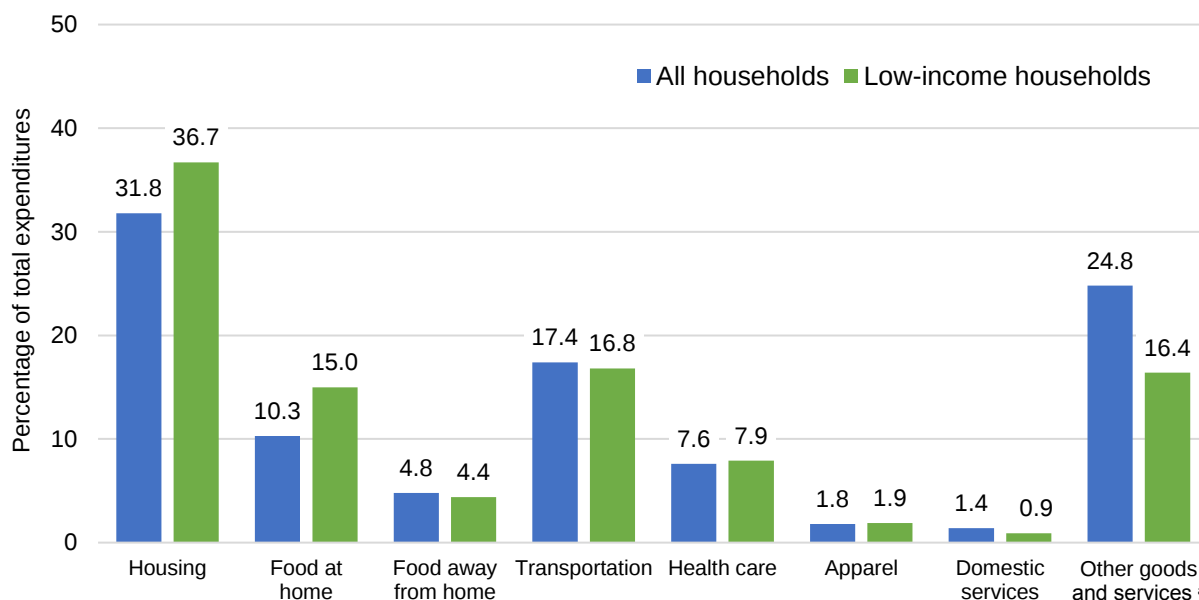
Figure III.1. Total annual spending for all households and low-income households, 2013–2014



Source: Weighted tabulations of the 2013 and 2014 CE Interview data files.

Note: Low-income households are defined as those with gross income (excluding SNAP benefit amounts) at or below 200 percent of poverty guidelines.

Figure III.2. Expenditure shares for all households and low-income households, 2013–2014



Source: Weighted tabulations of the 2013 and 2014 CE Interview data files.

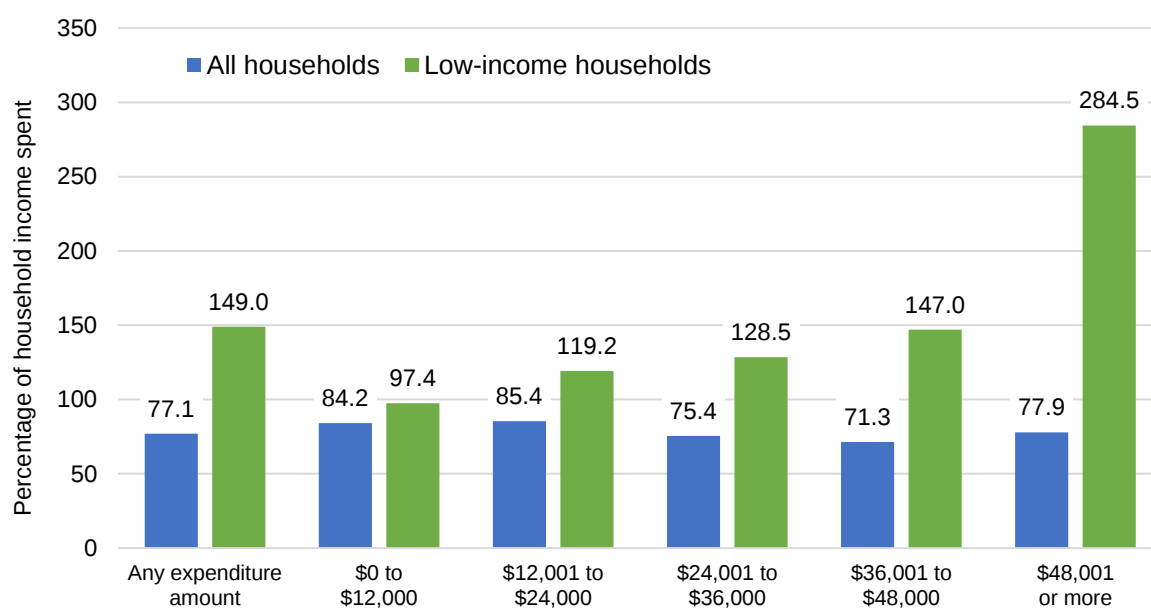
Notes: Low-income households are defined as those with gross income (excluding SNAP benefit amounts) at or below 200 percent of poverty guidelines.

Expenditure amounts are for all members of the household as reported in the CE. Mean expenditure shares include contributions from households that report zero expenditures of that type.

Mean monthly expenditure amounts appear in Appendix Table B.1.

^a Spending on other goods and services for low-income households was comprised mostly of spending on personal insurance and pensions, entertainment, cash contributions, and education.

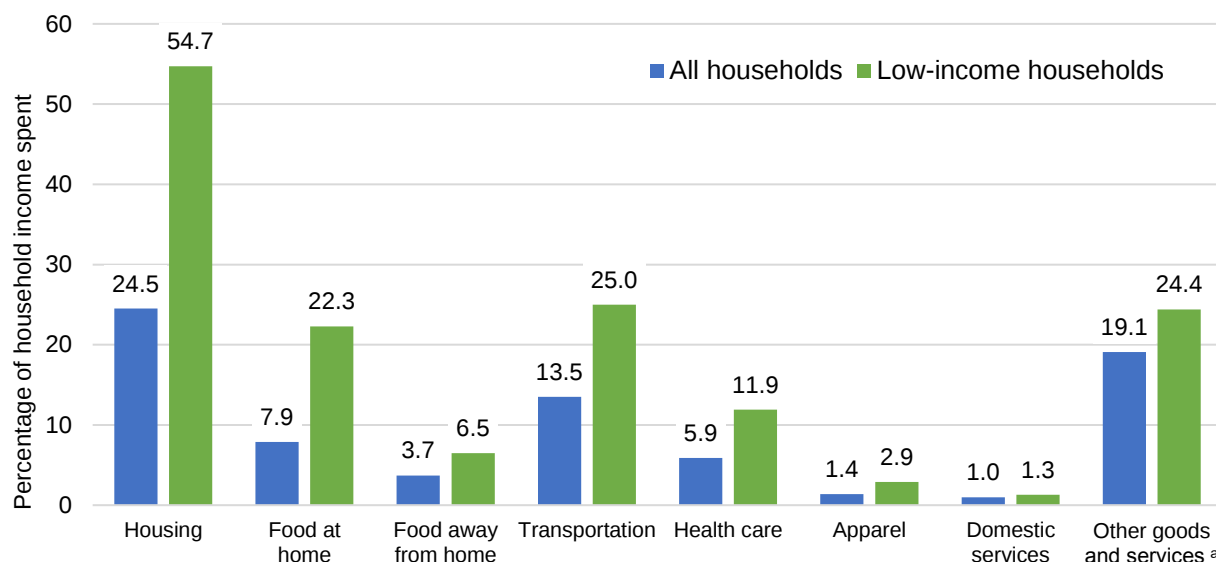
Figure III.3. Share of gross income spent on all goods and services for all households and low-income households, by annual expenditure amount, 2013–2014



Source: Weighted tabulations of the 2013 and 2014 CE Interview data files.

Note: Low-income households are defined as those with gross income (excluding SNAP benefit amounts) at or below 200 percent of poverty guidelines.

Figure III.4. Shares of gross income spent on major categories of goods and services for all households and low-income households, 2013–2014



Source: Weighted tabulations of the 2013 and 2014 CE Interview data files.

Notes: Low-income households are defined as those with gross income (excluding SNAP benefit amounts) at or below 200 percent of poverty guidelines.

Expenditure amounts are for all members of the household as reported in the CE. Mean expenditure shares include contributions from households that report zero expenditures of that type.

^a Spending on other goods and services for low-income households was comprised mostly of spending on personal insurance and pensions.

B. Differences in household spending for different household types

To assess how types of spending as a share of total expenditures vary by demographic and economic characteristics and by geography, we estimated expenditure shares (as a percentage of total spending) by characteristics such as household size and composition (including presence of children, elderly, or disabled individuals), employment status, income level, and metropolitan status.

The types of goods and services purchased by households varied only modestly across different types of low-income households (Table III.2). Housing expenditures were the largest expenditure share for all household types, typically representing about 35 to 40 percent of total household spending. Expenditures on food (at home and away), transportation, and other goods and services were the next-largest shares across all household types, followed by shares of spending on health care and apparel.

Although households generally demonstrated similar spending patterns in terms of allocating the greatest share of resources to housing, followed by food and transportation, the sizes of the shares differed for different types of households (Table III.2). In some cases, the differences were modest. The share of total expenditures spent on housing, for example, varied from 39.6 percent for households with income at less than 50 percent of the poverty guidelines to 35.0 percent for households with income between 130 and 200 percent of the poverty guidelines.

Housing expenditure shares for households with no elderly individuals were similar to those for households with elderly individuals (37.1 and 36.1 percent). There were larger differences in the share spent on housing according to whether the household head was employed or unemployed (36.2 and 45.5 percent) or whether the household lived in an urban or rural area (37.4 and 30.4 percent).

Expenditure shares on food varied according to household size, income, and composition. The share spent on food increased with household size, from 17.7 percent for single-person households to 21.5 percent for households with five or more people (Figure III.5). The shares reflect an increase in spending on food at home from 13.0 to 17.7 percent and a decrease in spending on food away from home spending from 4.7 to 3.8 percent.

The share spent on food decreased with income as a percentage of the poverty guidelines, from 21.2 percent for households with income under 50 percent of the guidelines to 18.2 percent for households with income greater than 130 percent and less than 200 percent of the guidelines (Figure III.6), reflecting the net effect of food-at-home shares that decreased with income and food-away-from-home shares that marginally increased with income.

There were some differences in spending on food at home by household composition. Compared to households with no children, households with children spent a greater share on food at home (16.8 percent for households with children versus 13.6 percent for those without children) (Figure III.7). Similarly, households with a nonelderly disabled individual spent a greater share on food at home than households without a nonelderly disabled individual (17.6 versus 14.6 percent). However, there was little difference in the share spent for households with an elderly individual and households without an elderly individual (14.2 and 15.4 percent).

Table III.2. Mean expenditure shares for low-income households by household characteristic and expenditure type, 2013–2014

	Food	Housing, excluding domestic services	Apparel	Health care	Trans- portation	Other goods and services
All households	19.3	36.7	1.9	7.9	16.8	17.3
Households with:						
Household size						
1 person	17.8	39.8	1.6	9.3	13.1	18.6
2 people	18.4	34.6	1.4	10.7	17.5	17.4
3 people	20.0	37.3	2.3	6.3	18.6	15.7
4 or more people	21.3	35.3	2.5	5.2	18.9	16.8
Presence of children						
Children	20.8	36.2	2.6	4.9	19.1	16.3
No children	18.2	37.1	1.4	10.1	15.1	18.0
Presence of elderly individuals						
Elderly individuals	18.4	36.1	1.3	13.4	14.9	15.9
No elderly individuals	19.9	37.1	2.3	4.5	18.0	18.2
Income as a percentage of poverty guidelines						
0 to under 50 percent	21.1	39.6	2.3	5.5	15.6	15.8
50 to under 100 percent	21.1	38.7	2.1	6.4	14.9	16.8
100 to 130 percent	18.9	36.7	1.8	8.4	16.9	17.2
More than 130 percent to 200 percent	18.2	35.0	1.7	9.2	17.9	18.1
Employment status of household head ^a						
Employed	19.5	36.2	2.2	5.0	18.7	18.3
Unemployed	23.1	45.5	1.8	5.0	13.5	11.2
Not in labor force	20.3	37.2	2.1	6.0	16.6	17.8
Geography						
Urban	19.2	37.4	1.9	7.7	16.5	17.2
Rural	20.2	30.4	1.7	10.1	19.3	18.3

Source: Weighted tabulations of the 2013 and 2014 CE Interview data files.

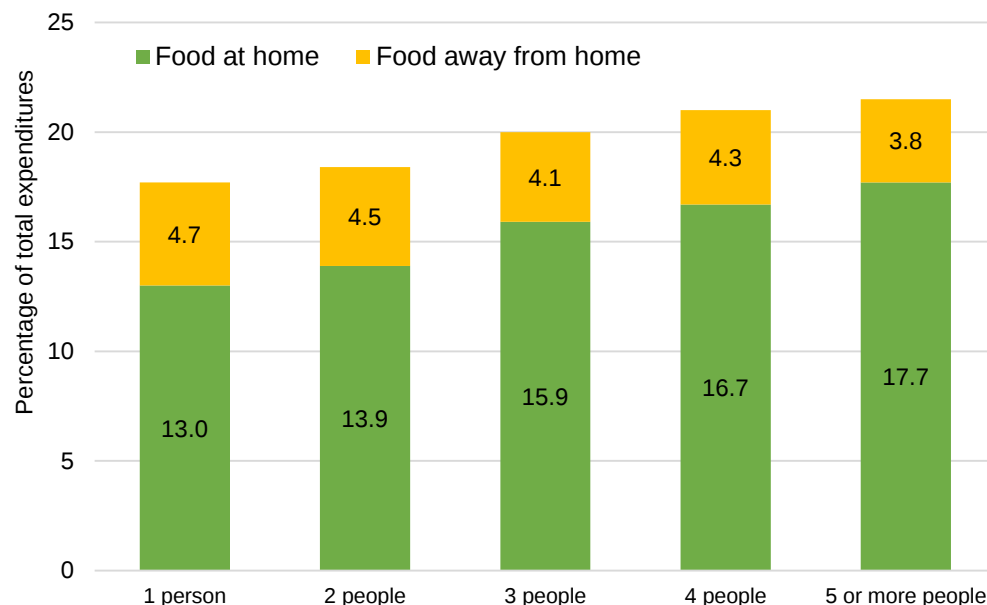
Notes: Low-income households are defined as those with gross income (excluding SNAP benefit amounts) at or below 200 percent of poverty guidelines.

Expenditure shares are defined as annual expenditures of a certain type divided by total annual expenditures for the household. Mean expenditure shares include contributions from households that report zero expenditures of that type.

Domestic services expenditures are included in the "Other goods and services" column.

^a Children and elderly adults are excluded from those not in the labor force.

Figure III.5. Expenditure shares on food for low-income households, by household size, 2013–2014

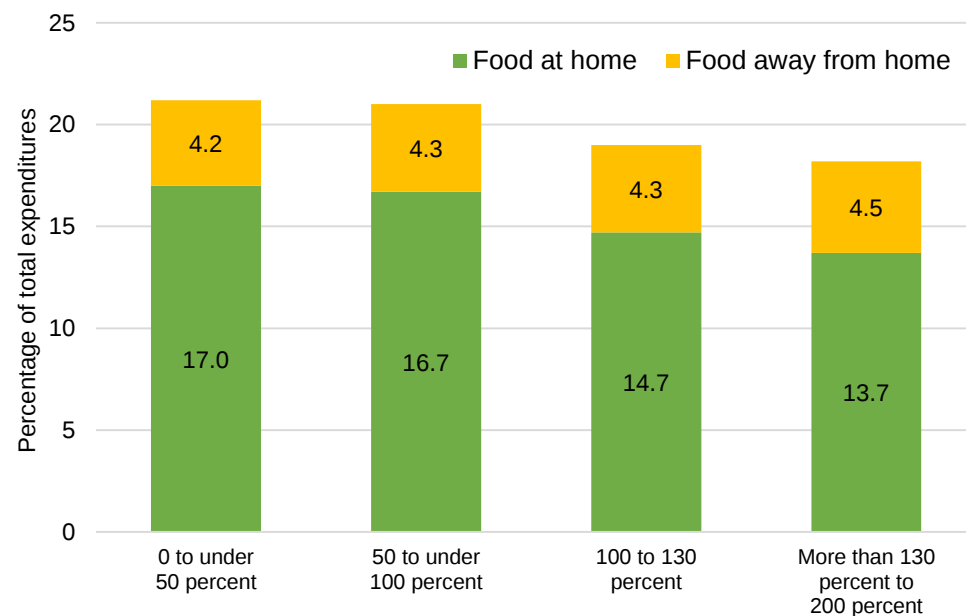


Source: Weighted tabulations of the 2013 and 2014 CE Interview data files.

Notes: Low-income households are defined as those with gross income (excluding SNAP benefit amounts) at or below 200 percent of poverty guidelines.

Expenditure shares are defined as annual expenditures of a certain type divided by total annual expenditures for the household. Mean expenditure shares include contributions from households that report zero expenditures of that type.

Figure III.6. Expenditure shares on food for low-income households, by gross income as a percentage of the poverty guidelines, 2013–2014

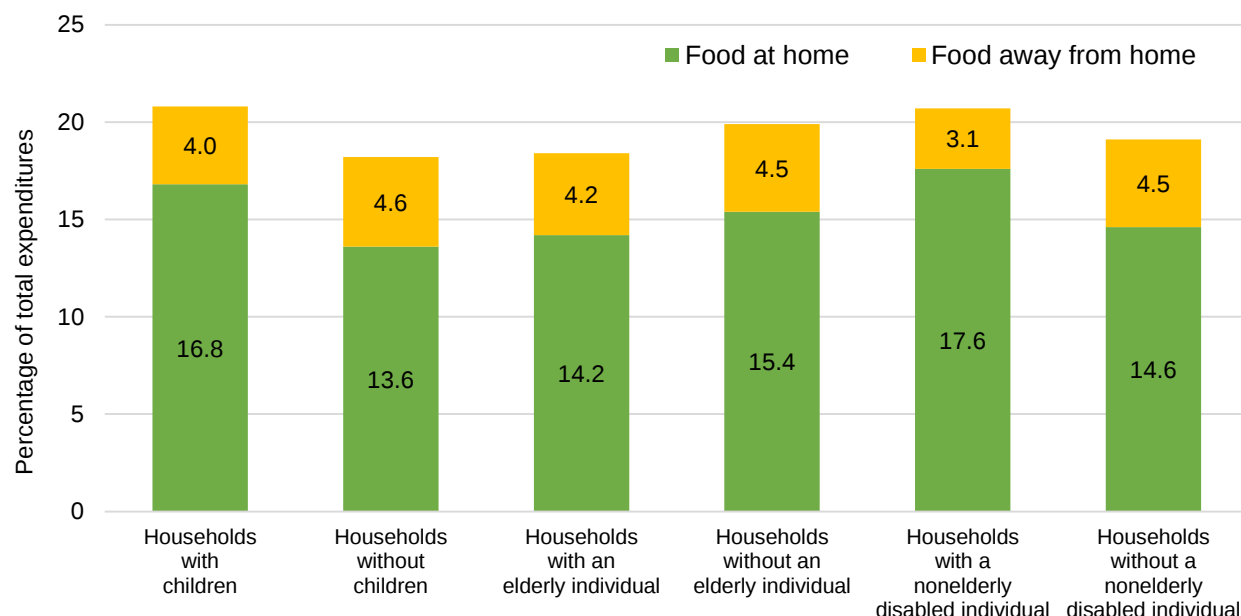


Source: Weighted tabulations of the 2013 and 2014 CE Interview data files.

Notes: Low-income households are defined as those with gross income (excluding SNAP benefit amounts) at or below 200 percent of poverty guidelines.

Expenditure shares are defined as annual expenditures of a certain type divided by total annual expenditures for the household. Mean expenditure shares include contributions from households that report zero expenditures of that type.

Figure III.7. Expenditure shares on food for low-income households, by household composition, 2013–2014



Source: Weighted tabulations of the 2013 and 2014 CE Interview data files.

Notes: Low-income households are defined as those with gross income (excluding SNAP benefit amounts) at or below 200 percent of poverty guidelines.

Expenditure shares are defined as annual expenditures of a certain type divided by total annual expenditures for the household. Mean expenditure shares include contributions from households that report zero expenditures of that type.

Expenditure shares on transportation varied according to household size, the presence of children in the household, employment status of the household head, and metropolitan status. The share spent on transportation was markedly lower for single-person households at 13.1 percent compared to 17.5 to 19.3 percent for households with more than one person (Table III.2). Households with children spent a larger share on transportation relative to households without children (19.1 versus 15.1 percent), as did households with an employed head relative to an unemployed head (18.7 versus 13.5 percent) and households in rural areas relative to those in urban areas (19.3 versus 16.5 percent).

Low-income households spent an average of nearly 8 percent of their total expenditures on health care, consisting largely of health insurance expenses, but the share differed by income and the presence of children or an elderly individual in the household. The share spent on health care increased with income as a percentage of the poverty guidelines, from 5.5 percent for households with income under 50 percent of the guidelines to 9.2 percent for households with income greater than 130 percent and less than 200 percent of the guidelines (Table III.2). It was smaller for households with children compared to those without children (4.9 versus 10.1 percent) and households without an elderly individual compared to those with an elderly individual (4.5 versus 13.4 percent).

IV. ADEQUACY OF CURRENT DEDUCTIONS

For most households, SNAP eligibility and monthly benefit amounts are determined on the basis of net income, which is intended to represent the disposable income available to households for the purchase of food. Net income is calculated by subtracting deductions permitted under SNAP from a household's monthly gross income. The deductions include an earned income deduction, medical expense deduction, excess shelter expense deduction, standard deduction, dependent care deduction, and child support payment deduction.¹⁰

In this chapter, we assess how well the SNAP deductions align with the actual spending of low-income households. We focus on four of the six deductions: the earned income deduction, medical expense deduction, excess shelter expense deduction, and standard deduction. Given that the dependent care deduction and child support payment deduction are always set equal to expenses and that all households with such expenses are allowed to take those deductions, the two deductions reflect actual spending for households by design. Therefore, we do not analyze those deductions here.

A. Earned income deduction

About 57 percent of low-income households had earnings in 2013–2014. Households receive a deduction equal to 20 percent of their earnings; the deduction is intended to approximate costs associated with working, except for dependent care, which is captured in its own deduction. Such costs might include those associated with commuting such as gasoline, motor oil, parking, and tolls; mandatory work uniforms; and payroll taxes. Payroll taxes are approximately 7.65 percent of earnings, which is the sum of 6.20 percent for Social Security and 1.45 percent for Medicare.

To assess how well the earned income deduction aligned with households' actual work-related expenditures, we examined whether:

1. Households with earnings more commonly incurred certain expenditures associated with working
2. Spending associated with working increased with the level of earnings
3. The amount of spending on work-related expenses equaled about 20 percent of earnings

¹⁰ As discussed in Chapter I, States have the option to use a child support payment income exclusion instead.

Compared to those without earnings, a greater percentage of low-income households with earnings incurred expenses that could be associated with working (Table IV.1). For example, 86.4 percent of low-income households with earnings reported gasoline or motor oil expenses compared with 70.3 percent of low-income households without earnings. Spending on parking and tolls was less common but followed a similar pattern among households with and without earnings; 11.9 percent of households with earnings had expenditures on parking and tolls compared with 5.6 percent of households without earnings. Expenditures on uniforms for individuals age 16 or older were uncommon for all household types; however, the percentage of households with earnings that reported expenditures on uniforms (1.4 percent) was still noticeably higher than the percentage for households without earnings (0.2 percent).

The percentage of low-income households with work-related expenses generally increased with earnings (Table IV.1). We use a \$15,000 break point because it is approximately what a person would earn by working full-time at the 2014 Federal minimum wage of \$7.25 per hour. Four out of five (80.8 percent) households with annual earnings at or below \$15,000 had gasoline and motor oil expenses compared with 89.0 percent of households with earnings between \$15,000 and \$30,000 and 93.2 percent of households with earnings greater than \$30,000. While rare, spending on uniforms was nearly twice as common for households with earnings greater than \$30,000 than for those with earnings at or below \$15,000 (2.0 versus 1.1 percent). In contrast, expenditures on parking and tolls were fairly similar across earnings levels.

Table IV.1. Percentage of low-income households with selected expenditure types by presence and amount of annual earned income, 2013–2014

	Annual earned income				
	Positive earned income				\$0
	Any amount	More than \$0 to \$15,000	More than \$15,000 to \$30,000	More than \$30,000	
Percentage of households with expenditures on					
Gasoline and motor oil	70.3	86.4	80.8	89.0	93.2
Parking and tolls	5.6	11.9	12.2	11.3	12.1
Uniforms ^a	0.2	1.4	1.1	1.3	2.0

Source: Weighted tabulations of the 2013 and 2014 CE Interview data files.

Note: Low-income households are defined as those with gross income (excluding SNAP benefit amounts) at or below 200 percent of poverty guidelines.

^a For this table, uniform expenses are restricted to those purchased for individuals age 16 or older.

Not only did the percentage of households with gasoline and motor oil expenditures increase with earnings; the amount these households spent on gasoline and motor oil also increased with earnings (Table IV.2). Among households with such spending, expenditure amounts were \$2,042 for households in the lowest earnings category, \$2,305 for those in the middle earnings category, and \$3,242 for those in the highest earnings category. Spending on parking and tolls and on uniforms did not vary with earnings as much as gasoline and motor oil expenditures did.

Table IV.2. Mean annual expenditures by presence and amount of income for low-income households with expense type, 2013–2014

	Annual earned income				
	Positive earned income				\$0
	Any amount	Up to \$15,000	\$15,001 to \$30,000	More than \$30,000	
Mean annual expenditures/tax among households with expense type/tax					
Gasoline and motor oil	\$1,561	\$2,418	\$2,042	\$2,305	\$3,242
Parking and tolls	\$715	\$683	\$689	\$619	\$771
Uniforms ^a	\$116	\$102	\$105	\$90	\$111
Payroll taxes ^b	\$0	\$1,518	\$545	\$1,690	\$3,159

Source: Weighted tabulations of the 2013 and 2014 CE Interview data files.

Notes: Low-income households are defined as those with gross income (excluding SNAP benefit amounts) at or below 200 percent of poverty guidelines.

Households with negative earnings from self-employment are categorized as having \$0 of earnings in this table.

^a For this table, uniform expenses are restricted to those purchased for individuals age 16 or older.

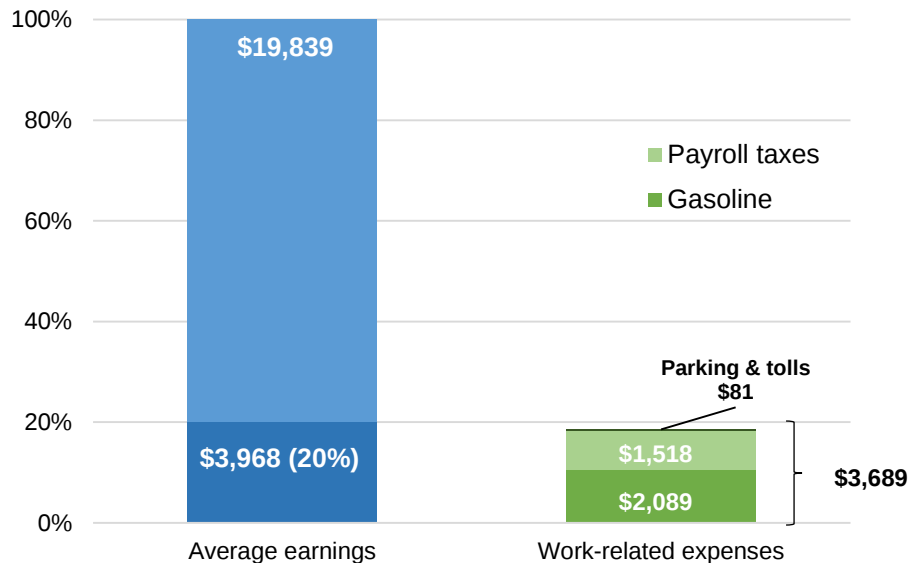
^b Payroll taxes are estimated as 7.65 percent of earnings.

Spending on gasoline and motor oil, parking and tolls, and uniforms combined with estimated payroll taxes totaled about 18.6 percent of mean earnings, close to the 20 percent amount of the earned income deduction (Figure IV.1). Mean annual earnings for low-income households were \$19,839 while the sum of annual expenditures on gasoline and motor oil (\$2,089), parking and tolls (\$81), uniforms (\$1), and payroll taxes (\$1,518) was about \$3,689, roughly \$280 less than the amount equivalent to 20 percent of mean earnings (\$3,968).

When considering how these expenses compare to the deduction of 20 percent of earned income, it is important to acknowledge that the available data could not identify whether all expenditures in these categories were necessarily related to working and may not have captured all work-related expenditures. For example, we included parking as a commuting expense but could not discern from the data whether parking expenditures were or were not associated with work. On the other hand, we did not include expenditures on vehicle insurance, which is required for vehicle owners, in part because the data did not provide information on whether a household used the vehicle exclusively for commuting or would have otherwise owned a vehicle regardless of the need to commute. Our analysis balanced these tradeoffs by including as commuting costs those expenditures that can reasonably be expected to increase with commuting length and frequency, such as gasoline, motor oil, parking, and tolls, and excluding expenditures on items

such as vehicle maintenance that likely do not differ as much for individuals that use vehicles to commute and individuals that use vehicles for non-commuting purposes.

Figure IV.1. Comparison of annual work-related expenditures to 20 percent of average annual earnings for low-income households



Source: Weighted tabulations of the 2013 and 2014 CE Interview data files.

Note: Low-income households are defined as those with gross income (excluding SNAP benefit amounts) at or below 200 percent of poverty guidelines.

B. Medical expense deduction

A medical expense deduction is available only to households with elderly or disabled individuals. In 2013–2014, households with elderly or disabled individuals accounted for 50.7 percent of low-income households and 38.0 percent of participating SNAP households.¹¹ In most States, such households may deduct average monthly combined out-of-pocket medical expenses exceeding \$35 incurred on behalf of elderly or disabled household members. Standard medical deduction demonstration projects, authorized in some States, use standardized deduction amounts for medical expenses that exceeded \$35 but remained below a specified limit (Table IV.3). Fifteen States in fiscal year 2014 and 14 States in fiscal year 2013 used standard medical deductions to simplify expense reporting and administration. Standard medical deduction amounts ranged from a minimum of \$83 in New Hampshire to a maximum of \$210 in Illinois over the two fiscal years, with a median of \$140.

¹¹ The first percentage is based on the CE sample and the second percentage on the SNAP QC sample.

Table IV.3. State medical deduction demonstration projects, fiscal years 2013–2014

State	If medical expenses are >\$35 but less than or equal to	Then household receives standard medical deduction of
Arkansas	\$138	\$103
Idaho ^a	\$179	\$144
Illinois	\$245	\$210
Iowa	\$140	\$105
Kansas	\$175	\$140
Massachusetts		
October 2012–February 2014	\$125	\$90
March 2014–September 2014	\$190	\$155
Missouri	\$200	\$165
New Hampshire	\$118	\$83
North Dakota ^b	\$200	\$165
Rhode Island	\$176	\$141
South Dakota	\$200	\$165
Texas	\$137	\$102
Vermont	\$173	\$138
Virginia	\$175	\$140
Wyoming	\$138	\$103

Source: U.S. Department of Agriculture, FNS. Table adapted from Vigil et al. (2015).

Note: If verified expenses were greater than the maximum medical expense used for the standardized deduction, then States used the actual expenses minus \$35.

^a Idaho implemented its program in November 2013.

^b North Dakota implemented its program in April 2013.

If households in States with standard medical deduction demonstration projects provide verification of their actual expenditures and those expenditures are higher than the standard medical deduction plus \$35, then the household may receive a medical expense deduction equal to their actual expenses minus \$35 in lieu of the standard medical deduction. Using SNAP QC data from fiscal year 2014, we find that that about 26 percent of participating SNAP households with medical expense deductions in standard medical deduction States had a deduction greater than the standard amount, ranging from 15 percent in Virginia to nearly 49 percent in Massachusetts (Table IV.4).

Table IV.4. Distribution of medical expense deduction amounts in relation to the standard medical deduction among SNAP households in States with standard medical deduction demonstration programs in fiscal year 2014

	Total SNAP households in State (000)	State standard medical deduction amount	Households with a medical expense deduction in standard medical deduction demonstration States					
			Total		Medical expense deduction equals the standard medical deduction amount		Medical expense deduction is greater than the standard medical deduction amount	
			Number (000)	Percent of total SNAP households	Number (000)	Percent of total with medical expense deduction	Number (000)	Percent of total with medical expense deduction
All	4,830		283	5.9	208	73.6	75	26.4
Arkansas	216	\$103	10	4.4	8	82.8	2	17.2
Idaho ^a	81	\$144	4	4.5	3	84.5	1	15.5
Illinois	998	\$210	39	3.9	30	78.6	8	21.4
Iowa	191	\$105	9	4.5	7	79.3	2	20.7
Kansas	133	\$140	11	8.2	7	65.8	4	34.2
Massachusetts ^b	483	\$90/\$155	41	8.5	21	51.2	20	48.8
Missouri	402	\$165	46	11.4	38	84.0	7	16.0
New Hampshire	53	\$83	3	6.6	2	64.3	1	35.7
North Dakota	25	\$165	3	13.6	2	59.0	1	41.0
Rhode Island	99	\$141	8	8.2	6	74.9	2	25.1
South Dakota	44	\$165	3	6.9	2	64.5	1	35.5
Texas	1,601	\$102	81	5.0	61	76.1	19	23.9
Vermont	48	\$138	10	20.2	6	60.8	4	39.2
Virginia	442	\$140	15	3.4	13	85.3	2	14.7
Wyoming	15	\$103	1	6.9	1	75.4	0	24.6

Source: Weighted totals from the fiscal year 2014 SNAP QC data file.

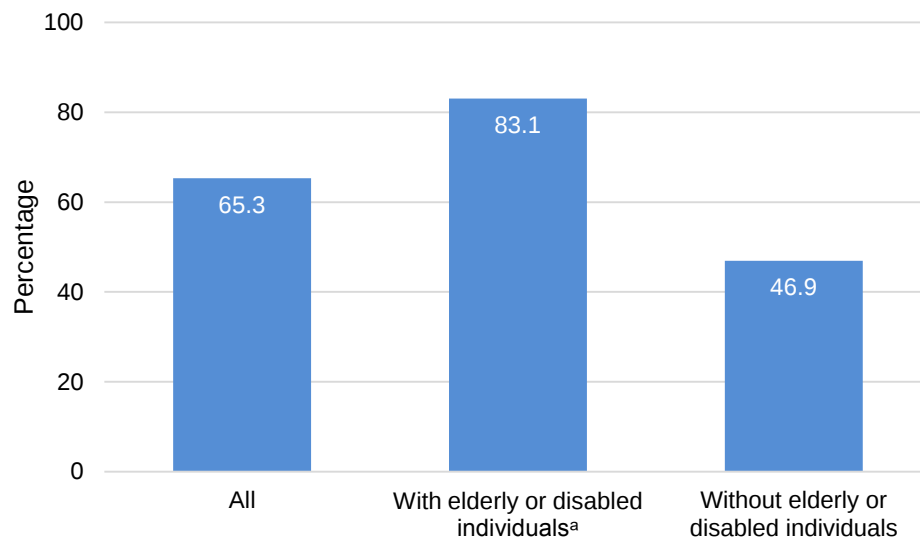
^a Idaho implemented its demonstration project in November 2013. As such, the table excludes Idaho SNAP QC household records from October 2013.

^b Massachusetts' standard medical deduction demonstration project amount increased from \$90 to \$155 in March 2014.

To determine whether the medical expense deduction was responsive to expenditures of low-income households, we assessed the prevalence and amount of medical expenditures, including health insurance, medical services, and prescription drugs and medical supplies, for all low-income households and for those with and without elderly or disabled individuals, and how often the amount exceeded \$35. Medical expenditures in the CE include only those that were not reimbursed and appear to be well-aligned with those that are countable under SNAP rules.

Out-of-pocket medical expenditures were common for all low-income households but occurred more frequently among households with elderly or disabled individuals than among those without such individuals (Figure IV.2). More than four out of five low-income households with elderly or disabled individuals had medical expenses (83.1 percent) compared with 46.9 percent of households without elderly or disabled individuals. The data do not, however, provide sufficient information to determine whether the medical expenses pertained to elderly or disabled members of the household, for whom expenses in excess of \$35 are deductible, or to other household members, for whom expenses are not deductible.

Figure IV.2. Percentage of low-income households with medical expenses



Source: Weighted tabulations of the 2013 and 2014 CE Interview data files.

Notes: Low-income households are defined as those with gross income (excluding SNAP benefit amounts) at or below 200 percent of poverty guidelines.

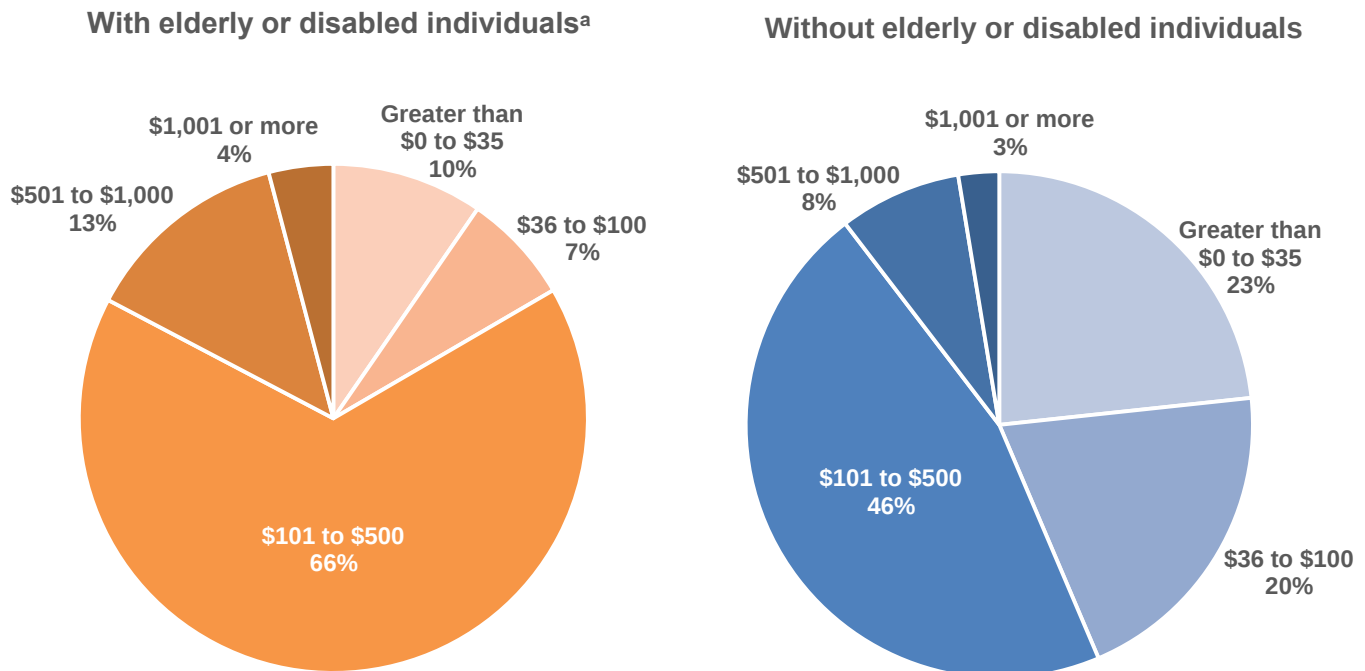
Medical expenses are for all members of the household and cannot be separated into those exclusively for elderly or disabled individuals.

^a We define disabled individuals as those who list illness, disability, or inability to work as their reason for not working. The CE does not include sufficient information to identify individuals who meet the SNAP disability criteria described in Chapter I.

Average medical expenses among households that incurred such expenses were usually substantially more than \$35 per month (Figure IV.3). Only 9.6 percent of households with elderly or disabled members had average monthly medical expenses at or below \$35. These households would not receive a medical expense deduction. More than 80 percent had expenses greater than \$100 and therefore would be eligible for at least a \$65 medical expense deduction if all eligible expenses (as defined by SNAP rules) pertained to elderly or disabled members of the household and if the household verified its expenses. Among households without elderly or disabled individuals, 76.7 percent had average monthly medical expenses in excess of \$35, and more than half (56.4 percent) had expenses greater than \$100 per month. The average expenditure among households without elderly or disabled individuals and with medical

expenses in excess of \$35 was, at \$224 (not shown in Figure IV.3), about 30 percent lower than that for households with elderly or disabled individuals, at \$318.

Figure IV.3. Distribution of average monthly medical expenditure amounts among low-income households with medical expenses, 2013–2014



Source: Weighted tabulations of the 2013 and 2014 CE Interview data files.

Notes: Low-income households are defined as those with gross income (excluding SNAP benefit amounts) at or below 200 percent of poverty guidelines.

Due to the design of the CE, the expenditure amounts that contribute to household-level distributions cannot be restricted to those that occur within the 2013 and 2014 calendar years. Some are representative of the fourth quarter of 2012 or the first quarter of 2015.

Medical expenses are for all members of the household and cannot be disaggregated into only those for elderly or disabled individuals.

^a We define disabled individuals as those who list illness, disability, or inability to work as their reason for not working. The CE does not include sufficient information to identify individuals who meet the SNAP disability criteria described in Chapter I.

C. Excess shelter expense deduction

A household is entitled to a deduction equal to shelter expenses (such as rent, mortgage payments, utility bills, property taxes, and insurance) that exceed 50 percent of its adjusted net income. Adjusted net income is countable income after all other potential deductions are subtracted from gross income. The difference between total shelter expenditures and 50 percent of adjusted net income is the excess shelter expense amount. Households without any elderly or disabled individuals are subject to a maximum deduction called the shelter cap, which was \$478

in the contiguous United States in fiscal year 2014 and varied for Alaska, Hawaii, Guam, and the Virgin Islands.

More than 99 percent of low-income households in the CE had housing expenditures in fiscal years 2013–2014, accounting for 36.7 percent of their total expenditures. With these expenditures so prevalent, it is particularly important to assess whether the excess shelter expense deduction reflects current expenditure patterns.

To assess the adequacy of the deduction, we conducted the following analyses:

- To assess the effect of the shelter cap, we used the SNAP QC–based microsimulation models to analyze how often households without elderly or disabled individuals had an excess shelter expense deduction that was limited by the shelter cap (that is, their SNAP benefit would have been higher in the absence of the shelter cap).
- We assessed the share of adjusted net income (defined as net income plus the excess shelter expense deduction) that low-income households typically spent on housing and utilities. SNAP households spending less than 50 percent of their adjusted net income on shelter expenses were not entitled to an excess shelter expense deduction. The analysis assessed the prevalence of households with shelter expenses large enough to permit the households to receive the deduction.
- We compared the mean monthly utility amounts for participating SNAP households used in the SNAP excess shelter expense deduction calculation to the actual utility expenditures for low-income households and assessed whether there were differences across geographic regions. The analysis assessed Standard Utility Allowances (SUAs), which are the basis for countable utility expenditures for most participating households.

1. The shelter cap

About 68.5 percent of participating SNAP households without elderly or disabled individuals received an excess shelter expense deduction in fiscal years 2013–2014. For these types of households, the amount of the “excess” shelter expense is compared to the shelter cap when determining the amount of the excess shelter expense deduction. We simulated the deduction without the cap and determined the percentage of households whose benefits were limited by the cap (that is, those households that would receive a higher SNAP allotment if the shelter cap were removed). Overall, the shelter cap limited the benefits of 20.2 percent of all SNAP households with (1) no elderly or disabled individuals, and (2) an excess shelter expense deduction, and it limited the benefits of 13.9 percent of all SNAP households with no elderly or disabled individuals (Appendix Table D.4).

2. Shelter expenditures as a percentage of adjusted net income

In fiscal year 2014, 72.0 percent of participating SNAP households received an excess shelter expense deduction, and 30.6 percent received a shelter deduction equal to or greater than the shelter cap (Farson Gray & Kochhar, 2015). To assess whether a typical low-income household

would have expenditures high enough to take an excess shelter expense deduction if their rent/mortgage, property taxes, homeowner/rental insurance, and actual utility expenses (rather than SUAs) were used, we compared shelter expenses as a percentage of adjusted net income to the 50 percent threshold at which households begin to qualify for the deduction.

Low-income households spent 55.5 percent of their adjusted net income on shelter expenditures (Table IV.5).¹² This percentage was similar for households with elderly individuals or nonelderly disabled individuals (53.6 percent) and those without elderly or nonelderly disabled individuals (57.2 percent). The mean dollar value that equates to 55.5 percent of adjusted net income for all low-income units is \$738 per month, and the mean dollar value that equates to 50 percent of adjusted net income is \$665. Therefore, low-income households would be expected to have an average excess shelter expense deduction of \$73, which compares to an average excess shelter expense deduction of \$290 for participating SNAP households in fiscal year 2014 (Farson Gray & Kochhar, 2015). The difference could be attributed to differences in the two sets of households we are comparing (low-income households in the CE and participating SNAP households in the SNAP QC data). For example, low-income households in the CE not necessarily eligible for SNAP may have higher gross income (and, thus, higher adjusted net income) relative to participating SNAP households in the SNAP QC data, which would lower the excess shelter expense deduction if shelter expenses remain constant.

Table IV.5. Shelter expenditures as a share of adjusted net income, 2013–2014

Subgroup	Countable shelter expenditures as a percentage of adjusted net income
All low-income households	55.5
Elderly or nonelderly disabled individuals ^a	53.6
No elderly or nonelderly disabled individuals	57.2

Sources: Weighted tabulations of the 2013 and 2014 CE Interview data files and simulations using the 2015 Baseline of the 2011 MATH SIPP+ model.

Notes: Low-income households are defined as those with gross income (excluding SNAP benefit amounts) at or below 200 percent of poverty guidelines.

Countable shelter expenditures include those for owned dwellings, rental dwellings, utilities, property taxes, and insurance.

Adjusted net income is the sum of net income plus the excess shelter expense deduction. In other words, it is equal to countable income after all other potential deductions except for the excess shelter expense deduction are subtracted from gross income.

^a In the CE, we define disabled individuals as those who list illness, disability, or inability to work as their reason for not working.

¹² A description of our method appears in Appendix A.

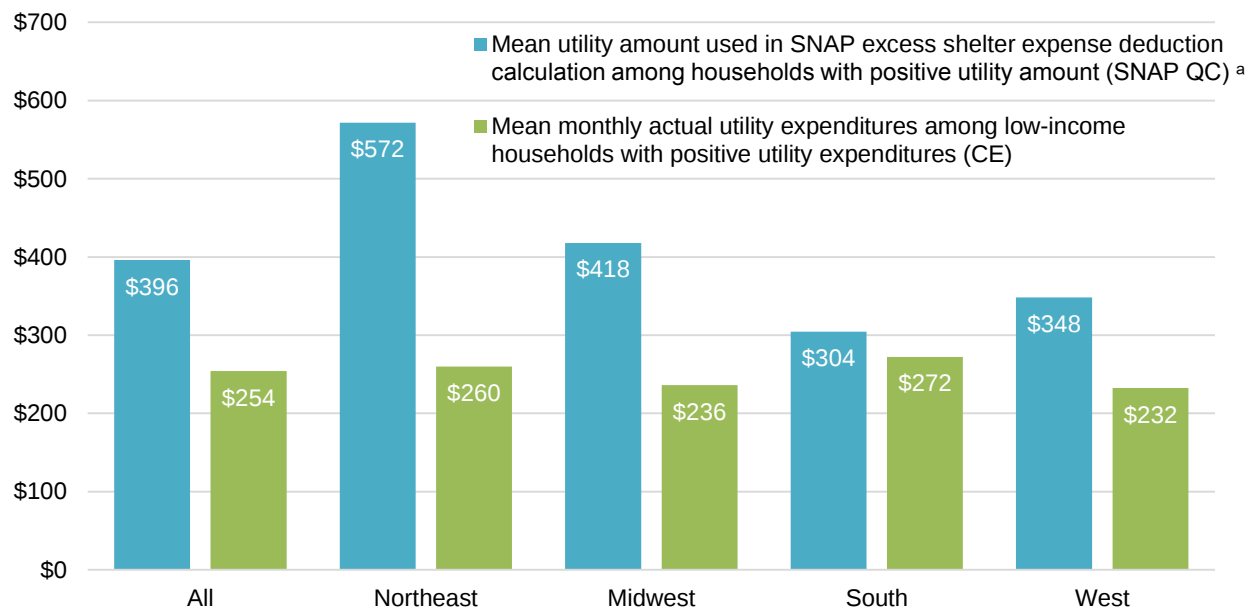
3. SUAs

One component of countable shelter expenses is the monthly utility amount. Instead of using actual utility expenses, most States use SUAs to calculate the utility expense component of total shelter expenses. There are several types of SUAs:

- The heating and cooling SUA (HCSUA) is used for SNAP households with heating and cooling expenses that are not included in rent.
- The Limited Utility Allowance (LUA) is used for SNAP households that have two or more types of utility expenditures but do not have heating and cooling expenses separate from rent. Both the HCSUA and LUA generally include all utilities, including telephones.
- The telephone allowance is used for SNAP households with telephone expenses but without any other utility expenses.
- Other standard amounts may be provided for utilities such as electricity, water, sewer, trash, and gas/fuel.

For participating SNAP households with positive utility amounts, we compared mean monthly amounts used in the SNAP shelter deduction calculation, which are usually based on the SUAs described above, to actual mean monthly utility expenditures for low-income households among those with positive utility expenditures (Figure IV.4). Overall, utility amounts used in the SNAP excess shelter expense deduction calculation were \$396 for SNAP households with a positive amount compared with expenditures of \$254 for low-income households with positive expenses. By Census regions the respective amounts were \$572 and \$260 in the Northeast, \$418 and \$236 in the Midwest, \$304 and \$272 in the South, and \$348 and \$232 in the West.

Figure IV.4. Mean utility amounts in the SNAP QC data file compared with utility expenditures for low-income households in the CE by geographic region, among SNAP participants with a positive utility amount and low-income households with positive utility expenses, 2013–2014



Sources: Weighted tabulations of 2013 and 2014 CE Interview data files and tabulations of fiscal year 2013 and 2014 SNAP QC data files.

Notes: We define low-income households in the SNAP QC data file as SNAP households with gross income at or below 200 percent of the poverty guidelines. Low-income households in the CE are those with gross income (excluding SNAP benefit amounts) at or below 200 percent of poverty guidelines.

^a SNAP households in States with mandatory SUA policies receive a Standard Utility Allowance for their shelter deduction if they incur heating or cooling expenses and have two or more utility expenses. SNAP households in States with non-mandatory SUA policies receive a utility amount equal to either an SUA or actual monthly utility expenses (including \$0 if no expenses were incurred).

D. Standard deduction

SNAP households receive a standard deduction based on household size and region (contiguous United States, Alaska, Hawaii, Guam, and the Virgin Islands). The standard deduction is indexed annually to inflation; in fiscal year 2014 for the contiguous United States, it was equal to \$152 for one- to three-person households, and \$163, \$191, and \$219, respectively, for households with four, five, and six or more people. The standard deduction replaced three deductions that were in place prior to the Food Stamp Act of 1977. The deductions pertained to (1) court-ordered support or alimony payments; (2) tuition and mandatory fees assessed by educational institutions; and (3) unusual expenses incurred due to disaster or casualty losses which could not be reasonably anticipated by the household.¹³ The medical expense deduction

¹³ Food Stamp Act of 1977. Report 95-464 on H.R. 7940.

and child support payment deduction were also discontinued in 1977 but were both reinstated within a few years.

Drawing on data from the CE, we assessed the size of the standard deduction compared with two of the expenses it replaced in 1977: alimony expenses and education expenses.¹⁴ We tabulated the expenses' prevalence and dollar amounts by household size (Table IV.6). Very few low-income households (one-tenth of one percent) reported alimony expenses. Because so few households had such expenses, we could not reliably infer the monthly amount of the expense.

Overall, 10.8 percent of low-income households incurred education expenses, including those for children. The expenses relate to tuition, test preparation and tutoring services, school books, supplies, and equipment, and other school expenses, including rentals. Monthly expenses for households with education expenses were higher than the fiscal year 2014 standard deductions. The percentage of households with such expenses increased with household size, ranging from 8.6 percent for one- to three-person households to 20.3 percent for households with six or more members. Even though the standard deduction more than covers total education expenses among all low-income households, which were less than \$60 per month across all household sizes, it would not compensate average monthly education expenses for households with such expenses (Table IV.7). For example, the \$163 standard deduction for four-person SNAP households in the contiguous United States in fiscal year 2014 would cover only 58.6 percent of the average education expense (\$278) among the 15.9 percent of four-person low-income households facing such expenses.

Table IV.6. Prevalence of expenditure types associated with deductions prior to the Food Stamp Act of 1977 by household size for low-income households, 2013–2014

	All low-income households	Household size			
		1–3	4	5	6+
Percentage of households with alimony contributions	0.1	0.1	0.1	0.1	0.0
Percentage of households with education expenses	10.8	8.6	15.9	19.4	20.3

Source: Weighted tabulations of the 2013 and 2014 CE Interview data files.

Note: Low-income households are defined as those with gross income (excluding SNAP benefit amounts) at or below 200 percent of poverty guidelines.

¹⁴ We could not assess unusual expenses incurred due to disaster or casualty loss because the CE captures only regular, typical expenses.

Table IV.7. Dollar amounts of education expenses by household size for low-income households compared with fiscal year 2014 standard deduction amounts in the contiguous United States, 2013–2014

	All low-income households	Household size			
		1–3	4	5	6+
Education expenses ^a					
Among all households	\$54	\$57	\$44	\$32	\$47
Among all households with expense	\$500	\$668	\$278	\$166	\$230
Standard deduction					
Dollar amount (contiguous United States)		\$152	\$163	\$191	\$219
As a percentage of monthly education expenses among households with expense		22.8	58.6	115.1	95.2

Source: Weighted tabulations of the 2013 and 2014 CE Interview data files.

Note: Low-income households are defined as those with gross income (excluding SNAP benefit amounts) at or below 200 percent of poverty guidelines.

^a Education expenditures include tuition, test preparation and tutoring services, school books, supplies, and equipment, and other school expenses including rentals. Student loan payments are not included in the education expenditures tabulated above.

V. ADEQUACY OF THE BENEFIT REDUCTION RATE

The SNAP benefit amount decreases with rising net income. Since the inception of SNAP, program rules have assumed that SNAP households spend about 30 percent of their net income on food, with SNAP benefits providing the difference between that amount and the maximum benefit available to households with no net income.¹⁵ This is referred to as the “benefit reduction rate” because each additional dollar of net income reduces SNAP benefits by 30 cents.

The 30-percent benefit reduction rate was largely based on historical calculations of food spending as a percentage of household after-tax income (Orshansky, 1957; Hanson, 2008). Using food consumption data from 1955, Orshansky estimated that the average household spent one-third of its after-tax income on food. The benefit reduction rate of 0.30 has remained unchanged since the 1977 Food Stamp Act (IOM, 2013).

In this chapter, we assess the benefit reduction rate from two perspectives. First, we assess whether the 30 percent benefit reduction rate reflects current spending on food as a percentage of after-tax income for the low-income households included in our study. This percentage allows us to compare current spending patterns with those on which the benefit reduction rate was based. Second, we estimate food spending as a percentage of net income, defined programmatically as a household’s gross income minus allowable deductions. This percentage allows us to assess how households’ food spending as a percentage of net income compares to the 30-percent benefit reduction rate.

As we describe at the end of this chapter, there are limitations related to SNAP participation and benefit reporting in the CE and a large discrepancy between reported gross income and expenditure amounts in the CE. Based on these limitations, caution should be used in interpreting the findings from this analysis and making comparisons with other studies.

A. Comparison of food spending as a percentage of after-tax income to the benefit reduction rate

Our estimates of the share of after-tax income spent on food are based on food at home spending, rather than total food spending. The original benefit reduction rate of 30 percent was set using 1964 survey data before SNAP benefits were available and at a time when food away from home accounted for only a small portion of total food spending. As such, the original benefit reduction rate was calculated using total food expenditures, which was a close approximation to expenditures on food at home at the time. However, food away from home, which may not be purchased with SNAP benefits, now accounts for a much higher percentage of all U.S. consumer food expenditures than it did in the 1960s and 1970s (ERS, 2016). As discussed in Chapter III, the CE provides separate information on expenditures for food at home and expenditures for food away from home, excluding meals as pay, allowing us to account for these food expenditures separately. Therefore, reflecting the policy that SNAP benefits may be

¹⁵ Net income in this report refers to gross income less SNAP deduction amounts.

used only to purchase food to be prepared at home, we assess food spending using only food at home expenditures, rather than total food expenditures.

The ideal data with which to assess whether the benefit reduction rate accurately reflects current food spending patterns would be representative of all low-income households that are eligible for SNAP but do not already participate in the program. This would ensure that the data we use best reflect what households' food spending behavior would be in the absence of SNAP. Research spanning several decades has shown that an additional dollar of SNAP benefits is associated with an increase in food spending ranging from \$0.17 to \$0.47, on average (Mabli et al. 2013; Fox et al. 2004; Fraker 1990). That food spending does not increase dollar-for-dollar with SNAP benefits suggests that some households replace part of their out-of-pocket food spending with food purchased with SNAP benefits, freeing up cash resources for other needs. In the most recent qualitative study of SNAP household's food spending behavior conducted for FNS, Edin et al. (2013) provide support that participating SNAP households often build their monthly budgets around SNAP, allocating their cash resources toward their bills and other, often urgent, financial needs triggered by a sudden loss of income or increase in expenditures. In this way, SNAP eases the financial tradeoffs households must make as they strive to bring their budgets into balance, and may stave off material hardship.

Knowing that SNAP participation affects food expenditures, our ideal dataset cannot include SNAP participants without some type of adjustment for their SNAP participation. In addition, we cannot rely only on nonparticipating low-income households because non-participating households have been shown to be systematically different than participating SNAP households (Nord & Golla, 2009). Instead, for all SNAP participants in the data, we removed the SNAP benefit amount from food at home expenditures and income. In doing so, this approach assumes that households in the CE participating in SNAP would not change their food spending behavior in the absence of participation in the program. For example, a household with \$1,000 in income and \$50 in benefits that reports spending \$250 on food is assumed to spend \$200 on food in absence of the program. Excluding SNAP benefits from households' food spending and income amounts leads to a lower estimate of share of after-tax income spent on food. Using the example above, we compute three versions of the share of after-tax income spent on food at home: removing SNAP benefits from both food at home expenditures and income (equal to \$200/\$950 or 21.1 percent); including SNAP benefits in both food at home expenditures and income (equal to \$250/\$1,000 or 25 percent); and including SNAP benefits in food at home expenditures, but excluding it from income (equal to \$250/\$950 or 26.3 percent). As we show below, however, the main findings did not differ greatly depending on the exclusion of SNAP benefits from either food at home expenditures or income.

In 2013–2014, low-income households spent 19.5 percent of after-tax income on food at home (Table V.1). The estimates ranged from 19.5 to 22.3 percent, depending on whether SNAP benefits were excluded from food expenditures or income. These percentages are lower than the 30 percent used as a basis for the benefit reduction rate and are larger than those found in a

recent Institute of Medicine (IOM) report, which ranged from 11.7 percent for households with annual incomes over \$70,000 to 16.8 percent for households with annual incomes between \$5,000 and \$9,999; the average among all households (including higher-income households) was 13 percent (IOM, 2013).¹⁶

Table V.1. Percentage of after-tax income spent on food at home, by whether SNAP benefits were included in food spending and income measures, 2013–2014

Whether SNAP benefits are included in food spending and income measures	Food at home expenditures as a percentage of after-tax income
Removed from both food at home and income ^a	19.5
Included in both food at home and income	21.5
Included in food at home; removed from income	22.3

Sources: Weighted tabulations of the 2013 and 2014 CE Interview data files

Note: Low-income households are defined as those with gross income (excluding SNAP benefit amounts) at or below 200 percent of poverty guidelines.

^a We subtract the reported household SNAP benefit from expenditures on food at home. If food at home minus the SNAP benefit was less than \$0, we set the food at home amount to zero. We adjusted food at home expenditures for about 6 percent of low-income households to zero because food at home expenditures were lower than the SNAP benefit.

B. Comparison of food spending as a percentage of net income to the benefit reduction rate

SNAP legislation defines the benefit reduction rate as the percentage of a household's net income (after deductions) spent on food. The ideal data with which to assess whether the benefit reduction rate accurately reflects current food spending as a percentage of net income would contain reliable information on household net income and food expenditures. This ideal information is not available, posing several challenges for measuring food spending as a percentage of net income and interpreting the estimates. While the CE offers comprehensive information on spending on goods and services, including food spending, it includes gross income information only. As described in Chapter II and Appendix A, we sought to address this challenge by approximating the amount of net income for each household using the CE gross income amount and an adjustment factor obtained from the MATH SIPP+ microsimulation model.

In 2013–2014, low-income households spent 42.4 percent of net income on food at home (Table V.2). The estimates ranged from 42.4 to 48.6 percent, depending on whether SNAP benefits were excluded from food expenditures or income. These estimates are higher than the 30 percent benefit reduction rate currently used to determine benefits.

¹⁶ Data in the IOM report were based on 2010 CE data tabulated by the BLS and were based on pre-tax income, rather than after-tax income.

Table V.2. Percentage of net income spent on food at home, by whether SNAP benefits were included in food spending and income measures, 2013–2014

Whether SNAP benefits are included in food spending and income measures	Food at home expenditures as a percentage of net income
Removed from both food at home and income ^a	42.4
Included in both food at home and income	47.0
Included in food at home; removed from income	48.6

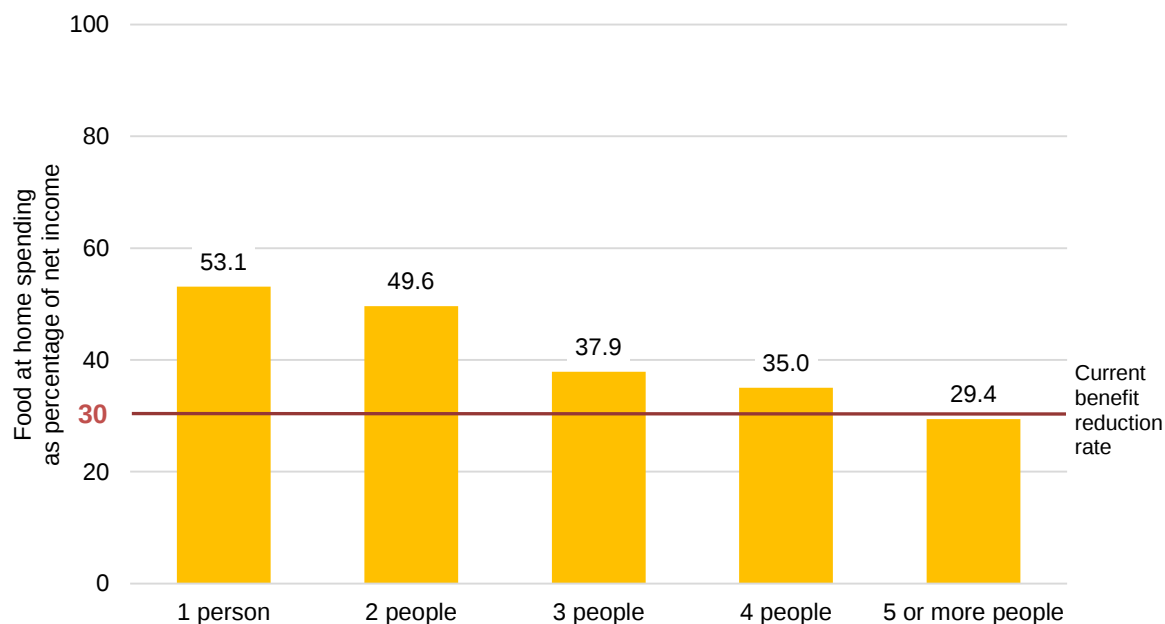
Sources: Weighted tabulations of the 2013 and 2014 CE Interview data files and simulations using the 2015 Baseline of the 2011 MATH SIPP+ model.

Note: Low-income households are defined as those with gross income (excluding SNAP benefit amounts) at or below 200 percent of poverty guidelines.

^aWe subtract the reported household SNAP benefit from expenditures on food at home. If food at home minus the SNAP benefit was less than \$0, we set the food at home amount to zero. We adjusted food at home expenditures for about 6 percent of low-income households to zero because food at home expenditures were lower than the SNAP benefit.

The percentage of net income that low-income households spent on food was higher for smaller households than for larger households; higher for households without children than for households with children; and higher for households without elderly or disabled individuals than for those with elderly or disabled individuals (Figures V.1 and V.2). These findings did not vary according to whether SNAP benefits were excluded from food spending amounts and income (not shown in figures). However, the findings shown in Figures V.1 and V.2 use the approach that removes SNAP benefits from food expenditures and income.

Figure V.1. Food at home expenditures as a share of net income among low-income households by household size, 2013–2014



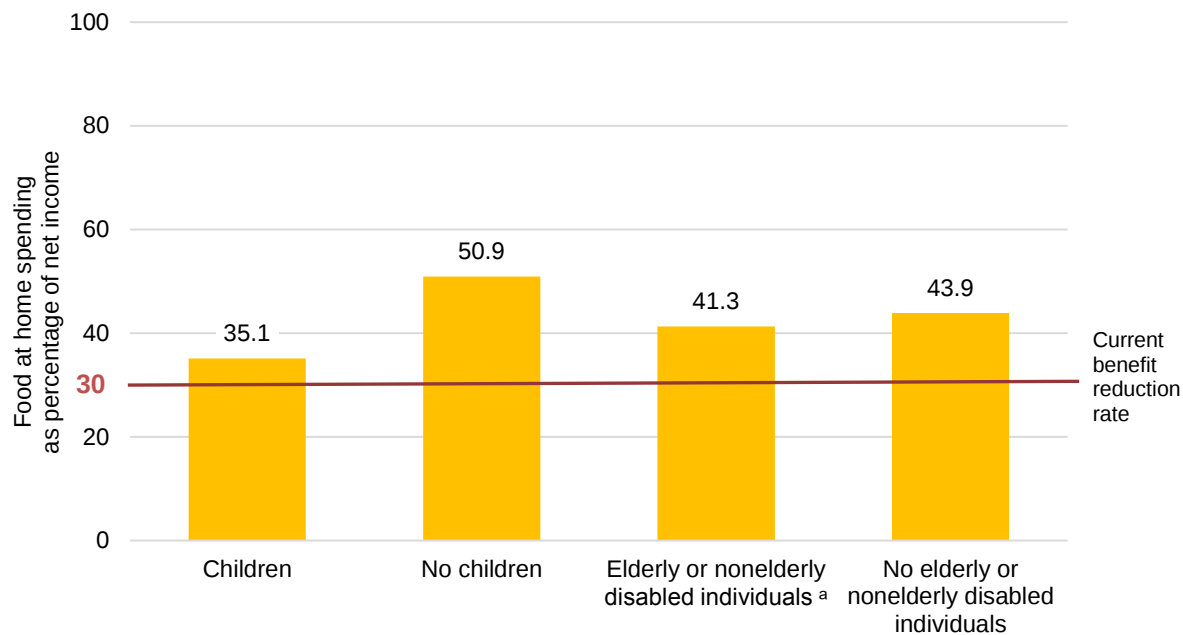
Sources: Weighted tabulations of the 2013 and 2014 CE Interview data files and simulations using the 2015 Baseline of the 2011 MATH SIPP+ model.

Notes: Low-income households are defined as those with gross income (excluding SNAP benefit amounts) at or below 200 percent of poverty guidelines.

We subtract the reported household SNAP benefit from expenditures on food at home. If food at home minus the SNAP benefit was less than \$0, we set the food at home amount to zero. We adjusted food at home expenditures for about 6 percent of low-income households to zero because food at home expenditures were lower than the SNAP benefit.

Gross income is defined as after-tax income minus the household SNAP benefit. We apply an adjustment factor, described in Appendix A, to convert gross income to net income.

Figure V.2. Food at home expenditures as a share of net income among low-income households by household composition, 2013–2014



Sources: Weighted tabulations of the 2013 and 2014 CE Interview data files and simulations using the 2015 Baseline of the 2011 MATH SIPP+ model.

Notes: Low-income households are defined as those with gross income (excluding SNAP benefit amounts) at or below 200 percent of poverty guidelines.

We subtract the reported household SNAP benefit from expenditures on food at home. If food at home minus the SNAP benefit was less than \$0, we set the food at home amount to zero. We adjusted food at home expenditures for about 6 percent of low-income households to zero because food at home expenditures were lower than the SNAP benefit.

Gross income is defined as after-tax income minus the household SNAP benefit. We apply an adjustment factor, described in Appendix A, to convert gross income to net income.

^a In the CE, we define disabled individuals as those who list illness, disability, or inability to work as their reason for not working.

C. Limitations

The findings in this chapter should be interpreted with the following limitations in mind. First, the above analyses compared the benefit reduction rate to food expenditures as a percentage of either after-tax income or net income. Both income measures are based on CE gross income. However, the CE data show a large discrepancy between the amount of income that low-income households have available to them and their actual expenditures. As described in Chapter III, average total expenditures in the CE were about 1.5 times higher than gross income for low-income households, suggesting that gross income may be misreported or that income does not accurately capture the amount of resources available to households with which to purchase goods and services (for example, households may be drawing from savings or other assets, spending on credit, or living beyond their means). Although the data do not allow us to identify the reasons for the discrepancy, it is important to consider whether income is capturing a household's total available resources. Thus, we also examined food spending as a percentage of

total expenditures. As we did with the income-based measures, we removed SNAP benefits from both food at home expenditures and total expenditures. Food at home expenditures as a percentage of total expenditures were 13.4 percent.¹⁷ This estimate was lower than food expenditures as a percentage of after-tax income (20.2 percent) because expenditures generally exceed income in the CE. It was also lower than the estimate of food spending as a percentage of net income (43.5 percent) because expenditures generally exceed income and SNAP deduction amounts were not subtracted from expenditures.

Another limitation is that it is unclear whether the food expenditures that participating SNAP households incur include (or exclude) expenditures made with their SNAP benefit. For respondents that include it, we are correctly deducting SNAP benefits from their food spending. For respondents that exclude expenditures made with their benefit and, instead, report food spending only using out-of-pocket resources, we are incorrectly reducing food spending amounts and underestimating the benefit reduction rate.

A third limitation is that SNAP receipt and benefit amounts tend to be underreported in the CE (Meyer & Goerge, 2011). Previous research comparing annual SNAP participation in the 2004–2010 CE with average monthly participation levels from FNS program data found the extent of this underestimation to be about 38 percent on average (Mabli & Malsberger, 2013). Comparing CE data to the 2013-2014 SNAP QC data shows that the CE contains about 50 percent of SNAP participants in administrative data. Because so many households in the CE are likely counted as nonparticipants even though they actually participate, we are not reducing their food spending and gross income amounts by the SNAP benefit, leading to overestimates of the measures of the benefit reduction rate.

A fourth limitation is that by removing SNAP benefits from gross income when estimating the benefit reduction rate based on after-tax income, and by applying deductions to gross income when estimating the benefit reduction rate based on net income, we are assuming that households in the CE would not change their food spending behavior when their income is reduced. This is at odds with empirical data, which show that households with higher income spend a larger percentage on food (BLS, 2015).

Given these limitations related to SNAP participation and benefit reporting and the large discrepancy between income and expenditures in the CE, we recommend that caution be used in interpreting the findings from this analysis and making comparisons with other studies.

¹⁷ This estimate differs from the estimate of food at home expenditures as a percentage of total expenditures presented in Chapter III of 15.0 percent because the Chapter III estimate does not remove SNAP benefits from food at home or total expenditures.

Page intentionally blank

VI. DEDUCTION USAGE AND AVAILABILITY

In Chapters IV and V, we assessed the adequacy of the SNAP deductions and the benefit reduction rate, focusing on whether the rules governing the existing deductions and the amount of the benefit reduction rate reflect the spending patterns of low-income households. In this chapter, we shift the focus to deduction usage, including households' access to deductions, and availability. In Section A, we discuss the percentage of participating SNAP households that take each deduction type and then address:

1. Whether deduction usage increases when households recertify for SNAP, relative to when they are initially certified upon joining the program
2. Whether there is evidence of structural barriers to claiming available deductions that might keep low-income households from reporting certain expenses

For information on actual SNAP deduction receipt and amounts, we use the SNAP QC data file, which contains data on the characteristics and deduction amounts of SNAP participants.

In Section B, using CE data we look into whether low-income households incur expenses that are not included in the deductions but that might be considered for inclusion.

A. Deduction usage

Under two sets of circumstances, households may incur expenses associated with a deduction but not receive the deduction. First, they might face structural barriers such as difficulty in documenting the expenditure. Second, they might be ineligible for the deduction despite incurring a seemingly related expense. For example, individuals with dependent care expenditures may not be eligible for the deduction if they are not working. In this section, using 2013 and 2014 SNAP QC data, we discuss deduction usage among SNAP participants, whether deduction usage and amounts increase at recertification, and whether structural barriers might keep households from reporting certain expenses.

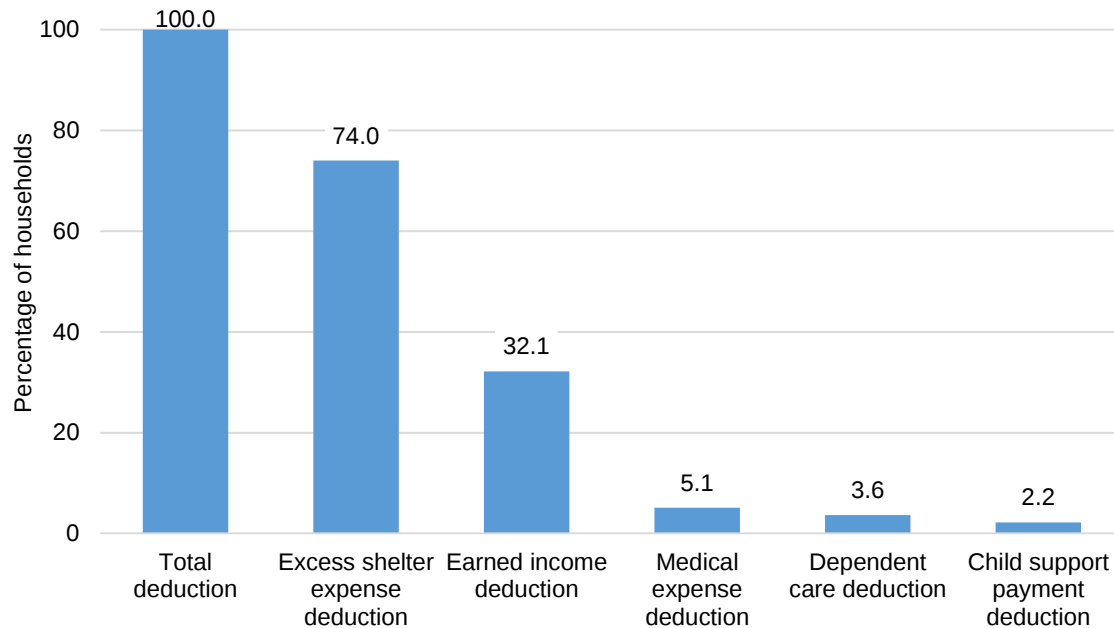
1. Deduction usage among SNAP Participants

To understand further the extent of deduction usage, we turned to the 2013–2014 SNAP QC data to examine the percentage of SNAP households using deductions and the amount of the deductions. Given that households' circumstances may change from the time they first enter SNAP to the time at which they recertify for the program, we also compare deduction usage at initial certification versus recertification to assess whether the usage and amounts of deductions remain unchanged.

All SNAP households in 2013–2014 had a positive total deduction, defined as the sum of the household's standard, earned income, medical expense, dependent care, child support payment, and excess shelter expense deduction because they all had a positive standard deduction regardless of whether they also used other deductions (Figure VI.1). Nearly three-quarters (74.0 percent) of SNAP households had an excess shelter expense deduction. The next most common deduction was for earned income, at 32.1 percent. The medical, dependent care, and child

support payment deductions were much less common; 2.2 to 5.1 percent of households had these deductions.

Figure VI.1. Percentage of SNAP households that use deductions, by deduction type



Source: Fiscal year 2013 and 2014 SNAP QC data files.

The average amount of the total deduction across all SNAP households was \$530 (Figure VI.2). On average, the deduction amounts among households with the deduction ranged from \$155 for the medical expense deduction to \$384 for the excess shelter expense deduction. Even though the earned income deduction was the second most common deduction, the amount of the deduction was smaller than that of most other deduction types, at \$213.

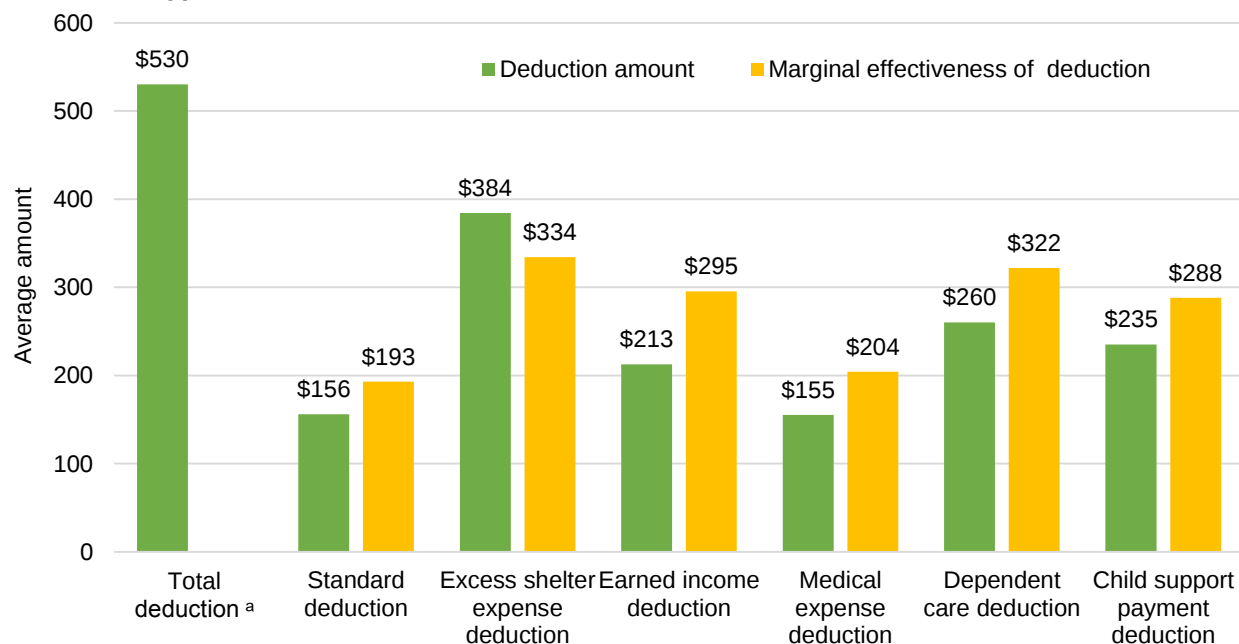
The net income calculation involves subtracting deductions from total income, but each deduction can influence net income in several ways:

- The combined deductions may total more than the household's income, essentially leaving some of the deductions unused. As a simple example, it is useful to consider a household with less income than the standard deduction; only the portion of the standard deduction equaling the household's income would actually be used by the household.
- All of the other deductions can increase the excess shelter expense deduction because each deduction can lower adjusted net income and half of adjusted net income is subtracted from shelter expenses to determine the excess shelter expense deduction. In this case, each individual deduction is worth not only its own value but also the value of the increase in the excess shelter expense deduction that the deduction creates.
- A household with its excess shelter expense deduction limited by the shelter deduction cap may not be affected as much by the other deductions as would be a household not limited by the shelter cap. Alone or in combination, the deductions can lower the adjusted

net income but may push (or keep) the excess shelter expense calculation above the cap and therefore not benefit the household to the greatest degree possible.

To assess the full effect of any deduction on the net income calculation, we examine the marginal effectiveness of the deductions. We calculate marginal effectiveness as the difference between the actual calculated net income and what the net income would have been in the absence of the deduction, independent of the order in which the deductions were applied (with the exception of the excess shelter expense deduction, which is always applied last because it depends on the value of adjusted net income). The average marginal effectiveness ranged from \$204 for the medical expense deduction to \$334 for the excess shelter expense deduction (Figure VI.2).

Figure VI.2. Deduction amount and marginal effectiveness for SNAP households, by deduction type



Source: Fiscal year 2013 and 2014 SNAP QC data files.

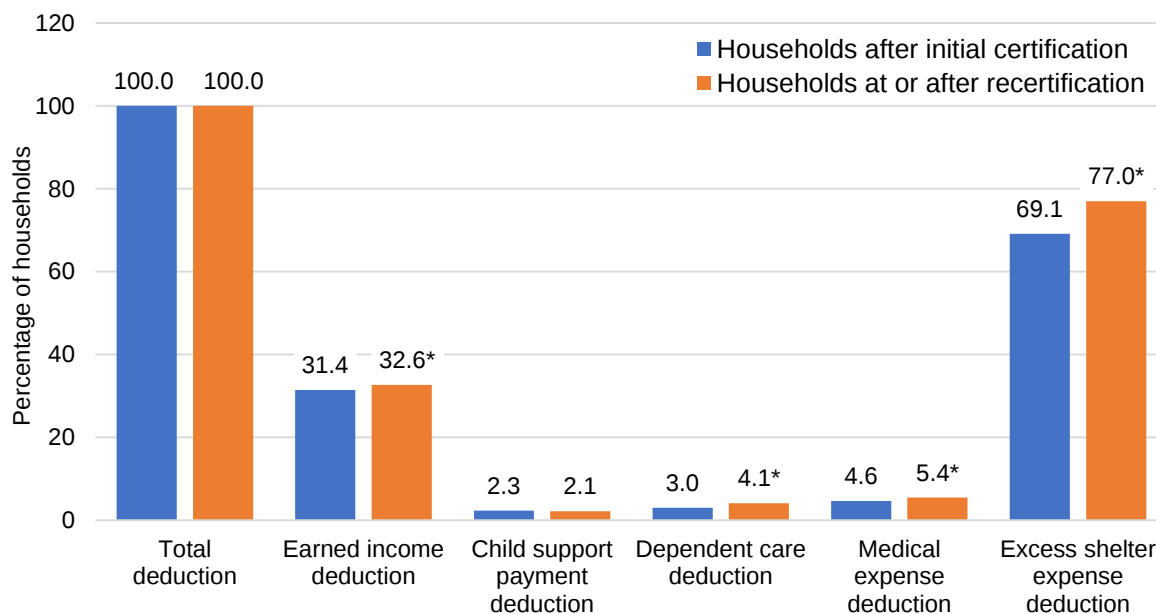
^a We do not include the average amount of the marginal effectiveness of the total deduction because it does not have a straightforward interpretation.

In Figures VI.1 and VI.2, we describe deduction usage and amounts among all SNAP households. For many households, however, economic conditions and household composition change over the period during which they participate in SNAP (Leftin et al., 2014b). To assess whether deduction usage also changes over the course of a household's SNAP participation, we statistically compared deduction usage by all SNAP households recorded at initial certification in the SNAP QC sample to usage by all SNAP households recorded at the most recent recertification appointment. The certification period varies with the likelihood of a change in a SNAP household's financial circumstances. In fiscal year 2014, 28.5 percent of households had certification periods that were 6 months or less and half had certification periods that were 13

months or less (Farson Gray & Kochhar, 2015). Given that the SNAP QC data do not follow the same set of SNAP participants over time, we were unable to examine deduction usage at the *first* recertification appointment. For households with a 12-month certification period, for example, deduction usage at recertification may be measured at the 12-month appointment for some households and at the 24-month appointment for others. Thus, we have no option but to compare deduction usage at initial certification with deduction usage at or after the most recent recertification.

All households had a positive total deduction amount at both initial certification and recertification. A statistically significant higher percentage of households used the earned income, excess shelter expense, dependent care, and medical expense deductions at recertification than at certification, but the differences were generally small. The percentage of households that used the excess shelter expense deduction was 7.9 percentage points greater at recertification than at certification (77.0 and 69.1 percent, respectively) (Figure VI.3). Changes in the usage of other deductions were smaller. The percentage of households that used the earned income deduction was 1.2 percentage points greater at recertification than at certification (32.6 and 31.4 percent, respectively). For the dependent care and medical expense deductions, the increases were 1.1 percentage points (4.1 percent at recertification and 3.0 percent at certification) and 0.8 percentage points (5.4 percent at recertification and 4.6 percent at certification). There was no statistically significant difference in the use of the child support payment deduction at initial certification and recertification.

Figure VI.3. Percentage of SNAP households that use deductions, by deduction type and whether the last SNAP certification was a new certification or recertification

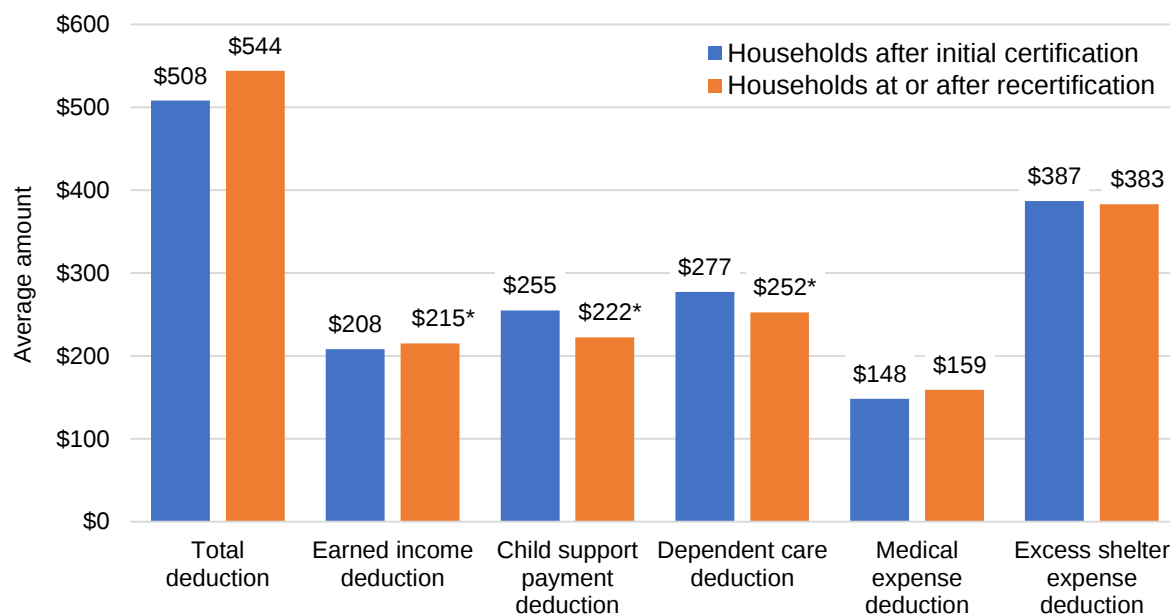


Source: Fiscal year 2013 and 2014 SNAP QC data files.

* Difference between percentage at recertification and initial certification is statistically significant at the 0.05 level, two-tailed test.

As with deduction usage, the amount of the deduction among households with the deduction generally remained steady over time for the total deduction and most deduction types (Figure VI.4). On average, households' total deductions were \$36 greater at recertification than at initial certification (\$544 versus \$508), but this difference was not statistically significant. The average earned income deduction was \$7 greater at recertification than at certification (\$215 versus \$208) while the dependent care and child support payment deductions were, on average, \$25 and \$33 lower at recertification than at certification. There was no significant change in the amount of the medical or excess shelter expense deductions at initial certification and recertification. Even though the amounts for most deduction types were either lower or unchanged, the average total deduction amount was slightly higher at recertification than at certification because larger percentages of households received most types of deductions at recertification, as shown in Figure VI.3.

Figure VI.4. Deduction amounts for SNAP households, by deduction type and whether the last SNAP certification was a new certification or recertification

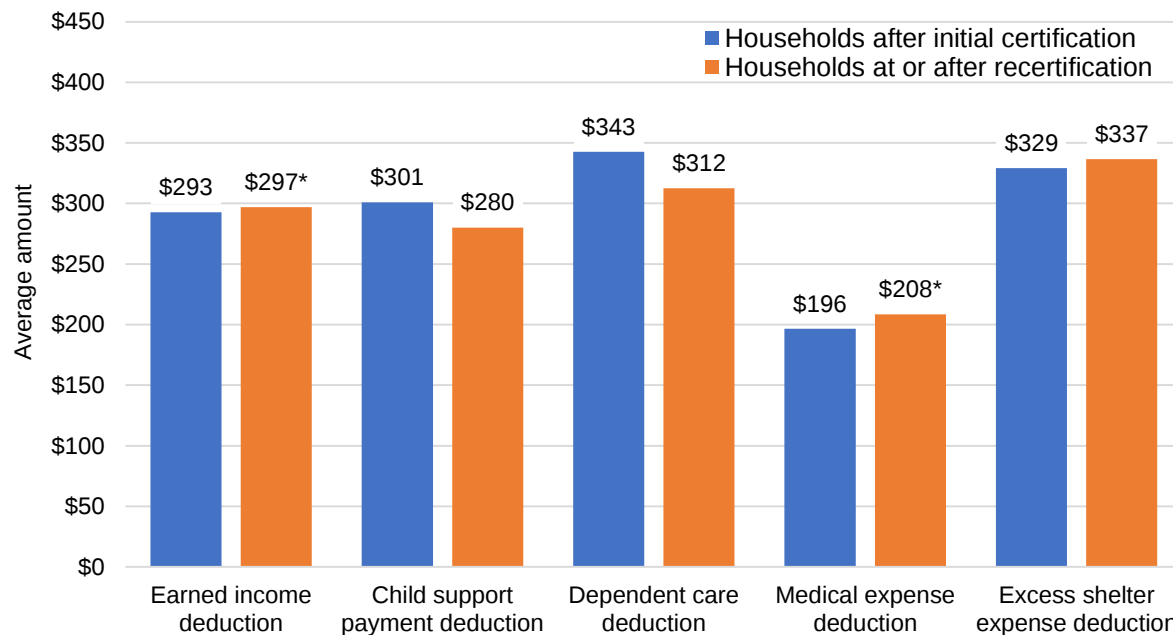


Source: Fiscal year 2013 and 2014 SNAP QC data files.

* Difference between percentage at recertification and initial certification is statistically significant at the 0.05 level, two-tailed test.

Changes in marginal effectiveness were consistent with changes in the amounts of the deductions for the total deduction and for the dependent care deduction (Figure VI.5). Although the earned income deduction was slightly larger for households at recertification versus initial certification, there was no statistically significant change in the marginal effectiveness of the earned income deduction. In addition, there was no change in the excess shelter expense deduction amount between the two time points, but the marginal effectiveness was more than \$7 larger at recertification than at certification.

Figure VI.5. Marginal effectiveness for SNAP households, by deduction type and whether the last SNAP certification was a new certification or recertification



Source: Fiscal year 2013 and 2014 SNAP QC data files.

Note: We do not include the total deduction in this table because its marginal effectiveness does not have a straightforward interpretation.

* Difference between percentage at recertification and initial certification is statistically significant at the 0.05 level, two-tailed test.

Descriptive comparisons in Figures VI.3 through VI.5 show that the percentage of households using deductions differed at recertification versus initial certification for several deduction types, although the changes were generally small. Similarly, there were differences over time in the amount of the deductions, but the overall differences were also small. Even though differences between deductions at initial certification and recertification could be driven by changes in household reporting behavior, they could also stem from a difference in the characteristics of households that remain in SNAP past their first recertification date and households that leave SNAP within the initial certification period. To identify whether household characteristics play a role in the differences in the usage and amount of deductions, we conducted a multivariate analysis of the differences in deduction usage, amounts, and marginal effectiveness at initial certification and recertification, accounting for differences in the characteristics of households at the two time periods. The characteristics included household size and composition, amounts of gross earned and unearned income, indicators of receipt of other income such as TANF and SSI, and locality. If differences remain in the percentage of households with deductions (or deduction amounts) after accounting for changes in these household characteristics, then we can be more confident that differences in deduction usage at certification and recertification do not reflect compositional changes in the population of SNAP

households and instead more likely reflect differences in households' propensity to report certain expenses used in determining deductions.¹⁸

Changes between initial certification and recertification in the percentage of households that use deductions after accounting for changes in household characteristics (Table VI.1) were slightly different than the changes presented in Figure VI.3, which did not account for changes in household characteristics. We still observed increases in the percentage of households with the dependent care and excess shelter deductions, but the increases were half as large after accounting for household characteristics. For example, the percentage of households with an excess shelter expense deduction increased by 7.9 percentage points without accounting for household characteristics (Figure VI.3) but increased by 3.1 percentage points after accounting for these characteristics (Table VI.1). In addition, the percentage of households with the dependent care deduction increased by 1.1 percentage points without accounting for household characteristics but increased by 0.6 percentage points after accounting for these characteristics. In contrast, usage of the medical expense deduction increased when unadjusted by characteristics but decreased in usage after accounting for household characteristics.

Changes in deduction amounts after accounting for changes in household characteristics (Table VI.1) were generally similar to the changes presented in Figure VI.4. For example, there were significant decreases in the amounts of the child support payment deduction and dependent care deduction, and no statistically significant change in the amount of the medical expense deduction. Consideration of the marginal effectiveness in place of the deduction amount showed similar findings.

The results of the above analyses suggest that differences in deduction usage at initial certification and recertification partly reflect compositional changes in the population of SNAP households and partly reflect differences in households' propensity to report certain expenses used in determining deductions. Differences in deduction amounts at initial certification and recertification seem primarily to reflect differences in households' propensity to report certain expenses used to determine deductions.

¹⁸ We did not include the earned income deduction in these analyses, given that the earned income deduction is determined solely by the presence of earned income and not by the reporting of other expenses. Households with earnings receive the deduction, and those without earnings do not.

Table VI.1. Regression-adjusted percentage of SNAP households with deduction, mean amount of deduction, and marginal effectiveness of deduction by deduction type and whether the last SNAP certification was a new certification or recertification, 2013–2014

Deduction type	Percentage of SNAP households with deduction			Mean amount of deduction among households with deduction			Marginal effectiveness of deduction		
	Households after initial certification	Households after recertification	Difference	Households after initial certification	Households after recertification	Difference	Households after initial certification	Households after recertification	Difference
Total deductions	100.0	100.0	0.0	\$526	\$533	\$6*	n.a.	n.a.	n.a.
Child support payment	2.3	2.1	-0.2	\$251	\$225	-\$26*	\$292	\$285	-\$7
Dependent care	3.3	3.9	0.6*	\$281	\$251	-\$31*	\$346	\$311	-\$35*
Medical expense	5.7	4.8	-0.9*	\$149	\$158	\$9	\$197	\$208	\$11
Excess shelter expense	72.2	75.3	3.1*	\$389	\$382	-\$7*	\$333	\$335	\$2

Sources: Regression-adjusted output from the fiscal year 2013 and 2014 SNAP QC data files.

Notes: Percentages of SNAP households with deductions and mean amounts of deductions are adjusted for SNAP household size; presence of children, an elderly individual, or a disabled nonelderly individual in the household; an indicator of whether there are multiple adults in the household; SNAP household-level gross income; an indicator of whether the household has earned income; an indicator of whether the household has unearned income; indicators of whether the household has TANF, GA, SSI, or Social Security income; and locality (metropolitan, micropolitan, or rural).

The analysis excluded MFIP and SSI-CAP households, for which deductions are not applicable.

n.a.: The marginal effectiveness of the total deduction is excluded from the table because it does not have a straightforward interpretation.

* Difference between outcome at recertification and initial certification is statistically significant at the 0.05 level, two-tailed test.

2. Evidence of structural barriers

For several reasons, a low-income household applying for SNAP may decide not to report certain expenses. A household may, for example, experience difficulty in acquiring or providing the needed documentation, have privacy concerns, or perceive a stigma associated with providing the required information. If the household fails to report certain types of expenses, then it could lose the opportunity for a deduction. For example, a household with an elderly or disabled member that fails to report medical expenses may lose the opportunity to claim a medical expense deduction even if it is eligible for one, potentially lowering its total benefit amount.

Certain SNAP policies aim to reduce barriers to claiming deductions. As discussed in Chapter IV, Standard Utility Allowances are meant to ease the task of reporting all monthly utility bills, and standard medical deduction demonstration projects are intended to reduce medical expense reporting burdens. In addition, the SNAP benefit calculation excludes some or

all deductions for households with standardized SNAP benefits.¹⁹ Finally, some State demonstration projects include policies aimed at simplifying SNAP reporting requirements and thereby removing barriers to claiming deductions.

To examine the extent to which barriers may possibly prevent households from reporting certain expenses, we compared the percentage of households with pre-tax income at or below 130 percent of the poverty guidelines (the SNAP gross income eligibility cutoff) that report certain expenses in the CE with the percentage of participating SNAP households in the SNAP QC data file with that expense or deduction type. To increase the comparability of the two groups of households, we restricted households in the SNAP QC file to those with gross income at or below 130 percent of poverty and removed cases from Guam and the Virgin Islands. Due to these restrictions, the percentage of participating households with certain types of deductions varies slightly from those presented earlier in the chapter, where those restrictions did not apply. We examined medical expenses and the medical expense deduction, child care expenses and the dependent care deduction, child support payments and deductions, and rent and mortgage expenses.

a. Medical expenses and deductions

Only households with average monthly out-of-pocket medical expenditures for elderly or disabled individuals greater than \$35 may qualify for a medical expense deduction. The percentage of low-income households with elderly or nonelderly disabled individuals and out-of-pocket medical expenditures greater than \$35 per month was much higher than the percentage of SNAP households with elderly or nonelderly disabled individuals that had a medical expense deduction (Table VI.2). Whereas 64.2 percent of low-income households with elderly or disabled individuals had monthly medical expenses in excess of \$35, only 9.7 percent of SNAP households with elderly or disabled individuals received the deduction. As mentioned, we cannot identify in the CE whether the medical expenses for households with elderly or disabled individuals pertained to the elderly or disabled household members, or to other members of the household. Furthermore, the estimate of the percentage of SNAP households with elderly or disabled individuals receiving the deduction would be moderately higher if the universe were not restricted to households with gross income at or below 130 percent of poverty. In fiscal year 2014, 16.8 percent of households with elderly individuals and 9.4 percent of households with nonelderly disabled members claimed a medical expense deduction (Farson Gray and Kochhar 2015).

The types of low-income households that more frequently incurred out-of-pocket medical expenses greater than \$35 (relative to all low-income households) also tended to receive a medical expense deduction more frequently. For example, 77.7 percent of low-income households that included both disabled and elderly individuals had medical expenses greater than \$35 compared with only 42.8 percent of households with disabled individuals but no elderly

¹⁹ These include households participating in the Minnesota Family Investment Project in Minnesota and Supplemental Security Income (SSI) Combined Application Projects in 15 States.

individuals. Consistent with this pattern, the percentage of participating SNAP households with elderly and disabled individuals that had a medical expense deduction was nearly double the percentage for SNAP households with disabled individuals but no elderly individuals (14.4 versus 7.4 percent). Other types of low-income households that more commonly had medical expenditures greater than \$35 and SNAP households that received the medical expense deduction included those with elderly household heads and those with Social Security income.

Table VI.2. Percentage of households in the CE with annual income at or below 130 percent of poverty with average monthly out-of-pocket medical expenses greater than \$35 compared with the percentage of SNAP households with a medical expense deduction in the SNAP QC data file by household type, 2013–2014

Characteristic	Percentage of households with out-of-pocket medical expenditures greater than \$35 per month (CE)	Percentage of households with medical expense deduction (SNAP QC)
All households with elderly or nonelderly disabled individuals ^a	64.2	9.7
Household composition		
Nonelderly disabled individuals	48.5	7.6
And elderly individuals	77.7	14.4
And no elderly individuals	42.8	7.4
Elderly individuals	73.0	12.3
And no disabled individuals	74.9	12.2
Age of household head		
Nonelderly	33.6	7.7
Age 60 to 69	65.0	10.8
Age 70 to 79	78.3	13.0
Age 80 or older	84.7	15.1
Receipt of assistance from:		
SNAP	34.2	9.7
Social Security	74.2	15.6
SSI	40.2	2.7

Sources: Weighted tabulations of 2013 and 2014 CE Interview data files and tabulations of fiscal year 2013 and 2014 SNAP QC data files.

Notes: Both the CE and SNAP QC files are restricted to households with gross income (excluding SNAP benefit amounts in the CE) at or below 130 percent of poverty guidelines. We also remove from the SNAP QC sample any households in Guam or the Virgin Islands because the CE does not include these households. Medical expenses are for all members of the household and cannot be disaggregated into members who are elderly or disabled.

^a In the SNAP QC, SNAP households with disabled individuals are identified as those with a disability-based assistance payment (the SNAP criteria) or with a reported medical expense deduction. Disabled individuals in the CE list illness, disability, or inability to work as their reason for not working.

b. Child care expenditures and the dependent care deduction

The dependent care deduction is available to households that incur out-of-pocket expenditures for care of a dependent because such care is necessary for a household member to seek, accept, or continue employment; attend training; or pursue education. The CE includes data on child care expenses but lacks complete information on expenses associated with caring for other dependents.

We compared the percentage of low-income households with child care expenses in the CE to the percentage of SNAP participants with the dependent care deduction in the SNAP QC data (Table VI.3). We found that about 8.6 percent of low-income households with children had child care expenditures compared with 6.9 percent of participating households with children that received the dependent care deduction.

Low-income households with one adult and children more often had child care expenditures than did those with multiple adults and children (11.7 versus 7.1 percent). Likewise, households with single adults and children more often received the dependent care deduction (9.0 versus 3.1 percent). The difference between the percentage of households with child care expenses and the percentage receiving the deduction was small for households with school-age children, but it was particularly large for households with preschool-age children. For example, 30.3 percent of low-income households with one adult and preschool-age children had child care expenses, whereas only 13.0 percent of such households participating in SNAP received the dependent care deduction.

c. Child support payments and the child support expense deduction

In most States, households with court-ordered child support payments receive a child support payment deduction. After excluding SNAP participants in the 18 States where households were able to use child support payments as an income exclusion rather than as a deduction, we found that the percentage of low-income households that reported child support payments in the CE (1.9 percent) was about the same as the percentage of participating SNAP households that received the deduction (2.0 percent) (Table VI.4). Household types that most frequently had child support payments and the deduction included larger households (with four to five people or more), those with nonelderly disabled individuals, and those with earnings slightly above poverty (between 100 and 130 percent of the poverty guidelines). Households with elderly individuals and those with unemployed individuals least often had child support payments or deductions.

Table VI.3. Percentage of households with children and annual income at or below 130 percent of poverty in the CE with child care expenses and percentage of participating SNAP households with children with the dependent care deduction, by household type, 2013–2014

Characteristic	Percentage of households with child care expenditures (CE)	Percentage of households with dependent care deduction (SNAP QC)
All households with children	8.6	6.9
Household size		
1 person	0.0	6.1
2 people	11.2	6.9
3 people	8.6	7.8
4 people	8.2	6.6
5 or more people	7.9	6.1
Household composition		
One adult	11.7	9.0
Only preschool-age children (age 0 to 4)	30.3	13.0
Only school-age children (age 5 to 17)	5.5	5.1
Both preschool- and school-age children	17.3	13.8
Multiple adults	7.1	3.1
Only preschool-age children (age 0 to 4)	12.8	3.4
Only school-age children (age 5 to 17)	2.2	2.4
Both preschool- and school-age children	11.3	4.2
Income as a percentage of poverty guidelines		
0 percent to 50 percent	8.2	2.0
Greater than 50 percent to 100 percent	8.1	9.4
Greater than 100 percent to 130 percent	9.8	18.5
Receipt of assistance from:		
Social Security	2.4	3.0
SSI	2.4	3.0
TANF	7.3	1.7

Sources: Weighted tabulations of 2013 and 2014 CE Interview data files and tabulations of fiscal year 2013 and 2014 SNAP QC data files.

Notes: Both the CE and SNAP QC files are restricted to households with gross income (excluding SNAP benefit amounts in the CE) at or below 130 percent of poverty guidelines. We also remove from the SNAP QC sample any households in Guam or the Virgin Islands because the CE does not include these households.

Table VI.4. Percentage of households with annual income at or below 130 percent of poverty in the CE with child support payments and percentage of participating SNAP households with a child support payment deduction by household type, 2013–2014

Characteristic	Percentage of households with child support payments (CE)	Percentage of households with child support payment deduction ^a (SNAP QC)
All households	1.9	2.0
Household size		
1 person	1.5	1.8
2 to 3 people	1.7	1.8
4 to 5 people	3.0	2.8
6 or more people	3.1	3.2
Household composition		
With children	2.6	2.2
With nonelderly adults	2.4	2.3
With elderly individuals	0.9	0.9
With nonelderly disabled individuals ^b	2.8	3.0
Earnings as a percentage of poverty guidelines		
0 percent to 50 percent	1.5	1.6
Greater than 50 percent to 100 percent	2.6	3.4
Greater than 100 percent to 130 percent	3.2	5.0
Employment status of household head		
Employed ^c	2.8	3.3
Unemployed	1.5	1.3
Not in labor force	1.8	1.8

Source: Weighted tabulations of 2013 and 2014 CE Interview data files and tabulations of fiscal year 2013 and 2014 SNAP QC data files.

Notes: Both the CE and SNAP QC files are restricted to households with gross income (excluding SNAP benefit amounts in the CE) at or below 130 percent of poverty guidelines. We also remove from the SNAP QC sample any households in Guam or the Virgin Islands because the CE does not include these households.

^a We excluded, from both the numerator and denominator, SNAP households living in the 18 States that, as of September 2013, took the option to treat child support payments as an income exclusion rather than as a deduction for some households. Implicit in this method is the assumption that the percentage of households with child support expenditures is similar across both the group of States that treats some child support payments as exclusions and the group of States that treats the payments exclusively as deductions.

^b In the SNAP QC, SNAP households with disabled individuals are those with a disability-based assistance payment (the SNAP criteria) or with a reported medical expense deduction. Disabled individuals in the CE list illness, disability, or inability to work as their reason for not working.

^c Children and elderly adults are excluded from those not in the labor force.

d. Shelter expenses

Households must report rent or mortgage expenses for them to be included in the calculation of the excess shelter expense deduction. Even though nearly all low-income households in the CE had rent or mortgage expenses overall (94.6 percent), only about two thirds of participating SNAP households (67.3 percent) had a rent or mortgage amount that contributed to the excess shelter expense calculation (Table VI.5). Specifically, at least 91 percent of every subgroup of low-income households in the CE that we examined reported positive rent or mortgage expenses, whereas fewer than 60 percent of some types of participating SNAP households, including those with no elderly or disabled individuals and those with income at or below 50 percent of poverty guidelines, had rent or mortgage amounts used for the deduction. About 75.1 percent of participating households with children, 82.3 percent of those with elderly individuals, and 88.5 percent of those with nonelderly disabled individuals had positive rent or mortgage amounts used for the deduction. Participating households residing in the Northeast had rent or mortgage amounts used for the deduction more often than those in other regions, as did households in urban areas relative to those in rural areas.

Table VI.5. Percentage of households with annual income at or below 130 percent of poverty in the CE with reported rent or mortgage expenses in the CE and percentage of participating SNAP households with positive “rent” expenses in the SNAP QC data file by household type, 2013–2014

Characteristic	Percentage of households with rent or mortgage expenses (CE)	Percentage of households with rent or mortgage expenses (SNAP QC)
All households	94.6	67.3
Household size		
1 person	93.5	59.5
2 people	95.7	72.0
3 people	94.4	75.6
4 people	95.4	78.2
5 or more people	96.8	81.8
Household composition		
With children	95.3	75.1
With nonelderly adults	94.1	62.5
With elderly individuals	96.3	82.3
With nonelderly disabled individuals ^a	94.8	88.5
With no elderly individuals or nonelderly disabled individuals	93.5	56.6
Income as a percentage of poverty guidelines		
0 percent to 50 percent	91.4	40.5
Greater than 50 percent to 100 percent	95.6	88.3
Greater than 100 percent to 130 percent	97.1	93.2
Geography		
Northeast	94.7	77.9
Midwest	95.6	66.2
South	93.8	62.8
West	95.3	69.2
Urban ^b	94.9	67.5
Rural	92.7	62.7

Sources: Weighted tabulations of 2013 and 2014 CE Interview data files and tabulations of fiscal year 2013 and 2014 SNAP QC data files.

Notes: Both CE and SNAP QC files are restricted to households with gross income (excluding SNAP benefit amounts in the CE) at or below 130 percent of poverty guidelines. We also remove from the SNAP QC sample any households in Guam or the Virgin Islands because the CE does not include these households.

^a In the SNAP QC, SNAP households with disabled individuals are those with a disability-based assistance payment (the SNAP criteria) or with a reported medical expense deduction. Disabled individuals in the CE list illness, disability, or inability to work as their reason for not working.

^b In the SNAP QC data, we classify households in metropolitan and micropolitan areas as “urban.”

B. Expenses not included in the deductions

Current SNAP deductions are intended to be responsive to medical, shelter, child support, and dependent care expenditures. In addition, the earned income deduction aims to capture costs associated with working while the standard deduction is a catch-all deduction for certain miscellaneous expenses.²⁰ Households also incur other types of expenses, however, that are not captured in the existing deductions. Here, we examine the prevalence and amounts of those other types of expenses.

Based on (1) a review of large or common expenditures for low-income households, (2) a review of the types of new deductions proposed at the time of the Food Stamp Act of 1977, and (3) availability of expense data in the CE, we assessed the prevalence and amounts of the following types of average monthly expenses:

- Apparel
- Finance, late charges, and interest on student loans
- Housing or property repairs and maintenance (expenses usually not captured in the excess shelter expense deduction unless they were due to substantial damage from a natural disaster)
- Personal care appliances and services²¹
- Vehicle expenses, including (1) finance charges, (2) maintenance and repair expenses, (3) insurance, (4) purchases of new cars and trucks, (5) purchases of used cars and trucks, and (6) vehicle rental, leases, licenses, and other charges

Of the expenditures we examined, the most common type for low-income households was apparel (Table VI.6). More than 60 percent reported such expenses, and households with these expenses reported spending an average of \$72 per month. Personal care appliances and services were the second most common type of expenditure, incurred by 41.6 percent of households at an average of \$28 per month.

²⁰ In Chapter IV, we examined expenses that were included in the deductions prior to the enactment of the Food Stamp Act of 1977, when the standard deduction replaced them.

²¹ Personal care expenses as shown include only wigs, personal care appliances, and personal care services. The interview survey excludes “smaller, frequently purchased” expenditures, which include expenditures on items typically considered personal care products (e.g., products for hair care, bathing, oral hygiene, shaving needs, or cosmetics) (Bee et al., 2015). These types of purchases are collected only in the CE Diary survey and thus are excluded from this study.

Table VI.6. Most common types of expenditures not included in the SNAP deductions for low-income households, 2013–2014

Expenditure type	Percentage of households with expenditure type	Monthly amount of expense among households with expenditure type
Apparel	61.9	\$72
Personal care ^a	41.6	\$28
Vehicle insurance	39.9	\$111
Vehicle maintenance and repairs	39.5	\$85
Vehicle rental, leases, licenses, and other charges	22.4	\$65
Finance, late charges, and interest for student loans in the last month ^b	20.7	\$69
Housing or property repairs and maintenance	19.9	\$222
Vehicle finance charges	14.9	\$50

Source: Weighted tabulations of the 2013 and 2014 CE Interview data files.

^a Personal care expenses as shown include only wigs, personal care appliances, and personal care services.

^b This information is available only in the fifth-quarter CE interview.

Certain types of vehicle-related expenses were also relatively common while purchases of new or used cars and trucks were not common (not presented in table). Nearly 40 percent of low-income households incurred monthly expenditures for vehicle insurance and vehicle maintenance and repairs, amounting to \$111 and \$85 per month, respectively. Nearly one quarter (22.4 percent) of low-income households had vehicle rental, leases, licenses, or other charges totaling about \$65 per month on average, and 14.9 percent had vehicle finance charges amounting to \$50 per month for households with the expense. Purchases of new or used cars or trucks were uncommon. About 3 percent of low-income households reported purchases of used cars or trucks, and less than one percent reported purchases of new cars or trucks.

Nearly 21 percent of low-income households incurred expenditures for finance, late charges, or interest on student loans, averaging \$69 per month for households with such expenditures. A greater percentage of low-income households had student loans (20.7 percent) than had education expenses (10.8 percent, as observed in Chapter IV).

About 20 percent of low-income households reported expenditures associated with housing or property repairs and maintenance. The excess shelter expense deduction is based on expenses for rent or mortgage, utilities, property taxes, and insurance but it does not cover repair and maintenance expenses unless they were for a home that was substantially damaged or destroyed due to a natural disaster such as a fire or flood. During discussions about the Food Stamp Act of 1977, some policymakers suggested expanding the excess shelter expense deduction to include these expenses.

Throughout this analysis, readers should note that the quarterly interview design in the CE, along with our method for annualizing expenditures and converting them to average monthly amounts, could lead to the overstatement of one-time expenditures for some households and to the understatement for other households. In particular, average monthly expenditure amounts among households with large but infrequently occurring expenditures can be overstated.

VII. CONCLUSION

In this study, we investigated whether SNAP eligibility rules that determine the size of the SNAP benefit allotment accurately reflect current spending patterns for low-income households.

A. Summary of key findings

Using 2013 and 2014 CE data, we found that low-income households spent an average of approximately \$2,300 per month on goods and services. On average, they spent 37 percent of total annual expenditures on housing, 19 percent on food (including 15 percent on food at home and 4 percent on food away from home), and 17 percent on transportation. CE data revealed a discrepancy between reported income available to low-income households and their actual expenditures, with expenditures being about 1.5 times higher than reported gross income on average.

The types of goods and services purchased by low-income households varied only modestly across different household types. However, although low-income households generally exhibited similar spending patterns in terms of spending the largest shares of their total expenditures on housing followed by food and transportation, the sizes of the shares differed for different household types. For example, low-income households with relatively higher income spent smaller shares of total expenditures on housing and food but larger shares on transportation and health care than households with lower income. Households with elderly individuals spent nearly as much on health care expenses as they did on transportation.

SNAP deductions, with the exception of some provisions specified in the excess shelter expense deduction, generally reflected the actual expenditures reported by low-income households. For example, work-related expenditures combined with estimated payroll taxes totaled nearly 19 percent of mean earnings among earners, which is close to the percentage of earnings (20 percent) that participating SNAP households may deduct from gross income for the earned income deduction. Likewise, 83 percent of low-income households with elderly or disabled individuals incurred out-of-pocket medical expenses, averaging \$318 per month, and would be able to deduct the full amount above \$35.

Two provisions specified in the excess shelter expense deduction that translated into household deduction amounts that did not fully reflect expenditures were:

1. **The shelter cap.** Households without any elderly or disabled individuals are subject to a cap on the excess shelter expense deduction. The cap limited the SNAP benefit of 14 percent of participating households without elderly or disabled individuals.
2. **Countable utility expenditures.** Utility amounts used in the SNAP excess shelter expense deduction for SNAP participants, often based on State Standard Utility Allowances, were higher on average than actual utility expenses for low-income households.

Even though the existing SNAP deductions reflected expenditures relatively well for the types of households covered by the deductions, some household types not covered by the deductions can incur substantial expenditures. In particular, the medical expense deduction is available only to households whose medical expenditures are for elderly or disabled individuals; 47 percent of households without elderly or disabled members incurred medical expenses averaging \$224 per month and would not be eligible for a medical expense deduction.

In addition to assessing deduction amounts, we assessed whether the 30 percent benefit reduction rate reflects current spending on food as a percentage of after-tax income for the low-income households included in our study. This calculation allows us to compare current spending patterns with those on which the benefit reduction rate was originally based. We found that low-income households spent about 20 percent of after-tax income on food at home, which is lower than the 30 percent used as a basis for the benefit reduction rate and is larger than the 12 to 17 percent range found in IOM (2013). We also estimated food spending as a percentage of net income and compared this percentage to the 30-percent benefit reduction rate. We found that low-income households spent about 42 percent of their net income on food at home. However, the CE data show a large discrepancy between the amount of income that low-income households have available to them and their actual expenditures, with expenditures exceeding gross income by about 50 percent for most low-income households. Under the alternative assumption that consumption decisions are based not only on current income, but on expectations of future earnings and assets, expenditures may be a more appropriate measure of a household's budget in the CE. Examining the benefit reduction rate based on total expenditures minus SNAP benefits and food at home expenditures minus SNAP benefits, food at home spending as a percentage of total expenditures were much lower (13 percent) than food expenditures as a percentage of net income. Because of the inconsistency in findings depending on which measure of household resources is used as well as other data limitations, we recommend that caution be used in interpreting the findings from this analysis and making comparisons with other studies.

Finally, we examined deduction usage and availability by (1) examining the percentage of participating SNAP households that took each deduction type, including at initial certification and at or after recertification; (2) assessing whether there is evidence of structural barriers to claiming available deductions that might have kept low-income households from reporting certain expenses (SNAP QC data provided information on actual deduction usage and amounts for SNAP participants); and (3) considering whether low-income households incurred costs that are not included in the deductions but that might be considered. We found that:

- Nearly three-quarters of SNAP households had an excess shelter expense deduction and 32 percent had an earned income deduction; the other deductions were much less common.
- Greater percentages of households used the earned income, excess shelter expense, dependent care, and medical expense deductions after recertification than at initial

certification, although the differences were generally small. There was no statistically significant difference in the use of the child support payment deduction at initial certification versus after recertification.

- The percentage of low-income households with certain types of expenditures, such as medical, rent or mortgage, and child care, was often higher than the percentage of SNAP participants using the deduction. The difference could suggest either the presence of structural barriers—such as difficulty in acquiring or providing (or an unwillingness to provide) the needed documentation on expenditures—or differences between the broader low-income population and the segment of the population that participates in SNAP. It is also possible that households with low gross incomes such that their net incomes are zero after applying the standard deduction may elect not to report expenses such as shelter and medical because they would already be eligible for a maximum SNAP allotment without any additional deductions.
- SNAP deductions do not capture certain household expenses that are prevalent among low-income households, such as spending on housing repairs or maintenance, vehicle costs not associated with commuting, and finance, late charges, or interest on student loans.

B. Policy implications

The purpose of the study was to provide FNS with evidence on whether the existing deductions and the benefit reduction rate are appropriate, given the spending patterns of low-income households. Although FNS does not have statutory power to change SNAP legislation and regulations, these findings may be considered in recommending changes to policymakers. The findings in this report have the following policy implications:

1. **For households covered by the deductions, most SNAP deductions generally reflected the actual expenditures reported by low-income households.** This means that on average, across all household types eligible for the deductions, the deductions are capturing households' expenses as intended. An exception, however, is that the shelter cap limited the size of the effective excess shelter expense deduction for 14 percent of households without elderly or disabled individuals, such that removing the cap would result in a larger SNAP benefit allotment. Policymakers could consider increasing or removing the cap. This would allow households without elderly or disabled individuals to receive a deduction that reflects their total countable shelter expenditures. Another exception is that utility amounts used in the SNAP excess shelter expense deduction were higher on average than actual utility expenses for low-income households. The utility amounts used for the deduction are often based on State Standard Utility Allowances. FNS should continue to assess how State Standard Utility Allowances compare with actual utility costs so that policymakers may consider whether the allowances are appropriate.

2. **For some types of households currently not covered by the deductions, expenditures can be large.** For example, the medical expense deduction is not available to households without elderly or disabled individuals; yet, such households incur sizeable medical expenses. The 47 percent of these household types with medical expenditures spend an average of \$224 per month. Policymakers could consider whether extending the medical expense deduction to the affected households is appropriate.
3. **Policymakers should consider whether SNAP deductions should be expanded to capture certain common household expenses not currently captured.** Possibilities include expenses on housing repairs or maintenance that did not arise due to a natural disaster and vehicles and other transportation costs not used for commuting.
4. **Our findings suggest that SNAP participants may face structural barriers to claiming certain deductions.** We observed, for example, that the percentage of low-income households with elderly or disabled individuals, gross income at or below 130 percent of poverty, and monthly out-of-pocket medical expenditures greater than \$35 is much larger than the percentage of participating SNAP households with elderly or disabled individuals and gross income at or below 130 percent of poverty that receive the deduction. Similarly, nearly all low-income households have rent or mortgage expenditures, but rent or mortgage expenditures are included in the excess shelter expense deduction of only about two-thirds of participating SNAP households. We recommend that FNS examine why some households that likely incur excess shelter or countable medical expenditures are not reporting these expenditures.

C. Recommendations for future research

FNS may wish to consider some additional analyses to address data limitations or to obtain more precise results. Our suggestions are as follows:

1. **Combine multiple years of data to increase sample sizes and explore regional differences.** In this study, we found that spending patterns varied by geographic region. We focused on regional differences when assessing how utility expenditures for low-income households compared with utility amounts used for the excess shelter expense deduction. However, we did not conduct in-depth analyses on whether other deductible expenditures, such as out-of-pocket expenditures, or food spending varied across regions. FNS may wish to consider integrating CE data from 2015 and earlier years, thereby increasing precision when focusing on smaller samples of households, such as those in a specific region, to investigate whether existing deductions and the benefit reduction rate reflect spending patterns in each region.
2. **Obtain information from SNAP participants on medical expenditures for households with elderly or disabled individuals.** To determine the amount of the medical expense deduction, SNAP counts only out-of-pocket medical expenditures that are attributable to elderly or disabled individuals in the household. The CE does not

indicate whether medical expenditures in households with elderly or disabled individuals are for the elderly or disabled members or for other household members. Thus, comparing actual medical expenditures to deduction amounts for CE households may be inaccurate if those expenditures relate to nonelderly or nondisabled members of the household. FNS could explore the feasibility of obtaining data on medical expenditures for SNAP participants through another source and in greater detail.

3. **Assess options for identifying large, one-time expenditures in the CE and treating them in the analysis as one-time annual expenditures rather than as repeated quarterly expenditures.** The quarterly interview design in the CE, along with our method for annualizing expenditures and converting them to average monthly amounts, could lead to the overstatement of one-time expenditures for some households and to the understatement for other households. In particular, average monthly expenditure amounts among households with large but infrequently occurring expenditures can be overstated. Researchers could assess options for identifying one-time expenditures and treating them as annual expenditures rather than as repeated quarterly expenditures.
4. **Integrate data from other sources to examine food expenditures as a percentage of net income.** Patterns of income reporting in the CE differ substantially from those in the Current Population Survey (CPS), which is considered more reliable. Furthermore, income amounts in the CE are often inconsistent with employment status. As such, the BLS often imputes income for households in the CE. Nonetheless, in the aggregate, we found that expenditures for low-income households were about 150 percent of total income. The CPS, which includes data on food expenditures and income, could provide an alternative data source for examining the benefit reduction rate. Even though the CPS may report income more accurately, use of CPS data to estimate the benefit reduction rate would not address the challenge for policymakers regarding whether the benefit reduction rate should calculate food spending as a share of total net income or total available resources.

Page intentionally blank

Glossary

Adjusted net income	Countable income after all potential deductions except for the excess shelter expense deduction are subtracted from gross income.
Benefit reduction rate	The percentage by which benefits in a public assistance program are reduced as income rises. The SNAP benefit is reduced by 30 cents for each additional dollar of net income.
Certification period	Length of time a household is certified to receive SNAP benefits. When the certification period expires, households must be recertified to continue receiving benefits.
Child support payment deduction	Deduction from gross income for households with legally obligated child support payments made to or for a nonmember of the household. The deduction amount is equal to the monthly child support payment. States may choose to exclude child support payments from gross income rather than use the deduction.
Children	Individuals under age 18.
Consumer Expenditure Survey (CE)	An annual national survey administered by the U.S. Census Bureau for the U.S. Bureau of Labor Statistics. It provides extensive data on the purchasing habits of U.S. consumers.
Consumer unit	In the CE, a consumer unit consists of 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 or living as a roomer in a private home or lodging house or in permanent living quarters in a hotel or motel, but who is financially independent; or (3) two or more persons living together who use their incomes to make joint expenditure decisions.
Deductions	Allowable deductions from a household's gross monthly income used to arrive at SNAP net monthly income. <i>See also Child support payment deduction, Dependent care deduction, Earned income deduction, Excess shelter expense deduction, Medical expense deduction, MFIP, SSI-CAP, Standard deduction, and Total deduction.</i>
Dependent care deduction	Deduction from gross income for households with expenses involved in caring for dependents while other household members work, seek employment, or attend school.
Earned income	Includes wages, salaries, self employment, and other reported earned income.
Earned income deduction	Deduction from gross income for households with earnings, equal to 20 percent of the combined earnings of household members.

Elderly individuals	Individuals age 60 or older.
Excess shelter expense deduction	Deduction from gross income for households with shelter costs, equal to those shelter costs that exceed 50 percent of the household's countable income after all other potential deductions are subtracted from gross income. There is a limit ("shelter cap") on the deduction for households without elderly or disabled members.
Food Stamp Act of 1977	Established uniform national eligibility standards for SNAP; eliminated the purchase requirement and simplified items pertaining to eligibility requirements and benefit amounts, including deductions.
Gross income	Total monthly countable income of a household in dollars, before applying deductions.
Household: CE	See Consumer unit
Household: SNAP	Individuals who live in a residential unit and purchase and prepare food together.
Low-income household	Unless otherwise specified, households with gross income (excluding SNAP benefit amounts) at or below 200 percent of U.S. Department of Health and Human Services poverty guidelines.
MATH SIPP+ model	SIPP- and CPS-based microsimulation model that simulates SNAP eligibility and participation using current or recent SNAP rules and data from a recent SIPP panel. This study uses the 2015 Baseline of the 2011 MATH SIPP+ model, which simulates 2015 SNAP rules using 2011 data.
Maximum benefit	SNAP benefits are calculated by subtracting 30 percent of a household's net income from the maximum possible benefit amount to which it is entitled based on household size and residence in the contiguous United States, Alaska, Hawaii, Guam, and the Virgin Islands.
Marginal effectiveness of a deduction	The amount that a households' net income would have increased in the absence of a deduction
Medical expense deduction	Deduction from gross income for households with elderly or disabled members, equal to out-of-pocket medical expenses incurred by the elderly or disabled person that exceed \$35.
Minnesota Family Investment Program (MFIP)	Minnesota's cash assistance program, which jointly calculates SNAP benefits and cash assistance for participating households.
Net income	Total monthly income for households in dollars, after applying deductions.
Nonelderly disabled individual	In the CE, individuals who list illness, disability, or inability to work as their reason for not working. In the SNAP QC data file, individuals with a disability-based assistance payment or with a reported medical expense deduction.

Payroll taxes	Equal to approximately 7.65 percent of earnings, which is the sum of 6.20 percent for Social Security and 1.45 percent for Medicare.
Poverty guidelines	Issued by the U.S. Department of Health and Human Services, they are developed on the basis of the poverty thresholds published by the Census Bureau.
QC Minimodel	SNAP QC-based microsimulation model that simulates the effect of changes to SNAP on eligibility and benefit amounts. This study uses the 2013 and 2014 QC Minimodels, which simulate SNAP rules in place in fiscal year 2013 and fiscal year 2014, respectively.
Shelter cap	Maximum excess shelter expense deduction for households without elderly or disabled members.
SNAP Quality Control (QC) data	Administrative data derived from the SNAP quality control system that contains detailed demographic, economic, and SNAP eligibility information, in addition to information on deduction use and amounts, for a nationally representative sample of approximately 48,000 SNAP households.
SSI combined application project (SSI-CAP)	Demonstration projects with a goal of streamlining the procedures for providing SNAP benefits to certain households eligible for both SNAP and SSI.
Standard deduction	Deduction from gross income for all households, which varies by household size and for areas outside of the contiguous United States.
Standard medical deduction demonstration projects	Demonstration projects that use a standard medical expense deduction amount for SNAP households with elderly or disabled members and medical expenses above \$35 but below a specified limit.
Standard Utility Allowance (SUA)	Specified dollar amounts set by State agencies that States may use in place of actual utility costs to calculate a household's total shelter expenses.
Thrifty Food Plan	Market basket of goods based on an economical and nutritious diet, adjusted for household size and composition. Used to determine maximum SNAP benefit amounts.
Total deduction	Includes child support payment, dependent care, earned income, excess shelter expense, medical, and standard deductions to which SNAP households are entitled.
Unearned income	In the CE, unearned income includes TANF, GA, SSI, Social Security, unemployment benefits, veterans benefits, workers' compensation, other government benefits, contributions, deemed income, education loans, child support, wage supplementations, energy assistance, State diversion payments, and other unearned income.

Page intentionally blank

References

- Bee, A., B. D. Meyer, and J. X. Sullivan. (2015). The Validity of Consumption Data: Are the Consumer Expenditure Interview and Diary Surveys Informative? In C. Carroll, T. Crossley, & J. Sabelhaus (Eds.), *Improving the Measurement of Consumer Expenditures*, pp. 204–240. University of Chicago Press.
- Castner, L. & J. Mabli. (2010). Low-Income Household Spending Patterns and Measures of Poverty. Report submitted to the U.S. Department of Agriculture, Food and Nutrition Service. Washington, DC: Mathematica Policy Research, April.
- Edin, K., Boyd, M., Mabli, J., Ohls, J., Worthington, J., Green, S., Redel, N., & Sridharan, S. (2013). SNAP Food Security In-Depth Interview Study. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service.
- Farson Gray, K. & S. Kochhar. (2015). Characteristics of Supplemental Nutrition Assistance Program Households: Fiscal Year 2014. Report No. SNAP-15-CHAR. Report submitted to the U.S. Department of Agriculture, Food and Nutrition Service. Washington, DC: Mathematica Policy Research, December.
- Filion, K., E. Eslami, K. Bencio & B. Schechter. (2014). Technical Documentation for the Fiscal Year 2013 Supplemental Nutrition Assistance Program Quality Control Database and the QC Minimodel. Report submitted to the U.S. Department of Agriculture, Food and Nutrition Service. Washington, DC: Mathematica Policy Research, October.
- Fox M.K., Hamilton W., Lin B.H. (2004). Effects of food assistance and nutrition programs on nutrition and health: Volume 3, Literature Review. US Department of Agriculture, Economic Research Service, Food Assistance and Nutrition Research Report No. 19-3. Washington, DC. www.ers.usda.gov/publications/fanrr19-3/
- Fraker, T. M. (1990). Effects of Food Stamps on Food Consumption: A Review of the Literature. Report submitted to the U.S. Department of Agriculture, Food and Nutrition Service. Washington, DC: Mathematica Policy Research, December.
- Hanson, K. (2008). Mollie Orshansky's Strategy to Poverty Measurement as a Relationship between Household Food Expenditures and Economy Food Plan. *Review of Agricultural Economics*, 30 (3), 572-580.
- Institute of Medicine (IOM) & National Research Council. (2013). Supplemental Nutrition Assistance Program: Examining the Evidence to Define Benefit Adequacy. *Adv Nutr.* 4: 477-478. <http://advances.nutrition.org/content/4/4/477.full>
- Leftin, J., J. Smith, K. Cunyningham, & C. Trippe. (2014a). Technical Working Paper: Creation of the 2011 MATH SIPP+ Microsimulation Model and Database. Report submitted to the U.S. Department of Agriculture, Food and Nutrition Service. Washington, DC: Mathematica Policy Research, February.
- Leftin, J., N. Wemmerus, J. Mabli, T. Godfrey, & S. Tordella. (2014b). Dynamics of Supplemental Nutrition Assistance Program Participation from 2008 to 2012. Report submitted to the U.S. Department of Agriculture, Food and Nutrition Service. Washington, DC: Decision Demographics, December.

- Mabli, J., Ohls, J., Dragoset, L. Castner, L., & Santos. B. (2013). Measuring the Effect of Supplemental Nutrition Assistance Program (SNAP) Participation on Food Security. Prepared by Mathematica Policy Research for the US Department of Agriculture, Food and Nutrition Service, August. <http://www.fns.usda.gov/sites/default/files/Measuring2013.pdf>
- Mabli, J., & R. Malsberger. (2013). Recent Trends in Spending Patterns of Supplemental Nutrition Assistance Program Participants and Other Low-Income Americans. Monthly Labor Review, September. <http://www.bls.gov/opub/mlr/2013/article/mabli-malsberger.htm>
- Meyer, B. & R. Goerge (2011). Errors in Survey Reporting and Imputation and Their Effects on Estimates of Food Stamp Program Participation. US Census Bureau Center for Economic Studies Paper No. CES-WP-11-14. <http://dx.doi.org/10.2139/ssrn.1824261>
- Nord, M. & Golla, M. (2009). Does SNAP Decrease Food Insecurity? Untangling the Self-Selection Effect. Economic Research Report No. 85, US Dept. of Agriculture, Economic Research Service. October. <http://www.ers.usda.gov/publications/err-economic-research-report/err85.aspx>
- Orshansky, M. (1957). Food consumption and dietary levels of households in the United States: Some highlights from the Household Food Consumption Survey, Spring 1955, ARS 62-6. Washington, DC: USDA, ARS.
- Pub. L. No. 88-525. (1964). Food Stamp Act of 1964, 78 Stat. 703 (codified as amended in 7 U.S.C. ch. 51, §2011 *et seq.*) http://www.fns.usda.gov/sites/default/files/PL_88-525.pdf
- Pub. L. No. 91-671. (1971). An Act to amend the Food Stamp Act of 1964. 78 Stat. 703; 7 U.S.C., §2011. <http://uscode.house.gov/statutes/pl/91/671.pdf>
- Pub. L. No. 95-113. (1977). Food Stamp Act of 1977, 91 Stat. 913-1045. <https://www.gpo.gov/fdsys/pkg/STATUTE-91/pdf/STATUTE-91-Pg913.pdf>
- U.S. Bureau of Labor Statistics (BLS). (2016). Consumer Expenditure Survey. <http://www.bls.gov/cex/>. Also see “Frequently Asked Questions (FAQs),” <http://www.bls.gov/cex/csxfqs.htm#q22> , “Description of Income Imputation Beginning with 2004 Data,” <http://www.bls.gov/cex/csximpute.htm> , and “CE Tables,” <http://www.bls.gov/cex/tables.htm>, and “Combined Income,” <http://www.bls.gov/cex/2015/combined/income.pdf>
- U.S. Department of Agriculture, Economic Research Service (ERS). (2016). “ERS Food Expenditure Series” <http://www.ers.usda.gov/data-products/food-expenditures.aspx>. Accessed October 14, 2016.
- U.S. Department of Agriculture, Food and Nutrition Service (FNS). (2012). FNS Handbook 310, but dated October 2012. http://www.fns.usda.gov/sites/default/files/FNS_310_Handbook.pdf. Accessed on July 21, 2016.
- U.S. Department of Health and Human Services (2011). The 2011 HHS Poverty Guidelines, Office of The Assistant Secretary for Planning and Evaluation. <https://aspe.hhs.gov/2011-hhs-poverty-guidelines>
- U.S. Department of Health and Human Services (2012). The 2012 HHS Poverty Guidelines, Office of The Assistant Secretary for Planning and Evaluation. <https://aspe.hhs.gov/2012-hhs-poverty-guidelines>

- U.S. Department of Health and Human Services (2013). The 2013 HHS Poverty Guidelines, Office of The Assistant Secretary for Planning and Evaluation.
<https://aspe.hhs.gov/2013-poverty-guidelines#guidelines>
- U.S. House Comm. on Agriculture, H.R. Doc. No. 7940, 95th Cong., 1st Sess. (1977). Report together with supplemental views, dissenting views, minority views, additional views. U.S. Government Printing Office, Washington, DC.
- Vigil, A., K. Farson Gray, S. Kochhar & B. Schechter. (2015). Technical Documentation for the Fiscal Year 2014 Supplemental Nutrition Assistance Program Quality Control Database and the QC Minimodel. Report submitted to the U.S. Department of Agriculture, Food and Nutrition Service. Washington, DC: Mathematica Policy Research, December.

Page intentionally blank

Appendices

Appendix A: Detailed description of data and methods

Appendix B: Chapter III Analysis Tables (Research Objective 1)

Appendix C: Chapter III Analysis Tables (Research Objective 2)

Appendix D: Chapter IV Analysis Tables (Research Objective 3)

Appendix E: Chapter V Analysis Tables (Research Objective 3)

Appendix F: Chapter VI Analysis Tables (Research Objective 3)

Appendix G: Summary of food expenditure estimates for low-income households

Page intentionally blank

Appendix A: Detailed description of data and methods

Table of Contents

A. Overview of the CE data.....	A-1
B. Step-by-step processing of CE data	A-6
C. Overview of the SNAP QC data	A-7
D. QC-based analyses of deduction usage.....	A-8
E. Overview of the microsimulation models.....	A-10
F. Analyses using both CE and SNAP QC data.....	A-11
G. Analyses using both CE data and microsimulation modeling	A-11
H. Analysis using both SNAP QC data and microsimulation modeling	A-11

We drew on the most recent data available from several sources to conduct the study. To address all research questions for the first two study objectives and many research questions for the third study objective, we used the 2013 and 2014 Bureau of Labor Statistics (BLS) Consumer Expenditure Surveys (CE). For the third study objective, we supplemented the CE-based analyses with analyses that used (1) the 2013 and 2014 SNAP Quality Control (QC) data files and the QC Minimodel and (2) the 2015 Baseline of the 2011 MATH SIPP+ model.

In Chapter II, we summarized the data sources and the analytic methodologies used to address the research questions. In this appendix, we describe the data and methods in more detail, including the steps we took to process the data and methods we used for analyses that combined data from multiple sources.

A. Overview of the CE data

The CE, administered by the Census Bureau for the BLS, provides highly detailed U.S. consumer expenditure data that simultaneously measure a variety of household spending behaviors, thereby allowing analysis of the amount and proportion of a household's budget spent on specific categories of goods and services. The major expenditure categories are food at home, food away from home, housing, apparel, health care, transportation, and other goods and services, including personal insurance and pensions, entertainment, cash contributions, and education. In Chapter III, we list subcategories included in each expenditure type (Table III.1). The survey also includes information on household characteristics and income as well as financial data.

We used CE data primarily to address Objectives 1 and 2, producing a complete account of expenditures by spending category for low-income households and detailing how the shares vary by important demographic, economic, and geographic characteristics. We also used the data to

address topics under Objective 3, including assessments of (1) how expenditures among low-income households compare with the SNAP deductions and the benefit reduction rate, (2) which frequently occurring expenditures are not captured by existing deductions, and (3) how the percentage of low-income households with various types of expenditures compares with the percentage of households claiming SNAP deductions for such expenses.

1. Interview structure

The CE consists of two quarterly surveys, the Interview Survey and the Diary Survey, that provide information on the purchasing habits of approximately 7,000 households. In the current study, we made exclusive use of Interview survey data collected over five consecutive quarters; each year's data set accounts for about 35,000 household records. The initial interview collects demographic and family characteristics data. At each interview, respondents report expenditures for the three calendar months preceding the interview month. For example, interviews conducted in April 2013 provided expenditure data for January 2013 through March 2013. The second- and fifth- quarter interviews collect income and components of income; respondents provide the information as annual amounts. Even though the third- and fourth-quarter interviews generally do not collect income, the CE data file provides income amounts for these periods. The amounts are usually the same as those for the second quarter unless (1) income was imputed and the imputation changed; (2) someone in the unit started or stopped working; or (3) the composition of the CE unit changed.

2. The consumer unit

The unit of analysis in the CE is the consumer unit, defined as (1) occupants related by blood, marriage, adoption, or some other legal arrangement; (2) a single person who is living alone or sharing a household with others but who is financially independent¹; or (3) two or more people living together who share responsibility for at least two out of the three major types of expenses—food, housing, and other living expenses. A consumer unit may differ from a SNAP household, which, under SNAP rules, is defined as individuals who live together and customarily purchase and prepare food together. For simplicity, we use “household” in place of “consumer unit” when we discuss the findings.

3. Stacking the CE data

The BLS released the 2014 Public-Use Microdata in September 2015; these were the most recent data available at the time of our analysis. The file contains information on expenditures for January 2014 through December 2014, though the survey design is such that the data were collected through March 2015. To obtain a larger sample, we “stacked” (pooled) the 2013 and 2014 data after confirming that there were no major changes in the survey design or content between the two years.

As described, each annual CE data file summarizes five quarters of experience. The fifth quarter overlaps the subsequent year and facilitates data file production and accommodates

¹ These include financially independent individuals who are living as roomers in a private home or lodging house or in permanent living quarters in a hotel or motel.

coding and sample design changes. Given that the fifth quarter of the 2013 CE data set overlaps with the first quarter of the 2014 data, we did not include the first quarter of 2014 in the stacked analysis file in order to avoid double counting.

4. Annualizing monthly expenditures

The CE data provide expenditures as quarterly values; however, income is an annual measure. To annualize expenditures and calculate weighted average expenditure amounts, we used a method created by the BLS that is described in the CE Interview data documentation and sample program. We first adjusted the quarterly expenditure amounts to include only those expenditures made in calendar years 2013 and 2014. For example, for respondents interviewed in February 2013 who reported expenditure data from December 2012, January 2013, and February 2013, we included only the January 2013 and February 2013 expenditure amounts. We summed the adjusted quarterly expenditure amounts to obtain a weighted expenditure total. To obtain an average annual expenditure amount, we divided the weighted expenditure total by the weighted number of households, adjusting for the number of months of expenditure data each household contributed and for the CE's rolling sample design. In this case, given that each quarter of interviews is designed to represent an independent sample, the use of data from several quarters to estimate annual totals requires the sum of the adjusted weights to be divided by 12 (equal to three months times four quarters) when using one year of data and to be divided by 24 (equal to three months times eight quarters) when using two years of data.

In addition to presenting weighted average expenditure amounts, we present shares of total expenditures spent on specific categories of goods and services. To calculate the share of total expenditures spent on a specific expense category such as "Food at Home," we calculated the weighted average expenditures on food at home and divided by the weighted average total expenditures for all goods and services.

In the case of uncommon, one-time large expenses such as a vehicle purchase or high medical bills, annualized expenses for the consumer units that incur such expenses can appear improbably large, such as a sample member spending \$12,000 on a car in a given quarter. When calculating average expenditure amounts across all units, these large values are offset by the lack of purchases in other quarters, and thus are smoothed over time. When estimating average expenditures among those units with positive expenditures, however, these large, one-time purchases may bias the estimate upward because the data is restricted to those quarters with positive expenditures.

For analyses of average monthly expenditures, we divided annualized expenditures by 12.

5. Determining sample sizes

The annualizing procedure described above adjusts each consumer unit's quarterly expenditure value by the number of months the consumer unit contributed to a calendar year estimate. The BLS refers to this as a consumer unit's number of "months in scope." Consumer units interviewed in February 2013, for example, contribute one month (January) and have one month in scope; those interviewed in March 2013 contribute two months (January and February)

and have two months in scope; and those interviewed in April 2013 contribute three months (January, February, and March) and have three months in scope. The unweighted sample size for the annual mean expenditure totals or annual expenditure shares based on two years of data is equal to the sum of the month in scope divided by 24. The weighted sample size for the annual mean expenditure totals or annual expenditure shares based on two years of data is equal to the sum of the product of the month in scope and the survey weight divided by 24.

6. Inflation

The average monthly, nonseasonally adjusted Consumer Price Index for all urban consumers (CPI-U) increased by 1.6 percent from calendar year 2013 to calendar year 2014 (<http://www.bls.gov/cpi/#tables>). However, we did not inflation-adjust 2013 expenditure dollar values to 2014 levels (or to any other point in time). Thus, unless otherwise noted, our CE estimates are representative of expenditures made in 2013 and 2014.

7. Defining gross income

We defined gross income as total consumer unit income in the past 12 months before taxes minus the annual SNAP benefit amount. When calculating expenditures as a percentage of income, we modified the definition to use after-tax income, a better measure of disposable income.

We used an income measure that included imputations of income carried out by the BLS in combination with the income “as reported” by respondents. Exploratory tabulations restricted to reported income revealed inconsistencies between respondents’ employment and earnings (which form part of total income). For example, only about half of the consumer units with employed unit heads reported earnings. In many cases, the data indicated that the respondent either did not know or refused to provide the requested information. When describing income reporting in the CE, the BLS acknowledges respondents’ lack of information or refusal to report the requested information and therefore provides an imputed income measure that is used throughout this report (BLS, 2016).

8. Determining poverty guidelines

Poverty guidelines issued by the U.S. Department of Health and Human Services provide the basis for the Federal fiscal year’s SNAP gross and net monthly income eligibility standards. We identified the poverty guideline for each consumer unit based on the unit’s size, State of residence, and interview month. We used a single set of guidelines for consumer units located within the 48 contiguous States and the District of Columbia and for records on which the State was not identified²; we applied State-specific guidelines for consumer units in Alaska and Hawaii. Our approach followed the guidelines that reflect the Federal fiscal year in which the majority of months of the lookback period fell (U.S. Department of Health and Human Services, 2011, 2012, & 2013). For example, the earliest interview included in this study, conducted in February 2013, had an income lookback period of February 2012 to January 2013. Given that

² About 15 percent of records in the CE have a suppressed State identifier; for example, the State of residence is suppressed to protect respondent confidentiality when sampling units fall into small States or across State lines.

eight months of the period fell in fiscal year 2012, we used the January 2011 guidelines for these consumer units. For the April 2013 and April 2014 interviews, six months of the lookback fell in two consecutive fiscal years. For these interview months, we applied the poverty guidelines of the more recent fiscal year. In Table A.1, we provide information on which poverty guideline we used for each interview month.

Table A.1. Number of months of lookback in Federal fiscal year, CE Interview survey 2013–2014, and specific poverty guidelines applied in this study

Interview month	Lookback months: From To		2011 Guidelines	2012 Guidelines	2013 Guidelines	2014 Guidelines	January Poverty guidelines applied
			Months in fiscal year 2012 (October 2011 to September 2012)	Months in fiscal year 2013 (October 2012 to September 2013)	Months in fiscal year 2014 (October 2013 to September 2014)	Months in fiscal year 2015 (October 2014 to September 2015)	
Feb-13	Feb-12	Jan-13	8	4			2011
Mar-13	Mar-12	Feb-13	7	5			2011
Apr-13	Apr-12	Mar-13	6	6			2012
May-13	May-12	Apr-13	5	7			2012
Jun-13	Jun-12	May-13	4	8			2012
Jul-13	Jul-12	Jun-13	3	9			2012
Aug-13	Aug-12	Jul-13	2	10			2012
Sep-13	Sep-12	Aug-13	1	11			2012
Oct-13	Oct-12	Sep-13		12			2012
Nov-13	Nov-12	Oct-13		11	1		2012
Dec-13	Dec-12	Nov-13		10	2		2012
Jan-14	Jan-13	Dec-13		9	3		2012
Feb-14	Feb-13	Jan-14		8	4		2012
Mar-14	Mar-13	Feb-14		7	5		2012
Apr-14	Apr-13	Mar-14		6	6		2013
May-14	May-13	Apr-14		5	7		2013
Jun-14	Jun-13	May-14		4	8		2013
Jul-14	Jul-13	Jun-14		3	9		2013
Aug-14	Aug-13	Jul-14		2	10		2013
Sep-14	Sep-13	Aug-14		1	11		2013
Oct-14	Oct-13	Sep-14			12		2013
Nov-14	Nov-13	Oct-14			11	1	2013
Dec-14	Dec-13	Nov-14			10	2	2013
Jan-15	Jan-14	Dec-14			9	3	2013
Feb-15	Feb-14	Jan-15			8	4	2013
Mar-15	Mar-14	Feb-15			7	5	2013

Source: U.S. Department of Health and Human Services Poverty Guidelines for 2011, 2002, and 2013.

9. Defining low-income households

Once we determined the appropriate poverty guidelines for a consumer unit, we calculated income as a percentage of the poverty level by dividing the (imputed) gross income by the poverty level for that unit. We defined low-income households in the data as those consumer units with gross income (excluding SNAP benefit amounts) at or below 200 percent of the

poverty guidelines. Not all low-income households that we examine in this study are eligible for SNAP. Some may not satisfy the income or resource eligibility criteria, and some may be otherwise categorically ineligible for SNAP.

B. Step-by-step processing of CE data

We used the CE Interview Public Use Microdata (PUMD) files for 2013 and 2014, downloaded in SAS format from http://www.bls.gov/cex/pumd_data.htm. The BLS separately stores sets of data files for each year of the PUMD data, organized by content area and file structure by quarter. The core of our analysis file incorporates information from the quarterly files for each consumer unit; each individual consumer unit can contribute up to four quarters of information. Each Quarterly Interview Survey file consists of six sets of files that summarize expenditures into logical broad groups of expenditure types. From the 2013 and 2014 CE, we took both the quarterly Consumer Unit Characteristics and Income File (FMLI) and the quarterly Member Characteristics and Income File (MEMI).

The BLS also summarizes and stores detailed transaction data on separate topics in 43 annual-level expenditure files. The individual expenditure transactions are summed for each quarter the respondent is in the survey and combined with the core quarterly PUMD data. This procedure was performed with seven extracts for each consumer unit from these files from both the 2013 and 2014 CE panels. The first step in preparing the final project analysis file required the construction of small extracts of several data items from seven of the 43 detailed annual expenditure files. The seven items extracted and later merged were:

1. Presence of and expenditure on homeowner and tenant insurance
2. Parking expenses and local tolls paid
3. Presence of and amount of alimony contributions
4. Presence of and amount of a list of detailed education expenses
5. Presence of and amount of child support contributions
6. Presence of anyone in the consumer unit enrolled in Medicare or Medicaid
7. Presence of and expense of unreimbursed uniform purchases for those age 16 or older. It is important to note that uniform expenditures are reported only when uniforms are the first of several items purchased in a single expenditure. In addition, the age of the person for whom clothing was purchased is reported only for the transaction as a whole. School and work uniforms cannot be differentiated.

Next, we extracted consumer unit-level income and expenditure data from the Consumer Unit Characteristics and Income Files for 2013 and 2014. Given that the first quarter of 2014 is included with the 2013 data files, we excluded those data in order to avoid duplication. Thus we use five quarters of data from the 2013 CE and the last four quarters of the 2014 CE. Consumer units in the fifth ‘quarter’ of the 2013 CE also appear in the first quarter of the 2014. Not all reported values are identical as new topcodes are introduced with the first quarter data that may differ from the previous year. Once we extracted and annualized the relevant analysis variables, we created several variables to customize the summary measure, such as a sum of housing costs

excluding the costs of domestic services. We also calculated “other expenditures” by subtracting the detailed expenditure categories presented in the analysis tables from total expenditures. We created and defined the labor force status of the consumer unit heads as follows:

- *Employed.* The unit head was employed if the number of hours usually worked per week was greater than zero.
- *Unemployed.* The unit head was unemployed if the reason for not working in the past 12 months was the inability to find work.
- *Not in labor force.* The unit head was not in the labor force if he or she was age 18 to 59 and indicated that he or she was retired, taking care of the home, enrolled in school, ill, disabled or unable to work, or “doing something else.”

We assigned all unit heads age 18 to 59 to one of the three labor force status categories. However, we assigned an employment status to children under age 18 and adults older than age 60 only if they were employed. Otherwise, we excluded children and elderly adults from the employment panels in our tables.

Next, for 2013 and 2014, we read the individual consumer unit member files. Again, we did not include records for the first quarter of 2014 from the 2014 files, as those data are part of the 2013 data files. We calculated several consumer unit–level summary measures by scanning through each individual record to determine the composition or type of consumer unit. In this manner, we determined the presence and counts of consumer unit members by age, employment status, disability status, and unit composition such as presence of children. We defined a consumer unit as including children if it included an individual younger than age 18; as including an elderly member if it included an individual age 60 or older; and as including a nonelderly disabled individual if an individual indicated that the main reason for not working in the past 12 months was due to being “ill, disabled, or unable to work.”³

After development of this consumer unit summary data file, we merged these consumer characteristics onto the consumer unit–level expenditure file. In addition, at this stage, we merged to the full analysis file the seven small extract files containing additional data on items such as insurance, parking and tolls, alimony, Medicare, and so forth.

With all the data gathered into a unified file, the final step was the creation of binary variables identifying membership in each summary row subgroup to be shown in the analysis tables. This single summary analysis data file was the input for all CE-based data tables presented in this report.

C. Overview of the SNAP QC data

The SNAP QC data file is derived from SNAP’s QC system that measures the accuracy of State eligibility and benefit determinations. It contains detailed demographic, economic, and SNAP eligibility information, in addition to information on deduction use and amounts of deductions, for a nationally representative sample of approximately 48,000 SNAP households

³ This definition of disability differs from the SNAP definition which is based on receipt of disability-based income.

(Filion et al., 2014; Vigil et al. 2015). The data are weighted to ensure that the weighted totals match three adjusted SNAP Program Operations totals: the monthly number of SNAP households by State and stratum, the monthly number of SNAP participants by State, and the monthly total benefit amounts issued by State. The totals are adjusted by removing benefits issued in error and benefits issued through the SNAP disaster assistance program because the SNAP QC data do not include cases with either of these conditions. We used the adjusted data to address most topics under Objective 3.

The SNAP unit (also called the SNAP household in the tables and in our description of the findings) was the unit of observation and the unit of analysis. SNAP units comprise individuals who purchase and prepare food together and who are together certified for and receive SNAP benefits.

For all QC-based analyses, we stacked the fiscal year 2013 and 2014 SNAP QC data files so that the combined data cover October 2012 through September 2014. There were no substantial changes in the structure or content of the fiscal year 2014 file relative to the fiscal year 2013 file. We multiplied the sample weights by one-half to make the findings representative of an average month in the combined fiscal year 2013 and 2014 period. The combined data contain observations for 97,819 SNAP households.

We excluded from most analyses all SNAP households participating in State programs for which income is not used in their SNAP benefit determinations. These include households eligible for SNAP through the Minnesota Family Investment Program (MFIP) or a Supplemental Security Income-Combined Application Project (SSI-CAP).⁴ We imposed some additional restrictions in the tables that compare SNAP QC-based findings with CE findings, thereby increasing the comparability of the two groups of households (discussed in more detail in Section F).

D. QC-based analyses of deduction usage

We used the stacked fiscal year 2013–2014 SNAP QC data for descriptive and multivariate regression analyses to address two research questions:

1. Are the rates of deduction use for excess shelter costs, medical costs, and transportation costs maintained at recertification?
2. Do households with similar circumstances that do not deduct certain medical, shelter, or transportation costs have comparably similar SNAP allotments?⁵

Each SNAP unit record includes information on the amount of the total deduction and each deduction type, along with the marginal effectiveness of each deduction. The marginal effectiveness of each deduction measures the amount of the increase in net income if the deduction type were not used. The data also include a variable (ACTNTYPE) that identifies

⁴ One exception is for the multivariate analysis of the excess shelter expense deduction. In Florida, Massachusetts, and Washington, SSI-CAP units have standard rent or mortgage allowances. Therefore, for the excess shelter expense deduction regressions, we did not exclude SSI-CAP units with positive shelter deductions.

⁵ We do not discuss this analysis in the text but present results in Appendix Table F.3.

whether the most recent action on a case was a new certification or a recertification. In the multivariate analysis files used to address both research questions, we included all units with nonmissing information on all outcome measures (deduction usage and SNAP benefit amounts).

To address the question about whether deduction usage is maintained at recertification, we conducted a multivariate regression analysis that compared households that were most recently newly certified to those that were most recently recertified across three measures of deduction use: (1) whether a SNAP household has a specific deduction type, (2) the deduction amount for deductions without standard amounts, and (3) the marginal effectiveness of each deduction type.

We estimated separate regression models for each of the three measures of deduction use; in each model, the main independent variable was whether the most recent certification was the initial certification or a recertification (based on the variable ACTNTYPE). Other explanatory variables included some or all of the following demographic and economic characteristics of SNAP households, varying slightly by specification: unit size; separate indicators for whether the unit contained children, an elderly individual, or a disabled nonelderly individual; an indicator for whether several adults resided in the household; unit-level earned income; unit-level unearned income; indicators for whether the unit had Temporary Assistance for Needy Families (TANF), General Assistance (GA), SSI, or Social Security income; an indicator for whether the unit contained a noncitizen; an indicator for whether the unit was categorically eligible for SNAP; locality (metropolitan, micropolitan, or rural); and Census region.

We measured the three dependent variables (presence of a deduction, deduction amount, and marginal effectiveness) by using the following six measures of deductions, resulting in 18 regressions:

- Total deductions (one variable)
- Earned income, child support payment, dependent care, medical expense, and excess shelter expense deductions (five variables)

The regression analyses that examined the presence of a deduction used the full SNAP QC sample, including units with positive or zero deduction amounts. However, we restricted the samples for the analyses examining the amount of the deduction or marginal effectiveness to those units with positive values for those deductions. This allowed us to examine differences in deduction amounts at initial certification and recertification for deductions with low take-up rates.

We estimated logistic regression models that relate the probability of receipt of a specific type of deduction to whether the unit was initially certified or recertified and the set of unit characteristics described above. We estimated ordinary least squares (linear) regression models for the analyses examining the amount of the deduction or marginal effectiveness.

To address the question about whether SNAP benefit amounts are higher for otherwise similar units that take deductions (presented only in Appendix Table F.3), we estimated three separate regressions for the medical expense, excess shelter expense, and earned income deductions. In each regression, the SNAP allotment was the dependent variable, and the main

independent variable was a measure of whether the SNAP household took the deduction. Each ordinary least squares regression included the same set of explanatory variables listed above.

To construct the tables, we transformed the raw regression coefficient of the recertification variable into a regression-adjusted value of the dependent variable to measure the association of recertification with the probability of having a deduction (or, in alternate specifications, the mean amount of the deduction or marginal effectiveness amount). We obtained the regression-adjusted percentages of households with a deduction type, for example, by performing the following steps:

- i. Obtain the percentage for units at recertification. We evaluated the regression equation by using the regression coefficient estimates, setting the “recertification” variable equal to 1 for all households and using the means of all other explanatory variables calculated over all households in the sample. The process generated a single predicted probability that a household whose last action was “recertification” receives a deduction.
- ii. Obtain the percentage for units at certification. We evaluated the regression equation by using the regression coefficient estimates, setting the “recertification” variable equal to 0 for all units and using the means of all other explanatory variables calculated over all households in the sample. The process generated a single predicted probability of a unit whose last action was “certification” having a deduction.
- iii. Obtain the difference in percentages. We calculated the difference in the two predicted probabilities to obtain the estimate of whether deduction use is maintained at recertification.

We performed an analogous set of steps for deduction amounts by estimating mean amounts of deductions in place of obtaining percentages of units with each deduction in the three steps above.

E. Overview of the microsimulation models

The QC Minimodel uses SNAP QC data to simulate the impact of various policy changes to SNAP on current SNAP participants. The 2013 and 2014 QC Minimodels use the fiscal year 2013 and 2014 SNAP QC data files, respectively.⁶ We used the 2013 and 2014 QC Minimodels to assess the effect of removing the shelter cap for SNAP households without elderly or disabled individuals (introduced in Chapter IV and discussed further in Section H of this appendix). The simulation results represent combined information from both the 2013 and 2014 models. With all results presented as percentages, we did not need to use weighting adjustments to account for the use of two years of data. Vigil et al. (2015) present more information on the QC Minimodel.

Some research questions discussed in Chapters IV and V required the calculation of expenditures in the CE as a percentage of net income. Given that we did not have sufficient

⁶ The 2014 QC Minimodel simulates benefits that were in place after the sunset of the American Recovery and Reinvestment Act (ARRA) benefit amounts. With the ARRA benefits in place for only one month during the fiscal year (October 2013), the QC file used with the model does not differ substantially from the original fiscal year 2014 SNAP QC data file.

information to derive net income in the CE, we used a microsimulation model database, the fiscal year 2015 Baseline of the 2011 MATH SIPP+ model, to obtain additional information. The model uses SIPP and CPS Annual Social and Economic Supplement (ASEC) data from 2011 and SNAP rules from fiscal year 2015 to simulate SNAP eligibility and participation, weighted to recent FNS Program Operations data. The model allows FNS to simulate existing SNAP policies (the baseline simulation), simulate alternative policies (the policy change simulation), and measure the difference between the baseline and policy change simulations. We present additional details of the analysis methods involving the MATH SIPP+ model in Section G.

F. Analyses using both CE and SNAP QC data

We compared expenditures for low-income consumer units in the CE data with expenditure or deduction amounts for SNAP participants in the SNAP QC data. In this section, we describe the methods used for those analyses.

In Chapter IV, we compared mean monthly utility amounts used for low-income SNAP participants in the SNAP excess shelter expense deduction calculation with mean monthly utility expenditures in the CE data. We restricted participants in the SNAP QC data to those with gross income at or below 200 percent of the poverty guidelines, to better-align the SNAP QC data with the CE sample. We used the UTIL variable in the SNAP QC data to identify the utility amount used in the excess shelter expense deduction and used the SUA1 variable to identify the type of standard utility allowance that the unit received.

In Chapter VI, we compared the percentage of consumer units with gross income at or below 130 percent of poverty guidelines that reported certain expenditures in the CE data with the percentage of participating units in the SNAP QC data with that expenditure or deduction type, by subgroup. We restricted units in the SNAP QC file to those with gross income at or below 130 percent of poverty so that both data sources used the same income cut-off. We also removed cases from Guam and the Virgin Islands from the SNAP QC data because the CE sample does not include units in those territories.

Consumer units in the CE with income at or below 130 percent of poverty guidelines represent a different population than SNAP participants in the SNAP QC data. For two reasons, we focused our primary analysis in the CE on all consumer units meeting the income requirements regardless of whether they reported SNAP receipt. First, we were concerned about the underreporting of SNAP receipt in the CE. Second, we intended to include in our analysis net income–ineligible units that might have been eligible if they had reported certain expenditures and thus had taken an additional or higher deduction.

G. Analyses using both CE data and microsimulation modeling

Two analyses discussed in this report required the calculation of expenditures as a percentage of net income: an examination of shelter expenditures and an examination of food expenditures.

First, in Chapter IV, we examined whether a typical low-income consumer unit would have expenditures high enough to take an excess shelter expense deduction based on its rent or mortgage and actual utility expenditures. Expenditures are high enough if they exceed 50 percent

of adjusted net income, defined as gross income minus all deductions excluding the excess shelter expense deduction. To obtain the share of adjusted net income spent on housing and utility costs, we used the following approach:

- i. **Using the 2015 Baseline of the 2011 MATH SIPP+ model, estimate the ratio of mean gross income to mean adjusted net income (the sum of net income plus the excess shelter expense deduction) among simulated participating SNAP units in the model, with income at or below 200 percent of poverty guidelines.** Given that the CE data do not include sufficient information to calculate adjusted net income, we obtained additional information from the MATH SIPP+ model. It simulates gross income, allowable deductions, and net income using SNAP program rules. We used the data to calculate the ratio of mean simulated weighted gross income to mean simulated weighted adjusted net income. In other words, it is the ratio of mean gross income to mean net income before inclusion of the excess shelter expense deduction, obtained by summing weighted gross income by the sum of weighted adjusted net income.
- ii. **Using the CE, calculate the aggregated mean monthly share of gross income that low-income households spend on shelter.** Countable shelter expenses include rent or mortgage payments, utility expenses, property taxes, and insurance.⁷ We used the appropriate housing expense variables in the CE (including those for mortgage, rent, utilities, property taxes, and insurance) to calculate the average monthly expenditures as a share of average monthly gross income. We calculated separate shares for all low-income households and for those with and without elderly or disabled individuals.
- iii. **Using the mean monthly share of gross income that low-income households spend on shelter in the CE (derived in step ii) and the ratio from the MATH SIPP+ derived in step i, estimate the mean monthly share of adjusted net income (San) that low-income households spend on shelter.** We calculated separate shares for all low-income households and for those with and without elderly or disabled individuals.

In a separate analysis in Chapter V, we calculated expenditures on food as a percentage of SNAP net income by using variations (discussed in the chapter) of a similar method. The general method was as follows:

- i. **Using the 2011 MATH SIPP+ model, estimate the ratio of gross income to net income.** Using a process similar to that used for the analysis of the excess shelter expense deduction, we calculated the ratio of mean gross income to mean net income for key subgroups, including units of various sizes, units with children, units with elderly or nonelderly disabled individuals, and units with various ranges of income as a percentage of poverty. The difference for this analysis and the one for the excess shelter expense

⁷ They also include housing maintenance or repair costs incurred due to disasters, but these expenditures cannot be identified in the CE.

deduction is that we calculated the ratio of gross income to net income rather than to adjusted net income.

- ii. **Using the CE, calculate the share of after-tax gross income that low-income households spend on food by subgroup.**
- iii. **Use the subgroup-specific MATH SIPP+ ratios and the subgroup after-tax gross income food expenditure shares to calculate the share of net income that low-income households spend on food.**
- iv. **Compare the net income food expenditure share to the 30 percent benefit reduction rate.**

H. Analysis using both SNAP QC data and microsimulation modeling

For one analysis (Appendix Table D.4), we used SNAP QC data to assess how often excess shelter expenses (rent or mortgage amount plus utility amount) exceeded the shelter cap among participating SNAP units without elderly or disabled individuals. For units with shelter expenses above the shelter cap, we examined by how much expenses exceeded the cap (for example, \$1 to \$200 above the cap, \$201 to \$400 above the cap, and so forth). Then, for each category presented in the table, we used the QC Minimodel to determine how often households without elderly or disabled individuals had an effective shelter deduction that was constrained (or limited) by the shelter cap. That is, we estimated the percentage of households that would have received a higher SNAP benefit in the absence of a shelter cap. To do so, we simulated the elimination of the shelter cap and observed how many households in each category would have seen an increase in their SNAP benefit. In Chapter IV of the report, we discuss simulation results among all households without elderly or disabled individuals and among all households (1) without elderly or disabled individuals and (2) with an excess shelter expense deduction. However, we do not discuss the extent to which total shelter expenditures exceed the shelter cap; those findings only appear in the appendix table.

Page intentionally blank

Appendix B: Chapter III Analysis Tables (Research Objective 1)

No.	Title
B.1	Mean monthly expenditure amounts for all consumer units and low-income consumer units, 2013–2014
B.2	Distribution of annual expenditure amounts and mean income for all consumer units and low-income consumer units, 2013–2014
B.3a	Mean expenditure shares for all consumer units and low-income consumer units, 2013–2014
B.3b	Mean expenditure shares for all consumer units and consumer units with expenditures at or below 200 percent of poverty guidelines
B.3c	Mean expenditure shares for all consumer units and units with both income at or below 200 percent of the poverty guidelines and expenditures below 200 percent of median expenditures, 2013–2014
B.4	Mean expenditure shares as a percentage of total annual income for all consumer units and low-income consumer units, 2013–2014
B.5a	Mean expenditure shares as a percentage of total annual income for all consumer units and low-income consumer units, by whether expenditures equals or exceeds 120 percent of income and whether income equals or exceeds 120 percent of expenditures, 2013–2014
B.5b	Mean expenditure shares as a percentage of total annual income for all consumer units and low-income consumer units, for units with savings or debt, 2013–2014
B.6	Presence of expenditure types for all consumer units and low-income consumer units, 2013–2014
B.7	Mean monthly expenditure amounts among units with that expenditure type for all consumer units and low-income consumer units, 2013–2014

Table B.1. Mean monthly expenditure amounts for all consumer units and low-income consumer units, 2013–2014

	All consumer units	Low-income consumer units
Mean monthly expenditure amounts	Dollars (weighted)	Dollars (weighted)
Total expenditures	4,128	2,319
Food at home	425	347
Food away from home	198	101
Food away, excluding meals as pay	196	100
Meals as pay	2	2
Housing (excluding domestic services)	1,314	851
Shelter	852	537
Owned dwelling	505	197
Rented dwelling	289	326
Utilities	319	240
Domestic services including child care ^a	56	21
Child care	28	9
Apparel	76	44
Uniforms (for which cost is not reimbursed)	0	0
Health care	314	184
Health insurance	213	126
Medical services	66	35
Prescription drugs and medical supplies	36	23
Transportation	720	389
Sum of vehicle expenses	673	371
Public transportation	47	18
Local	8	7
Non-local	38	11
Other goods and services	1,025	381

Source: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey (CE) Interview data files.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.
Expenditure amounts are for all members of the consumer unit (CU) as reported in the CE. Mean expenditure amounts include contributions from CUs that report zero expenditures of that type unless otherwise noted.

^a The CE includes “domestic services including child care” as a component of total housing expenditures. Here we categorize these domestic services expenses separately.

Table B.2. Distribution of annual expenditure amounts and mean income for all consumer units and low-income consumer units, 2013–2014

Consumer units with:	All consumer units		Low-income consumer units	
	Column percent (weighted)	Mean annual income	Column percent (weighted)	Mean annual income
Annual expenditures of:				
Any amount	100.0	\$64,310	100.0	\$18,680
\$0 to \$12,000	5.9	\$10,256	15.1	\$8,853
\$12,001 to \$24,000	19.6	\$21,550	38.8	\$15,023
\$24,001 to \$36,000	21.4	\$39,604	24.7	\$22,842
\$36,000 to \$48,000	16.2	\$58,454	11.2	\$27,988
\$48,001 or more	36.9	\$112,259	10.1	\$26,641

Source: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey (CE) Interview data files.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

Expenditure amounts are for all members of the consumer unit (CU) as reported in the CE. The mean income amounts include contributions from CUs with zero income.

Expenditure groupings are equivalent to \$0 to \$1,000 per month, \$1,000 to \$2,000 per month, and so forth.

Table B.3a. Mean expenditure shares for all consumer units and low-income consumer units, 2013–2014

Mean expenditure shares as a percentage of total annual expenditures	All consumer units	Low-income consumer units
	Column percent (weighted)	Column percent (weighted)
Total expenditures	100.0	100.0
Food at home	10.3	15.0
Food away from home	4.8	4.4
Food away, excluding meals as pay	4.8	4.3
Meals as pay	0.1	0.1
Housing (excluding domestic services)	31.8	36.7
Shelter	20.6	23.2
Owned dwelling	12.2	8.5
Rented dwelling	7.0	14.1
Utilities	7.7	10.4
Domestic services including child care ^a	1.4	0.9
Child care	0.7	0.4
Apparel	1.8	1.9
Uniforms (for which cost is not reimbursed)	0.0	0.0
Health care	7.6	7.9
Health insurance	5.1	5.4
Medical services	1.6	1.5
Prescription drugs and medical supplies	0.9	1.0
Transportation	17.4	16.8
Sum of vehicle expenses	16.3	16.0
Public transportation	1.1	0.8
Local	0.2	0.3
Non-local	0.9	0.5
Other goods and services	24.8	16.4
Mean value of total expenditures	\$49,530	\$27,828

Source: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey (CE) Interview data files.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

Expenditure amounts are for all members of the consumer unit (CU) as reported in the CE. Mean expenditure shares include contributions from CUs that report zero expenditures of that type unless otherwise noted.

The shares of each broad expenditure category (e.g., food at home, food away from home, housing, apparel, health care, transportation; and other goods and services) sum to 100 percent.

^a The CE includes “domestic services including child care” as a component of total housing expenditures. Here we categorize these domestic services expenses separately.

Table B.3b. Mean expenditure shares for all consumer units and consumer units with expenditures at or below 200 percent of poverty guidelines

Mean expenditure shares as a percentage of total annual expenditures	All consumer units	Consumer units with expenditures at or below 200 percent of poverty guidelines
	Column percent (weighted)	Column percent (weighted)
Total expenditures	100.0	100.0
Food at home	10.3	17.5
Food away from home	4.8	4.6
Food away, excluding meals as pay	4.8	4.6
Meals as pay	0.1	0.1
Housing (excluding domestic services)	31.8	38.0
Shelter	20.6	23.0
Owned dwelling	12.2	8.5
Rented dwelling	7.0	14.1
Utilities	7.7	12.4
Domestic services including child care ^a	1.4	0.7
Child care	0.7	0.4
Apparel	1.8	1.8
Uniforms (for which cost is not reimbursed)	0.0	0.0
Health care	7.6	7.2
Health insurance	5.1	5.5
Medical services	1.6	0.8
Prescription drugs and medical supplies	0.9	0.9
Transportation	17.4	12.3
Sum of vehicle expenses	16.3	11.7
Public transportation	1.1	0.5
Local	0.2	0.3
Non-local	0.9	0.2
Other goods and services	24.8	17.9
Mean value of total expenditures	\$49,530	\$23,487

Source: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey (CE) Interview data files.

Notes: Expenditure amounts are for all members of the consumer unit (CU) as reported in the CE. Mean expenditure shares include contributions from CUs that report zero expenditures of that type unless otherwise noted.

The shares of each broad expenditure category (e.g., food at home, food away from home, housing, apparel, health care, transportation; and other goods and services) sum to 100 percent.

^a The CE includes "domestic services including child care" as a component of total housing expenditures. Here we categorize these domestic services expenses separately.

Table B.3c. Mean expenditure shares for all consumer units and units with both income at or below 200 percent of the poverty guidelines and expenditures below 200 percent of median expenditures, 2013–2014

Mean expenditure shares as a percentage of total annual expenditures	All consumer units	Consumer units with both income at or below 200 percent of the poverty guidelines and expenditures below 200 percent of median expenditures
	Column percent (weighted)	Column percent (weighted)
Total expenditures	100.0	100.0
Food at home	10.3	16.3
Food away from home	4.8	4.6
Food away, excluding meals as pay	4.8	4.5
Meals as pay	0.1	0.1
Housing (excluding domestic services)	31.8	39.2
Shelter	20.6	24.7
Owned dwelling	12.2	8.6
Rented dwelling	7.0	15.6
Utilities	7.7	11.3
Domestic services including child care ^a	1.4	0.8
Child care	0.7	0.4
Apparel	1.8	2.0
Uniforms (for which cost is not reimbursed)	0.0	0.0
Health care	7.6	8.1
Health insurance	5.1	5.8
Medical services	1.6	1.3
Prescription drugs and medical supplies	0.9	1.0
Transportation	17.4	13.2
Sum of vehicle expenses	16.3	12.5
Public transportation	1.1	0.7
Local	0.2	0.3
Non-local	0.9	0.4
Other goods and services	24.8	15.7
Mean value of total expenditures	\$49,530	\$25,019

Source: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey (CE) Interview data files.

Notes: Expenditure amounts are for all members of the consumer unit (CU) as reported in the CE. Mean expenditure shares include contributions from CUs that report zero expenditures of that type unless otherwise noted.

The shares of each broad expenditure category (e.g., food at home, food away from home, housing, apparel, health care, transportation; and other goods and services) sum to 100 percent.

^a The CE includes “domestic services including child care” as a component of total housing expenditures. Here we categorize these domestic services expenses separately.

Table B.4. Mean expenditure shares as a percentage of total annual income for all consumer units and low-income consumer units, 2013–2014

Mean expenditure shares as a percentage of total annual income	All consumer units	Low-income consumer units
	Column percent (weighted)	Column percent (weighted)
Total expenditures	77.1	149.0
Food at home	7.9	22.3
Food away from home	3.7	6.5
Food away, excluding meals as pay	3.7	6.4
Meals as pay	0.0	0.1
Housing (excluding domestic services)	24.5	54.7
Shelter	15.9	34.6
Owned dwelling	9.4	12.7
Rented dwelling	5.4	20.9
Utilities	5.9	15.4
Domestic services including child care ^a	1.0	1.3
Child care	0.5	0.6
Apparel	1.4	2.9
Uniforms (for which cost is not reimbursed)	0.0	0.0
Health care	5.9	11.9
Health insurance	4.0	8.2
Medical services	1.2	2.3
Prescription drugs and medical supplies	0.7	1.5
Transportation	13.5	25.0
Sum of vehicle expenses	12.6	23.9
Public transportation	0.9	1.1
Local	0.2	0.4
Non-local	0.7	0.7
Other goods and services	19.1	24.4
Mean value of total expenditures	\$49,530	\$27,828
Mean annual income	\$64,310	\$18,680

Source: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey (CE) Interview data files.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines. Expenditure and total income amounts (excluding SNAP benefits) are for all members of the consumer unit (CU) as reported in the CE. Mean expenditure shares include contributions from CUs that report zero expenditures of that type unless otherwise noted. The shares of each broad expenditure category (e.g., food at home, food away from home, housing) do not necessarily sum to 100 percent because expenditures may fall short of or exceed total reported income.

^a The CE includes “domestic services including child care” as a component of total housing expenditures. Here we categorize these domestic services expenses separately.

Table B.5a. Mean expenditure shares as a percentage of total annual income for all consumer units and low-income consumer units, by whether expenditures equals or exceeds 120 percent of income and whether income equals or exceeds 120 percent of expenditures,^a 2013–2014

	Consumer units with annual expenditures that are greater than or equal to annual income		Consumer units with annual income that is greater than annual expenditures	
	All consumer units	Low-income consumer units	All consumer units	Low-income consumer units
Percent of all consumer units regardless of income to expenditure ratio ^b	30.3%	56.8%	49.0%	19.0%
Mean expenditure shares as a percentage of total annual income for consumer units	Column percent (weighted)	Column percent (weighted)	Column percent (weighted)	Column percent (weighted)
All expenditures	237.1	269.0	52.9	66.0
Food at home	22.0	35.9	5.7	13.0
Food away from home	9.6	11.7	2.8	3.0
Food away, excluding meals as pay	9.5	11.5	2.8	2.9
Meals as pay	0.1	0.2	0.0	0.1
Housing (excluding domestic services)	70.1	96.5	17.4	25.0
Shelter	45.6	62.6	11.2	14.2
Owned dwelling	23.7	24.0	7.4	5.0
Rented dwelling	18.7	36.4	3.1	9.0
Utilities	16.0	24.5	4.4	9.4
Domestic services including child care ^c	2.7	2.7	0.8	0.3
Child care	1.0	1.0	0.4	0.2
Apparel	4.0	5.1	1.0	1.2
Uniforms (for which cost is not reimbursed)	0.0	0.0	0.0	0.0
Health care	17.2	21.4	3.9	4.5
Health insurance	10.8	13.7	2.8	3.6
Medical services	4.2	4.7	0.7	0.5
Prescription drugs and medical supplies	2.2	2.9	0.4	0.5
Transportation	62.7	51.1	6.4	7.8
Sum of vehicle expenses	59.9	48.7	5.9	7.5
Public transportation	2.7	2.4	0.6	0.3
Local	0.4	0.8	0.1	0.2
Non-local	2.3	1.6	0.5	0.1
Other goods and services	48.8	44.6	14.9	11.2
Mean annual expenditures	\$52,101	\$32,572	\$48,450	\$18,303
Mean annual income	\$25,443	\$12,993	\$91,390	\$27,708

Source: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey Interview data files.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines. Both income (excluding SNAP benefits) and expenditure shares are for all members of the consumer unit (CU), and the data may be subject to misreporting. Mean expenditure shares include contributions from CUs that report zero expenditures of that type unless otherwise noted.

^a Both income and expenditure data may be subject to misreporting.

^b Percent of total consumer units within the column universes of all consumer units or low-income consumer units regardless of expenditure to income ratio. The two column sets do not sum to 100 percent because two types of consumer units are not included: those where expenditures are less than 120 percent of income and units where income is less than 120 percent of expenditures.

^c The CE includes “domestic services including child care” as a component of total housing expenditures. Here we categorize these domestic services expenses separately.

Table B.5b. Mean expenditure shares as a percentage of total annual income for all consumer units and low-income consumer units, for units with savings or debt,^a 2013–2014

Mean expenditure shares as a percentage of total annual income for consumer units	Consumer units with positive savings or checking account balances		Consumer units with debt	
	All consumer units	Low-income consumer units	All consumer units	Low-income consumer units
	Column percent (weighted)	Column percent (weighted)	Column percent (weighted)	Column percent (weighted)
All expenditures	78.0	160.2	78.3	155.0
Food at home	7.1	20.6	7.2	20.0
Food away from home	3.8	7.0	3.7	6.2
Food away, excluding meals as pay	3.7	6.8	3.6	6.1
Meals as pay	0.1	0.2	0.1	0.1
Housing (excluding domestic services)	24.2	57.5	24.4	54.0
Shelter	15.8	36.4	15.8	33.3
Owned dwelling	9.9	14.9	9.7	12.8
Rented dwelling	4.6	20.0	5.0	19.2
Utilities	5.5	14.9	5.7	14.4
Domestic services including child care ^b	1.1	1.6	1.0	1.3
Child care	0.5	0.6	0.6	0.8
Apparel	1.5	2.9	1.5	3.1
Uniforms (for which cost is not reimbursed)	0.0	0.0	0.0	0.0
Health care	5.9	14.0	5.7	11.7
Health insurance	3.9	9.2	3.8	7.7
Medical services	1.3	3.1	1.3	2.6
Prescription drugs and medical supplies	0.7	1.7	0.7	1.4
Transportation	13.4	27.9	14.4	30.9
Sum of vehicle expenses	12.4	26.5	13.5	29.8
Public transportation	1.0	1.4	0.9	1.1
Local	0.1	0.4	0.2	0.4
Non-local	0.8	1.0	0.7	0.7
Other goods and services	21.0	28.7	20.4	27.8
Mean annual expenditures	\$55,428	\$30,698	\$56,903	\$32,984
Mean annual income	\$71,055	\$19,179	\$72,727	\$21,262

Source: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey Interview data files.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines. Both income (excluding SNAP benefits) and expenditure shares are for all members of the consumer unit, and the data may be subject to misreporting. Mean expenditure shares include contributions from CUs that report zero expenditures of that type unless otherwise noted. Units with positive savings or checking account balances and those with debt are not mutually exclusive.

^a Units with savings are those with checking, savings, money market accounts, or certificates of deposit with a positive account balance. Debt includes that on all major credit cards including store cards and gas cards, as well as student, medical, personal, or other loans. Debt is not considered in the SNAP income or asset eligibility determination.

^b The CE includes “domestic services including child care” as a component of total housing expenditures. Here we categorize these domestic services expenses separately.

Table B.6. Presence of expenditure types for all consumer units and low-income consumer units, 2013–2014

Consumer units with expenditures on:	Percent of all consumer units	Percent of low-income consumer units
At least one type	100.0	100.0
Food at home	98.9	97.8
Food away from home	81.1	67.1
Food away, excluding meals as pay	80.8	66.6
Meals as pay	1.9	1.9
Housing (excluding domestic services)	99.7	99.2
Shelter	98.0	95.7
Owned dwelling	63.5	45.2
Rented dwelling	35.6	51.2
Utilities	97.5	94.6
Domestic services including child care ^a	29.4	19.4
Child care	6.0	3.4
Apparel	69.9	61.9
Uniforms (for which cost is not reimbursed)	1.4	0.9
Health care	79.0	65.3
Health insurance	66.7	50.2
Medical services	40.5	26.4
Prescription drugs and medical supplies	43.7	35.7
Transportation	94.6	88.0
Sum of vehicle expenses	90.9	80.8
Public transportation	19.7	15.9
Local	10.6	11.7
Non-local	11.2	5.1
Other goods and services	99.0	97.4
Total weighted number of consumer units (000s)	252,676	92,895

Source: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey Interview data files.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

Presence of expenditures types is reported for all members of the consumer unit, and the data may be subject to misreporting.

^a The CE includes “domestic services including child care” as a component of total housing expenditures. Here we categorize these domestic services expenses separately.

Table B.7. Mean monthly expenditure amounts among units with that expenditure type for all consumer units and low-income consumer units, 2013–2014

Mean monthly expenditure amounts (\$) for that category of expenditure among those with that expenditure type	All consumer units		Low-income consumer units	
	Dollars (weighted)	Number (unweighted)	Dollars (weighted)	Number (unweighted)
At least one type	\$4,128	12,943	\$2,320	4,755
Food at home	\$430	12,802	\$354	4,652
Food away from home	\$245	10,483	\$151	3,169
Food away, excluding meals as pay	\$243	10,445	\$149	3,146
Meals as pay	\$110	220	\$100	78
Housing (excluding domestic services)	\$1,318	12,905	\$858	4,721
Shelter	\$870	12,688	\$561	4,558
Owned dwelling	\$796	8,163	\$436	2,124
Rented dwelling	\$812	4,674	\$637	2,460
Utilities	\$327	12,614	\$254	4,496
Domestic services including child care ^a	\$190	3,902	\$106	953
Child care	\$465	773	\$258	162
Apparel	\$108	9,084	\$72	2,962
Uniforms (for which cost is not reimbursed)	\$10	182	\$9	40
Health care	\$398	10,195	\$282	3,094
Health insurance	\$318	8,637	\$251	2,397
Medical services	\$163	5,205	\$133	1,239
Prescription drugs and medical supplies	\$81	5,606	\$66	1,682
Transportation	\$761	12,228	\$442	4,167
Sum of vehicle expenses	\$741	11,701	\$460	3,790
Public transportation	\$236	2,658	\$112	794
Local	\$80	1,470	\$59	602
Non-local	\$340	1,476	\$210	239
Other goods and services	\$1,036	12,813	\$391	4,632

Source: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey (CE) Interview data files.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

Expenditure amounts are for all members of the consumer unit (CU) as reported in the CE.

^a The CE includes “domestic services including child care” as a component of total housing expenditures. Here we categorize these domestic services expenses separately.

Page intentionally blank

Appendix C: Chapter III Analysis Tables (Research Objective 2)

No.	Title
C.1a	Mean expenditure shares for low-income consumer units by demographic subgroup and broad expenditure type, 2013–2014
C.1b	Mean expenditure shares for low-income consumer units by economic and geographic subgroup and broad expenditure type, 2013–2014
C.2a	Mean expenditure shares for low-income consumer units by demographic subgroup and detailed food expenditure category, 2013–2014
C.2b	Mean expenditure shares for low-income consumer units by economic and geographic subgroup and detailed food expenditure category, 2013–2014
C.3a	Mean expenditure shares for low-income consumer units by demographic subgroup and detailed housing expenditure category, 2013–2014
C.3b	Mean expenditure shares for low-income consumer units by economic and geographic subgroup and detailed housing expenditure category, 2013–2014
C.3c	Mean expenditure shares for low-income consumer units by demographic subgroup and detailed utilities expenditure category, 2013–2014
C.3d	Mean expenditure shares for low-income consumer units by economic and geographic subgroup and detailed utilities expenditure category, 2013–2014
C.4a	Mean expenditure shares for low-income consumer units by demographic subgroup and detailed health care expenditure category, 2013–2014
C.4b	Mean expenditure shares for low-income consumer units by economic and geographic subgroup and detailed health care expenditure category, 2013–2014
C.5a	Mean expenditure shares for low-income consumer units by demographic subgroup and other detailed expenditure categories of interest, 2013–2014
C.5b	Mean expenditure shares for low-income consumer units by economic and geographic subgroup and other detailed expenditure categories of interest, 2013–2014

Table C.1a. Mean expenditure shares for low-income consumer units by demographic subgroup and broad expenditure type, 2013–2014

	Number (unweighted)	Mean expenditure share for broad categories (weighted)					
		Food	Housing, excluding domestic services	Apparel	Health care	Trans- portation	Other goods and services
All low-income consumer units	4,756	19.3	36.7	1.9	7.9	16.8	17.3
Low-Income Consumer units with:							
Household size							
1 person	1,985	17.8	39.8	1.6	9.3	13.1	18.6
2 people	1,094	18.4	34.6	1.4	10.7	17.5	17.4
3 people	581	20.0	37.3	2.3	6.3	18.6	15.7
4 people	518	21.0	36.1	2.4	5.4	18.5	16.6
5 or more people	578	21.5	34.7	2.6	5.0	19.3	16.9
Children ^a	1,597	20.8	36.2	2.6	4.9	19.1	16.3
And one adult	431	21.8	39.8	3.1	3.1	18.2	14.1
Only preschool age children (age 0 to 4)	60	21.5	38.9	3.6	2.9	15.9	17.2
Only school age children (age 5 to 17)	279	20.7	40.1	2.7	3.4	19.3	13.8
Both preschool and school age children	92	25.4	39.1	4.1	2.5	15.7	13.3
And multiple adults	1,164	20.6	35.2	2.5	5.4	19.3	17.0
Only preschool age children (age 0 to 4)	229	20.4	34.9	3.2	4.2	19.7	17.5
Only school age children (age 5 to 17)	584	20.6	36.2	2.1	5.9	19.2	16.0
Both preschool and school age children	351	20.6	33.9	2.8	5.2	19.3	18.2
No children	3,159	18.2	37.1	1.4	10.1	15.1	18.0
Nonelderly adults	3,275	20.0	36.7	2.2	5.5	18.0	17.8
Only nonelderly adults	1,362	18.8	38.5	1.6	4.6	15.8	20.7
Nonelderly adults and others	1,913	20.5	35.8	2.4	5.9	19.0	16.3
No nonelderly adults	1,482	17.6	36.8	1.2	14.9	13.5	16.0
Elderly individuals	1,977	18.4	36.1	1.3	13.4	14.9	15.9
Only elderly individuals	1,457	17.5	36.7	1.2	15.0	13.5	16.0
Elderly and nonelderly individuals	520	20.3	34.8	1.6	10.0	17.6	15.7
No elderly individuals	2,779	19.9	37.1	2.3	4.5	18.0	18.2

See notes at end of table.

Table C.1a. continued

	Number (unweighted)	Mean expenditure share for broad categories (weighted)					
		Food	Housing, excluding domestic services	Apparel	Health care	Trans- portation	Other goods and services
Presence of disabled individuals ^b							
Nonelderly disabled individuals	615	20.7	38.6	1.7	7.8	16.7	14.5
And elderly individuals	128	19.8	35.8	1.1	11.2	17.5	14.7
And no elderly individuals	486	21.1	39.7	1.9	6.6	16.4	14.4
Only elderly individuals or nonelderly disabled individuals	2,072	18.5	37.3	1.4	12.8	14.5	15.5
No nonelderly disabled individuals	4,142	19.1	36.5	1.9	8.0	16.8	17.7
And elderly individuals	1,849	18.3	36.1	1.4	13.6	14.6	16.0
And no elderly individuals	2,293	19.7	36.7	2.3	4.2	18.3	18.8

Source: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey Interview data files.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

Expenditure shares are for all consumer unit (CU) members and are defined as annual expenditures of a certain type divided by total annual expenditures. Mean expenditure shares include contributions from CUs that report zero expenditures of that type unless otherwise noted.

^a Subgroups (children living with one adult and children living with multiple adults) do not add up to the total number of CUs with children because a small number of CUs are comprised only of children under age 18.

^b We define disabled individuals as those who list illness, disability, or inability to work as their reason for not working.

Table C.1b. Mean expenditure shares for low-income consumer units by economic and geographic subgroup and broad expenditure type, 2013–2014

	Number (unweighted)	Mean expenditure share for broad categories (weighted)					
		Food	Housing, excluding domestic services	Apparel	Health care	Trans- portation	Other goods and services
All low-income consumer units	4,756	19.3	36.7	1.9	7.9	16.8	17.3
Low-income Consumer units with:							
Income as a percentage of poverty guidelines							
0 to under 50 percent	915	21.1	39.6	2.3	5.5	15.6	15.8
50 to under 100 percent	1,101	21.1	38.7	2.1	6.4	14.9	16.8
100 to 130 percent	802	18.9	36.7	1.8	8.4	16.9	17.2
More than 130 percent to 200 percent	1,938	18.2	35.0	1.7	9.2	17.9	18.1
Receipt of income or federal assistance types							
Earnings	2,656	19.7	36.0	2.2	5.5	18.7	17.9
TANF income	151	24.6	40.5	3.2	3.3	13.1	15.3
Social Security income	1,838	18.4	36.3	1.3	13.5	15.3	15.2
SSI	507	22.4	41.7	2.1	6.3	13.4	14.1
SNAP benefits	1,025	22.1	39.3	2.6	4.7	16.2	15.1
Income from other sources ^a	351	18.5	36.9	2.3	5.0	19.5	17.7
Medicare	1,723	18.6	36.2	1.4	14.1	14.2	15.5
Medicaid	1,392	22.0	39.4	2.4	4.0	16.8	15.2
Employment status of unit head ^b							
Employed	2,127	19.5	36.2	2.2	5.0	18.7	18.3
Unemployed	114	23.1	45.5	1.8	5.0	13.5	11.2
Not in labor force	976	20.3	37.2	2.1	6.0	16.6	17.8
Geography							
Northeast	747	18.0	39.8	2.2	7.5	14.4	18.1
Midwest	990	18.3	35.4	1.8	9.1	16.3	19.1
South	1,920	21.0	35.5	1.8	7.9	17.9	15.9
West	1,071	18.4	37.8	2.0	7.3	16.9	17.6
Urban	4,406	19.2	37.4	1.9	7.7	16.5	17.2
Rural	350	20.2	30.4	1.7	10.1	19.3	18.3

Source: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey Interview data files.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

Expenditure shares are for all consumer unit (CU) members and are defined as annual expenditures of a certain type divided by total annual expenditures. Mean expenditure shares include contributions from CUs that report zero expenditures of that type unless otherwise noted.

^a Other sources include VA payments, Unemployment Compensation, child support, or alimony.

^b Children and elderly adults are excluded from those not in the labor force.

Table C.2a. Mean expenditure shares for low-income consumer units by demographic subgroup and detailed food expenditure category, 2013–2014

	Number (unweighted)	Mean expenditure share for food categories (weighted)				
		Total	Food at home	Food away from home		
				Total	Excluding meals as pay	Meals as pay
All low-income consumer units	4,756	19.3	15.0	4.4	4.3	0.1
Low-income Consumer units with:						
Household size						
1 person	1,985	17.8	13.0	4.7	4.6	0.1
2 people	1,094	18.4	13.9	4.5	4.5	0.1
3 people	581	20.0	15.9	4.1	4.0	0.1
4 people	518	21.0	16.7	4.3	4.2	0.1
5 or more people	578	21.5	17.7	3.8	3.8	0.0
Children ^a						
Children ^a	1,597	20.8	16.8	4.0	4.0	0.1
And one adult	431	21.8	17.7	4.1	4.0	0.1
Only preschool age children (age 0 to 4)	60	21.5	17.5	4.1	4.0	0.1
Only school age children (age 5 to 17)	279	20.7	16.5	4.1	4.1	0.1
Both preschool and school age children	92	25.4	21.6	3.8	3.7	0.0
And multiple adults	1,164	20.6	16.6	4.0	4.0	0.1
Only preschool age children (age 0 to 4)	229	20.4	16.2	4.2	4.1	0.1
Only school age children (age 5 to 17)	584	20.6	16.6	4.1	4.0	0.1
Both preschool and school age children	351	20.6	16.8	3.8	3.8	0.1
No children	3,159	18.2	13.6	4.6	4.5	0.1
Nonelderly adults						
Nonelderly adults	3,275	20.0	15.6	4.4	4.3	0.1
Only nonelderly adults	1,362	18.8	13.6	5.2	5.0	0.2
Nonelderly adults and others	1,913	20.5	16.5	4.0	4.0	0.1
No nonelderly adults	1,482	17.6	13.3	4.3	4.3	0.0
Elderly individuals						
Elderly individuals	1,977	18.4	14.2	4.2	4.2	0.0
Only elderly individuals	1,457	17.5	13.2	4.3	4.3	0.0
Elderly and nonelderly individuals	520	20.3	16.3	4.0	3.9	0.1
No elderly individuals	2,779	19.9	15.4	4.5	4.4	0.1

See notes at end of table.

Table C.2a. continued

	Mean expenditure share for food categories (weighted)					
	Number (unweighted)	Total	Food at home	Food away from home		
				Total	Excluding meals as pay	Meals as pay
Presence of disabled individuals ^b						
Nonelderly disabled individuals	615	20.7	17.6	3.1	3.1	0.0
And elderly individuals	128	19.8	17.1	2.7	2.7	0.0
And no elderly individuals	486	21.1	17.8	3.3	3.3	0.0
Only elderly individuals or nonelderly disabled individuals	2,072	18.5	14.6	3.9	3.9	0.0
No nonelderly disabled individuals	4,142	19.1	14.6	4.5	4.4	0.1
And elderly individuals	1,849	18.3	14.0	4.3	4.3	0.0
And no elderly individuals	2,293	19.7	15.0	4.7	4.6	0.1

Source: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey Interview data files.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

Expenditure shares are for all consumer unit (CU) members and are defined as annual expenditures of a certain type divided by total annual expenditures. Mean expenditure shares include contributions from CUs that report zero expenditures of that type unless otherwise noted.

^a Subgroups (children living with one adult and children living with multiple adults) do not add up to the total number of CUs with children because a small number of CUs are comprised only of children under age 18.

^b We define disabled individuals as those who list illness, disability, or inability to work as their reason for not working.

Table C.2b. Mean expenditure shares for low-income consumer units by economic and geographic subgroup and detailed food expenditure category, 2013–2014

	Number (unweighted)	Mean expenditure share for food categories (weighted)				
		Total	Food at home	Food away from home		
				Total	Excluding meals as pay	Meals as pay
All low-income consumer units	4,756	19.3	15.0	4.4	4.3	0.1
Low-income Consumer units with:						
Income as a percentage of poverty guidelines						
0 to under 50 percent	915	21.1	17.0	4.2	4.1	0.1
50 to under 100 percent	1,101	21.1	16.7	4.3	4.3	0.1
100 to 130 percent	802	18.9	14.7	4.3	4.2	0.1
More than 130 percent to 200 percent	1,938	18.2	13.7	4.5	4.4	0.1
Receipt of income or federal assistance types						
Earnings	2,656	19.7	15.1	4.5	4.4	0.1
TANF income	151	24.6	20.9	3.7	3.7	0.0
Social Security income	1,838	18.4	14.2	4.1	4.1	0.0
SSI	507	22.4	19.0	3.4	3.4	0.1
SNAP benefits	1,025	22.1	18.9	3.2	3.1	0.1
Income from other sources ^a	351	18.5	14.6	4.0	3.9	0.1
Medicare	1,723	18.6	14.5	4.1	4.0	0.0
Medicaid	1,392	22.0	18.4	3.6	3.5	0.1
Employment status of unit head ^b						
Employed	2,127	19.5	14.8	4.8	4.6	0.1
Unemployed	114	23.1	19.9	3.2	3.2	0.0
Not in labor force	976	20.3	16.3	3.9	3.9	0.0
Geography						
Northeast	747	18.0	13.9	4.1	4.1	0.1
Midwest	990	18.3	14.0	4.2	4.1	0.1
South	1,920	21.0	16.5	4.5	4.4	0.1
West	1,071	18.4	13.9	4.5	4.4	0.1
Urban	4,406	19.2	14.8	4.4	4.3	0.1
Rural	350	20.2	16.2	4.1	3.9	0.1

Source: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey Interview data files.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

Expenditure shares are for all consumer unit (CU) members and are defined as annual expenditures of a certain type divided by total annual expenditures. Mean expenditure shares include contributions from CUs that report zero expenditures of that type unless otherwise noted.

^a Other sources include VA payments, Unemployment Compensation, child support, or alimony.

^b Children and elderly adults are excluded from those not in the labor force.

Table C.3a. Mean expenditure shares for low-income consumer units by demographic subgroup and detailed housing expenditure category, 2013–2014

	Number (unweighted)	Mean expenditure share for housing categories (weighted)			
		Utilities	Total	Shelter	
				Owned dwelling	Rented dwelling
All low-income consumer units	4,756	10.4	23.2	8.5	14.1
Low-income Consumer units with:					
Household size					
1 person	1,985	9.8	27.1	8.9	17.5
2 people	1,094	10.3	21.0	9.7	10.3
3 people	581	10.9	22.9	7.2	15.2
4 people	518	10.5	22.5	7.7	14.3
5 or more people	578	10.9	20.5	7.6	12.7
Children ^a					
And one adult	431	10.7	25.9	6.1	19.5
Only preschool age children (age 0 to 4)	60	10.0	26.3	2.9	23.3
Only school age children (age 5 to 17)	279	10.7	26.2	7.0	18.9
Both preschool and school age children	92	10.8	24.6	4.9	19.5
And multiple adults	1,164	10.5	21.5	7.3	13.8
Only preschool age children (age 0 to 4)	229	9.6	22.1	4.7	17.0
Only school age children (age 5 to 17)	584	11.1	22.0	8.4	13.2
Both preschool and school age children	351	10.0	20.4	7.1	13.0
No children	3,159	10.2	23.7	9.5	13.4
Nonelderly adults					
Only nonelderly adults	1,362	8.9	26.5	5.5	20.3
Nonelderly adults and others	1,913	10.7	21.8	7.7	13.7
No nonelderly adults	1,482	11.0	22.6	12.7	8.9
Elderly individuals					
Only elderly individuals	1,457	11.0	22.6	12.7	8.9
Elderly and nonelderly individuals	520	12.1	19.4	10.4	8.2
No elderly individuals	2,779	9.7	24.2	6.3	17.4

See notes at end of table.

Table C.3a. continued

	Number (unweighted)	Mean expenditure share for housing categories (weighted)			
		Utilities	Total	Shelter	
				Owned dwelling	Rented dwelling
Presence of disabled individuals ^b					
Nonelderly disabled individuals	615	12.4	22.7	7.4	14.9
And elderly individuals	128	12.5	19.6	10.8	8.3
And no elderly individuals	486	12.4	23.7	6.3	17.2
Only elderly individuals or nonelderly disabled individuals	2,072	11.4	22.6	11.1	10.8
No nonelderly disabled individuals	4,142	10.1	23.2	8.6	13.9
And elderly individuals	1,849	11.3	21.7	12.1	8.7
And no elderly individuals	2,293	9.3	24.3	6.3	17.5

Source: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey Interview data files.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.
Expenditure shares are for all consumer unit (CU) members and are defined as annual expenditures of a certain type divided by total annual expenditures. Mean expenditure shares include contributions from CUs that report zero expenditures of that type unless otherwise noted.

^a Subgroups (children living with one adult and children living with multiple adults) do not add up to the total number of CUs with children because a small number of CUs are comprised only of children under age 18.

^b We define disabled individuals as those who list illness, disability, or inability to work as their reason for not working.

Table C.3b. Mean expenditure shares for low-income consumer units by economic and geographic subgroup and detailed housing expenditure category, 2013–2014

	Number (unweighted)	Mean expenditure share for housing categories (weighted)			
		Utilities	Total	Shelter	
				Owned dwelling	Rented dwelling
All low-income consumer units	4,756	10.4	23.2	8.5	14.1
Low-income Consumer units with:					
Income as a percentage of poverty guidelines					
0 to under 50 percent	915	10.4	25.8	7.8	17.4
50 to under 100 percent	1,101	10.8	24.8	6.8	17.5
100 to 130 percent	802	10.5	23.0	8.4	13.9
More than 130 percent to 200 percent	1,938	10.1	21.7	9.5	11.6
Receipt of income or federal assistance types					
Earnings	2,656	10.0	22.9	7.1	15.3
TANF income	151	10.9	26.4	4.7	21.6
Social Security income	1,838	11.6	21.4	11.5	9.0
SSI	507	12.7	25.7	5.6	19.7
SNAP benefits	1,025	11.6	24.4	4.4	19.8
Income from other sources ^a	351	10.3	23.0	7.6	14.8
Medicare	1,723	11.5	21.5	11.1	9.6
Medicaid	1,392	11.8	24.4	5.6	18.6
Employment status of unit head ^b					
Employed	2,127	9.7	23.3	6.8	16.0
Unemployed	114	12.9	29.4	9.0	20.2
Not in labor force	976	10.4	23.6	7.1	16.1
Geography					
Northeast	747	9.7	26.9	9.3	16.8
Midwest	990	9.9	22.1	8.6	12.9
South	1,920	12.0	20.3	8.1	11.8
West	1,071	8.4	26.1	8.3	17.0
Urban	4,406	10.2	24.1	8.6	14.9
Rural	350	11.9	14.9	7.4	6.8

Source: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey Interview data files.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

Expenditure shares are for all consumer unit (CU) members and are defined as annual expenditures of a certain type divided by total annual expenditures. Mean expenditure shares include contributions from CUs that report zero expenditures of that type unless otherwise noted.

^a Other sources include VA payments, Unemployment Compensation, child support, or alimony.

^b Children and elderly adults are excluded from those not in the labor force.

Table C.3c. Mean expenditure shares for low-income consumer units by demographic subgroup and detailed utilities expenditure category, 2013–2014

	Number (unweighted)	Mean expenditure share for utilities categories (weighted)					
		Total	Natural gas	Electricity	Fuel oil and other fuels	Telephone services	Water and other public services
All low-income consumer units	4,756	10.4	1.0	4.4	0.3	3.2	1.3
Low-income Consumer units with:							
Household size							
1 person	1,985	9.8	1.0	4.2	0.5	2.8	1.3
2 people	1,094	10.3	1.0	4.4	0.5	3.1	1.4
3 people	581	10.9	1.0	4.8	0.2	3.5	1.4
4 people	518	10.5	0.9	4.5	0.2	3.6	1.3
5 or more people	578	10.9	1.1	4.6	0.2	3.5	1.5
Children ^a	1,597	10.5	1.0	4.5	0.2	3.5	1.3
And one adult	431	10.7	1.0	4.9	0.1	3.4	1.3
Only preschool age children (age 0 to 4)	60	10.0	0.9	4.7	0.0	3.3	1.0
Only school age children (age 5 to 17)	279	10.7	0.9	4.8	0.1	3.6	1.3
Both preschool and school age children	92	10.8	1.2	5.3	0.0	3.1	1.3
And multiple adults	1,164	10.5	1.0	4.4	0.2	3.5	1.4
Only preschool age children (age 0 to 4)	229	9.6	0.8	4.1	0.1	3.4	1.1
Only school age children (age 5 to 17)	584	11.1	1.1	4.6	0.2	3.8	1.5
Both preschool and school age children	351	10.0	1.1	4.3	0.2	3.1	1.3
No children	3,159	10.2	1.0	4.4	0.5	3.0	1.4

See notes at end of table.

Table C.3c. continued

	Number (unweighted)	Mean expenditure share for utilities categories (weighted)					
		Total	Natural gas	Electricity	Fuel oil and other fuels	Telephone services	Water and other public services
Nonelderly adults	3,275	10.1	1.0	4.4	0.2	3.3	1.3
Only nonelderly adults	1,362	8.9	0.8	3.9	0.2	2.9	1.0
Nonelderly adults and others	1,913	10.7	1.0	4.6	0.2	3.5	
No nonelderly adults	1,482	11.0	1.2	4.6	0.7	2.9	1.6
Elderly individuals	1,977	11.4	1.2	4.8	0.6	3.1	1.6
Only elderly individuals	1,457	11.0	1.2	4.6	0.7	2.9	1.6
Elderly and nonelderly individuals	520	12.1	1.2	5.2	0.4	3.6	
No elderly individuals	2,779	9.7	0.9	4.2	0.2	3.3	1.2
Presence of disabled individuals ^b						1.7	
Nonelderly disabled individuals	615	12.4	1.2	5.7	0.3	3.6	1.6
And elderly individuals	128	12.5	1.1	5.5	0.5	3.5	1.9
And no elderly individuals	486	12.4	1.2	5.8	0.2	3.7	1.5
Only elderly individuals or nonelderly disabled individuals	2,072	11.4	1.2	5.0	0.5	3.1	1.6
No nonelderly disabled individuals	4,142	10.1	1.0	4.3	0.3	3.2	1.3
And elderly individuals	1,849	11.3	1.2	4.8	0.6	3.1	1.6
And no elderly individuals	2,293	9.3	0.9	3.9	0.2	3.2	1.1

Source: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey Interview data files.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

Expenditure shares are for all consumer unit (CU) members and are defined as annual expenditures of a certain type divided by total annual expenditures.

Mean expenditure shares include contributions from CUs that report zero expenditures of that type unless otherwise noted.

^a Subgroups (children living with one adult and children living with multiple adults) do not add up to the total number of CUs with children because a small number of CUs are comprised only of children under age 18.

^b We define disabled individuals as those who list illness, disability, or inability to work as their reason for not working.

Table C.3d. Mean expenditure shares for low-income consumer units by economic and geographic subgroup and detailed utilities expenditure category, 2013–2014

	Number (unweighted)	Mean expenditure share for utilities categories (weighted)					
		Total	Natural gas	Electricity	Fuel oil and other fuels	Telephone services	Water and other public services
All low-income consumer units	4,756	10.4	1.0	4.4	0.3	3.2	1.3
Low-income Consumer units with:							
Income as a percentage of poverty guidelines							
0 to under 50 percent	915	10.4	1.0	4.8	0.2	3.1	1.3
50 to under 100 percent	1,101	10.8	1.0	4.7	0.3	3.3	1.4
100 to 130 percent	802	10.5	1.0	4.6	0.3	3.2	1.4
More than 130 percent to 200 percent	1,938	10.1	1.0	4.2	0.4	3.2	1.3
Receipt of income or federal assistance types							
Earnings	2,656	10.0	0.9	4.2	0.2	3.4	1.2
TANF income	151	10.9	1.4	4.8	0.2	3.4	1.1
Social Security income	1,838	11.6	1.2	5.0	0.6	3.2	1.6
SSI	507	12.7	1.3	5.7	0.2	3.9	1.6
SNAP benefits	1,025	11.6	1.2	5.3	0.2	3.5	1.4
Income from other sources ^a	351	10.3	1.0	4.2	0.3	3.3	1.4
Medicare	1,723	11.5	1.2	5.0	0.6	3.1	1.6
Medicaid	1,392	11.8	1.1	5.4	0.2	3.6	1.5
Employment status of unit head ^b							
Employed	2,127	9.7	0.9	4.1	0.2	3.3	1.2
Unemployed	114	12.9	1.3	6.2	0.2	3.6	1.6
Not in labor force	976	10.4	1.0	4.8	0.2	3.2	1.3

See notes at end of table.

Table C.3d. continued

	Number (unweighted)	Mean expenditure share for utilities categories (weighted)					
		Total	Natural gas	Electricity	Fuel oil and other fuels	Telephone services	Water and other public services
Geography							
Northeast	747	9.7	1.4	3.4	1.0	3.0	0.9
Midwest	990	9.9	1.7	3.9	0.2	3.0	1.1
South	1,920	12.0	0.6	6.0	0.2	3.6	1.6
West	1,071	8.4	0.8	3.1	0.1	3.0	1.4
Urban	4,406	10.2	1.1	4.3	0.3	3.2	1.3
Rural	350	11.9	0.7	5.7	1.0	3.1	1.3

Source: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey Interview data files.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

Expenditure shares are for all consumer unit (CU) members and are defined as annual expenditures of a certain type divided by total annual expenditures. Mean expenditure shares include contributions from CUs that report zero expenditures of that type unless otherwise noted.

^a Other sources include VA payments, Unemployment Compensation, child support, or alimony.

^b Children and elderly adults are excluded from those not in the labor force.

Table C.4a. Mean expenditure shares for low-income consumer units by demographic subgroup and detailed health care expenditure category, 2013–2014

	Number (unweighted)	Mean expenditure share for health care categories (weighted)			
		Total	Health insurance	Medical services	Prescription drugs and medical supplies
All low-income consumer units	4,756	7.9	5.4	1.5	1.0
Low-income Consumer units with:					
Household size					
1 person	1,985	9.3	6.0	1.9	1.3
2 people	1,094	10.7	7.6	1.6	1.5
3 people	581	6.3	4.5	1.0	0.7
4 people	518	5.4	3.7	1.1	0.5
5 or more people	578	5.0	3.3	1.3	0.5
Children ^a	1,597	4.9	3.3	1.1	0.5
And one adult	431	3.1	2.1	0.6	0.4
Only preschool age children (age 0 to 4)	60	2.9	2.0	0.6	0.3
Only school age children (age 5 to 17)	279	3.4	2.2	0.7	0.5
Both preschool and school age children	92	2.5	1.9	0.4	0.2
And multiple adults	1,164	5.4	3.6	1.3	0.5
Only preschool age children (age 0 to 4)	229	4.2	2.7	1.0	0.4
Only school age children (age 5 to 17)	584	5.9	4.1	1.2	0.6
Both preschool and school age children	351	5.2	3.2	1.6	0.4
No children	3,159	10.1	7.0	1.8	1.4
Nonelderly adults	3,275	5.5	3.6	1.2	0.7
Only nonelderly adults	1,362	4.6	3.0	1.0	0.6
Nonelderly adults and others	1,913	5.9	4.0	1.2	0.7
No nonelderly adults	1,482	14.9	10.4	2.5	2.0
Elderly individuals	1,977	13.4	9.4	2.2	1.8
Only elderly individuals	1,457	15.0	10.5	2.5	2.0
Elderly and nonelderly individuals	520	10.0	7.1	1.6	1.4
No elderly individuals	2,779	4.5	3.0	1.1	0.5

See notes at end of table.

Table C.4a. continued

	Number (unweighted)	Mean expenditure share for health care categories (weighted)			
		Total	Health insurance	Medical services	Prescription drugs and medical supplies
Presence of disabled individuals ^b					
Nonelderly disabled individuals	615	7.8	5.1	1.4	1.3
And elderly individuals	128	11.2	7.8	1.8	1.6
And no elderly individuals	486	6.6	4.2	1.2	1.2
Only elderly individuals or nonelderly disabled individuals	2,072	12.8	8.8	2.2	1.8
No nonelderly disabled individuals	4,142	8.0	5.5	1.5	1.0
And elderly individuals	1,849	13.6	9.5	2.2	1.8
And no elderly individuals	2,293	4.2	2.8	1.0	0.4

Source: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey Interview data files.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

Expenditure shares are for all consumer unit (CU) members and are defined as annual expenditures of a certain type divided by total annual expenditures. Mean expenditure shares include contributions from CUs that report zero expenditures of that type unless otherwise noted.

^a Subgroups (children living with one adult and children living with multiple adults) do not add up to the total number of CUs with children because a small number of CUs are comprised only of children under age 18.

^b We define disabled individuals as those who list illness, disability, or inability to work as their reason for not working.

Table C.4b. Mean expenditure shares for low-income consumer units by economic and geographic subgroup and detailed health care expenditure category, 2013–2014

	Number (unweighted)	Mean expenditure share for health care categories (weighted)			
		Total	Health insurance	Medical services	Prescription drugs and medical supplies
All low-income consumer units	4,756	7.9	5.4	1.5	1.0
Low-income Consumer units with:					
Income as a percentage of poverty guidelines					
0 to under 50 percent	915	5.5	3.7	1.1	0.7
50 to under 100 percent	1,101	6.4	4.5	1.1	0.9
100 to 130 percent	802	8.4	5.5	1.9	1.0
More than 130 percent to 200 percent	1,938	9.2	6.4	1.7	1.2
Receipt of income or federal assistance types					
Earnings	2,656	5.5	3.7	1.2	0.6
TANF income	151	3.3	2.3	0.5	0.4
Social Security income	1,838	13.5	9.7	2.0	1.9
SSI	507	6.3	4.4	0.9	1.1
SNAP benefits	1,025	4.7	3.1	0.9	0.7
Income from other sources ^a	351	5.0	3.2	1.1	0.8
Medicare	1,723	14.1	10.3	1.9	1.9
Medicaid	1,392	4.0	2.6	0.8	0.6
Employment status of unit head ^b					
Employed	2,127	5.0	3.3	1.2	0.6
Unemployed	114	5.0	3.5	0.9	0.6
Not in labor force	976	6.0	3.9	1.2	0.8
Geography					
Northeast	747	7.5	5.3	1.3	0.9
Midwest	990	9.1	6.1	1.9	1.1
South	1,920	7.9	5.6	1.2	1.1
West	1,071	7.3	4.7	1.9	0.8
Urban	4,406	7.7	5.3	1.5	1.0
Rural	350	10.1	6.9	1.8	1.4

Source: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey Interview data files.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

Expenditure shares are for all consumer unit (CU) members and are defined as annual expenditures of a certain type divided by total annual expenditures. Mean expenditure shares include contributions from CUs that report zero expenditures of that type unless otherwise noted.

^a Other sources include VA payments, Unemployment Compensation, child support, or alimony.

^b Children and elderly adults are excluded from those not in the labor force.

Table C.5a. Mean expenditure shares for low-income consumer units by demographic subgroup and other detailed expenditure categories of interest, 2013–2014

	Number (unweighted)	Mean expenditure share for other categories of interest (weighted)					
		Uniforms	Child care	Vehicle expenses (excluding gasoline and motor oil)	Gasoline and motor oil	Public transportation	Payroll taxes
All low-income consumer units	4,756	0.0	0.4	10.0	6.0	0.8	3.1
Low-income Consumer units with:							
Household size							
1 person	1,985	0.0	0.0	7.7	4.6	0.8	1.4
2 people	1,094	0.0	0.2	10.7	5.9	0.9	2.0
3 people	581	0.0	0.7	11.3	6.6	0.7	4.0
4 people	518	0.0	0.9	10.8	7.0	0.7	4.7
5 or more people	578	0.0	0.6	11.6	7.0	0.6	5.7
Children ^a	1,597	0.0	0.9	11.6	6.8	0.6	4.9
And one adult	431	0.0	1.4	11.5	6.0	0.6	3.5
Only preschool age children (age 0 to 4)	60	0.0	4.9	9.5	5.8	0.6	3.7
Only school age children (age 5 to 17)	279	0.0	0.6	12.7	6.0	0.6	3.5
Both preschool and school age children	92	0.0	2.1	8.9	6.1	0.7	3.1
And multiple adults	1,164	0.0	0.7	11.7	7.0	0.6	5.3
Only preschool age children (age 0 to 4)	229	0.0	1.6	11.8	7.3	0.6	5.4
Only school age children (age 5 to 17)	584	0.0	0.2	11.5	7.0	0.7	5.0
Both preschool and school age children	351	0.0	1.1	11.9	6.9	0.5	5.8
No children	3,159	0.0	0.0	8.9	5.4	0.9	1.8
Nonelderly adults	3,275	0.0	0.5	10.8	6.5	0.7	4.0
Only nonelderly adults	1,362	0.0	0.0	9.0	5.9	0.9	3.1
Nonelderly adults and others	1,913	0.0	0.7	11.6	6.7	0.7	4.5

See notes at end of table.

Table C.5a. continued

	Number (unweighted)	Mean expenditure share for other categories of interest (weighted)					
		Uniforms	Child care	Vehicle expenses (excluding gasoline and motor oil)	Gasoline and motor oil	Public transportation	Payroll taxes
No nonelderly adults	1,482	0.0	0.0	8.0	4.6	0.9	0.5
Elderly individuals	1,977	0.0	0.1	8.8	5.2	0.8	1.2
Only elderly individuals	1,457	0.0	0.0	8.1	4.6	0.9	0.4
Elderly and nonelderly individuals	520	0.0	0.1	10.3	6.5	0.8	2.8
No elderly individuals	2,779	0.0	0.6	10.8	6.5	0.7	4.3
Presence of disabled individuals ^b							
Nonelderly disabled individuals	615	0.0	0.1	10.0	6.2	0.5	1.9
And elderly individuals	128	0.0	0.1	10.6	6.5	0.4	1.6
And no elderly individuals	486	0.0	0.1	9.8	6.1	0.5	2.0
Only elderly individuals or nonelderly disabled individuals	2,072	0.0	0.1	8.7	5.1	0.8	0.9
No nonelderly disabled individuals	4,142	0.0	0.4	10.0	5.9	0.8	3.3
And elderly individuals	1,849	0.0	0.1	8.6	5.1	0.9	1.2
And no elderly individuals	2,293	0.0	0.7	11.0	6.5	0.7	4.7

Source: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey Interview data files.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

Expenditure shares are for all consumer unit (CU) members and are defined as annual expenditures of a certain type divided by total annual expenditures.

Mean expenditure shares include contributions from CUs that report zero expenditures of that type unless otherwise noted.

Payroll taxes are estimated as 7.65 percent of earnings.

^a Subgroups (children living with one adult and children living with multiple adults) do not add up to the total number of CUs with children because a small number of CUs are comprised only of children under age 18.

^b We define disabled individuals as those who list illness, disability, or inability to work as their reason for not working.

Table C.5b. Mean expenditure shares for low-income consumer units by economic and geographic subgroup and other detailed expenditure categories of interest, 2013–2014

	Number (unweighted)	Mean expenditure share for other categories of interest (weighted)					
		Uniforms	Child care	Vehicle expenses (excluding gasoline and motor oil)	Gasoline and motor oil	Public transportation	Payroll taxes
All low-income consumer units	4,756	0.0	0.4	10.0	6.0	0.8	3.1
Low-income Consumer units with:							
Income as a percentage of poverty guidelines							
0 to under 50 percent	915	0.0	0.4	9.1	5.6	0.9	0.6
50 to under 100 percent	1,101	0.0	0.3	8.1	6.0	0.8	2.4
100 to 130 percent	802	0.0	0.4	10.1	6.0	0.8	3.1
More than 130 percent to 200 percent	1,938	0.0	0.4	11.1	6.1	0.7	4.2
Receipt of income or federal assistance types							
Earnings	2,656	0.0	0.5	11.2	6.8	0.7	4.9
TANF income	151	0.0	0.6	7.0	4.9	1.2	1.9
Social Security income	1,838	0.0	0.1	9.3	5.2	0.8	0.7
SSI	507	0.0	0.1	7.2	5.3	0.9	1.5
SNAP benefits	1,025	0.0	0.6	9.3	6.1	0.8	3.2
Income from other sources ^a	351	0.0	0.6	12.6	6.3	0.6	2.6
Medicare	1,723	0.0	0.1	8.4	5.1	0.7	1.0
Medicaid	1,392	0.0	0.7	9.7	6.5	0.7	3.8
Employment status of unit head ^b							
Employed	2,127	0.0	0.6	11.3	6.7	0.7	5.0
Unemployed	114	0.0	0.2	6.6	6.1	0.8	1.9
Not in labor force	976	0.0	0.2	9.9	5.9	0.7	2.5

See notes at end of table.

Table C.5b. continued

	Number (unweighted)	Mean expenditure share for other categories of interest (weighted)					
		Uniforms	Child care	Vehicle expenses (excluding gasoline and motor oil)	Gasoline and motor oil	Public transportation	Payroll taxes
Geography							
Northeast	747	0.0	0.4	8.5	4.3	1.6	2.4
Midwest	990	0.0	0.4	9.9	5.7	0.7	3.2
South	1,920	0.0	0.4	10.5	7.0	0.4	3.3
West	1,071	0.0	0.4	10.3	5.8	0.8	3.3
Urban	4,406	0.0	0.4	9.9	5.8	0.8	3.1
Rural	350	0.0	0.2	11.6	7.4	0.4	3.0

Source: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey Interview data files.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

Expenditure shares are for all consumer unit (CU) members and are defined as annual expenditures of a certain type divided by total annual expenditures. Mean expenditure shares include contributions from CUs that report zero expenditures of that type unless otherwise noted.

Payroll taxes are estimated as 7.65 percent of earnings.

^a Other sources include VA payments, Unemployment Compensation, child support, or alimony

^b Children and elderly adults are excluded from those not in the labor force.

Page intentionally blank

Appendix D: Chapter IV Analysis Tables (Research Objective 3)

No.	Title
D.1	Prevalence and dollar amounts of gasoline and motor oil, parking and tolls, and uniform expenditures by level of earned income for low-income consumer units, 2013–2014
D.2	Prevalence and amount of out-of-pocket medical expenditures for low-income consumer units with and without elderly or disabled individuals, 2013–2014
D.3	Average monthly deductible out-of-pocket medical expenditures relative to standard medical deduction demonstration amounts among consumer units with out-of-pocket medical expenditures, 2013–2014
D.4	Shelter expense amounts for SNAP households relative to the shelter cap for SNAP households without elderly or disabled individuals, and percentage of households with benefits constrained by the shelter cap, 2013–2014
D.5	Shelter expenditures as a share of gross income and adjusted net income in the Consumer Expenditure Survey (CE) using ratios of gross income to adjusted net income in the 2015 Baseline of the 2011 MATH SIPP+ model, 2013–2014
D.6	Mean utility amounts in the SNAP QC data file by type of standard utility allowance (SUA) receipt, compared with utility expenditures for low-income consumer units in the Consumer Expenditure Survey (CE) by geographic region, 2013–2014
D.7	Prevalence and dollar amounts of expenditure types associated with deductions prior to the 1977 Farm Bill by consumer unit size for low-income consumer units, 2013–2014

Table D.1. Prevalence and dollar amounts of gasoline and motor oil, parking and tolls, and uniform expenditures by level of earned income for low-income consumer units, 2013–2014

	Annual earned income				
	Positive earned income				
	\$0	Any amount	More than \$0 to \$15,000	More than \$15,000 to \$30,000	More than \$30,000
All low-income consumer units by level of earnings					
Row percentage	43.0	57.0	24.4	20.3	12.3
Mean earnings amount	\$0	\$19,839	\$7,118	\$22,093	\$41,293
Percentage of low-income consumer units with expenditures on					
Gasoline and motor oil	70.3	86.4	80.8	89.0	93.2
Parking and tolls	5.6	11.9	12.2	11.3	12.1
Uniforms ^a	0.2	1.4	1.1	1.3	2.0
Estimated payroll taxes ^b	0.0	100.0	100.0	100.0	100.0
Mean annualized expenditures on					
Gasoline and motor oil					
Among all units	\$1,097	\$2,089	\$1,650	\$2,050	\$3,023
Among units with expenditures on gasoline and motor oil	\$1,561	\$2,418	\$2,042	\$2,305	\$3,242
Parking and tolls					
Among all units	\$40	\$81	\$84	\$70	\$93
Among units with expenditures on parking and tolls	\$715	\$683	\$689	\$619	\$771
Uniforms ^a					
Among all units	\$0	\$1	\$1	\$1	\$2
Among units with expenditures on uniforms	\$116	\$102	\$105	\$90	\$111
Estimated payroll taxes					
Among all units	n.a.	\$1,518	\$545	\$1,690	\$3,159
Among units with payroll taxes ^b	n.a.	\$1,518	\$545	\$1,690	\$3,159

Sources: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey Interview data files.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

A consumer unit with one individual working full-time at the 2014 federal minimum wage of \$7.25 would earn approximately \$15,000 annually. Units with negative earnings from self-employment are categorized as having \$0 of earnings in this table.

For the “Among all units” rows, mean expenditure amounts include contributions from CUs that report zero expenditures of that type.

n.a.: Consumer units without earning do not incur payroll taxes.

^a For this table, uniform expenses are restricted to those purchased for individuals age 16 and over.

^b Payroll taxes are estimated as 7.65 percent of earnings, or the sum of 6.20 percent for Social Security and 1.45 percent for Medicare.

Table D.2. Prevalence and amount of out-of-pocket medical expenditures for low-income consumer units with and without elderly or disabled individuals, 2013–2014

Low-income Consumer units with out-of-pocket medical expenses	Low-income consumer units		
	All	With elderly or disabled individuals ^a	Without elderly or disabled individuals
Percentage	65.3	83.1	46.9
Mean (among those with positive out-of-pocket medical expenses)	\$285	\$318	\$224
Percentage with average monthly expenditures			
Greater than \$0 to \$35	14.5	9.6	23.3
\$36 to \$100	11.7	7.0	20.3
\$101 to \$500	59.0	66.1	46.0
\$501 to \$1,000	11.3	13.2	7.8
\$1,001 or more	3.6	4.1	2.6

Sources: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey (CE) Interview data files.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

Due to the design of the CE, the expenditure amounts that contribute to unit-level distributions cannot be restricted to those that occur within the 2013 and 2014 calendar years. Some are representative of the fourth quarter of 2012 or the first quarter of 2015.

Medical expenses are for all members of the consumer unit and cannot be disaggregated into only those for members who are elderly or disabled.

^a We define disabled individuals as those who list illness, disability, or inability to work as their reason for not working.

Table D.3. Average monthly deductible out-of-pocket medical expenditures relative to standard medical deduction demonstration amounts among low-income consumer units with out-of-pocket medical expenditures, 2013–2014

	Percentage among low-income consumer units with elderly or disabled individuals ^a
Low-income consumer units with average monthly out-of-pocket medical expenses too low to deduct ^b	9.6
Low-income consumer units with deductible average monthly out-of-pocket medical expenses	
Greater than \$0 to \$83 (the lowest FY 2013/FY 2014 SMD amount)	19.4
\$84 to \$140 (the median FY 2013/FY 2014 SMD amount)	13.0
\$141 to \$210 (the highest FY 2013/FY 2014 SMD amount)	15.2
\$211 or higher	42.8

Sources: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey Interview data files.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

SMD = Standard medical deduction demonstration. In FY 2013, 14 States (AR, IL, IA, KS, MA, MO, NH, ND, RI, SD, TX, VT, VA, and WY) had SMDs for medical expenditures less than or equal to the SMD plus \$35. In FY 2014, 15 States (the same 14 States listed above, plus ID) had SMDs.

MA increased its standard medical deduction demonstration amount in March 2014 from \$90 to \$155.

When calculating the median amounts for all States, we use the mean amount of \$123 for MA.

^a We define disabled individuals as those who list illness, disability, or inability to work as their reason for not working.

^b Deductible out-of-pocket medical expenses are those in excess of \$35 per month.

Table D.4. Shelter expense amounts for SNAP households relative to the shelter cap for SNAP households without elderly or disabled individuals, and percentage of households with benefits constrained by the shelter cap, 2013–2014

	SNAP households without elderly or disabled individuals (percent) ^a	Percentage of households in category where benefits are constrained by the shelter cap
Households without elderly or disabled individuals		
Total	100.0	13.9
With excess shelter expenses and deduction	68.5	20.2
Shelter expenses are at or below the shelter cap	17.5	0.0
Shelter expenses are above the shelter cap	51.0	27.2
By \$1 to \$200	13.7	0.0
By \$201 to \$400	12.7	11.1
By \$401 to \$600	11.0	36.9
By \$601 to \$800	7.1	53.8
By \$801 to \$1,000	3.4	64.4
By more than \$1,000	3.2	75.7

Sources: Tabulations of FY 2013 and 2014 SNAP QC data files and simulations using the 2013 and 2014 QC Minimodels.

Notes: Only households without elderly or disabled individuals are subject to a shelter cap.

^a We define SNAP households with nonelderly disabled individuals as those with a disability-based assistance payment (the SNAP criteria) or with a reported medical expense deduction.

Table D.5. Shelter expenditures as a share of gross income and adjusted net income in the Consumer Expenditure Survey (CE) using ratios of gross income to adjusted net income in the 2015 Baseline of the 2011 MATH SIPP+ model, 2013–2014

Subgroup	Countable shelter expenditures		Ratio of gross income to adjusted net income, MATH SIPP+ model ^a
	As a percentage of gross income	As a percentage of adjusted net income, using MATH SIPP+-based ratio	
All low-income consumer units	47.4	55.5	1.17
Household composition			
Elderly or nonelderly disabled individuals ^b	46.2	53.6	1.16
No elderly or nonelderly disabled individuals	48.5	57.2	1.18

Sources: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey (CE) Interview data files and simulations using the 2015 Baseline of the 2011 MATH SIPP+ model.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

Countable shelter expenditures include those for owned dwellings, rental dwellings, utilities, property taxes, and insurance.

Adjusted net income is the sum of net income plus the excess shelter expense deduction. In other words, it is equal to countable income after all other potential deductions except for the excess shelter expense deduction are subtracted from gross income.

^a These ratios were applied to expenditures as a percentage of gross income (excluding SNAP benefits) in the CE to derive expenditures as a percentage of adjusted net income.

^b In the CE we define disabled individuals as those who list illness, disability, or inability to work as their reason for not working.

Table D.6. Mean utility amounts in the SNAP QC data file by type of standard utility allowance (SUA) receipt, compared with utility expenditures for low-income consumer units in the Consumer Expenditure Survey (CE) by geographic region, 2013–2014

	Low-income units				
	All	Geographic region of residence			
		Northeast	Midwest	South	West
Mean utility amount (\$) used in SNAP shelter deduction calculation (SNAP QC) ^a	302.35	540.58	314.14	200.74	289.57
Among units with positive utility amount (SNAP QC)	396.06	571.66	417.92	304.32	348.25
Receiving a heating/cooling SUA	418.11	598.85	447.12	329.63	363.42
Receiving the lower utility standard (LUA)	250.89	271.71	238.35	244.68	254.76
Receiving only a telephone allowance or individual standard	50.99	48.44	50.44	37.97	87.22
Receiving an allowance for actual expenditures	280.33	606.38	331.21	240.07	164.25
With unknown utility type	535.72	646.25	564.05	322.51	386.84
Low-income consumer units Mean monthly utility expenditures (\$) (CE)	240.30	241.60	216.80	263.17	219.90
Among low-income consumer units with positive utility expenditures (CE)	254.09	260.02	236.30	272.36	232.47

Sources: Weighted tabulations of 2013 and 2014 Consumer Expenditure Survey (CE) Interview data files and tabulations of FY 2013 and 2014 SNAP QC data files.

Notes: We define low-income units in the SNAP QC data file as SNAP households with gross income at or below 200 percent of the poverty guidelines. Low-income units in the CE are consumer units with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

^a SNAP households in States with mandatory SUA policies receive a standard utility allowance for their shelter deduction if they incur heating or cooling expenses and have two or more utility expenses. SNAP households in States with non-mandatory SUA policies receive a utility amount equal to either an SUA or actual monthly utility expenses (including \$0 if no expenses were incurred).

Table D.7 Prevalence and dollar amounts of expenditure types associated with deductions prior to the 1977 Farm Bill by consumer unit size for low-income consumer units, 2013–2014

Mean monthly expenditures	All low-income consumer units	Consumer unit size			
		1–3	4	5	6+
Alimony contributions					
Among all low-income consumer units	\$0	\$0	\$0	\$0	\$0
Among all low-income consumer units with expense ^a	\$38	\$41	\$27	\$10	n.a.
Percentage of low-income consumer units with alimony contributions	0.1	0.1	0.1	0.1	0.0
Education expenses					
Among all low-income consumer units	\$54	\$57	\$44	\$32	\$47
Among all low-income consumer units with expense	\$500	\$668	\$278	\$166	\$230
Percentage of low-income consumer units with education expenses	10.8	8.6	15.9	19.4	20.3

Source: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey (CE) Interview data files.

Note: n.a.: not applicable.

^a The numbers for “Alimony contributions—Among all consumer units with expense” are based on very small sample sizes and are not presented in the report.

Appendix E: Chapter V Analysis Tables (Research Objective 3)

No.	Title
E.1	Ratios of gross income to net income by subgroup in the 2015 Baseline of the 2011 MATH SIPP+ model
E.2a	Food expenditures as a share of after-tax gross income and net income in the Consumer Expenditure Survey (CE) using ratios of gross income to net income in the 2015 Baseline of the 2011 MATH SIPP+ model and excluding SNAP benefits from after-tax gross income, 2013–2014
E.2b	Food expenditures as a share of after-tax gross income and net income in the Consumer Expenditure Survey (CE) using ratios of gross income to net income in the 2015 Baseline of the 2011 MATH SIPP+ model and excluding SNAP benefits from both food at home expenditures and after-tax gross income, 2013–2014
E.2c	Food expenditures as a share of after-tax gross income and net income in the Consumer Expenditure Survey (CE) using ratios of gross income to net income in the 2015 Baseline of the 2011 MATH SIPP+ model and including SNAP benefits in both food expenditures and after-tax gross income, 2013–2014
E.2d	Food at home expenditures as a share of after-tax gross income and net income in the Consumer Expenditure Survey (CE) using ratios of gross income to net income in the 2015 Baseline of the 2011 MATH SIPP+ model and excluding SNAP benefits from after-tax gross income, 2013–2014
E.2e	Food at home expenditures as a share of after-tax gross income and net income in the Consumer Expenditure Survey (CE) using ratios of gross income to net income in the 2015 Baseline of the 2011 MATH SIPP+ model and excluding SNAP benefits from both food at home expenditures and after-tax gross income, 2013–2014
E.2f	Food at home expenditures as a share of after-tax gross income and net income in the Consumer Expenditure Survey (CE) using ratios of gross income to net income in the 2015 Baseline of the 2011 MATH SIPP+ model and including SNAP benefits in both food expenditures and after-tax gross income, 2013–2014

Table E.1. Ratios of gross income to net income by subgroup in the 2015 Baseline of the 2011 MATH SIPP+ model

Subgroup	Low-income simulated SNAP participating households		
	Mean gross income (\$)	Mean net income (\$)	Ratio ^a
All simulated SNAP households	739.69	339.73	2.18
Household size			
1 person	568.98	229.36	2.48
2 people	698.85	310.59	2.25
3 people	890.64	429.03	2.08
4 people	1,041.82	535.75	1.94
5 or more people	1,342.12	749.36	1.79
Household composition			
Children	902.12	447.47	2.02
No children	620.66	260.77	2.38
Elderly or nonelderly disabled individuals	930.41	463.56	2.01
No elderly or nonelderly disabled individuals	618.86	261.27	2.37
Income as a percentage of poverty guidelines			
0 percent	0.00	0.00	n.a.
Greater than 0 percent to 50 percent	362.88	90.73	4.00
Greater than 50 percent to 100 percent	958.79	446.76	2.15
Greater than 100 percent to 130 percent	1448.61	734.23	1.97
Greater than 130 percent to 200 percent	1732.36	938.92	1.85

Source: Simulations using the 2015 Baseline of the 2011 MATH SIPP+ model.

Note: Low-income SNAP households are defined as those simulated to participate in SNAP with gross income at or below 200 percent of poverty guidelines.

n.a. = undefined.

^a These ratios are applied, as shown in Tables E.2a through E.2f, to gross income amounts in the Consumer Expenditure Survey.

Table E.2a. Food expenditures as a share of after-tax gross income and net income in the Consumer Expenditure Survey (CE) using ratios of gross income to net income in the 2015 Baseline of the 2011 MATH SIPP+ model and excluding SNAP benefits from CE after-tax gross income, 2013–2014

Subgroup	Food expenditures		Ratio of gross income to net income, MATH SIPP+ model ^a
	As a percentage of after-tax gross income (CE)	As a percentage of net income, using MATH SIPP+-based ratio	
All low-income consumer units	28.8	62.8	2.18
Household size			
1 person	31.4	77.9	2.48
2 people	31.8	71.6	2.25
3 people	27.5	57.3	2.08
4 people	27.5	53.3	1.94
5 or more people	24.5	43.9	1.79
Household composition			
Children	26.7	54.0	2.02
No children	30.7	73.1	2.38
Elderly or nonelderly disabled individuals ^b	29.3	58.8	2.01
No elderly or nonelderly disabled individuals	28.4	67.3	2.37
Income as a percentage of poverty guidelines			
Greater than 0 percent to 50 percent	122.9	491.7	4.00
Greater than 50 percent to 100 percent	36.5	78.5	2.15
Greater than 100 percent to 130 percent	26.3	51.8	1.97
Greater than 130 percent to 200 percent	20.8	38.4	1.85

Sources: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey (CE) Interview data files and simulations using the 2015 Baseline of the 2011 MATH SIPP+ model.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

^a These ratios, derived in Table E.1, were applied to expenditures as a percentage of after-tax gross income in the CE to derive expenditures as a percentage of net income.

^b In the CE we define disabled individuals as those who list illness, disability, or inability to work as their reason for not working.

Table E.2b. Food expenditures as a share of after-tax gross income and net income in the Consumer Expenditure Survey (CE) using ratios of gross income to net income in the 2015 Baseline of the 2011 MATH SIPP+ model and excluding SNAP benefits from both food at home expenditures and after-tax gross income, 2013–2014

Subgroup	Food expenditures		Ratio of gross income to net income, MATH SIPP+ model ^a
	As a percentage of after-tax gross income (CE)	As a percentage of net income, using MATH SIPP+-based ratio	
All low-income consumer units	25.5	55.5	2.18
Household size			
1 person	29.5	73.1	2.48
2 people	29.6	66.6	2.25
3 people	23.0	47.8	2.08
4 people	22.9	44.5	1.94
5 or more people	20.3	36.3	1.79
Household composition			
Children	21.8	44.0	2.02
No children	28.9	68.8	2.38
Elderly or nonelderly disabled individuals ^b	26.4	53.0	2.01
No elderly or nonelderly disabled individuals	24.7	58.4	2.36
Income as a percentage of poverty guidelines			
Greater than 0 percent to 50 percent	92.0	368.1	4.00
Greater than 50 percent to 100 percent	29.6	63.7	2.15
Greater than 100 percent to 130 percent	24.0	47.4	1.98
Greater than 130 percent to 200 percent	19.9	36.8	1.85

Sources: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey (CE) Interview data files and simulations using the 2015 Baseline of the 2011 MATH SIPP+ model.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

In this table, we subtract the reported household SNAP benefit from both after-tax gross income and expenditures on food at home. If food at home minus the SNAP benefit was less than \$0, we set the food at home amount to zero. We adjusted food at home expenditures for 6 percent of low-income units to zero because food at home expenditures were lower than the SNAP benefit.

^a These ratios, derived in Table E.1, were applied to expenditures as a percentage of after-tax gross income in the CE to derive expenditures as a percentage of net income.

^b In the CE we define disabled individuals as those who list illness, disability, or inability to work as their reason for not working.

Table E.2c. Food expenditures as a share of after-tax gross income and net income in the Consumer Expenditure Survey (CE) using ratios of gross income to net income in the 2015 Baseline of the 2011 MATH SIPP+ model and including SNAP benefits in both food expenditures and after-tax gross income, 2013–2014

Subgroup	Food expenditures		Ratio of gross income to net income, MATH SIPP+ model ^a
	As a percentage of after-tax gross income (CE)	As a percentage of net income, using MATH SIPP+-based ratio	
All low-income consumer units	27.8	60.7	2.18
Household size			
1 person	30.8	76.5	2.48
2 people	31.1	69.9	2.25
3 people	26.3	54.7	2.08
4 people	26.3	50.9	1.94
5 or more people	23.6	42.2	1.79
Household composition			
Children	25.4	51.4	2.02
No children	30.2	71.8	2.38
Elderly or nonelderly disabled individuals ^b	28.4	57.1	2.01
No elderly or nonelderly disabled individuals	27.3	64.8	2.37
Income as a percentage of poverty guidelines			
Greater than 0 percent to 50 percent	94.1	376.3	4.00
Greater than 50 percent to 100 percent	34.2	73.5	2.15
Greater than 100 percent to 130 percent	25.7	50.7	1.97
Greater than 130 percent to 200 percent	20.6	38.1	1.85

Sources: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey (CE) Interview data files and simulations using the 2015 Baseline of the 2011 MATH SIPP+ model.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

^a These ratios, derived in Table E.1, were applied to expenditures as a percentage of after-tax gross income in the CE to derive expenditures as a percentage of net income.

^b In the CE we define disabled individuals as those who list illness, disability, or inability to work as their reason for not working.

Table E.2d. Food at home expenditures as a share of after-tax gross income and net income in the Consumer Expenditure Survey (CE) using ratios of gross income to net income in the 2015 Baseline of the 2011 MATH SIPP+ model and excluding SNAP benefits from after-tax gross income, 2013–2014

Subgroup	Food at home expenditures		Ratio of gross income to net income, MATH SIPP+ model ^a
	As a percentage of after-tax gross income (CE)	As a percentage of net income, using MATH SIPP+-based ratio	
All low-income consumer units	22.3	48.6	2.18
Household size			
1 person	23.0	57.1	2.48
2 people	24.0	54.0	2.25
3 people	21.9	45.6	2.08
4 people	21.9	42.4	1.94
5 or more people	20.2	36.1	1.79
Household composition			
Children	21.6	43.5	2.01
No children	22.9	54.6	2.38
Elderly or nonelderly disabled individuals ^b	23.0	46.3	2.01
No elderly or nonelderly disabled individuals	21.6	51.3	2.38
Income as a percentage of poverty guidelines			
Greater than 0 percent to 50 percent	98.9	395.6	4.00
Greater than 50 percent to 100 percent	29.0	62.3	2.15
Greater than 100 percent to 130 percent	20.4	40.1	1.97
Greater than 130 percent to 200 percent	15.6	28.9	1.85

Sources: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey (CE) Interview data files and simulations using the 2015 Baseline of the 2011 MATH SIPP+ model.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

^a These ratios, derived in Table E.1, were applied to expenditures as a percentage of after-tax gross income in the CE to derive expenditures as a percentage of net income.

^b In the CE we define disabled individuals as those who list illness, disability, or inability to work as their reason for not working.

Table E.2e. Food at home expenditures as a share of after-tax gross income and net income in the Consumer Expenditure Survey (CE) using ratios of gross income to net income in the 2015 Baseline of the 2011 MATH SIPP+ model and excluding SNAP benefits from both food at home expenditures and after-tax gross income, 2013–2014

Subgroup	Food at home expenditures		Ratio of gross income to net income, MATH SIPP+ model ^a
	As a percentage of after-tax gross income (CE)	As a percentage of net income, using MATH SIPP+-based ratio	
All low-income consumer units	19.5	42.4	2.17
Household size			
1 person	21.4	53.1	2.48
2 people	22.1	49.6	2.24
3 people	18.2	37.9	2.08
4 people	18.0	35.0	1.94
5 or more people	16.4	29.4	1.79
Household composition			
Children	17.4	35.1	2.02
No children	21.4	50.9	2.38
Elderly or nonelderly disabled individuals ^b	20.5	41.3	2.01
No elderly or nonelderly disabled individuals	18.5	43.9	2.37
Income as a percentage of poverty guidelines			
Greater than 0 percent to 50 percent	73.8	295.1	4.00
Greater than 50 percent to 100 percent	23.1	49.7	2.15
Greater than 100 percent to 130 percent	18.4	36.2	1.97
Greater than 130 percent to 200 percent	14.9	27.5	1.85

Sources: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey (CE) Interview data files and simulations using the 2015 Baseline of the 2011 MATH SIPP+ model.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

In this table, we subtract the reported household SNAP benefit from both after-tax gross income and expenditures on food at home. If food at home minus the SNAP benefit was less than \$0, we set the food at home amount to zero. We adjusted food at home expenditures for 6 percent of low-income units to zero because food at home expenditures were lower than the SNAP benefit.

^a These ratios, derived in Table E.1, were applied to expenditures as a percentage of after-tax gross income in the CE to derive expenditures as a percentage of net income.

^b In the CE we define disabled individuals as those who list illness, disability, or inability to work as their reason for not working.

Table E.2.f. Food at home expenditures as a share of after-tax gross income and net income in the Consumer Expenditure Survey (CE) using ratios of gross income to net income in the 2015 Baseline of the 2011 MATH SIPP+ model and including SNAP benefits in both food expenditures and after-tax gross income, 2013–2014

Subgroup	Food at home expenditures		Ratio of gross income to net income, MATH SIPP+ model ^a
	As a percentage of after-tax gross income (CE)	As a percentage of net income, using MATH SIPP+-based ratio	
All low-income consumer units	21.5	47.0	2.19
Household size			
1 person	22.6	56.1	2.48
2 people	23.4	52.7	2.25
3 people	20.9	43.6	2.09
4 people	20.9	40.5	1.94
5 or more people	19.4	34.7	1.79
Household composition			
Children	20.5	41.4	2.02
No children	22.5	53.6	2.38
Elderly or nonelderly disabled individuals ^b	22.4	45.0	2.01
No elderly or nonelderly disabled individuals	20.8	49.4	2.38
Income as a percentage of poverty guidelines			
Greater than 0 percent to 50 percent	75.7	302.7	4.00
Greater than 50 percent to 100 percent	27.2	58.4	2.15
Greater than 100 percent to 130 percent	19.9	39.3	1.97
Greater than 130 percent to 200 percent	15.5	28.7	1.85

Sources: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey (CE) Interview data files and simulations using the 2015 Baseline of the 2011 MATH SIPP+ model.

Notes: Low-income consumer units are defined as those with gross income (excluding SNAP benefits) at or below 200 percent of poverty guidelines.

^a These ratios, derived in Table E.1, were applied to expenditures as a percentage of after-tax gross income in the CE to derive expenditures as a percentage of net income.

^b In the CE we define disabled individuals as those who list illness, disability, or inability to work as their reason for not working.

Appendix F: Chapter VI Analysis Tables (Research Objective 3)

No.	Title
F.1	Prevalence and dollar amounts of expenditures that could be considered for a new deduction for low-income consumer units, 2013–2014
F.2	Percentage of SNAP households with deduction, mean amount of deduction, and marginal effectiveness of deduction by deduction type and whether the last SNAP certification was a new certification or recertification, 2013–2014
F.3	Mean SNAP allotments, by household deduction use, 2013–2014
F.4	Percentage of proxy eligible consumer units (CUs) with average monthly out-of-pocket medical expenses greater than \$0 or greater than \$35 in the Consumer Expenditure Survey (CE) and percentage of SNAP households with a medical deduction in the SNAP QC data file by subgroup, 2013-2014
F.5	Percentage of proxy eligible consumer units (CUs) with earnings in the Consumer Expenditure Survey (CE) and percentage of SNAP households with earnings in the SNAP QC data file by subgroup, 2013-2014
F.6	Percentage of proxy eligible consumer units (CUs) with reported child care expenses in the Consumer Expenditure Survey (CE) and percentage of SNAP households with a dependent care deduction in the SNAP QC data file by subgroup of units with children, 2013-2014
F.7	Percentage of proxy eligible consumer units (CUs) with reported child support payments in the Consumer Expenditure Survey (CE) and SNAP households with a child support payment deduction in the SNAP QC data file by subgroup, 2013-2014
F.8	Percentage of proxy eligible consumer units (CUs) with reported rent or mortgage expenses in the Consumer Expenditure Survey (CE) and SNAP households with positive “rent” expenses in the SNAP QC data file by subgroup, 2013-2014

Table F.1. Prevalence and dollar amounts of expenditures that could be considered for a new deduction for low-income consumer units, 2013–2014

Mean monthly expenditures	Percentage of units with expenditure type	Amount of expense among all consumer units	Amount of expense among units with expenditure type
Housing or property repairs and maintenance	19.9	\$43.97	\$221.90
Finance, late charges, and interest for all student loans in the last month ^a	20.7	\$14.39	\$69.42
Apparel expenses	61.9	\$44.40	\$71.72
Personal care ^b	41.6	\$11.85	\$28.46
Vehicle finance charges	14.9	\$7.46	\$50.08
Vehicle maintenance and repair expenses	39.5	\$33.36	\$84.57
Vehicle insurance	39.9	\$44.48	\$111.45
New car or truck	0.5	\$39.48	\$8,525.61
Used car or truck	3.3	\$92.64	\$2,811.53
Vehicle rental, leases, licenses, and other charges	22.4	\$14.62	\$65.15

Source: Weighted tabulations of the 2013 and 2014 Consumer Expenditure Survey (CE) Interview data files.

^a This information is only available in the fifth-quarter CE interview.

^b Personal care expenses as shown include only wigs, personal care appliances, and personal care services.

Table F.2. Percentage of SNAP households with deduction, mean amount of deduction, and marginal effectiveness of deduction by deduction type and whether the last SNAP certification was a new certification or recertification, 2013–2014

Deduction type	Percentage of SNAP households with deduction			Mean amount of deduction among households with deduction			Marginal effectiveness of deduction		
	Households after recertification	Households after initial certification	Difference	Households after recertification	Households after initial certification	Difference	Households after recertification	Households after initial certification	Difference
Total deductions	100.0	100.0	0.0	\$526	\$533	\$6*	\$531	\$544	\$13*
Child support payment	2.3	2.1	-0.2	\$251	\$225	-\$26*	\$292	\$285	-\$7
Dependent care	3.3	3.9	0.6*	\$281	\$251	-\$31*	\$346	\$311	-\$35*
Medical expense	5.7	4.8	-0.9*	\$149	\$158	\$9	\$197	\$208	\$11
Excess shelter expense	72.2	75.3	3.1*	\$389	\$382	-\$7*	\$333	\$335	\$2

Sources: Regression-adjusted output from the fiscal year 2013 and 2014 SNAP QC data files.

Notes: Percentages of SNAP households with deductions and mean amounts of deductions are adjusted for SNAP household size; presence of children, an elderly individual, or a disabled nonelderly individual in the household; an indicator of whether there are multiple adults in the household; SNAP household-level gross income; an indicator of whether the household has earned income; an indicator of whether the household has unearned income; indicators of whether the household has TANF, GA, SSI, or Social Security income; and locality (metropolitan, micropolitan, or rural).

The analysis excluded MFIP and SSI-CAP households, for which deductions are not applicable.

* Difference between outcome at recertification and certification is statistically significant at the 0.05 level, two-tailed test.

Table F.3. Mean SNAP allotments, by household deduction use, 2013–2014

Deduction type	Mean SNAP allotment		Difference
	Households with deduction	Households without deduction	
Medical expense	\$307.25	\$263.68	\$43.57*
Excess shelter expense	\$281.83	\$217.07	\$64.75*
Earned income	\$300.62	\$249.69	\$50.93*

Sources: Regression-adjusted output from the 2013 and 2014 SNAP QC data files.

Notes: Percentages of SNAP households with deductions and mean amounts of deductions are adjusted for SNAP household size; presence of children, an elderly individual, or a disabled nonelderly individual in the household; an indicator of whether there are multiple adults in the household; SNAP household-level gross income; an indicator of whether the household has earned income; an indicator of whether the household has unearned income; indicators of whether the household has TANF, GA, SSI, or Social Security income; and locality (metropolitan, micropolitan, or rural).

The analysis excluded MFIP and SSI-CAP households, for which deductions are not applicable.

* Difference between outcome at recertification and certification is statistically significant at the 0.05 level, two-tailed test.

Table F.4. Percentage of proxy eligible consumer units (CUs) with average monthly out-of-pocket medical expenses greater than \$0 or greater than \$35 in the Consumer Expenditure Survey (CE) and percentage of SNAP households with a medical deduction in the SNAP QC data file by subgroup, 2013-2014

Characteristic	Percent of CUs with out-of-pocket medical expenditures of any amount (CE)	Percent of CUs with out-of-pocket medical expenditures greater than \$35 per month (CE)	Percent of units with medical deduction (SNAP QC)
All units	57.9	46.0	3.6
All units with elderly or nonelderly disabled individuals ^a	76.2	64.2	9.7
Unit composition			
Nonelderly disabled individuals	65.3	48.5	7.6
And elderly individuals	83.5	77.7	14.4
And no elderly individuals	61.7	42.8	7.4
Elderly individuals	82.2	73.0	12.3
And no disabled individuals	83.7	74.9	12.2
Age of unit head			
Nonelderly	46.6	33.6	7.7
Age 60 to 69	75.5	65.0	10.8
Age 70 to 79	88.3	78.3	13.0
Age 80 or older	90.6	84.7	15.1
Age of any household member in the unit			
Under age 18	48.4	36.2	7.1
Age 18 to 59	50.0	37.7	7.9
Age 60 to 69	90.1	85.7	11.1
Age 70 to 79	94.4	90.6	13.7
Age 80 or older	90.9	85.4	15.6
Employment status of unit head			
Employed	46.7	34.9	9.0
Unemployed	35.8	26.4	5.6
Not in labor force	51.9	37.2	9.9
Unknown	n.a.	n.a.	0.0
Receipt of assistance from			
SNAP	51.8	34.2	9.7
Social Security	83.6	74.2	15.6
SSI	61.1	40.2	2.7

Source: Weighted tabulations of 2013 and 2014 Consumer Expenditure Survey (CE) Interview data files and tabulations of FY 2013 and 2014 SNAP QC data files.

Notes: Both CE and SNAP QC files are restricted to units with gross income (excluding SNAP benefits in the CE) at or below 130 percent of poverty guidelines. We also remove from the SNAP QC sample any units in Guam or the Virgin Islands because these units are not included in the CE.

CUs in the CE with income at or below 130 percent of poverty guidelines are considered proxy eligible.

Medical expenses are for all members of the consumer unit and cannot be disaggregated into only those for members who are elderly or disabled.

n.a.: not applicable.

^a In the SNAP QC, SNAP households with disabled individuals are those with a disability-based assistance payment (the SNAP criteria) or with a reported medical expense deduction. Disabled individuals in the CE list illness, disability, or inability to work as their reason for not working.

Table F.5. Percentage of proxy eligible consumer units (CUs) with earnings in the Consumer Expenditure Survey (CE) and percentage of SNAP households with earnings in the SNAP QC data file by subgroup, 2013-2014

Characteristic	Percent of CUs with earnings (CE)	Percent of units with earnings (SNAP QC)
All units	53.1	29.9
Unit composition		
With children	77.3	50.4
And one adult	63.5	41.1
And multiple adults	84.3	61.8
With nonelderly adults	66.4	32.3
And children	77.9	48.0
And no children	56.6	17.0
With elderly individuals	24.0	5.6
With nonelderly disabled individuals ^a	25.8	9.1
Age of unit head		
Under age 18	70.2	68.2
Age 18 to 49	74.1	36.4
Age 50 to 59	50.3	17.0
Age 60 to 69	28.3	7.7
Age 70 or older	10.4	1.2
Income as a percentage of poverty guidelines		
0 percent to 50 percent	46.6	18.0
Greater than 50 percent to 100 percent	56.4	35.7
Greater than 100 percent to 130 percent	55.8	54.0
Employment status of unit head		
Employed	99.0	100.0
Unemployed	22.6	7.8
Not in labor force	29.5	12.8
Unknown	n.a.	35.9
Receipt of assistance from		
SNAP	49.4	29.9
Social Security	15.5	6.2
SSI	23.0	7.4
TANF	35.7	21.7

Source: Weighted tabulations of 2013 and 2014 Consumer Expenditure Survey (CE) Interview data files and tabulations of FY 2013 and 2014 SNAP QC data files.

Notes: Both CE and SNAP QC files are restricted to units with gross income (excluding SNAP benefits in the CE) at or below 130 percent of poverty guidelines. We also remove from the SNAP QC sample any units in Guam or the Virgin Islands because these units are not included in the CE.

CUs in the CE with income at or below 130 percent of poverty guidelines are considered proxy eligible.

n.a.: not applicable.

^a In the SNAP QC, SNAP households with disabled individuals are those with a disability-based assistance payment (the SNAP criteria) or with a reported medical expense deduction. Disabled individuals in the CE list illness, disability, or inability to work as their reason for not working.

Table F.6. Percentage of proxy eligible consumer units (CUs) with reported child care expenses in the Consumer Expenditure Survey (CE) and percentage of SNAP households with a dependent care deduction in the SNAP QC data file by subgroup of units with children, 2013-2014

Characteristic	Percent of CUs with child care expenditures (CE)	Percent of units with dependent care deduction (SNAP QC)
All units with children	8.6	6.9
Unit size		
1 person	0.0	6.1
2 people	11.2	6.9
3 people	8.6	7.8
4 people	8.2	6.6
5 or more people	7.9	6.1
Unit composition		
One adult	11.7	9.0
Only preschool age children (age 0 to 4)	30.3	13.0
Only school age children (age 5 to 17)	5.5	5.1
Both preschool and school age children	17.3	13.8
Multiple adults	7.1	3.1
Only preschool age children (age 0 to 4)	12.8	3.4
Only school age children (age 5 to 17)	2.2	2.4
Both preschool and school age children	11.3	4.2
Income as a percentage of poverty guidelines		
0 percent to 50 percent	8.2	2.0
Greater than 50 percent to 100 percent	8.1	9.4
Greater than 100 percent to 130 percent	9.8	18.5
Employment status of unit head		
Employed	12.3	17.1
Unemployed	2.7	1.4
Not in labor force	4.2	2.5
Unknown	n.a.	0.0
Receipt of assistance from		
SNAP	9.3	6.9
Social Security	2.4	3.0
SSI	2.4	3.0
TANF	7.3	1.7

Source: Weighted tabulations of 2013 and 2014 Consumer Expenditure Survey (CE) Interview data files and tabulations of FY 2013 and 2014 SNAP QC data files.

Notes: Both CE and SNAP QC files are restricted to units with gross income (excluding SNAP benefits in the CE) at or below 130 percent of poverty guidelines. We also remove from the SNAP QC sample any units in Guam or the Virgin Islands because these units are not included in the CE.
CUs in the CE with income at or below 130 percent of poverty guidelines are considered proxy eligible.
n.a.: not applicable.

Table F.7. Percentage of proxy eligible consumer units (CUs) with reported child support payments in the Consumer Expenditure Survey (CE) and percentage of SNAP households with a child support payment deduction in the SNAP QC data file by subgroup, 2013-2014

Characteristic	Percent of CUs with child support payments (CE)	Percent of units with child support payment deduction ^a (SNAP QC)
All units	1.9	2.0
Unit size		
1 person	1.5	1.8
2-3 people	1.7	1.8
4-5 people	3.0	2.8
6 or more people	3.1	3.2
Unit composition		
With children	2.6	2.2
And one adult	1.5	1.4
And multiple adults	3.1	4.5
With nonelderly adults	2.4	2.3
And children	2.6	2.4
And no children	2.2	2.3
With elderly individuals	0.9	0.9
With nonelderly disabled individuals ^b	2.8	3.0
Income as a percentage of poverty guidelines		
0 to 50 percent	1.8	0.9
Greater than 50 to 100 percent	2.0	2.6
Greater than 100 to 130 percent	1.9	3.8
Earnings as a percentage of poverty guidelines		
0 percent to 50 percent	1.5	1.6
Greater than 50 percent to 100 percent	2.6	3.4
Greater than 100 percent to 130 percent	3.2	5.0
Employment status of unit head ^c		
Employed	2.8	3.3
Unemployed	1.5	1.3
Not in labor force	1.8	1.8
Unknown	n.a.	0.0
Receipt of assistance from SNAP	2.3	2.0

Source: Weighted tabulations of 2013 and 2014 Consumer Expenditure Survey (CE) Interview data files and tabulations of FY 2013 and 2014 SNAP QC data files.

Notes: Both CE and SNAP QC files are restricted to units with gross income (excluding SNAP benefits in the CE) at or below 130 percent of poverty guidelines. We also remove from the SNAP QC sample any units in Guam or the Virgin Islands because these units are not included in the CE.

CUs in the CE with income at or below 130 percent of poverty guidelines are considered proxy eligible.

n.a.: not applicable.

^a We excluded, from both the numerator and denominator, SNAP households living in the eighteen States that, as of September 2013, took the option to treat child support payments as an income exclusion rather than a deduction for some units. Implicit in this method is the assumption that the percentage of units with child support expenditures is similar across both the group of States that treat some child support payments as exclusions and the group of States that treat them exclusively as deductions.

^b In the SNAP QC, SNAP households with disabled individuals are those with a disability-based assistance payment (the SNAP criteria) or with a reported medical expense deduction. Disabled individuals in the CE list illness, disability, or inability to work as their reason for not working.

^c Children and elderly adults are excluded from those not in the labor force.

Table F.8. Percentage of proxy eligible consumer units (CUs) with reported rent or mortgage expenses in the Consumer Expenditure Survey (CE) and percentage of SNAP households with positive “rent” expenses in the SNAP QC data file by subgroup, 2013-2014

Characteristic	Percent of CUs with rent or mortgage expenses (CE)	Percent of units with rent expenses ^a (SNAP QC)
All units	94.6	67.3
Unit size		
1 person	93.5	59.5
2 people	95.7	72.0
3 people	94.4	75.6
4 people	95.4	78.2
5 or more people	96.8	81.8
Unit composition		
With children	95.3	75.1
And one adult	93.5	69.2
And multiple adults	96.2	83.0
With nonelderly adults	94.1	62.5
And children	95.3	73.2
And no children	93.2	52.2
With elderly individuals	96.3	82.3
With nonelderly disabled individuals ^b	94.8	88.5
With no elderly individuals or nonelderly disabled individuals	93.5	56.6
Income as a percentage of poverty guidelines		
0 percent to 50 percent	91.4	40.5
Greater than 50 percent to 100 percent	95.6	88.3
Greater than 100 percent to 130 percent	97.1	93.2
Receipt of assistance from SNAP	95.0	67.3
Geography		
Northeast	94.7	77.9
Midwest	95.6	66.2
South	93.8	62.8
West	95.3	69.2
Urban ^c	94.9	67.5
Rural	92.7	62.7
Unknown status	n.a.	79.6

Source: Weighted tabulations of 2013 and 2014 Consumer Expenditure Survey (CE) Interview data files and tabulations of FY 2013 and 2014 SNAP QC data files.

Notes: Both CE and SNAP QC files are restricted to units with gross income (excluding SNAP benefits in the CE) at or below 130 percent of poverty guidelines. We also remove from the SNAP QC sample any units in Guam or the Virgin Islands because these units are not included in the CE.

CUs in the CE with income at or below 130 percent of poverty guidelines are considered proxy eligible.

n.a.: not applicable.

^a We used the RENT variable from the SNAP QC data file, which is defined as rent or mortgage amount.

^b In the SNAP QC, SNAP households with disabled individuals are those with a disability-based assistance payment (the SNAP criteria) or with a reported medical expense deduction. Disabled individuals in the CE list illness, disability, or inability to work as their reason for not working.

^c In the SNAP QC data, we classify units in metropolitan and micropolitan areas as “urban.”

Page intentionally blank

Appendix G: Summary of food expenditure estimates for low-income households

To examine overall spending patterns for low-income households and to assess the 30 percent benefit reduction rate, this study used data from the CE to generate several estimates of food expenditures as a percentage of total expenditures, after-tax gross income, and net income. This appendix summarizes these estimates and explains the differences between them.

A. Shares of total expenditures spent on food

This report includes two measures of the shares of total expenditures spent on food: one in Chapter III that includes SNAP benefits in both food at home expenditures and total expenditures and one in Chapter V that excludes SNAP benefits from both food at home and total expenditures. The estimation method used in Chapter III is more conventional in studies describing how households allocate total expenditures across major categories of goods and services. The estimation method used in Chapter V is more consistent with the income-based measures presented in that chapter, where SNAP benefits are excluded from both after-tax gross income and food at home expenditures. Table G.1 presents these estimates.

Table G.1. Percentage of total expenditures spent on food at home and food away from home, by whether SNAP benefits were included in food spending and total expenditure measures, 2013–2014

Whether SNAP benefits are included in food spending and total expenditures	Food at home	Food away from home ^b
Included in both food at home and total expenditures	15.0	4.4
Removed from both food at home and total expenditures ^a	13.4	4.5

Sources: Weighted tabulations of the 2013 and 2014 CE Interview data files

Note: Low-income households are defined as those with gross income (excluding SNAP benefit amounts) at or below 200 percent of poverty guidelines.

^a We subtract the reported household SNAP benefit from expenditures on food at home and total expenditures. If food at home minus the SNAP benefit was less than \$0, we set the food at home amount to zero. We adjusted food at home expenditures for about 6 percent of low-income households to zero because food at home expenditures were lower than the SNAP benefit.

^b These estimates were unaffected by the inclusion or exclusion of SNAP benefits in food at home expenditures. However, they were affected by the decision to include or exclude SNAP benefits from total expenditures.

B. Shares of after-tax gross income spent on food

The analysis of the SNAP benefit reduction rate, presented in Chapter V of this report, included three estimates of the percentage of after-tax gross income spent on food at home. The first estimate excluded SNAP benefits from both food at home and after-tax gross income; the second included SNAP benefits in both food at home and after-tax gross income; and the third included SNAP benefits in food at home but excluded them from after-tax gross income. The approach used for this third estimate is the same one used for the estimates presented in Chapter III of food at home and other expenditures as a percentage of after-tax gross income. Table G.2 presents these estimates.

Table G.2. Percentage of after-tax gross income spent on food at home, by whether SNAP benefits were included in food spending and income measures, 2013–2014

Whether SNAP benefits are included in food spending and income measures	Food at home expenditures as a percentage of after-tax income
Removed from both food at home and income ^a	19.5
Included in both food at home and income	21.5
Included in food at home; removed from income	22.3

Sources: Weighted tabulations of the 2013 and 2014 CE Interview data files

Note: Low-income households are defined as those with gross income (excluding SNAP benefit amounts) at or below 200 percent of poverty guidelines.

^aWe subtract the reported household SNAP benefit from expenditures on food at home. If food at home minus the SNAP benefit was less than \$0, we set the food at home amount to zero. We adjusted food at home expenditures for about 6 percent of low-income households to zero because food at home expenditures were lower than the SNAP benefit.

C. Shares of net income spent on food

Chapter V presents estimates of the share of net income spent on food at home. Because we did not have sufficient information to derive net income in the CE, we used a microsimulation model database, the fiscal year 2015 Baseline of the 2011 MATH SIPP+ model, to obtain the needed information. We calculated net income as a percentage of gross income for certain household types that have income at or below 200 percent of poverty and that were simulated as eligible for and participating in SNAP. We then applied the ratios of net income to gross income to after-tax gross income of the same groups in the CE. As with the estimates of food at home expenditures as a percentage of after-tax gross income presented in Table G.2, we obtained three estimates that differed according to whether SNAP benefits were excluded from food at home expenditures and after-tax gross income. Table G.3 provides these estimates. More information on the approach is provided in Chapter II and Appendix A.

Table G.3. Percentage of net income spent on food at home, by whether SNAP benefits were included in food spending and income measures, 2013–2014

Whether SNAP benefits are included in food spending and income measures	Food at home expenditures as a percentage of net income
Removed from both food at home and income ^a	42.4
Included in both food at home and income	47.0
Included in food at home; removed from income	48.6

Sources: Weighted tabulations of the 2013 and 2014 CE Interview data files and simulations using the 2015 Baseline of the 2011 MATH SIPP+ model.

Note: Low-income households are defined as those with gross income (excluding SNAP benefit amounts) at or below 200 percent of poverty guidelines.

^aWe subtract the reported household SNAP benefit from expenditures on food at home. If food at home minus the SNAP benefit was less than \$0, we set the food at home amount to zero. We adjusted food at home expenditures for about 6 percent of low-income households to zero because food at home expenditures were lower than the SNAP benefit.