

**Advancing Poverty Measurement and Policy:
Evidence from Wisconsin
during the Great Recession**

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Abstract

This paper estimates poverty trends in Wisconsin between 2008 and 2010, for the overall population and for children and the elderly, using an alternative poverty measure similar to the federally implemented Supplemental Poverty Measure, but customized to better reflect the place-specific needs and resources of Wisconsin. Unlike the official poverty measure, our alternative measurement (the Wisconsin Poverty Measure or WPM) considers tax credits and noncash benefits, and adjusts for work-related and medical-care expenses as well as for relative living costs, statewide and across sub-state regions. Using data from the American Community Survey and Wisconsin administrative records, the WPM shows essentially no change in state poverty rates between 2008 and 2009 and a decline between 2009 and 2010, from 11.1 percent to 10.3 percent, although state poverty levels calculated via the official measure continued to increase between 2008 and 2010. We discuss the policy implications of these results.

Running Head: Wisconsin Poverty Measure

Researchers and policymakers have criticized the U.S. Census Bureau's official poverty measure for not accurately accounting for the contemporary needs and resources of American families, and this criticism intensified in the wake of the recent Great Recession (Citro and Michael 1995; Hutto et al. 2011). Critics assert that the official measure uses an outdated poverty threshold based on a pattern of consumption that was typical in the 1960s; does not account for resources provided by unmarried partners; omits health care and work-related expenses; and fails to adjust for geographic differences in prices. Further, the only resource the official poverty measure considers is pre-tax cash income—it does not consider government-provided noncash benefits such as Supplemental Nutrition Assistance Program (SNAP, formerly the Food Stamp Program) benefits or tax credits such as the Earned Income Tax Credit (EITC) and the refundable child tax credit (CTC), which increased nationally and locally as the government sought to address economic hardship following the recession (see figure 1).¹ These limitations of the official poverty measure are more troubling than ever before, because the majority of the expansion in public benefits during the recent recession has been in the form of noncash programs and tax-related benefits, rather than cash transfers (Sherman 2011).

To provide a more accurate understanding of which people and families are poor and the influence of public policies on poverty, a variety of scholarly efforts have sought to develop and implement improved measures of poverty. While a National Academy of Sciences (NAS) panel

¹The official measure considers cash benefits from the Temporary Assistance for Needy Families (TANF) program, which paid out less than \$10 billion in benefits per year during the recession, compared to over \$75 billion each for SNAP and tax credits (EITC and CTC, see figure 1).

offered an alternative method for measuring poverty that addresses many of the criticisms of the official poverty measure back in 1995 (Citro and Michael 1995), it was not until recently that the federal government implemented the Supplemental Poverty Measure (SPM) (Short 2011).

During the intervening years, as numerous attempts to develop a national measure were bogged down in technical and political complexities (Short 2003; Dalaker 2005; Iceland 2005), some states and localities took matters into their own hands. In 2008, the New York City Center for Economic Opportunity released their first measure of poverty, based on the NAS methods (New York City Center for Economic Opportunity [CEO] 2008), and in 2010, scholars at the Institute for Research on Poverty released a study of poverty in Wisconsin in 2008 (Isaacs et al. 2010a).

The need for an improved poverty measure that can be employed in state and local areas has increased, especially in the last several years, as numerous areas have developed various initiatives and commissions aimed at creating policies to reduce poverty and to better inform policy decisions. In order to gauge progress in reducing poverty, many states have sought to develop a tool that can project or evaluate the antipoverty impact of policies more accurately than the official poverty measure. Despite the need for such a measure, the technical difficulties involved, such as the lack of data and techniques needed to identify accurate information about comprehensive needs and resources, make the analysis expensive and have impeded research on this topic. Although studies in selected local regions (e.g., Zedlewski et al. 2010; Marks et al. 2011; CEO 2012) have emerged, there is much less analysis on poverty trends within states and the impact of policy on poverty. In this paper, we add to this literature by using the Wisconsin Poverty Measure (WPM) to examine trends in the state's poverty rates during the 2008–2010 period of the Great Recession, and to consider the antipoverty impact of tax and benefit policies on Wisconsin poverty during this time period.

The Wisconsin Poverty Measure, which the current study helps develop and employs for analysis, accounts for the needs and resources of Wisconsin families more accurately than the official poverty measure. The WPM reflects not only pre-tax cash income (as does the official poverty measure) but also taxes paid, refundable tax credits, and noncash benefits. In addition, the measure considers reductions in available resources due to expenses for basic needs including medical care, child care, and transportation to work; adjusts for the state's relative living expenses, both overall and across sub-state regions; and expands the family unit to include resources and needs of unmarried partners. To obtain reliable estimates, our analysis employs data from the American Community Survey (ACS), which has much larger sample sizes for state and local estimates than the Current Population Survey (CPS) used by research implemented at the national level. Because the ACS data have some limitations, including incomplete information about public assistance program participation, we supplement them with state administrative data.

While our study reflects broader efforts to employ NAS-based alternative poverty measures, including the implementation of the SPM, we also contribute to the field in several ways. First, we employ these measures to a local area (Wisconsin) in ways that reflect the characteristics of the state and exemplify the utility of a NAS-based measure as a place-specific alternative poverty measure. Based on the findings of our analysis, we discuss the WPM's policy implications, including its use in estimating the antipoverty effects of public programs. Further, taking Milwaukee County as an example of a long-term high-poverty area with severe residential segregation, our additional analysis of subareas within Milwaukee County testifies to the benefits of using an NAS-based alternative poverty measure for examining the geographical distribution of poverty across sub-state areas. Next, while we follow Nathan Hutto and colleagues (2011)

with regard to providing alternative poverty estimates by age groups, we expand these efforts (which were focused on poverty in one year, 2007) by examining poverty trends between 2008 and 2010, to explore the more nuanced implications of an NAS-based alternative poverty measure during the recession and its aftermath. A final important contribution of the study is a comparison of the current results with those from a similar research report focused on New York City , New York (CEO 2012), and a discussion of the implications of the differences in results across these two studies (including distinguishing between methodological differences versus substantive regional differences).

The paper is organized as follows: First, we consider both the national and Wisconsin-specific economic and policy situations during the recent recession, a context in which the criticism of the official poverty measure has been intensified. Second, we discuss our data and methodological approaches; we describe the intricacies of the WPM and its relationship to the official poverty measure and the SPM. In the results section, we examine the trends in poverty over the 2008–2010 period, for the overall population as well as for children and the elderly. Next, we use the WPM to analyze the influence of each public benefit policy (e.g., tax credits, nutrition assistance programs, housing policies) and expenses (medical and work-related) on poverty. We then present poverty rates across regions in Wisconsin using the WPM, including a particularly detailed examination of poverty within Milwaukee County, revealing evidence of severe residential segregation within that county. Finally, we end by outlining the policy implications of these findings.

Changing Nature of the Safety Net: Wisconsin's Economy and Program Participation during the Recession

The first important thing to understand is the way that policy toward income support for low-income populations has changed since the 1996 Personal Responsibility and Work Opportunity Reconciliation Act. Figure 1 documents the relative growth of noncash benefits, especially SNAP, and work-related refundable tax credits, during a period of declining cash benefits from Temporary Assistance for Needy Families (TANF). While Social Security Income (SSI) still plays a major and growing role in the safety net, dramatic changes in the rest of the safety net have taken place especially since the beginning of the Great Recession in 2008. Owing in part to the dramatic deterioration in economic conditions, but also to the implementation of the 2008 American Recovery and Reinvestment Act (ARRA) and state and local changes in program administration and benefit delivery (see below on SNAP in Wisconsin), the SNAP program and the combination of the EITC and the refundable CTC have exploded. The total amount of benefits from these three programs was over \$150 billion in 2010, compared with less than \$120 billion in 2007 (Isaacs et al. 2012). Because better measures of poverty along the lines suggested by the 1995 NAS report and as implemented in the WPM reflect the effects of these (and other) programs in fighting poverty, they offer a much more timely and accurate picture of the way that the income support system affects poverty than does the official poverty measure. State administration and generosity can also make a difference, as we explain below.

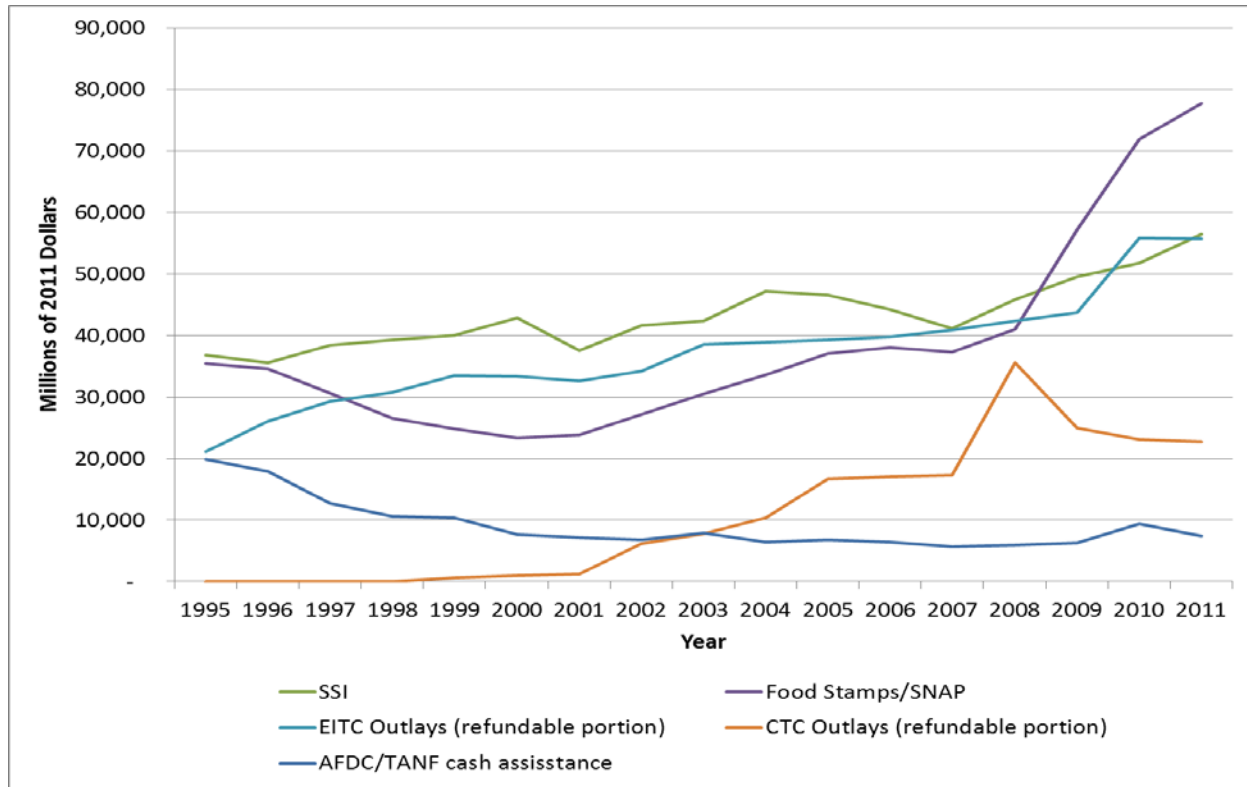


Figure 1. How the Safety Net in the United States Has Changed from 1995–2011

Sources: Budget of the U.S. Government Fiscal Year 2013 and previous years. The data are collected in an Urban Institute database that is used in the study by Julia B. Isaacs and colleagues (2012).

As the effects of the Great Recession—the worst recession in the postwar era—hit the nation, economic need and hardship in the state of Wisconsin dramatically increased as well. Although national authorities declared that the Great Recession ended in June 2009, the economic downturn has continued to have negative repercussions in Wisconsin and beyond. While the United States as a whole began experiencing a slow increase in the number of jobs during 2010, Wisconsin experienced continued job reductions in 2010, following the rapid decline in employment that occurred in 2009 (see figure 2 below). At the end of 2010, Wisconsin had about 152,000 fewer jobs than at the beginning of the recession in December 2007. At the

end of 2011, there had been essentially no improvement in this 5.3 percent decline in the pre-recession job base.

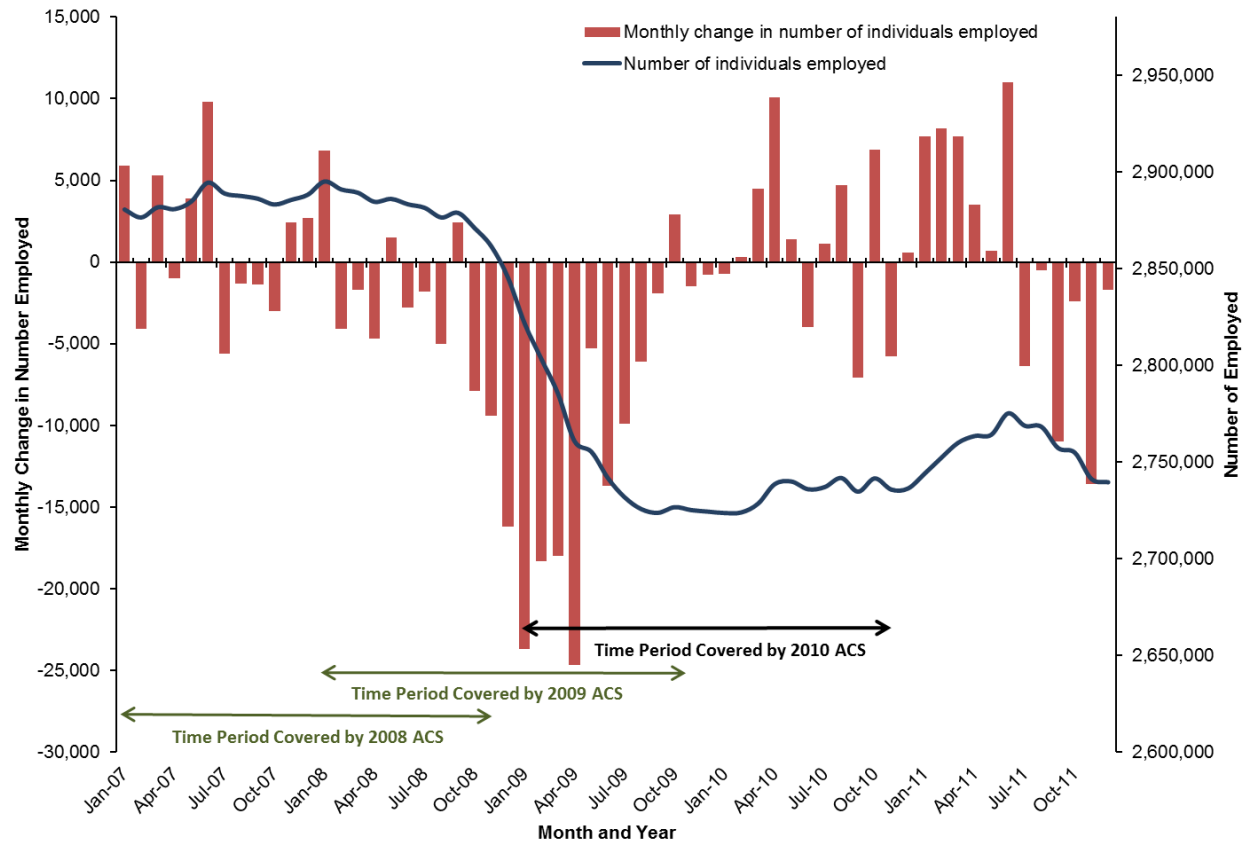


Figure 2. Number of Individuals Employed and Monthly Job Gains/Losses in Wisconsin, 2007–2011

Source: Seasonally adjusted Bureau of Labor Statistics data on total non-farm employment.

Notes: The American Community Survey data for each year are collected throughout the calendar year, and include references to income over the previous 12 months; therefore, the data span a total of 23 months, as shown in the chart. For example, the 2010 poverty rate is based on economic conditions from January 2009 through November 2010. For reference, we note that the official recession began in December 2007 and ended in June 2009.

Following the onset of the recession, as unemployment and job losses increased and many of the unemployed remained out of work for six months or longer, SNAP caseloads rose

dramatically, in the nation, as well as in Wisconsin. The ARRA resulted in a SNAP benefit level increase of roughly 14 percent, which was effective from April 1, 2009. Following the formation of Wisconsin Governor Doyle's 2009 Poverty task force, program administrators in Wisconsin began to accelerate efforts to increase SNAP enrollments. Applications were accepted online, liquid-asset tests when determining eligibility were suspended (as with 28 other states), and debit cards were issued within a required time frame. According to a 2012 Wisconsin Legislative Audit Bureau (2012) review, this expansion was accomplished with improved accuracy and accountability such that the state significantly reduced error rates as benefits grew. As shown in figure 3, the rate of increase for SNAP in Wisconsin was even larger than the national rate; the number of people receiving SNAP benefits in Wisconsin nearly doubled between January 2007 and January 2010 (an increase of 95 percent), compared to a 61 percent increase in the nation as a whole during the same period. The increase in SNAP caseloads was much larger outside Milwaukee than within Milwaukee, and was particularly large in the time period covered by the 2010 ACS, from which the data for the most recent year in this study are taken.²

²Influenced by this benefit increase, in addition to a growing caseload during the recession, Wisconsin's SNAP fiscal year benefits continued to increase; total benefits were \$595 million in 2009, \$934 million in 2010, and \$1,105 million in 2011 (Wisconsin Legislative Audit Bureau 2012).

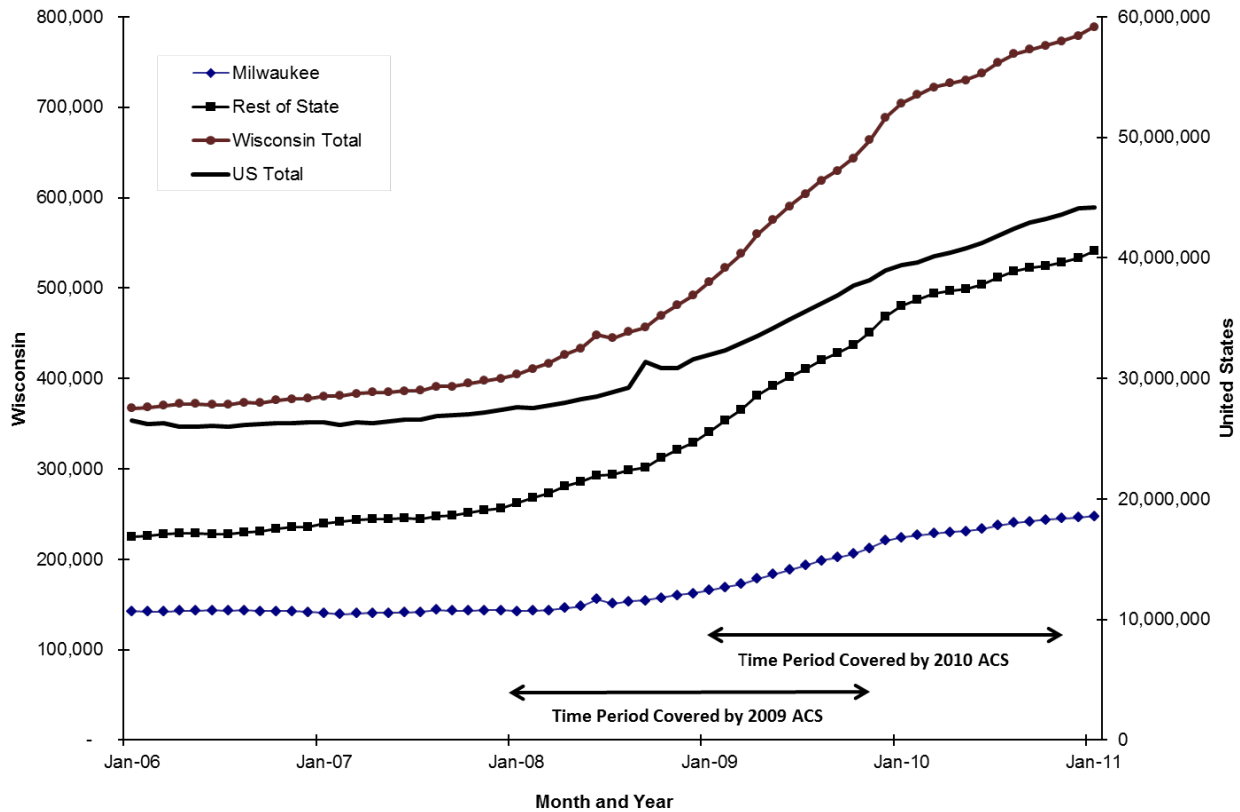


Figure 3. Changes in SNAP Benefit Caseloads in Wisconsin and the United States, 2007–2010

Source: Data on Supplemental Nutrition Assistance Program (SNAP) participation are from the FoodShare data website of the Wisconsin Department of Health Services (<http://www.dhs.wisconsin.gov/em/rsdata/fs-caseload-recipe-by-cy.htm>, accessed March 3, 2012).

Notes: The number of cases in Wisconsin is shown on the left-hand scale of the y-axis, while that for the United States is on the right-hand scale of the y-axis.

The 2009 ARRA also increased income tax credits by expanding the federal EITC (and the Wisconsin EITC, which is set at a certain percentage of the federal EITC).³ The 2009 ARRA also increased federal income tax credits by expanding the EITC to provide higher benefits to

³Wisconsin's EITC was set, for example, at 4 percent, 14 percent, and 43 percent of the federal EITC for families with one, two, and three qualifying children, respectively, in 2009 and 2010.

families with three children. Further, the ARRA expanded the CTC and created a one-time “Making Work Pay” tax credit. According to the Tax Policy Center’s calculations using data from the Internal Revenue Service Statistics of Income program, there was a 21 percent increase in the total amount of EITC credits in Wisconsin (from \$643 million in 2008 to \$780 million in 2009) (Williams, Johnson, and Shure 2009).⁴ According to our tax calculations, using ACS and state administrative data, the total amount of (both federal and state) tax refunds in Wisconsin increased by 39 percent, from \$922 million to \$1.28 billion between 2008 and 2009, and then remained at a similar level (\$1.26 billion) in 2010. Because the tax changes under ARRA were implemented retroactively for the full 2009 calendar year and were in effect for all of 2010, they influenced the entire time period covered by the 2010 ACS data.

In summary, both tax credits and noncash benefit programs such as SNAP have become increasingly important programs for fighting poverty. And the significance of considering these benefits in measuring poverty has grown as both welfare reform and the government’s response to the recent recession have resulted in the absolute and relative growth of noncash programs and tax-related benefits, which have supplanted the declining TANF cash transfer program. Further active administrative outreach can capture more of these benefits by encouraging application while at the same time reducing error rates, as Wisconsin has accomplished. We now turn to a discussion of the data and methods used to assess the effects of these programs on poverty in Wisconsin.

⁴Data are not yet available for 2010.

Analytic Approach

Data

Our primary data source for this analysis is the U.S. Census Bureau's American Community Survey (ACS), which we supplement with state administrative data on participation in public assistance programs. To analyze the ACS data, we use data extracts from the Integrated Public Use Microdata Series (IPUMS), which are available to researchers outside the Census Bureau, and consist of a subsample of all ACS data collected and used by the Census Bureau. In our analysis, we use data from the 2008, 2009, and 2010 IPUMS ACS files, and each annual data set drawn from the ACS subsamples contains a sample of nearly 60,000 individuals residing in Wisconsin (Ruggles et al. 2010).

The ACS data we use provide advantages relevant to our research. First, we take advantage of the relatively large sample sizes in the ACS data set in order to examine poverty in smaller areas within the state (Ruggles et al. 2010). While the Current Population Survey (CPS) is used to calculate national poverty estimates under both the official measure and the SPM, the sample sizes for its single-year data are too small to produce reliable state and local poverty estimates. Using the ACS IPUMS data, we examine poverty in 22 areas in Wisconsin, including 10 large (more densely populated) counties and 12 multicounty areas that encompass relatively small (less densely populated) counties.⁵ In addition, for Milwaukee, we provide poverty estimates for subcounty areas. An additional advantage of the ACS data is the inclusion of

⁵The 12 multicounty areas correspond to the Census Bureau's sampling units, called Public Use Microdata Areas (PUMAs); their boundaries are set by the Census Bureau to ensure at least 100,000 residents in each unit (Ruggles et al. 2010).

detailed housing information. While the ACS data set used in our analysis is also subject to limitations, such as a lack of information about SNAP benefit amounts, energy assistance, and public housing, it is the best available data for examining poverty at the local level, as we do in the current analysis, and the issues stemming from data limitations have been alleviated by our effort to combine it with data from other sources including Wisconsin's administrative data on participation in income support programs.

Another characteristic of the ACS data is worth noting. ACS data on income in each year span a total of 23 months. For example, the information about income drawn from the 2010 ACS data covers January 2009 through November 2010 because the survey was implemented throughout calendar year 2010, and referred to income in the previous 12 months (see arrows in figure 3). Thus, results for a given year (e.g., 2010), actually reflect conditions over most of two years (2009 and 2010). The potential implications of this issue for our key findings are discussed in the results section.

Implications of Focusing on Wisconsin

While the WPM is largely consistent with alternative national poverty measures, we focus on Wisconsin alone, which leads to both disadvantages and advantages. One disadvantage is that generalization of our results may be limited because other subnational estimates may take slightly different approaches (for instance, see CEO 2012). Further, if public programs in Wisconsin operate at a different level of efficiency than those in other states, the effects of poverty programs that we report here may differ from those estimated under an alternative poverty measure implemented in other states. But still, if those other states took as much advantage of antipoverty programs as does Wisconsin, their poverty rates estimated via a WPM-like poverty measure (or any SPM-like poverty measure) would be lower as well.

Although we focus on Wisconsin, our goal is to serve as a national model for other states and localities seeking to develop their own place-specific alternative measurements of poverty. Wisconsin is an excellent location for a case study of alternative poverty measures because of the state's historic importance as an experimental site for national policies, and the provision of resources for this research by the federal government. The development of the WPM, especially in determining what resources or basic costs should be considered in determining poverty, was facilitated in large part by rich interactions between researchers at the University of Wisconsin, agency workers, and government officials in the community. These interactions were largely an outcome of the University of Wisconsin System's adherence to the "Wisconsin Idea," the principle that university research should improve people's lives beyond the classroom (Smeeding and Marks 2011). The Wisconsin Idea and the use of the WPM could be implemented in national or other regional settings.

Poverty Measurement under the WPM

As with almost all poverty measures, the WPM determines poverty status by comparing a measure of economic need to a measure of the economic resources available to meet that need. A poverty threshold (or measure of need) is the least amount of income deemed necessary to cover the basic expenses of the unit of people considered. Three major components commonly constitute poverty measures: the resource-sharing unit (and the universe of people included in those units), resources, and need. We describe each of these components to demonstrate our approach to the WPM.

The resource-sharing unit includes all persons who share the same residence and are also assumed to share income and consumption. In the WPM we expand the definition of family used in the official poverty measure (which is restricted to married couples and their families), by

including unmarried partners and their families, foster children, and unrelated minor children in the resource-sharing unit. Our approaches to constructing resource-sharing, or poverty, units and the universe of the analysis are largely consistent with those adopted by the SPM, but we depart from SPM approaches by excluding college students under age 18 with annual earnings of less than \$5,000 from the universe of poverty. We implement this exclusion because these college students likely have substantial support from their parents and so their resources are much higher than their reported income; counting them as poor may upwardly bias our poverty estimates, particularly in cities with a large number of undergraduates living off campus. Excluding college students changes our estimate for Wisconsin's overall poverty by 0.1 percentage point, but leads to more substantial changes in college towns such as Madison and La Crosse.

While the official poverty measure considers no resources beyond pre-tax cash income, the WPM incorporates a more comprehensive range of resources, including: tax credits; noncash benefits, specifically SNAP; housing subsidies; and low-income home energy assistance.⁶ Our tax model simulates federal and state income and payroll taxes and tax credits. For energy assistance and housing assistance we develop simulation models, in which we first estimate eligibility using annual income data from the ACS, and then randomly draw participants from eligibility groups sorted by county or multi-county sampling area and demographic characteristics common to the ACS and state administrative data, and then impute average payment amounts. For SNAP benefits, we start with recipients identified in the ACS, but then

⁶We do not include free or reduced-price school meals or WIC benefits; note that school meal benefits are not purchased by families and thus are not included in the “food, clothing, shelter, and utilities” expenses on which our poverty thresholds are based.

use similar simulation models to adjust for under-reporting and impute annual benefits, by county or multi-county sampling area and family characteristics.

In addition, the WPM measure of resources subtracts expenses spent to meet nondiscretionary spending needs, namely, medical out-of-pocket (MOOP) costs⁷ and work-related expenses that include child care⁸ and transportation costs. Consistent with our goal of

⁷In contrast to the treatment of work-related expenses as a factor that reduces family resources, for the sake of technical ease, we consider MOOP expenses in determining the poverty threshold as a factor that increases the threshold. Note that some alternative poverty measures (including the SPM) consider medical expenses in determining resources; they often do so by imputing MOOP expenses and subtracting them from each family's resources. In contrast, we adjust for MOOP expenses by setting different poverty thresholds for families with varying levels of expected medical need. Despite this technical difference, the spirit of the consideration of MOOP expenses under the WPM is consistent with the consideration under the SPM.

⁸Our method for estimating child care expenses in 2008 differs from our method for 2009 and 2010 estimates (see Isaacs et al. 2010*b*). For 2008 results, we assign estimated (positive) expenses to all working families with children, with the amounts varying by the age and number of children and the number of weeks worked. In contrast, for 2009 and 2010 results, we use the 2010 CPS, which is the first CPS to collect data on child care cost amounts to impute actual child care expenses for families. These imputations, many low-income families had zero in paid child care expenses, rather than the modest positive amounts assigned under the earlier methodology. Largely because of this methodological difference, the estimates for 2008 are not strictly comparable to those for 2009 and 2010 presented here, though in an earlier report we show

measuring poverty in Wisconsin, we include Wisconsin-specific public resources, such as the Wisconsin Homestead Tax Credit and the Wisconsin EITC, (in addition to the federal EITC), and resources that help reduce medical care expenses, such as BadgerCare.

To consider need, our poverty thresholds are constructed based on a three-year average of food, clothing, shelter, and other expenses, which are set at roughly the 33rd percentile of national consumption expenses for a two-child, two-adult family,⁹ with further adjustments for Wisconsin's lower cost of living (Citro and Michael 1995). This approach differs from the official poverty measure, which is based on three times the cost of a minimally adequate diet in the 1960s, with adjustments for inflation but without consideration of the improved overall standard of living over time. The two measures also differ in that thresholds for living costs differ by regions within Wisconsin under the WPM, but are the same across all states and regions under the official measure.

trends from 2008 to 2009 using consistent methodologies (Isaacs et al. 2010a; Isaacs et al. 2010b). We discuss the implications of this methodological issue for our key findings based on our additional sensitivity analyses.

⁹We follow the NAS-based approach of using the 33rd percentile of expenditures on FCSU for “families with two adults and two children” multiplied by 1.2 to add 20 percent for all other necessary expenses, in constructing the poverty threshold; while Short (2011) uses an SPM-type method; and Hutto and colleagues (2011) and the New York City Center for Economic Opportunity (2012) consider the percentage of the expenditures on FCSU for “families with two children” (including an amount for all other necessary expenses).

To estimate the poverty threshold specific to Wisconsin, we begin with the current experimental federal poverty threshold published by the Census Bureau (2012a). In 2010, the national threshold was \$26,528. Our baseline poverty threshold (i.e., the threshold for a two-child, two-adult family) for Wisconsin in 2010 was \$23,938, because the cost of living in Wisconsin is about 10 percent lower than for the nation as a whole (for further detail in our thresholds over time, see Appendix A). For comparison, the official U.S. poverty line for a two-child, two-adult family in 2010 was \$22,113 (U.S. Census Bureau 2012b).

In refining the measures of need, we calculated different poverty thresholds for families of different sizes through the use of equivalence scales. We also made adjustments to the poverty thresholds based on differences in housing costs across regions in Wisconsin (owners with a mortgage, owners without a mortgage, and renters) (Garner and Betson 2010), and expected medical expenses (which vary across families based on health insurance status, presence of elders, and health status). For reference, table 1 provides descriptions of the characteristics of the WPM, the official poverty measure, and the SPM.

Finally, to determine whether or not a family and the individuals belonging to the family unit could be considered poor, we compared the comprehensive measure of resources to the relevant threshold or measure of need. Taken as a whole, the WPM helps improve the understanding of the needs and resources of Wisconsin residents, as well as the impact of policies intended to reduce poverty by lowering expenses and/or increasing resources.

Additional Poverty Measures Employed for Comparison

Comparing with estimates using the market-income-only measure and the official measure of poverty. To provide a more complete picture of economic hardship in Wisconsin and the effect of tax benefit programs on poverty, our analysis employs two additional measures of

poverty: a measure based on market (private) income only, and the Census Bureau's official poverty measure, which adds cash benefits to the measure of pre-tax market income.

Market income includes earnings, investment income, private retirement income, child support, and other forms of private income. The market-income-only measure employed in our analysis is consistent with the WPM with regard to the definitions of poverty thresholds and poverty units and in the treatment of work and medical expenses, which differ from the approach of the official measure. The estimates of official poverty statistics presented in this analysis are based on our implementation of the official poverty measure using the IPUMS ACS data (a subsample of the ACS data that the Census Bureau uses), and therefore may differ slightly from official poverty estimates produced by the Census Bureau.

Results: Wisconsin Poverty in 2010

We begin by asking how Wisconsin fared in 2010, using three different measures for estimating poverty: the market-income-only measure, the official poverty measure, and the WPM. Under the market-income measure of poverty, which is based on private sources of income (e.g., earnings, investment income, private pensions), in 2010 one-fourth of Wisconsin's population would be poor, with more than half (53.8 percent) of the elderly and one-fourth of children living in families that would be considered poor, as indicated by the three tallest bars in figure 4 below.

Table 1. Comparison of Official, Supplemental, and Wisconsin Poverty Measures

Component	Official Poverty Measure	Supplemental Poverty Measure	Wisconsin Poverty Measure
Data Source	Current Population Survey (CPS) <i>Note:</i> While CPS is the source of official national poverty estimates, the American Community Survey provides single and multi-year estimates for smaller areas.	Current Population Survey (CPS)	American Community Survey (ACS)
Poverty Unit or Family Unit	Individual or family unit restricted to married couples and their children.	Expanded family unit including unmarried partners, their children, and any unrelated children (including foster children).	Expanded family unit including unmarried partners, their children, and any unrelated children (including foster children).
Poverty Universe	Universe excludes unrelated children under 15 years old (including foster children), and people in institutional group quarters, college dormitories, and military barracks.	Universe includes unrelated children under 15 years old (including foster children); it excludes people in institutional group quarters, college dormitories, and military barracks.	Universe includes unrelated children under 15 years old (including foster children); it excludes people in group quarters (institutional and non-institutional), college dormitories, and military barracks. The final model of the WPM used in this report also excludes students who are 18 to 23 years old, not living with family members, earned less than \$5,000 in the last year, worked 0–13 weeks per year, and typically worked 0–20 hours per week.

(table continues)

Table 1, continued

Component	Official Poverty Measure	Supplemental Poverty Measure	Wisconsin Poverty Measure
Resources	<p>Pre-tax cash income:</p> <ul style="list-style-type: none"> • Wages, salaries, self-employment income, interest, dividends, rent, trusts, social security and railroad retirement pensions, disability benefits, unemployment compensation, child support received, veterans benefits, educational assistance, Supplemental Security Income, Temporary Assistance for Needy Families (TANF) cash benefits, and other cash public assistance. <p>Does not include near-cash income as resources.</p> <p>Does not consider tax provisions as resources or expenses.</p>	<p>Pre-tax cash income (as defined in official measure)</p> <p><i>Plus</i>, near-cash resources to meet food, clothing, shelter, and utility needs (as data permit):</p> <ul style="list-style-type: none"> • Housing subsidies • SNAP • School meals • WIC • Energy assistance benefits (LIHEAP) <p><i>Plus or minus</i>, tax provisions (the combination of taxes paid including income and payroll taxes paid, as well as tax credits and refunds); tax credits considered include the EITC.</p>	<p>Pre-tax cash income (similar in concept to official measure, but including less detail about different sources of income because the relevant information obtainable from the ACS is more limited than that obtainable from the CPS).</p> <p><i>Plus</i>, near-cash resources to meet food, clothing, shelter, and utility needs:</p> <ul style="list-style-type: none"> • SNAP (called FoodShare in Wisconsin) • Housing subsidies • Energy assistance benefits (LIHEAP) <p><i>Plus</i>, tax provisions (the combination of taxes paid including income and payroll taxes paid as well as tax credits and refunds) relevant to Wisconsin residents; tax credits considered include the federal and state EITCs and Wisconsin Homestead Credit.</p>

(table continues)

Table 1, continued

Component	Official Poverty Measure	Supplemental Poverty Measure	Wisconsin Poverty Measure
	Does not subtract expenses to meet nondiscretionary needs such as medical out-of-pocket costs, work-related costs, child support paid.	<i>Minus</i> , medical out-of-pocket expenses, work expenses (transportation and child care), child support paid.	<i>Minus</i> , work expenses (transportation and child care). <i>Note</i> : Consistent with the SPM, the WPM also considers medical out-of-pocket expenses in determining poverty (see below). The WPM considers these medical expenses in the calculation of the thresholds (i.e., if medical needs are identified as high, the thresholds are constructed high), unlike the SPM, which considers medical expenses in the calculation of resources as a factor reducing resources; however, the spirit and the consequences of these two approaches are essentially the same.
Thresholds	Base threshold is calculated for <i>two-parent, two-child families</i> , based on food costs and the share of income spent on food in the early 1960s.	Base threshold is calculated for <i>all families with two children</i> , and three parameters of adults, based on a five-year average of expenses at the 33 rd percentile for food, clothing, shelter, and utilities (FCSU), multiplied by 1.2 for “a little bit more.”	Base threshold is calculated for <i>two-parent, two-child families</i> , based on a three-year average of expenses at the 33 rd percentile for food, clothing, shelter, and utilities (FCSU); multiplied by 1.2 for “a little bit more.”

(table continues)

Table 1, continued

Component	Official Poverty Measure	Supplemental Poverty Measure	Wisconsin Poverty Measure
	Thresholds are adjusted for: <ul style="list-style-type: none"> • differences in family size and number of children and adults • age, with separate thresholds for individuals and couples age 65 and older 	Thresholds are adjusted for: <ul style="list-style-type: none"> • differences in family size and number of children and adults using a three-parameter scale^a • geographic location by state (and metro vs. non-metro within each state) based on five years of ACS data on rental costs for two-bedroom units • variation by housing tenure (rent vs. own vs. own outright), including all mortgage expenses in shelter costs 	Thresholds are adjusted for : <ul style="list-style-type: none"> • differences in family size and number of children and adults using a three-parameter scale • geographic location by state (from Census Bureau) and six regions within state (authors' calculations from ACS) • variation by housing tenure (rent vs. own vs. own outright), including all mortgage expenses in shelter costs • out-of-pocket medical expenses, with differences based on risk factors (elder presence, family size, health insurance, and health status).

Sources: Short (2011), Interagency Technical Working Group (2010), Isaacs et al. (2010a), and Zedlewski et al. (2010).

^aThe three SPM parameters are: two parents, two children; one parent, two children; and multiple adults in multigenerational families, two children (Betson 1996; Iceland 2005).

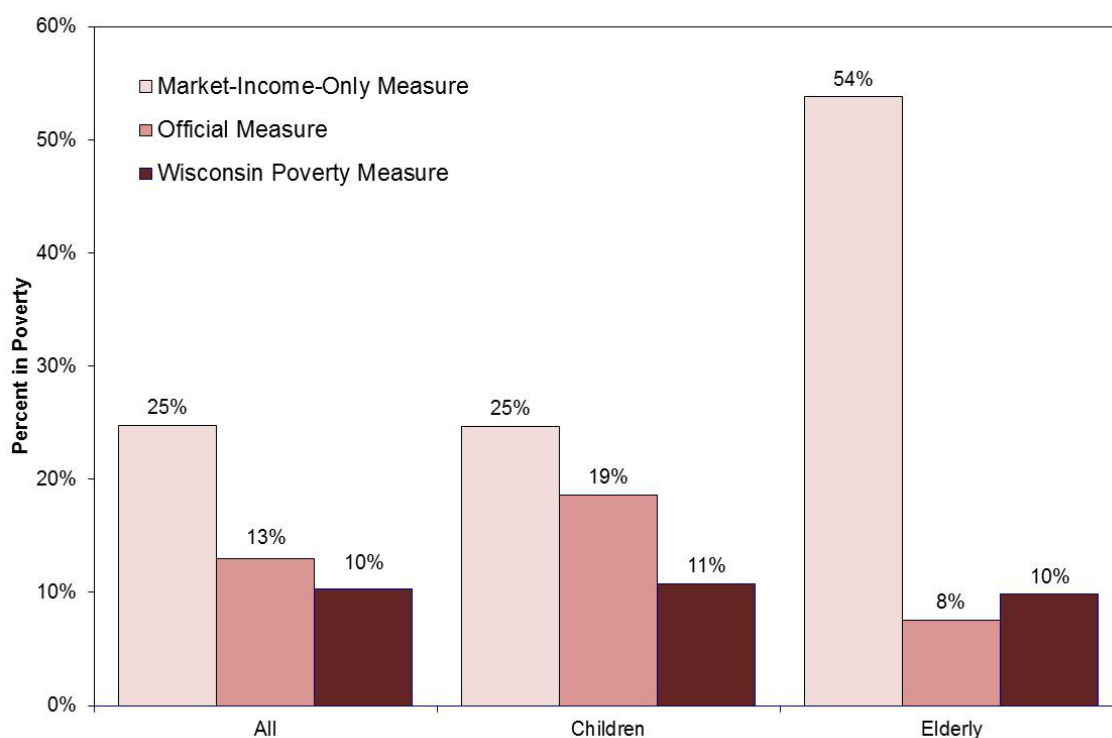


Figure 4. Poverty in Wisconsin in 2010 by Measure: Overall and for Children and the Elderly

Source: The authors' tabulations using 2010 American Community Survey data.

Using the official poverty measure, which takes into account the effect of government cash transfers (e.g., Social Security benefits, unemployment insurance, cash welfare payments), elderly poverty drops dramatically, to 7.6 percent, and overall poverty drops from 24.8 percent to 13.0 percent. Child poverty is also much lower under the official measure than under the market-income measure. However, in contrast to the market-income measure, under the official measure the rate of child poverty (18.6 percent) is much higher than the rate of elderly poverty (7.6 percent), in part because fewer cash assistance benefits are provided to families with children than to the elderly in the United States. Under the official measure, overall poverty was 13.0 percent in 2010 and fell between the extremes of elderly and child poverty.

Under the WPM (the last bar in each panel of figure 4), child and elderly poverty rates were relatively similar in 2010: 10.8 percent for children and 9.8 percent for the elderly. Overall poverty was also very similar at 10.3 percent. The primary reason that child poverty is lower under the WPM than in official statistics is that working families with children are eligible for a broad range of tax credits (e.g., the Earned Income Tax Credit), and also have markedly higher eligibility and take-up rates of SNAP and other noncash safety net programs (compared to families without children). In addition, the WPM, unlike the official measure, counts the income of unmarried partners as part of the family's resources. This consideration makes a substantial difference in estimates of child poverty because many poor children live with single mothers and their unmarried partners.

NAS-based alternative poverty measures do not always result in a rate higher than the official measure; indeed, our analyses of overall and child poverty for 2008 (shown in the next subsection) reveal a lower rate under the WPM than under the official estimate. Because the recession dramatically increased participation in noncash and tax credit programs (which the alternative poverty measures consider but the official measure does not), it is not surprising that we estimate higher poverty rates in 2009 and 2010, overall and for children, under the official measure than under the WPM. In contrast, across years, elderly poverty is higher under the WPM than under official measures, for the most part because elderly individuals have substantial out-of-pocket medical expenses not considered in the official measure. This result is consistent with the findings of Hutto and colleagues (2011), who found that elderly poverty rates were about 7 percent higher under their alternative measure than under the official measure.

Trends in Wisconsin Poverty, 2008 to 2010

As shown in figure 5, under the market-income measure, which includes only earnings and other private income and ignores all government benefits and taxes, overall poverty rates increased, consistent with the recession-driven decline in employment in Wisconsin in recent years. Poverty estimates are considerably lower under the official measure, which includes not only market income but also government cash benefits such as Social Security and Unemployment Insurance, than under the market-income measure. Despite the difference in the size of the estimates for a given year, however, trends in poverty are similar under the official measure and the market-income measure: the official poverty rate also increased.

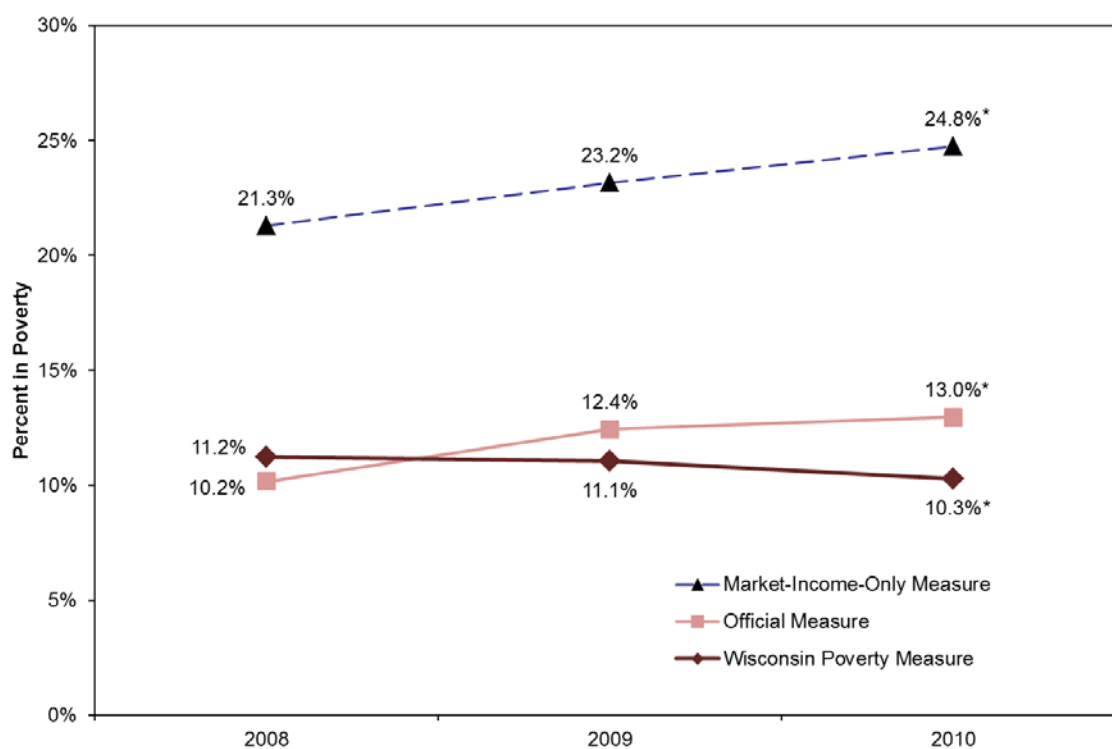


Figure 5. Wisconsin Poverty Rates under Three Poverty Measures, 2008–2010

Source: The authors' tabulations using 2008–2010 American Community Survey (ACS) data.

Notes: The statistical significance of the difference between 2009 and 2010 was examined at the .1 level (two-tailed t-tests). * = Statistically significant.

In contrast, the overall poverty rate calculated under the WPM remained essentially the same between 2008 and 2009, and actually declined (from 11.1 percent to 10.3 percent) between 2009 and 2010. One of the important differences between the more comprehensive WPM and the official measure is that the WPM takes into account increases in noncash benefits and tax credits, which offset the drop in market income in Wisconsin in 2010. Results suggest that policies intended to address the recession and reduce poverty including work supports and other safety net programs have indeed been successful, despite persistent economic hardship and worsening labor market conditions in the state. The decline in poverty is not just statewide, but also occurs in the largest county, Milwaukee, as well as for the most vulnerable age group, children (see below).

Figure 6 shows that this pattern emerges even more clearly for child poverty rates, which dropped from 12.2 percent in 2009 to 10.8 percent in 2010 under the WPM, in contrast to an increase under official statistics and market-income measures of poverty. Despite the effects of the recession, which had particularly negative impacts on the income of parents of minor children, expanded benefits provided under ARRA substantially helped families with children avoid poverty, and helped even more effectively in 2010 than in 2009. While ARRA's expanded tax credits were implemented retroactively for the full 2009 calendar year, ARRA increases in the amount of SNAP benefits received by families did not occur until partway through 2009, and thus the full effect was not felt until 2010. In addition, SNAP caseloads, which include large numbers of families with children, continued to rise during 2010. Because of this combination of higher benefits per family and more families receiving benefits, the antipoverty effect of SNAP benefits was stronger in 2010 than in 2009, contributing to the drop in child poverty under the

WPM. Even with these benefits and the decrease in child poverty, however, poverty remained higher among children than among any other age group in 2010, as was the case in earlier years.



Figure 6. Child Poverty Rates in Wisconsin under Three Poverty Measures, 2008–2010

Source: The authors' tabulations using 2008–2010 American Community Survey data.

Notes: The statistical significance of the difference between 2009 and 2010 was examined at the .1 level (two-tailed t-tests). * = Statistically significant.

Because our key finding is that the poverty rate declined during the time considered, in contrast to the increase in poverty for the same time period under both the official and market-income measures, it is worth discussing the implications of the ACS income data for our key findings. The income data include periods before the reference year; this lag in income measurement is not a threat to, but rather provides support for, our key observation: poverty in Wisconsin decreased between 2009 and 2010. The estimate of poverty for 2009 would have been even higher if ACS data on income for 2009 had covered only January 2009 through December

2009 (instead of January 2008 through November 2009, a period in which residents in Wisconsin were, on average, economically better off than during 2009).¹⁰

As shown in figure 7, elderly poverty did not change significantly between 2009 and 2010, whether measured by the WPM, the official measure, or the market-income measure (data not shown).¹¹ Elderly individuals are less likely to be employed than younger individuals, and thus are generally less affected by recession. In addition, older individuals are less likely to receive tax credits or noncash benefits, and so have been less affected by the ARRA expansion of public benefits.

¹⁰While our ability to compare estimates for 2008 and estimates for other years is limited (because of slight methodological differences, primarily in the treatment of child care expenses), additional analyses suggest that the overall poverty rate for 2008 would have been lower under the new methodology by about 0.4 percent (and the child poverty rate by about 1.2 percent), but even so, there was no statistical change between 2008 and 2009, when they are measured consistently. This fact, combined with the statistically significant drop between 2009 and 2010, leads us to conclude that poverty, both overall and among children, decreased between 2008 and 2010.

¹¹In figure 7, we do not show the poverty rates for the elderly under the market income measure because the elderly are not of working age, and therefore the measure may not necessarily be a meaningful tool for measuring poverty for this particular population. In fact, the poverty rates for the elderly under the market income measure were over 50 percent; because social security is a major income source for the elderly, it is expected that the poverty estimate based on market income only would be substantially higher.

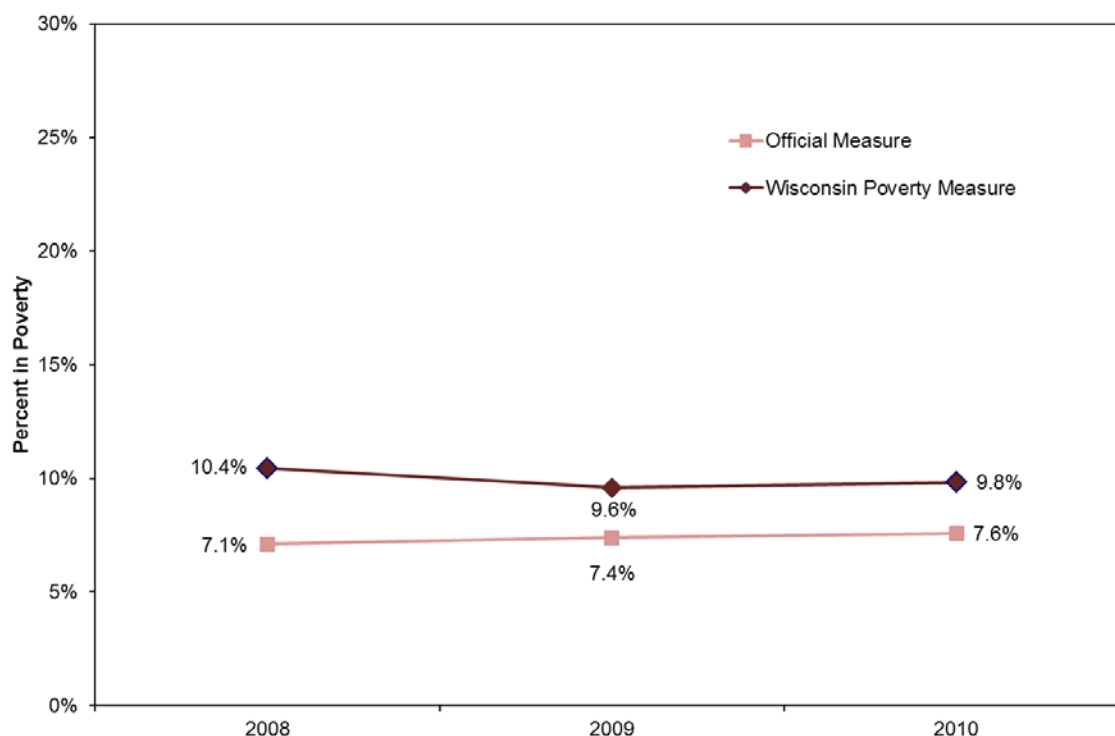


Figure 7. Elderly Poverty Rates in Wisconsin under Two Poverty Measures, 2008–2010

Source: The authors' tabulations using 2008–2010 American Community Survey data.

Notes: The statistical significance of the difference between 2009 and 2010 was examined at the .1 level (two-tailed t-tests). The change was not statistically significant under either measure.

Using the Wisconsin Poverty Measure to Assess the Effect of Policies on Poverty

In this section, we estimate what poverty rates would have been if we had not considered noncash and tax benefit receipts or work-related and medical-related resources/expenses. In addition to estimating the effects of benefits, we illustrate the impact of medical and work-related expenses on poverty, as policies intended to reduce these expenses are as important as safety net programs in improving the economic well-being of low-income families (as considered under all NAS-based measures, including the SPM and the WPM).

Among the benefit programs examined in this analysis, tax credits and refunds received by families had the greatest impact on reducing overall poverty in 2009 and 2010; these benefits reduced the percentage of people in poverty by more than 2 percentage points (see figure 8). This result reflects the expanded tax credits under ARRA, which were fully in effect in both 2009 and 2010. In 2010, the antipoverty impact of SNAP was almost as large as the effect of taxes. The impact of SNAP benefits was twice as large in 2010 as it was in 2009.

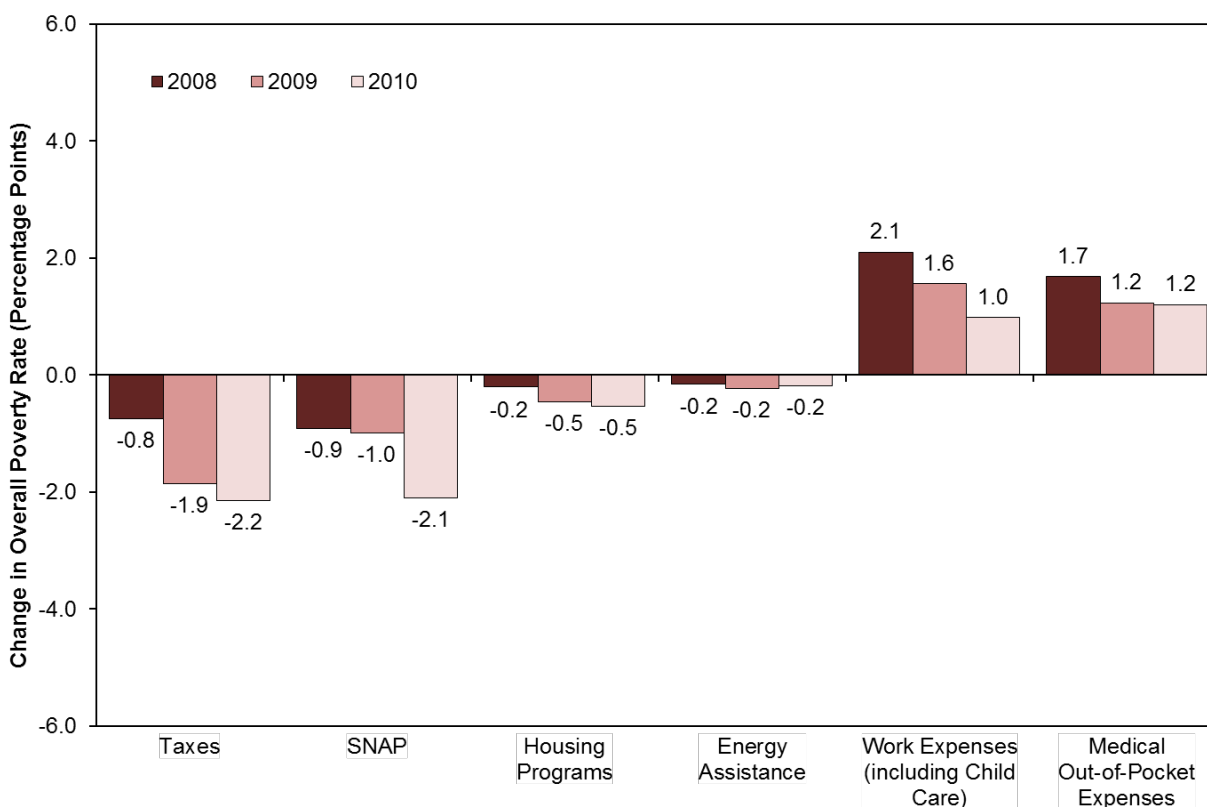


Figure 8. The Effects of Taxes, Public Benefits, and Expenses on the Overall Poverty Rate in Wisconsin, 2008–2010

Source: The authors' tabulations using 2008–2010 American Community Survey data.

Note: SNAP = Supplemental Nutrition Assistance Program.

Both taxes and SNAP had a large impact on reducing child poverty; this was particularly true in 2010, when tax-related provisions reduced child poverty by 5.8 percent and SNAP benefits reduced child poverty by 4.1 percent (see figure 9). In contrast, taxes had an almost negligible effect on elderly poverty, and SNAP benefits reduced elderly poverty by less than 1 percent during the time considered (see figure 10). This pattern of tax effects is expected because the largest tax credits are focused on working individuals who are parents of minor children. Housing and energy assistance provided modest financial assistance to both children and the elderly (see figures 9 and 10), reducing poverty by less than 1 percent in any year.

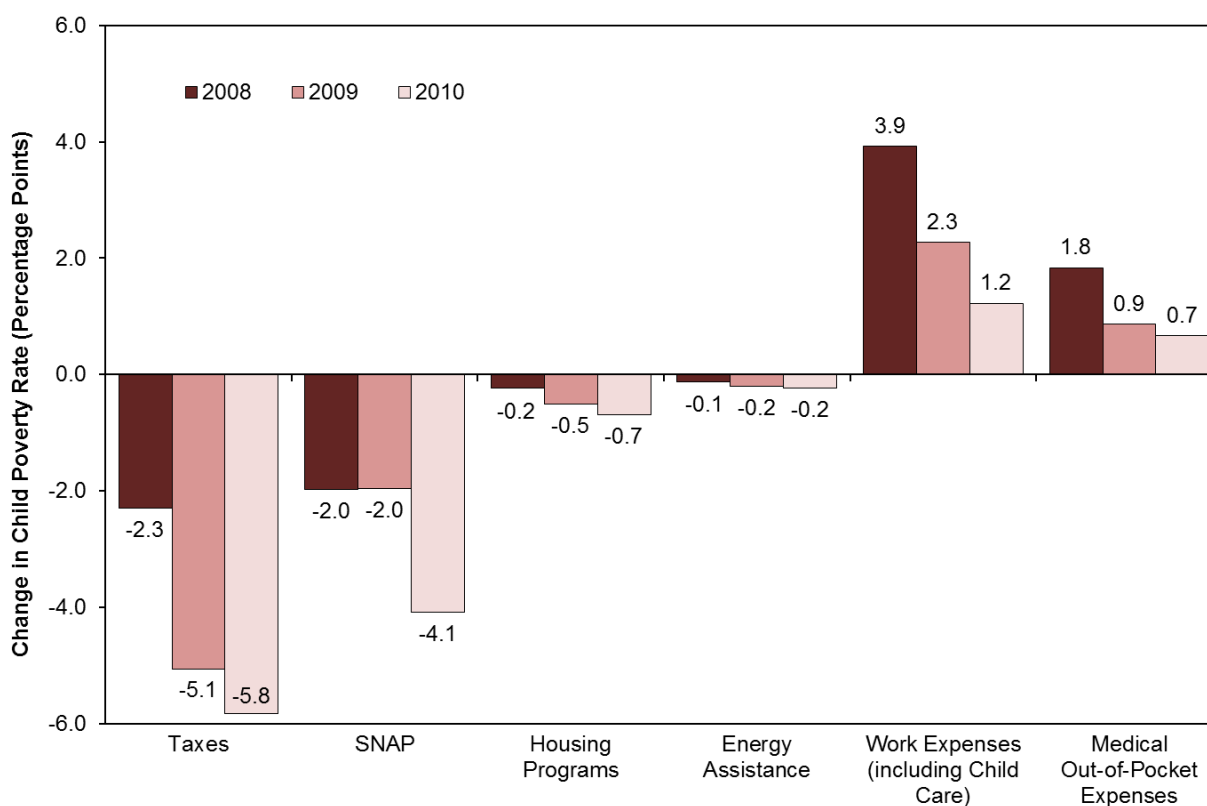


Figure 9. The Effects of Taxes, Public Benefits, and Expenses on Child Poverty Rates in Wisconsin, 2008–2010

Source: The authors' tabulations using 2008–2010 American Community Survey data.

Note: SNAP = Supplemental Nutrition Assistance Program.

Work expense effects were more significant for children, but the effects of medical expenses were felt more acutely by the elderly, who are more likely to be in need of more expensive and sustained medical care. In general, out-of-pocket medical expenses (e.g., insurance premiums, co-payments for medical services, prescription and over-the-counter drugs, and medical expenses not covered by insurance) present a significant challenge for the low-income elderly. Public policies designed to increase the coverage of medical expenses for the low-income elderly can help to alleviate the economic hardship felt by this group.

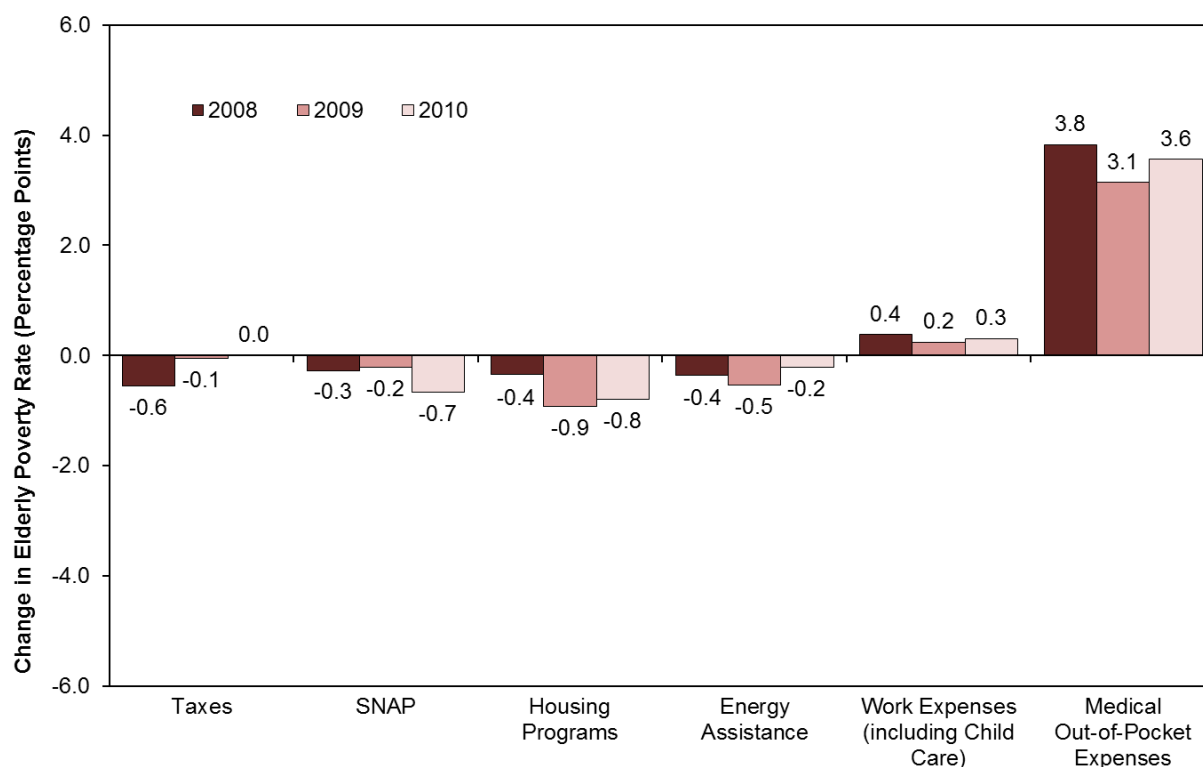


Figure 10. The Effects of Taxes, Public Benefits, and Expenses on Elderly Poverty Rates in Wisconsin, 2008–2010

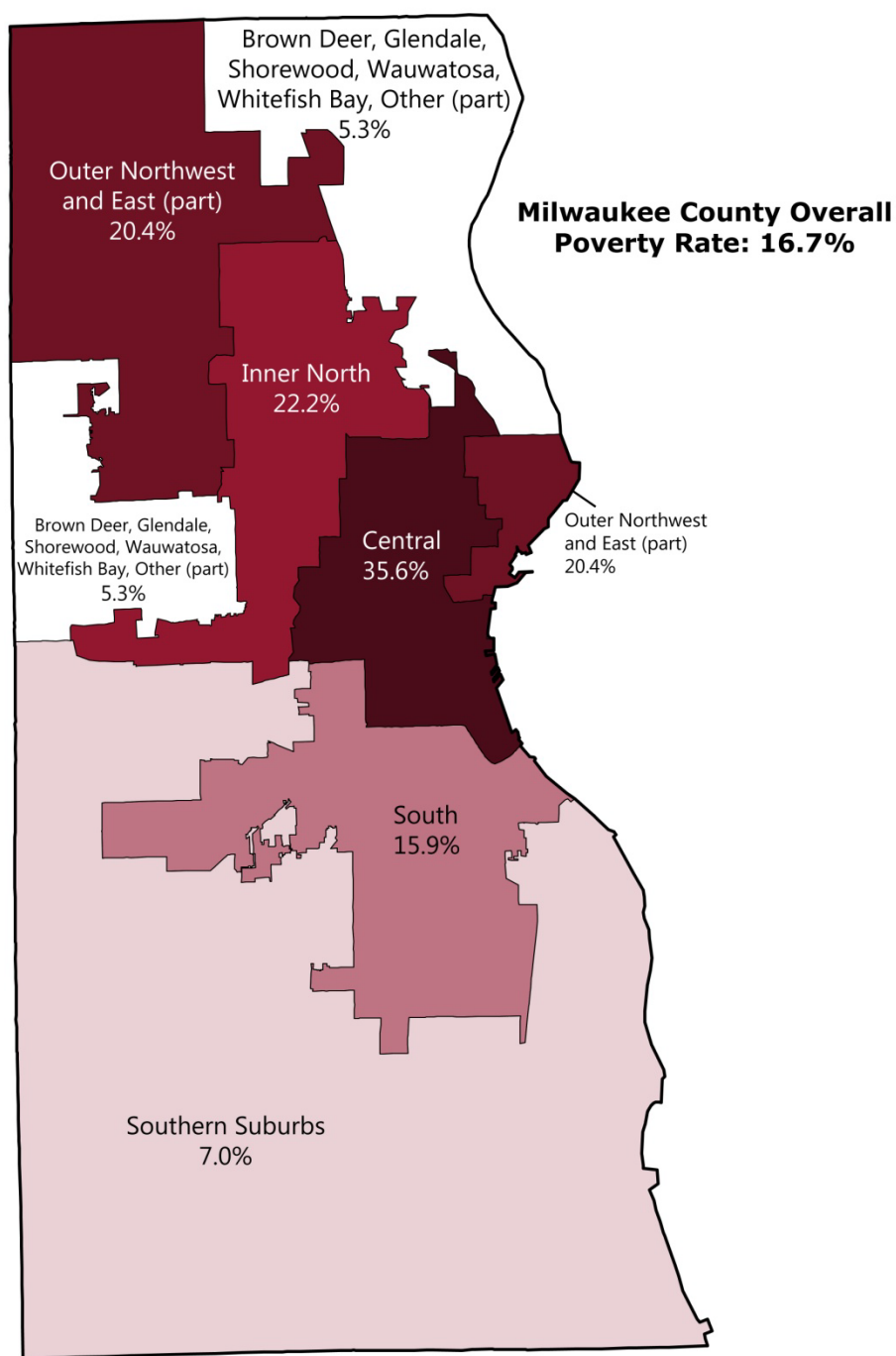
Source: The authors' tabulations using 2008–2010 American Community Survey data.

Note: SNAP = Supplemental Nutrition Assistance Program.

Poverty within Wisconsin: Poverty Rates by County or Multicounty Substate Areas

A significant strength of the WPM is its ability to assess poverty across regions within the state. Our categorization of substate areas includes 10 large counties and 12 multicounty Public Use Microdata Areas (PUMAs) that encompass the remaining areas of the state. While some of the multicounty areas comprise only two counties (e.g., Chippewa and Eau Claire), others require the inclusion of as many as 7–10 more rural counties to create a sample size sufficient to ensure confidentiality and obtain reliable estimates. In 2010, estimates of WPM poverty rates in these substate areas ranged from 16.7 percent in Milwaukee County to 4.2 percent in the area including Ozaukee and Washington counties. Although Milwaukee County’s rate had decreased from 18.7 percent in 2009 to 16.7 percent in 2010, the county still had the highest poverty rate in Wisconsin (results not shown but available upon request).

Poverty estimates for some regions within the state’s largest counties can also be assessed by taking advantage of the relatively large sample sizes in ACS data, and examining poverty rates across subcounty regions may show variations that are more dramatic within counties than across the 22 areas described above. Using the WPM, we estimated poverty rates for subareas within Milwaukee County, one of the state’s most densely populated counties (see map 1). Within Milwaukee County, 2010 poverty rates ranged from about 5 percent in some suburban areas to nearly 36 percent in the central city, suggesting a significant segregation of the poor and the rich within that county. Further, Milwaukee is surrounded by wealthy suburban counties to the north and west, in which poverty rates are well below the state average (e.g., Waukesha County had a rate of 5.1 percent and Ozaukee/Washington counties had a rate of 4.2 percent; results not shown but available upon request).



Map 1. 2010 WPM Poverty Rates within Milwaukee County by PUMA[†]

Source: The authors' tabulations using 2010 American Community Survey data.

Note: The 2010 state poverty rate calculated with the WPM was 10.3%. All differences between the regional estimates and the state average as examined here were statistically significant.

[†] Public Use Microdata Areas (PUMAs) are predefined areas designated by the U.S. Census Bureau that have 100,000 or more residents.

The Role of Poverty Threshold Comparisons with Other NAS-Based Estimates of Poverty

Although the WPM revealed a reduction in poverty in Wisconsin both overall and for children between 2008 and 2010, an alternative poverty measure developed by the New York City Center for Economic Opportunity (CEO) (2012) revealed that poverty in New York City increased during the same period. There are, of course, many demographic and economic differences between Wisconsin and New York City. For example, New York City had a higher poverty rate before the recession, yet Wisconsin experienced a deeper recession. On the other hand, there also are differences in the two poverty measures, while both use similar definitions of a “resource-sharing unit” and basically follow an NAS-based approach, they differ in numerous details.¹²

One difference, of particular importance during the recession, is the use of a threshold based on expenses averaged over three years, called a three-year average (as in the Wisconsin and the original National Academy of Sciences measures) versus a five-year average (as in the New York City measure and the new Supplemental Poverty Measure). Because the WPM uses the three-year NAS-type threshold in Wisconsin while the analysis of the CEO uses the five-year SPM-type threshold, the differences between poverty trends in our base analysis and the CEO analysis do not necessarily suggest that increases in resources available to low-income families

¹²For example, the New York City measure is adjusted for imputed actual medical expenses and imputed WIC and school lunch benefits, and its thresholds are not adjusted for the differences between homeowners with and without an outstanding mortgage and renters; further, its thresholds are based on five-year expenses (for more information, see, e.g., Betson, Giannarelli, and Zedlewski 2011).

were larger for Wisconsinites than New Yorkers—a direct comparison of the two studies’ assessments of poverty trends and their causes is not possible because the two analyses differ somewhat in their construction of poverty thresholds.

To understand the importance of the poverty threshold or line, we conducted an experimental simulation for Wisconsin and compared the results to those of a simulation conducted by the Center for Economic Opportunity (Johnson and Smeeding 2012). Using an anchored threshold so that the Wisconsin and New York City thresholds both increase by the change in the Consumer Price Index or CPI (as the official thresholds do) but are not affected by any other factors, the change in both thresholds between 2008 and 2010 would be 1.3 percent. Also maintaining the 2008 cost of living index adjustments for geographic variation makes the change in poverty rates in Wisconsin and New York City more comparable, compared to using the respective alternative poverty measures. Under these conditions, the New York poverty rate increases by 0.9 percent (rather than 1.4 percent when using CEO’s alternative poverty measure) between 2008 and 2010, and the Wisconsin poverty rate decreases by 0.2 percent (rather than 0.9 percent when using the WPM) during the time considered. For comparison, the respective increases in the official poverty rates are 2.8 percent for Wisconsin and 2.0 percent for New York City. These findings indicate that some, but not all, of the differences in poverty trends between the two locations are due to differences in the changes in poverty thresholds over time. These results also emphasize the necessity of being cautious when comparing poverty measurement results between two geographic regions using different methods.

Conclusion

Our analyses provide new insights into poverty in Wisconsin and the effects of policy on poverty after the onset of the Great Recession. The Wisconsin Poverty Project is one of the first

comprehensive statewide implementations of the National Academy of Sciences-based alternative poverty measure at the state and substate levels and, as such, this study makes unique contributions to the understanding of public policy's effects on poverty. The WPM includes noncash benefits and tax credits, which increased in importance during the recession, and has other features that reflect the characteristics, interests, and antipoverty efforts in our state. By including these features, the WPM demonstrates the importance of using an improved measure of poverty to examine the antipoverty impacts of public policies, while at the same time providing estimates across different regions and subgroups within Wisconsin.

The official poverty measure illustrates that Wisconsin families had lower levels of cash resources in 2010 than they did in 2009 and, therefore, poverty rose. The WPM also considers near-cash benefits and programs intended to offset the increased need caused by the recession. Poverty rates assessed via the WPM suggest that decreases in employment and earnings in 2010 were offset to a considerable extent by increases in refundable tax credits and noncash benefits, ultimately resulting in a reduction in both the overall poverty rate and the poverty rate for children in 2010. Simply put, targeted benefits with strong take-up rates were very helpful in keeping struggling families out of poverty during the Great Recession in Wisconsin. Our results suggest that SNAP and tax credits have been particularly effective in reducing the state's poverty rate, especially for families with children. Even so, our examination of poverty rates across regions in the state reveals deep poverty in certain areas, including central Milwaukee.

The results of falling poverty rates between 2008 and 2010 are somewhat sensitive to the way the poverty threshold was constructed for Wisconsin, namely that because poverty thresholds are tied to actual expenditures in the three preceding years, they fell somewhat during

the recession.¹³ Even if we had used a five-year SPM threshold, we expect to have still seen a decline in poverty in Wisconsin, though not as large a decline.

Of course, the trend in Wisconsin poverty does not suggest that the recession did not harm other Wisconsin residents with moderate incomes. Indeed, the adverse effects of the recession went beyond the poor and near-poor, and also affected the lower middle class, who experienced declining home values, increased debt levels, and flat or falling incomes in combination with rising expenses.

It is important for researchers and policymakers to ask not only whether an income support policy was effective in reducing poverty, but also what solutions might better alleviate longer-term poverty as we emerge from the recession. Indeed, we believe that the long-term solution to poverty is a secure job that pays well, rather than an indefinite income support program. As this report demonstrates, however, in times of need, a safety net that supplements low earnings for families with children, puts food on the table, and encourages self-reliance—as Wisconsin’s safety net does—can do a very good job to offset market-driven poverty.

¹³While we believe that relative poverty lines ought to fall when incomes fall, there may be advantages to considering a five-year threshold (as in the new SPM) rather than the three-year threshold that has traditionally been used for NAS-based measures. But there may also be disadvantages, if actual expenditures rise as the economy recovers from the recession, the five-year threshold may find that falling expenditures in the first three years of the five-year window pull down the poverty line, just when living standards have begun to recover. (See Johnson and Smeeding 2012, table 1).

The success of the Wisconsin safety net may be diminished in the future because of proposed changes in safety net provisions. For example, in 2011 Wisconsin reduced its state EITC level (e.g., from 14 percent to 11 percent of the federal credit for families with two children) (Oliff and Johnson 2012). This policy change is relatively minor, however, compared to proposed cuts in programs like SNAP and refundable tax credits being considered at the national level as part of deficit-reduction packages. If SNAP and other safety net programs are cut, we would expect to see substantial increases in poverty, even as the nation continues to recover from the Great Recession.

**Appendix A. Wisconsin's Poverty Thresholds for Two-Adult, Two-Child Families,
Adjusted for Relative Living Costs**

	National NAS-Based FCSU, Two-Adult, Two-Child Family ^a	Wisconsin's Cost-of-Living Ratio Compared to the National Average ^b	Wisconsin's NAS-Based FCSU, Two-Adult, Two-Child Family ^c
2008	27,043	0.9186	24,843
2009	26,778	0.9070	24,289
2010	26,528	0.9024	23,938

^aThe national FCSU thresholds represent those based on out-of-pocket expenditures (including repayment of mortgage principal for owned housing), obtained from the Census Bureau's website:

http://www.census.gov/hhes/povmeas/data/nas/tables/2010/web_tab5_povertythres2010.xls.

^bEach year, we calculate Wisconsin's cost-of-living ratio compared to the national average using ACS data. We call this the statewide adjustment.

^cWe calculated Wisconsin's baseline thresholds by multiplying the national thresholds by our calculated Wisconsin ratio for two-adult, two-child families. For example, $\$26,528 \times 0.9024 = \$23,938$.

References

- Betson, David M. 1996. “‘Is Everything Relative?’ The Role of Equivalence Scales in Poverty Measurement.” Working paper, University of Notre Dame, Department of Economics, Notre Dame, IN. <http://aspe.hhs.gov/poverty/papers/escale.pdf>.
- Betson, David, Linda Giannarelli, and Sheila Zedlewski. 2011. A summary of the discussion at the Workshop on State Poverty Measurement Using the American Community Survey. Held at the Urban Institute on April 1, 2011, Sponsored by the U.S. Census Bureau. <http://www.urban.org/uploadedpdf/412396-Workshop-on-State-Poverty-Measurement.pdf>.
- Citro, Constance F., and Robert T. Michael, eds. 1995. *Measuring Poverty: A New Approach*. Washington, DC: National Academy Press.
<http://www.census.gov/hhes/povmeas/methodology/nas/report.html>.
- Dalaker, Joe. 2005. *Alternative Poverty Estimates in the United States: 2003*. Current Population Report. No. P60-227. Washington, DC: U.S. Census Bureau, Economics and Statistics Administration, U.S. Department of Commerce.
- Garner, Thesia I., and David M. Betson. 2010. “Housing and Poverty Thresholds: Different Potions for Different Notions.” Paper presented at the Midwest Economics Association Annual Meeting, Chicago, IL, March 19–21.
- Hutto, Nathan, Jane Waldfogel, Neeraj Kaushal, and Irwin Garfinkel. 2011. “Improving the Measurement of Poverty.” *Social Service Review* 85(1): 39–74.
- Iceland, John. 2005. “The CNSTAT Workshop on Experimental Poverty Measures, June 2004.” Madison, WI: Institute for Research on Poverty, *Focus* 23(3): 26–30.

Interagency Technical Working Group (ITWG) on Developing a Supplemental Poverty Measure.

2010. "Observations from the ITWG on Developing a Supplemental Poverty Measure."

Washington, DC: U.S. Census Bureau.

http://www.census.gov/hhes/www/poverty/SPM_TWGObservations.pdf.

Isaacs, Julia B., Katherine Toran, Heather Hahn, Toran, Karina Fortuny and C. Eugene Steuerle.

2012. *Kids' Share 2012: Report on Federal Expenditures on Children through 2011*.

Washington, DC: The Urban Institute.

Isaacs, Julia B., Joanna Young Marks, Timothy M. Smeeding, and Katherine A. Thornton.

2010a. *Wisconsin Poverty Report: Methodology and Results for 2008*. Madison, WI:

Institute for Research on Poverty.

<http://www.irp.wisc.edu/research/wipoverty.htm#wipovreport>.

Isaacs, Julia B., Joanna Young Marks, Timothy M. Smeeding, and Katherine A. Thornton.

2010b. *Wisconsin Poverty Report: Technical Appendix*. Madison, WI: Institute for

Research on Poverty. <http://www.irp.wisc.edu/research/wipoverty.htm#wipovreport>.

Johnson, David S., and Timothy M. Smeeding. 2012. "A Consumer's Guide to Interpreting

Various U.S. Poverty Measures." *Fast Focus* No. 14-2012. Madison, WI: Institute for

Research on Poverty. [http://www.irp.wisc.edu/publications/fastfocus/pdfs/FF14-](http://www.irp.wisc.edu/publications/fastfocus/pdfs/FF14-2012.pdf)

[2012.pdf](http://www.irp.wisc.edu/publications/fastfocus/pdfs/FF14-2012.pdf). Levitan, Mark, and Trudi J. Renwick. 2010. *Using the American Community*

Survey to Implement a National Academy of Sciences-Style Poverty Measure: A

Comparison of Imputation Strategies. Report, New York City Center for Economic

Opportunity and U.S. Census Bureau.

[http://www.census.gov/hhes/povmeas/publications/overview/RenwickLevitanJSM2010.p](http://www.census.gov/hhes/povmeas/publications/overview/RenwickLevitanJSM2010.pdf)
df.

Marks, Joanna Y., Julia B. Isaacs, Timothy M. Smeeding, and Katherine A. Thornton. 2011.

Wisconsin Poverty Report: Were Antipoverty Policies Effective in 2009? Madison, WI:

Institute for Research on Poverty.

http://www.irp.wisc.edu/research/WisconsinPoverty/pdfs/WIPovAntipovertyPolicies_May2011.pdf.

New York City Center for Economic Opportunity. 2008. *The CEO Poverty Measure*. Working paper. August. http://www.nyc.gov/html/ceo/downloads/pdf/final_poverty_report.pdf.

New York City Center for Economic Opportunity. 2012. *Policy Affects Poverty: The CEO Poverty Measure, 2005–2010*.

http://www.nyc.gov/html/ceo/downloads/pdf/CEO_Poverty_Measure_April_16.pdf.

Oliff, Phil, and Nicholas Johnson. 2012. *The Impact of State Income Taxes on Low-Income Families in 2010*. Center on Budget and Policy Priorities.

<http://www.cbpp.org/cms/index.cfm?fa=view&id=3620>.

Ruggles, Steven, J. Trent Alexander, Katie Genadek, Ronald Goeken, Matthew B. Schroeder, and Matthew Sobek. 2010. *Integrated Public Use Microdata Series: Version 5.0* [Machine-readable database]. Minneapolis: University of Minnesota.

<http://usa.ipums.org/usa>.

Sherman, Arloc. 2011. “Despite Deep Recession and High Unemployment, Government Efforts—including the Recovery Act—Prevented Poverty from Rising in 2009, New Census Data Show.” Washington, DC: The Center on Budget and Policy Priorities.

<http://www.cbpp.org/files/1-5-11pov.pdf>.

- Short, Kathleen. 2003. *Alternative Poverty Measures in the Survey of Income and Program Participation*. U.S. Census Bureau.
<http://www.census.gov/hhes/povmeas/publications/overview/sipp.pdf>.
- Short, Kathleen. 2011. *The Research Supplemental Poverty Measure 2010: Consumer Income*. U.S. Census Bureau, Current Population Reports no. P60-241. Washington, DC: U.S. Government Printing Office. <http://www.census.gov/prod/2011pubs/p60-241.pdf>.
- Smeeding, Timothy M., and Joanna Y. Marks. 2011. "The 'Wisconsin Idea' and Antipoverty Innovation." *Pathways: A Magazine on Poverty, Inequality, and Social Policy*, Summer: 18–21.
http://www.stanford.edu/group/scspi/_media/pdf/pathways/summer_2011/PathwaysSummer11_SmeedingMarks.pdf.
- U.S. Census Bureau. 2012a. *Poverty Thresholds for Two-Adult-Two-Child Family Following NAS Recommendations: 1999–2010*. Report. Washington, DC: U.S. Government Printing Office.
http://www.census.gov/hhes/povmeas/data/nas/tables/2010/web_tab5_povertythres2010.xls.
- U.S. Census Bureau. 2012b. *Poverty Thresholds 2010*. Report. Washington, DC: U.S. Government Printing Office.
<http://www.census.gov/hhes/www/poverty/data/threshld/thresh10.xls>.
- Williams, Erica, Nicholas Johnson, and Jon Shure. 2009. "State Earned Income Tax Credits: 2009 Legislative Update." Center on Budget and Policy Priorities (November 10).
<http://www.taxpolicycenter.org/taxfacts/displayafact.cfm?Docid=293>.

Wisconsin Legislative Audit Bureau. 2012. *FoodShare Wisconsin*. State of Wisconsin

Department of Health Services. April. <http://legis.wisconsin.gov/lab/reports/12-8full.pdf>.

Zedlewski, Sheila, Linda Giannarelli, Laura Wheaton, and Joyce Morton. 2010. *Measuring*

Poverty at the State Level. Washington, DC: The Urban Institute.

http://www.urban.org/UploadedPDF/412063_measuring_poverty.pdf.