The Research SUPPLEMENTAL POVERTY MEASURE: 2012

Current Population Reports

By Kathleen Short Issued November 2013

INTRODUCTION

This is the third report describing research on the Supplemental Poverty Measure (SPM) released by the U.S. Census Bureau, with support from the Bureau of Labor Statistics (BLS).1 The SPM extends the official poverty measure by taking account of many of the government programs designed to assist low-income families and individuals that are not included in the current official poverty measure. The current official poverty measure was developed in the early 1960s, and only a few minor changes have been implemented since it was first adopted in 1969 (Orshansky, 1963, 1965a, 1965b; Fisher, 1992). The official measure consists of a set of thresholds for families of different sizes and compositions that are compared with before-tax cash income to determine a family's poverty status. At the time they were developed, the official poverty thresholds represented the cost of

a minimum diet multiplied by three (to allow for expenditures on other goods and services).

Concerns about the adequacy of the official measure have increased during the past decades (Ruggles, 1990), culminating in a Congressional appropriation in 1990 for an independent scientific study of the concepts, measurement methods, and information needed for a poverty measure. In response, the National Academy of Sciences (NAS) established the Panel on Poverty and Family Assistance, which released its report Measuring Poverty: A New Approach in the spring of 1995 (Citro and Michael, 1995). In March of 2010, the Interagency Technical Working Group on Developing a Supplemental Poverty Measure (ITWG) listed suggestions for research on the SPM. The ITWG was charged with developing a set of initial starting points to permit the Census Bureau, in cooperation with the BLS, to produce a report on the SPM that would be released along with the official measure each year. Their suggestions included:

 The SPM thresholds should represent a dollar amount spent on a basic set of goods that includes food, clothing, shelter, and utilities (FCSU) and a small additional amount to allow for other needs (e.g., household supplies, personal care, non-workrelated transportation). This threshold should be calculated with five years of expenditure data for families with exactly two children using Consumer Expenditure Survey data, and it should be adjusted (using a specified equivalence scale) to reflect the needs of different family types and geographic differences in housing costs. Adjustments to thresholds should be made over time to reflect real change in expenditures on this basic bundle of goods at the 33rd percentile of the expenditure distribution.

SPM family resources should be defined as the value of cash income from all sources, plus the value of noncash benefits that are available to buy the basic bundle of goods (FCSU) minus necessary expenses for critical goods and services not included in the thresholds. Noncash benefits include nutrition assistance, subsidized housing, and home



¹ Short (2011), <www.census.gov/hhes /povmeas/methodology/supplemental /research/Short_ResearchSPM2010.pdf> and Short (2012), <www.census.gov/hhes /povmeas/methodology/supplemental /research/Short_ResearchSPM2011.pdf>, accessed August 2013.

energy assistance. Necessary expenses that must be subtracted include income taxes, Social Security payroll taxes, childcare and other work-related expenses, child support payments to another household, and contributions toward the cost of medical care and health insurance premiums, or medical out-of-pocket (MOOP) costs.²

This report presents a poverty measure that is based largely on the NAS panel's 1995 recommendations and reflects more recent research and suggestions from the ITWG. Particular emphasis is on internal consistency between the thresholds and resources. The NAS panel noted: "It is important that family resources are defined consistently with the threshold concept in any poverty measure."3 The SPM, as defined by the ITWG, is an internally consistent poverty measure that is based on spending "outflows" and money "inflows." Spending outflows, or outlays, are those for basic needs only: FCSU and other basic necessary goods and services.4 Resources include money income from all sources plus the value of noncash benefits that help the family meet spending needs, less necessary expenses, like work-related expenses and taxes that must be paid. A family is designated as poor if its annual money inflow, net of necessary expenses, falls below its threshold level of money outflow.5

The SPM does not take account of assets that may be used to meet necessary expenses. Since assets can add to the resources that are used to meet basic needs, some analysts advocate counting them in measuring poverty. Others may argue that many assets are not liquid or suggest that poor families have so few assets that including them would not change poverty measures much. If our purpose is to target families who are in need, then it is clear that families with no assets are worse off than those who have some. On the other hand, families who have incurred large debts are more vulnerable to financial trouble than those who have not. The NAS panel discussed a "crisis definition of resources." This definition included those assets families have on hand that could be converted to cash to support current consumption. They suggested that this "crisis definition" is only relevant for a very shortterm measure of poverty because, in their words, "...assets can only ameliorate poverty temporarily."6 They suggested that it is important, however, to develop measures of the distribution of wealth and to examine the relationship between asset ownership and poverty status. While spending down assets can enhance income to make ends meet, servicing debt can be a drain on family income that would otherwise be sufficient to purchase basic necessities.7

The ITWG stated that the official poverty measure, as defined in

Office of Management and Budget (OMB) Statistical Policy Directive No. 14, will not be replaced by the SPM. They noted that the official measure is sometimes identified in legislation regarding program eligibility and funding distribution, while the SPM will not be used in this way. The SPM is designed to provide information on aggregate levels of economic need at a national level or within large subpopulations or areas and, as such, the SPM will be an additional macroeconomic statistic providing further understanding of economic conditions and trends.

This report presents updated estimates of the prevalence of poverty in the United States, overall and for selected demographic groups, using the official measure and the SPM. Section one presents differences between the official poverty measure and the SPM. Comparing the two measures sheds light on the effects of noncash benefits, taxes, and other nondiscretionary expenses on measured economic wellbeing. The composition of the poverty populations using the two measures is examined across subgroups to better understand the incidence and receipt of benefits and taxes that are missed in the official statistics. The distribution of income-to-poverty threshold ratios and poverty rates by state are estimated and compared for the two measures. The second section of the report examines the SPM itself. Effects of benefits and expenses on SPM rates are explicitly examined, and SPM estimates for 2012 are compared with the 2011 figures to assess changes in SPM rates from the previous year.

² For information, see ITWG, Observations from the Interagency Technical Working Group on Developing a Supplemental Poverty Measure (Interagency), March 2010, available at <www.census.gov/hhes/www/poverty /SPM_TWGObservations.pdf>, accessed September 2013.

³ Citro and Michael, 1995, p. 9.

⁴ For the BLS definition of expenditure outlays, see Rogers and Gray, 1994.

⁵ See Garner and Short, 2010, for further discussion of measurement consistency.

⁶ Citro and Michael, 1995, pp. 214-218.

⁷ Interest payments on mortgages are included in SPM thresholds as a part of shelter costs, while income from assets, such as interest and dividends, are included in cash income. Short and Ruggles (2005) examined methods of taking account of net worth in experimental poverty measures using data from the Survey of Income and Program Participation (SIPP).

	Poverty Measure C	Concepts: Official and Supplemental
	Official Poverty Measure	Supplemental Poverty Measure
Measurement Units	Families and unrelated individuals	All related individuals who live at the same address, including any coresident unrelated children who are cared for by the family (such as foster children) and any cohabitors and their relatives
Poverty Threshold	Three times the cost of a minimum food diet in 1963	The 33rd percentile of expenditures on food, clothing, shelter, and utilities (FCSU) of consumer units with exactly two children multiplied by 1.2
Threshold Adjustments	Vary by family size, composition, and age of householder	Geographic adjustments for differences in housing costs by tenure and a three-parameter equivalence scale for family size and composition
Updating Thresholds	Consumer Price Index: all items	Five-year moving average of expenditures on FCSU
Resource Measure	Gross before-tax cash income	Sum of cash income, plus noncash benefits that families can use to meet their FCSU needs, minus taxes (or plus tax credits), minus work expenses, minus out-of-pocket medical expenses and child support paid to another household

POVERTY ESTIMATES FOR 2012: OFFICIAL AND SPM

The measures presented in this study use the 2013 Current Population Survey Annual Social and Economic Supplement (CPS ASEC) income information that refers to calendar year 2012 to estimate SPM resources.⁸ These are the same data used for the preparation of official poverty statistics and reported in DeNavas-Walt et al. (2013).

The "Orshansky" thresholds are used for the *official* poverty

estimates presented here, however, unlike the official estimates. unrelated individuals under the age of 15 are included in the universe. Since the CPS ASEC does not ask income questions for individuals under age 15, they are excluded from the universe for official poverty calculations. For the official poverty estimates shown in this report, all unrelated individuals under age 15 are included and presumed to be in poverty. For the SPM, they are assumed to share resources with the household reference person.

The SPM thresholds for 2012 are based on out-of-pocket spending on FCSU. Thresholds use five years of quarterly data from the Consumer Expenditure Survey (CE); the thresholds are produced by staff at the BLS.^{9, 10} Three housing status groups were determined and their expenditures on shelter

and utilities produced within the 30–36th percentiles of FCSU expenditures.¹¹ The three groups include owners with mortgages, owners without mortgages, and renters. The thresholds used here include the value of Supplemental Nutrition Assistance Program (SNAP) benefits in the measure of spending on food.¹² The American Community Survey (ACS) data on rents paid are used to adjust the FCSU thresholds for differences in spending on housing across geographic areas.¹³

The two measures use different units of analysis. The official measure of poverty uses the census-defined family that includes all individuals residing together who are related by birth, marriage, or adoption and treats all unrelated individuals over age 15 independently. For the SPM, the ITWG suggested that

⁸ The data in this report are from the 2011 to 2013 Current Population Survey Annual Social and Economic Supplement (CPS ASEC). The estimates in this paper (which may be shown in text, figures, and tables) are based on responses from a sample of the population and may differ from actual values because of sampling variability or other factors. As a result, apparent differences between the estimates for two or more groups may not be statistically significant. All comparative statements have undergone statistical testing and are significant at the 90 percent confidence level unless otherwise noted. Standard errors were calculated using replicate weights. Further information about the source and accuracy of the estimates is available at <www.census.gov/hhes/www/p60_239sa .pdf>, <www.census.gov/hhes/www /p60_243sa.pdf>, and <www.census.gov /hhes/www/p60_245sa.pdf>, accessed September 2013.

⁹ Bureau of Labor Statistics, Experimental Poverty Measure Web site, <www.bls.gov/pir /spmhome.htm>. accessed September 2013.

¹⁰ See <www.bls.gov/cex/anthology08 /csxanth2.pdf> or <www.bls.gov/cex /anthology08/csxanth3.pdf> for information on the CE, accessed September 2013.

¹¹ See appendix for description of threshold calculation.

¹² For consistency in measurement with the resource measure, the thresholds should include the value of noncash benefits, though additional research continues at BLS on appropriate methods.

¹³ See appendix for description of the geographic adjustments.

the "family unit" should include all related individuals who live at the same address, as well as any coresident unrelated children who are cared for by the family (such as foster children), and any cohabitors and their children. Independent unrelated individuals living alone are one-person SPM units. This definition corresponds broadly with the unit of data collection (the consumer unit) that is employed for the CE data used to calculate poverty thresholds. These units are referred to as SPM Resource Units. Selection of the unit of analysis for poverty measurement implies that members of that unit share income or resources with one another.

SPM thresholds are adjusted for the size and composition of the SPM Resource Unit relative to the two-adult-two-child threshold using an equivalence scale. 14 The official measure adjusts thresholds based on family size, number of children and adults, as well as whether or not the householder is aged 65 or over. The official poverty threshold for a two-adult-two-child family

Two Adult, Two Child Poverty Thresholds: 2011 and 2012 (Dollars)										
	2011	S.E.	2012	S.E.						
Official	22,811	Х	23,283	х						
Research Supplemental Poverty Measure										
Owners with a mortgage	25,703	347	25,784	368						
Owners without a mortgage	21,175	298	21,400	233						
Renters	25,222	378	25,105	398						

S.E. Standard error.

was \$23,283 in 2012. The SPM thresholds vary by housing tenure status and are higher for owners with mortgages and renters than the official threshold. These two groups comprise about 76 percent of the total population. The official threshold increased by \$472 between 2011 and 2012, SPM thresholds for owners increased significantly between 2011 and 2012, but the increase was less than the increase in the official threshold for the same period. The SPM thresholds for renters declined between the two years.

Following the recommendations of the NAS report and the ITWG, SPM resources are estimated as the sum of cash income; plus any federal government noncash benefits that families can use to meet their FCSU needs; minus taxes (plus tax credits), work expenses, and outof-pocket expenditures for medical expenses. The research SPM presented in this study adds the value of noncash benefits and subtracts necessary expenses, such as taxes, child care expenses, and MOOP expenses. For the SPM, estimates from additional questions about child care and medical out-ofpocket expenses are available and subtracted from income.15 The text box summarizes the additions and subtractions for the SPM; descriptions are in the appendix.

Resource Estimates SPM Resources = Money Income From All Sources

Plus:

Supplemental Nutritional Assistance (SNAP)

National School Lunch Program

Supplementary Nutrition Program for Women, Infants, and Children (WIC)

Housing Subsidies

Low-Income Home Energy Assistance (LIHEAP)

Minus:

Taxes (plus credits such as the Earned Income Tax Credit [EITC])

Expenses Related to Work

Child Care Expenses

Medical Out-of-Pocket (MOOP) Expenses

Child Support Paid

¹⁴ See appendix for description of the three-parameter scale.

X Not applicable.

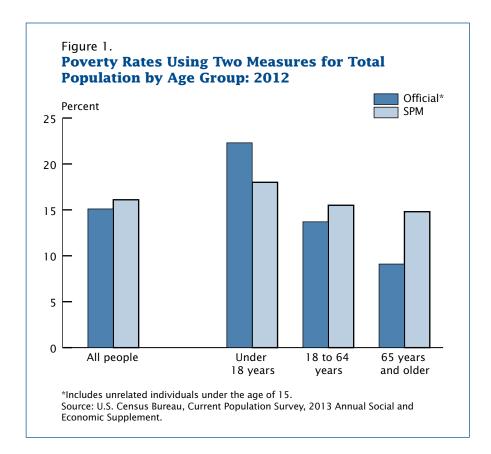
Source: Bureau of Labor Statistics, September 2013 <www.bls.gov/pir/spmhome.htm>.

¹⁵ Documentation concerning the quality of these data is available in various working papers at <www.census.gov/hhes/povmeas /publications/working.html>, accessed September 2013.

POVERTY RATES: OFFICIAL AND SPM

Figure 1 shows poverty rates for the two measures for the total population and for three age groups: under 18 years, ages 18 to 64, and 65 years and over. Table 1 shows rates for a variety of selected demographic groups. The percent of the population that was poor using the official measure for 2012 was 15.0 percent (DeNavas-Walt et al., 2013). For this study, including unrelated individuals under age 15 in the universe, the poverty rate was 15.1 percent. 16 The research SPM yields a rate of 16.0 percent for 2012. While, as noted, SPM poverty thresholds are generally higher than official thresholds, other parts of the measure also contribute to differences in the estimated prevalence of poverty in the United States.

In 2012, 49.7 million were poor using the SPM definition of poverty, more than the 47.0 million using the official definition of poverty with our universe. For most groups. SPM rates were higher than the official poverty rates. Comparing the SPM to the official measure shows lower poverty rates for children, individuals included in new SPM Resource Units, Blacks, renters, those living outside metropolitan areas, those in the Midwest, those covered by only public health insurance, and individuals with a work disability. Most other groups had higher poverty rates using the SPM rather than the official measure. Official and SPM poverty rates for females, people in female householder units, native-born citizens, residents of the South, and those not working were not statistically different. Note that poverty rates



for those 65 years and over were higher under the SPM compared with the official measure. This partially reflects that the official thresholds are set lower for families with householders in this age group, while the SPM thresholds do not vary by age.

DISTRIBUTION OF THE POVERTY POPULATION BY CHARACTERISTICS: OFFICIAL AND SPM

Table 2 compares the distribution of people in the total population across selected groups with the distribution of people classified as poor using the two measures. Figure 2 shows these estimates across age groups. The top bar shows the representation of these groups in the total population. The share of people 65 years and over in poverty was higher when the SPM is

used, 12.9 percent compared with 8.4 percent with the official measure, while the share of children was lower.

The SPM also results in a higher share of the poor for men, those who were 18 to 64 years old, in married-couple families, with male householders, Whites, Asians, the foreign born, homeowners with mortgages, individuals with private health insurance, the uninsured, all workers, and individuals without a work disability. The shares were also higher using the SPM rather than the official measure for those residing in metropolitan areas but outside principal cities and the Northeast and West regions. These differences by residence and region reflect the adjustments for geographic cost differences in housing that are made to the SPM thresholds.

¹⁶ The 15.0 and 15.1 rates are not statistically different.

Table 1.

Number and Percentage of People in Poverty by Different Poverty Measures: 2012

(Numbers in thousands, confidence intervals [C.I.] in thousands or percentage points as appropriate. People as of March of the following year. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see www.census.gov/prod/techdoc/cps/cpsmar13.pdf)

see www.census.gov/prod/techa	, ., ., -, -,		Offici	al**			SPI	M		D:"	
		Nun	nber	Perd	cent	Num	ber	Per	cent	Differ	ence
Characteristic					90		90		90		
	Number**	Esti-	90 percent	Esti-	percent C.I.†	Esti-	percent C.I.†	Esti-	percent C.I.†		
	(in thousands)		C.I.† (±)	mate	(±)	mate	(±)	mate	(±)	Number	Percent
All people	311,116	46,965	907	15.1	0.3	49,730	923	16.0	0.3	*2,766	*0.9
Sex											
Male	152,335	20,934	471	13.7	0.3	23,278	474	15.3	0.3	*2,345	*1.5
Female	158,781	26,031	531	16.4	0.3	26,452	534	16.7	0.3	421	0.3
Age											
Under 18 years	74,187	16,542	451	22.3	0.6	13,358	366	18.0	0.5	*-3,184 *3,456	*–4.3 *1.8
18 to 64 years	193,642 43,287	26,497 3,926	522 174	13.7 9.1	0.3 0.4	29,953 6,419	584 217	15.5 14.8	0.3 0.5	*2,493	*5.8
Type of Unit											
Married couple	186,869	14,081	577	7.5	0.3	18,703	668	10.0	0.4	*4,622	*2.5
Female householder	62,778	18,244	597	29.1	0.8	18,137	577	28.9	0.8	-108	-0.2
Male householder	33,554	6,015	277	17.9	0.7	7,766	291	23.1	0.7	*1,751	*5.2
New SPM	27,914	8,625	381	30.9	1.0	5,124	360	18.4	1.1	*-3,501	*–12.5
Race ¹ and Hispanic Origin White	242.469	21 120	714	12.8	0.3	34,002	704	14.0	0.3	*2,864	*1.2
White, not Hispanic	195,330	31,139 19,158	598	9.8	0.3	20,946	724 596	10.7	0.3	*1,788	*0.9
Black	40,208	10,994	424	27.3	1.1	10,363	415	25.8	1.0	*-631	*–1.6
Asian	16,433	1,937	190	11.8	1.1	2,737	213	16.7	1.2	*800	*4.9
Hispanic (any race)	53,230	13,740	456	25.8	0.9	14,819	450	27.8	0.8	*1,078	*2.0
Nativity											
Native born	271,010 40,107	39,243 7,721	834 305	14.5 19.3	0.3 0.6	39,538 10,192	837 367	14.6 25.4	0.3 0.7	295 *2,471	0.1 *6.2
Naturalized citizen	18,200	2,260	158	12.4	0.8	3,361	195	18.5	0.7	*1,101	*6.1
Not a citizen	21,906	5,462	256	24.9	1.0	6,831	307	31.2	1.1	*1,369	*6.2
Tenure											
Owner	206,922	16,469	591	8.0	0.3	20,512	604	9.9	0.3	*4,043	*2.0
Owner/mortgage	137,771 72,546	8,254	384 447	6.0	0.3 0.5	11,676 9,694	443	8.5	0.3 0.5	*3,422 *493	*2.5 *0.7
Renter	100,799	9,201 29,509	735	12.7 29.3	0.5	28,360	402 747	13.4 28.1	0.5	*-1,148	*0.7 *–1.1
Residence											
Inside metropolitan statistical											
areas	263,328		918	14.6	0.3	43,064	956	16.4	0.3		*1.8
Inside principal cities	101,363		614	19.8	0.5	21,401	667	21.1	0.6	*1,329	*1.3
Outside principal cities Outside metropolitan statistical	161,965	18,340	669	11.3	0.4	21,664	701	13.4	0.4	*3,324	*2.1
areas ²	47,788	8,553	644	17.9	0.9	6,666	478	13.9	0.7	*-1,887	*-3.9
Region											
Northeast	55,135	7,575	304	13.7	0.6	8,570	362	15.5	0.7	*996	*1.8
Midwest	66,422	8,936	390	13.5	0.6	8,268	382	12.4	0.6	1	*-1.0
South	116,130 73,429	19,279 11,175	690 409	16.6 15.2	0.6 0.6	18,939 13,953	605 473	16.3 19.0	0.5 0.6	1	-0.3 *3.8
Health Insurance Coverage											
With private insurance	198,812	9,615	386	4.8	0.2	15,273	446	7.7	0.2	*5,658	*2.8
With public, no private		,		_							
insurance	64,354	23,614	613	36.7	0.7	19,655	559	30.5	0.7	1 '	*-6.2
Not insured	47,951	13,735	408	28.6	0.7	14,802	449	30.9	0.8	*1,067	*2.2

See footnotes at end of table.

Table 1.

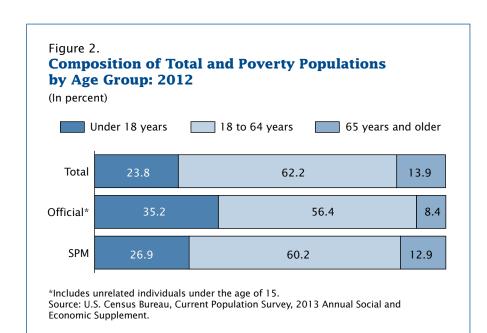
Number and Percentage of People in Poverty by Different Poverty Measures: 2012—Con.

(Numbers in thousands, confidence intervals [C.I.] in thousands or percentage points as appropriate. People as of March of the following year. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see www.census.gov/prod/techdoc/cps/cpsmar13.pdf)

			Offic	ial**			SPI	M		D:#	
		Number		Perd	cent	Number		Percent		Difference	
Characteristic			90		90		90		90		
			percent		percent		percent		percent		
	Number**	Esti-	C.I.†	Esti-	C.I.†	Esti-	C.I.†	Esti-	C.I.†		
	(in thousands)	mate	(±)	mate	(±)	mate	(±)	mate	(±)	Number	Percent
Work Experience											
Total, 18 to 64 years	193,642	26,497	522	13.7	0.3	29,953	584	15.5	0.3	*3,456	*1.8
All workers		10,672	294	7.3	0.2	14,066	358	9.6	0.2	*3,394	*2.3
Worked full-time, year-round	98,715	2,867	133	2.9	0.1	5,252	183	5.3	0.2	*2,385	*2.4
Less than full-time, year-round	47,099	7,805	233	16.6	0.5	8,814	275	18.7	0.5	*1,009	*2.1
Did not work at least 1 week	47,828	15,825	369	33.1	0.6	15,887	390	33.2	0.7	62	0.1
Disability Status ³											
Total, 18 to 64 years	193,642	26,497	522	13.7	0.3	29,953	584	15.5	0.3	*3,456	*1.8
With a disability		4,257	161	28.4	0.9	3,979	167	26.5	0.9	*-278	*-1.9
With no disability	177,727	22,189	478	12.5	0.3	25,921	536	14.6	0.3	*3,732	*2.1

^{*} Statistically different from zero at the 90 percent confidence level.

³ The sum of those with and without a disability does not equal the total because disability status is not defined for individuals in the Armed Forces. Source: U.S. Census Bureau, Current Population Survey, 2013 Annual Social and Economic Supplement.



The share of the poor who were in the category labeled "new SPM units" was lower than the official measure by 8.1 percentage points—these are the units that include additional members, such as cohabiting partners, whose income is not included in the family definition employed by the official measure. The proportion that were female, children, resided in femalehouseholder families, Blacks, native born, renters, living outside metropolitan areas, in the Midwest and the South, had only public insurance, did not work, and had a work disability was smaller using the SPM compared with the official measure. The shares of the poverty

^{**} Includes unrelated individuals under the age of 15.

[†] A 90 percent confidence interval is a measure of an estimate's variability. The larger the confidence interval in relation to the size of the estimate, the less reliable the estimate. Confidence intervals shown in this table are based on standard errors calculated using replicate weights. For more information see "Standard Errors and Their Use" at www.census.gov/hhes/www/p60_245sa.pdf>.

¹ Federal surveys give respondents the option of reporting more than one race. Therefore, two basic ways of defining a race group are possible. A group such as Asian may be defined as those who reported Asian and no other race (the race-alone or single-race concept) or as those who reported Asian regardless of whether they also reported another race (the race-alone-or-in-combination concept). This table shows data using the first approach (race alone). The use of the single-race population does not imply that it is the preferred method of presenting or analyzing data. The Census Bureau uses a variety of approaches. Information on people who reported more than one race, such as White **and** American Indian and Alaska Native or Asian **and** Black or African American, is available from Census 2010 through American FactFinder. About 2.9 percent of people reported more than one race in Census 2010. Data for American Indians and Alaska Natives, Native Hawaiians and Other Pacific Islanders, and those reporting two or more races are not shown separately.

² The "Outside metropolitan statistical areas" category includes both micropolitan statistical areas and territory outside of metropolitan and micropolitan statistical areas. For more information, see "About Metropolitan and Micropolitan Statistical Areas" at <www.census.gov/population/metro>.

Table 2. **Distribution of People in Total and Poverty Population: 2012**

(Numbers in thousands, confidence intervals [C.I.] in thousands or percentage points as appropriate. People as of March of the following year. For information on confidentiality protection, sampling error, nonsampling error, and definitions,

see www.census.gov/prod/techdoc/cps/cpsmar13.pdf)

	Total pop	ulation	Offici	al**	SPI	M	Difference/	
Characteristic	Estimate	90 percent C.I.† (±)	Estimate	90 percent C.I.† (±)	Estimate	90 percent C.I.† (±)	Official** vs SPM	
All people	311,116	Z	46,965	907	49,730	923		
			(percent of co	olumn total)				
Sex								
Male	49.0 51.0	0.0	44.6 55.4	0.5 0.5	46.8 53.2	0.4 0.4	*2.2 *–2.2	
	01.0	0.0	00.1	0.0	2.00	0.1		
Age Under 18 years	23.8	0.0	35.2	0.5	26.9	0.4	*-8.4	
18 to 64 years	62.2	0.1	56.4	0.5	60.2	0.4	*3.8	
65 years and older	13.9	0.1	8.4	0.4	12.9	0.4	*4.5	
Type of Unit								
Married couple	60.1	0.4	30.0	1.0	37.6	1.0	*7.6	
Female householder	20.2	0.3	38.8	1.0	36.5	1.0	*-2.4	
Male householder	10.8	0.2	12.8	0.6	15.6	0.6	*2.8	
New SPM	9.0	0.2	18.4	0.8	10.3	0.7	*–8.1	
Race ¹ and Hispanic Origin								
White	77.9	0.0	66.3	0.9	68.4	0.8	*2.1	
White, not Hispanic	62.8	0.1	40.8	0.9	42.1	0.9	*1.3	
Black	12.9 5.3	0.0 0.1	23.4 4.1	0.8 0.4	20.8 5.5	0.7 0.4	*–2.6 *1.4	
Asian	17.1	0.0	29.3	0.4	29.8	0.4	0.5	
Nativity								
Native born	87.1	0.2	83.6	0.6	79.5	0.7	*-4.1	
Foreign born	12.9	0.2	16.4	0.6	20.5	0.7	*4.1	
Naturalized citizen	5.9	0.1	4.8	0.3	6.8	0.4	*1.9	
Not a citizen	7.0	0.2	11.6	0.5	13.7	0.6	*2.1	
Tenure								
Owner	66.5	0.4	35.1	1.0	41.2	1.0	*6.2	
Owner/mortgage	44.3	0.4	17.6	0.7	23.5	0.8	*5.9	
Owner/no mortgage/rent free	23.3	0.3	19.6	0.9	19.5	0.7	-0.1 * 5.0	
Renter	32.4	0.4	62.8	1.0	57.0	1.0	*–5.8	
Residence	04.0	0.0	04.0	4.0	00.0	0.0	*4.0	
Inside metropolitan statistical areas	84.6	0.8	81.8	1.3	86.6	0.9	*4.8	
Inside principal cities	32.6 52.1	0.6 0.8	42.7 39.1	1.1 1.2	43.0 43.6	1.0 1.2	0.3 *4.5	
Outside metropolitan statistical areas ²	15.4	0.8	18.2	1.3	13.4	0.9	*–4.8	
Region								
Northeast	17.7	0.1	16.1	0.6	17.2	0.7	*1.1	
Midwest	21.3	0.1	19.0	0.8	16.6	0.7	*-2.4	
South	37.3	0.1	41.1	1.0	38.1	0.9	*-3.0	
West	23.6	0.1	23.8	0.8	28.1	0.8	*4.3	
Health Insurance Coverage								
With private insurance	63.9	0.4	20.5	0.7	30.7	0.7	*10.2	
With public, no private insurance	20.7	0.3	50.3	0.8	39.5	0.8	*-10.8	
Not insured	15.4	0.2	29.2	0.7	29.8	0.7	*0.5	

See footnotes at end of table.

Table 2. Distribution of People in Total and Poverty Population: 2012—Con.

(Numbers in thousands, confidence intervals [C.I.] in thousands or percentage points as appropriate. People as of March of the following year. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see www.census.gov/prod/techdoc/cps/cpsmar13.pdf)

	Total por	oulation	Offic	ial**	SP	Difference/	
Characteristic	Estimate	90 percent C.I.† (±)	Estimate	90 percent C.I.† (±)	Estimate	90 percent C.I.† (±)	Official** vs SPM
			(percent of c	olumn total)			
Work Experience							
Total, 18 to 64 years	62.2	0.1	56.4	0.5	60.2	0.4	*3.8
All workers	46.9	0.2	22.7	0.5	28.3	0.5	*5.6
Worked full-time, year-round	31.7	0.2	6.1	0.2	10.6	0.3	*4.5
Less than full-time, year-round	15.1	0.2	16.6	0.4	17.7	0.4	*1.1
Did not work at least 1 week	15.4	0.2	33.7	0.5	31.9	0.5	*–1.7
Disability Status ³							
Total, 18 to 64 years	62.2	0.1	56.4	0.5	60.2	0.4	*3.8
With a disability	4.8	0.1	9.1	0.3	8.0	0.3	*-1.1
With no disability	57.1	0.1	47.2	0.5	52.1	0.5	*4.9

Z Rounds to zero.

population of Hispanics, those who owned their home without a mortgage, or resided inside principal cities were not statistically different under the two measures.

Distribution of Income-to-Poverty Threshold Ratios: Official and SPM

Comparing the distribution of gross cash income with that of SPM resources also allows an examination of the effect of taxes and transfers on SPM rates. Table 3 shows the distribution of incometo-poverty threshold ratios for various groups. Dividing income by the respective poverty threshold controls income by unit size and composition. Figure 3 shows the

percent distribution of income-tothreshold ratio categories for all people.

In general, the comparison suggests that a smaller percentage of the population was in the lowest category of the distribution using the SPM. For most groups, including targeted noncash benefits reduced the percentage of the population in the lowest category those with income below half their poverty threshold. This was true for most of the groups shown in Table 3 except for those over age 64. They showed a higher percent below half of the poverty line with the SPM: 4.7 percent compared to 2.7 percent with the official

measure. As shown earlier, many of the noncash benefits included in the SPM are not targeted to this population. Further, many transfers received by this group are in cash, especially Social Security payments, and are captured in the official measure as well as the SPM. Note that the percentage of the 65 years and over age group with cash income below half their threshold was lower than that of other age groups under the official measure (2.7 percent), while the percentage for children was higher (10.3 percent). Subtracting MOOP and other expenses and adding noncash benefits in the SPM narrowed the differences across the three age groups.

^{*} Statistically different from zero at the 90 percent confidence level.

^{**} Includes unrelated individuals under the age of 15.

[†] A 90 percent confidence interval is a measure of an estimate's variability. The larger the confidence interval in relation to the size of the estimate, the less reliable the estimate. Confidence intervals shown in this table are based on standard errors calculated using replicate weights. For more information see "Standard Errors and Their Use" at <www.census.gov/hhes/www/p60 245sa.pdf>.

¹ Federal surveys give respondents the option of reporting more than one race. Therefore, two basic ways of defining a race group are possible. A group such as Asian may be defined as those who reported Asian and no other race (the race-alone or single-race concept) or as those who reported Asian regardless of whether they also reported another race (the race-alone-or-in-combination concept). This table shows data using the first approach (race alone). The use of the single-race population does not imply that it is the preferred method of presenting or analyzing data. The Census Bureau uses a variety of approaches. Information on people who reported more than one race, such as White **and** American Indian and Alaska Native or Asian **and** Black or African American, is available from Census 2010 through American FactFinder. About 2.9 percent of people reported more than one race in Census 2010. Data for American Indians and Alaska Natives, Native Hawaiians and Other Pacific Islanders, and those reporting two or more races are not shown separately.

² The "Outside metropolitan statistical areas" category includes both micropolitan statistical areas and territory outside of metropolitan and micropolitan statistical areas. For more information, see "About Metropolitan and Micropolitan Statistical Areas" at <www.census.gov/population/metro>.

³ The sum of those with and without a disability does not equal the total because disability status is not defined for individuals in the Armed Forces. Source: U.S. Census Bureau, Current Population Survey, 2013 Annual Social and Economic Supplement.

Table 3.

Percentage of People by Ratio of Income/Resources to Poverty Threshold: 2012

(Numbers in thousands, confidence intervals [C.I.] in thousands or percentage points as appropriate. People as of March of the following year. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see www.census.gov/prod/techdoc/cps/cpsmar13.pdf)

	Less th	an 0.5	0.5 to	0.99	1.0 to	1.49	1.5 to	1.99	2.0 to	3.99	4.0 or	more
Characteristic		90		90		90		90		90		90
Gridiationolio	Esti-	percent	Esti-	percent	Esti-	percent	Esti-	percent	Esti-	percent	Esti-	percent
	mate	C.I.† (±)	mate	C.I.† (±)	mate	C.I.† (±)	mate	C.I.† (±)	mate	C.I.† (±)	mate	C.I.† (±)
OFFICIAL**												
All people	6.7	0.2	8.4	0.2	9.6	0.2	9.6	0.2	30.0	0.4	35.7	0.4
Age												
Under 18 years	10.3	0.4	12.0	0.5	11.5	0.4	10.4	0.4	29.0	0.5	26.9	0.5
18 to 64 years	6.2	0.2	7.4	0.2	8.5	0.2	8.6	0.2	29.5	0.4	39.7	0.4
65 years and older	2.7	0.2	6.4	0.4	11.8	0.5	12.8	0.6	33.7	0.8	32.6	0.7
Race ¹ and Hispanic Origin												
White	5.5	0.2	7.3	0.2	9.2	0.2	9.5	0.2	30.4	0.4	38.1	0.5
White, not Hispanic	4.4	0.2	5.4	0.2	7.6	0.2	8.5	0.3	30.8	0.5	43.3	0.5
Black	12.8	0.8	14.5	0.7	12.4	0.7	10.8	0.7	29.3	1.0	20.2	0.8
Asian	5.8	0.7	6.0	0.9	7.5	1.0	8.3	0.9	27.4	1.4	45.0	1.8
Hispanic (any race)	10.3	0.5	15.5	0.7	15.7	0.8	13.2	0.6	28.5	0.8	16.7	0.7
SPM												
All people	5.2	0.2	10.8	0.3	17.0	0.3	14.2	0.3	34.6	0.4	18.2	0.3
Age												
Under 18 years	4.7	0.2	13.3	0.4	21.4	0.5	16.3	0.5	32.7	0.6	11.7	0.4
18 to 64 years	5.4	0.2	10.1	0.3	15.1	0.3	13.4	0.3	35.7	0.4	20.3	0.3
65 years and older	4.7	0.3	10.1	0.4	18.0	0.6	14.3	0.6	33.1	0.8	19.7	0.7
Race ¹ and Hispanic												
Origin												
White	4.6	0.2	9.4	0.3	15.9	0.3	13.9	0.3	36.0	0.4	20.2	0.3
White, not Hispanic	4.0	0.2	6.7	0.3	13.0	0.3	13.4	0.3	39.2	0.4	23.7	0.4
Black	7.7	0.6	18.0	0.9	23.0	1.0	16.4	0.8	27.0	1.0	7.9	0.5
Asian	6.0	0.7	10.6	1.1	15.5	1.3	13.6	1.1	35.7	1.7	18.6	1.2
Hispanic (any race)	7.2	0.5	20.6	0.8	27.8	0.9	15.7	0.7	22.8	0.8	5.8	0.3

^{**} Includes unrelated individuals under the age of 15.

Source: U.S. Census Bureau, Current Population Survey, 2013 Annual Social and Economic Supplement.

On the other hand, the SPM shows a smaller percentage with income or resources in the highest category—four or more times the thresholds. The SPM resource measure subtracts taxes, compared with the official measure that does not, bringing down the percentage of people with income in the highest category.

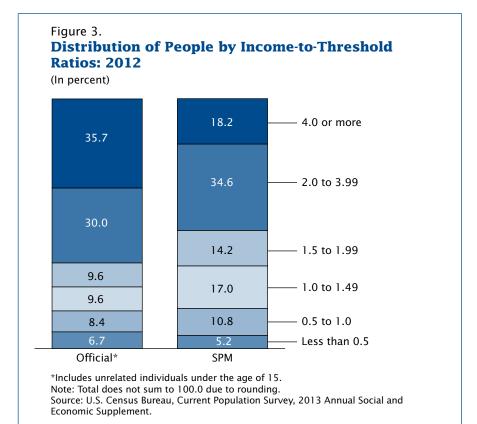
Table 3 shows similar calculations by race and ethnicity. Using the SPM, smaller percentages had income below half of their poverty thresholds, compared with the official measure, for all groups shown except for Asians. The percentage of Asians in this category was not statistically different with the two measures. For Blacks, the

percentage in this lowest category was 12.8 percent with the official measure and 7.7 percent with the SPM. The percentage of Whites and Hispanics in the lowest category was also lower using the SPM.

Another notable difference between the distributions using these two measures was the larger number

[†] A 90 percent confidence interval is a measure of an estimate's variability. The larger the confidence interval in relation to the size of the estimate, the less reliable the estimate. Confidence intervals shown in this table are based on standard errors calculated using replicate weights. For more information, see "Standard Errors and Their Use" at <www.census.gov/hhes/www/p60_245sa.pdf>.

¹ Federal surveys give respondents the option of reporting more than one race. Therefore, two basic ways of defining a race group are possible. A group such as Asian may be defined as those who reported Asian and no other race (the race-alone or single-race concept) or as those who reported Asian regardless of whether they also reported another race (the race-alone-or-in-combination concept). This table shows data using the first approach (race alone). The use of the single-race population does not imply that it is the preferred method of presenting or analyzing data. The Census Bureau uses a variety of approaches. Information on people who reported more than one race, such as White *and* American Indian and Alaska Native or Asian *and* Black or African American, is available from Census 2010 through American FactFinder. About 2.9 percent of people reported more than one race in Census 2010. Data for American Indians and Alaska Natives, Native Hawaiians and Other Pacific Islanders, and those reporting two or more races are not shown separately.



of individuals with income-tothreshold ratios in the three middle categories with the SPM. Since the effect of taxes and transfers is often to move family income from the extremes of the distribution to the center of the distribution, that is, from the very bottom with targeted transfers or from the very top via taxes and other expenses, the increase in the size of these middle categories is to be expected. One group of interest is that just above the respective poverty thresholds, with resources or income between 1.0 and 1.5 times their threshold. This group was 9.6 percent of the population using the official measure and 17.0 percent of the population using the SPM.17 Altogether, about 53 million people were not poor but fell in this low-

¹⁷ Renwick and Short (2013) show that the group below 1.4 times the SPM threshold are similar to the number of individuals with resources below family budgets adjusted to be comparable to the SPM. They use budgets developed by the Economic Policy Institute for 2008 for these comparisons.

income category. Combined with those below the poverty threshold, about 103 million people lived below 1.5 times the SPM threshold.

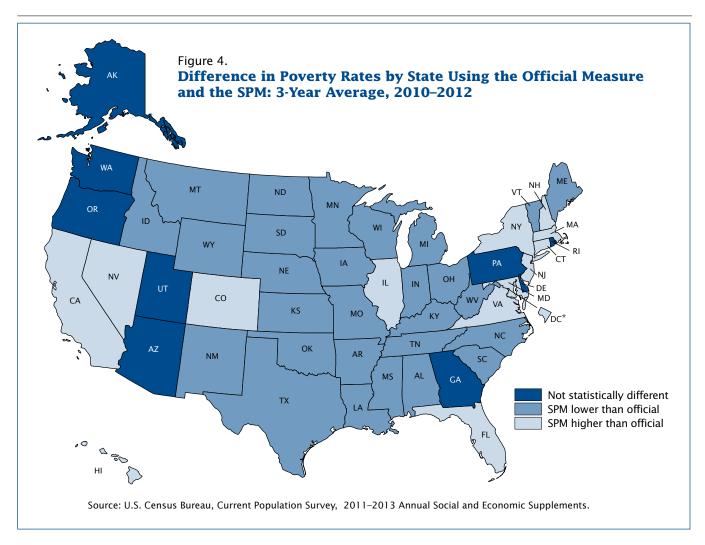
Poverty Rates by State: Official and SPM

The Census Bureau recommends using the American Community Survey (ACS) for state-level poverty estimates. However, the SPM cannot be calculated using data from that survey. With the CPS, the Census Bureau recommends the use of 3-year averages to compare estimates across states. Table 4 shows 3-year averages of poverty rates for the two measures for the U.S. total and for each state. The 3-year average poverty rates for the United States for the years 2010, 2011, and 2012 were 15.1 percent with the official measure and 16.0 percent using the SPM.

Figure 4 shows the United States divided into three categories by

state: states with higher and lower rates using the SPM compared with the official measure and states that are not statistically different. The 13 states for which the SPM rates were higher than the official poverty rates are those with lighter shades. These states were California, Colorado, Connecticut, Florida, Hawaii, Illinois, Maryland, Massachusetts, Nevada, New Hampshire, New Jersey, New York, and Virginia. The SPM rate for the District of Columbia was also higher. Higher SPM rates by state may occur from many sources. Geographic adjustments for housing costs may result in higher SPM thresholds, as well as a different mix of housing tenure or metropolitan area status, or higher nondiscretionary expenses, such as taxes or medical expenses.

Medium shades represent the 28 states where SPM rates were lower than the official poverty rates. These states were Alabama, Arkansas, Idaho, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Vermont, West Virginia, Wisconsin, and Wyoming. Lower SPM rates would occur due to lower thresholds reflecting lower housing costs, a different mix of housing tenure or metropolitan area status, or more generous noncash benefits. Darker shades are those nine states that were not statistically different under the two measures and include Alaska, Arizona, Delaware, Georgia, Oregon, Pennsylvania, Rhode Island, Utah, and Washington State. Details are in Table 4.



THE SUPPLEMENTAL POVERTY MEASURE

The Effect of Cash and Noncash Transfers, Taxes, and Other Nondiscretionary Expenses

The purpose of this section is to move away from comparing the SPM with the official measure and look only at changes within the SPM. This exercise allows us to gauge the effects of taxes and transfers and other necessary expenses using the SPM alone as the measure of economic wellbeing. The previous section characterized the poverty population using the SPM in comparison with the current official measure. This section examines that SPM poverty population in more detail.

The official poverty measure takes account of cash benefits from the government, such as Social Security and Unemployment Insurance (UI) benefits, Supplemental Security Income (SSI), public assistance benefits, such as Temporary Assistance for Needy Families (TANF), and workers compensation benefits, but does not take account of taxes or noncash benefits aimed at improving the economic situation of the poor. Besides taking account of cash benefits and necessary expenses, such as MOOP expenses and expenses related to work, the SPM includes taxes and noncash transfers. The important contribution that the SPM provides is allowing us to gauge the effectiveness of tax credits and transfers in alleviating poverty. We can also examine

the effects of the nondiscretionary expenses such as work expenses and MOOP.

Table 5a shows the effect that various additions and subtractions had on the SPM rate in 2012, holding all else the same and assuming no behavioral changes. Additions and subtractions are shown for the total population and by three age groups. Additions shown in the table include cash benefits, also accounted for in the official measure, as well as noncash benefits, included only in the SPM. This allows us to examine the effects of government transfers on poverty estimates. Because child support paid is subtracted from income in the SPM, we also examine the effect of child support received on alleviating poverty. Child support

Table 4.

Number and Percentage of People in Poverty by State Using 3-Year Averages Over 2010,1 2011,1 and 2012

(Numbers in thousands, confidence intervals [C.I.] in thousands or percentage points as appropriate. People as of March of the following year. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see www.census.gov/prod/techdoc /cps/cpsmar13.pdf)

		Offic 3-year a 2010-	verage			SP 3-year a 2010-	verage		Difference		
State	Number	90 percent C.I.† (±)	Percent- age	90 percent C.I.† (±)	Number	90 percent C.I.† (±)	Percent- age	90 percent C.I.† (±)	Number	Percent	
United States	46,783	597	15.1	0.2	49,380	619	16.0	0.2	*2,597	*0.8	
Alabama Alaska Arizona Arkansas California Colorado Connecticut Delaware District of Columbia Florida	776 82 1,208 525 6,202 638 345 119 119 2,938	94 11 141 60 230 76 36 11 9	16.3 11.6 18.5 18.1 16.5 12.6 9.8 13.2 19.3 15.5	2.0 1.5 2.2 2.1 0.6 1.5 1.0 1.2 1.5 0.8	645 88 1,231 479 8,952 695 440 124 141 3,709	72 10 135 46 290 60 36 11 10	13.5 12.5 18.8 16.5 23.8 13.7 12.5 13.9 22.7 19.5	1.5 1.4 2.1 1.6 0.8 1.2 1.0 1.2 1.5 0.9	*-132 6 22 *-46 *2,750 *57 *95 6 *21 *771	*-2.8 0.9 0.3 *-1.6 *7.3 *1.1 *2.7 0.6 *3.4 *4.1	
Georgia Hawaii Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Maine	1,789 173 232 1,748 1,008 316 406 751 951 173	126 22 30 117 104 29 48 82 105	18.5 12.9 14.8 13.7 15.8 10.5 14.5 17.4 21.3 13.1	1.3 1.7 2.0 0.9 1.6 0.9 1.8 1.9 2.4 1.3	1,760 231 183 1,943 903 258 323 586 823 148	137 24 24 113 91 21 47 68 70	18.2 17.3 11.6 15.2 14.2 8.6 11.5 13.6 18.5 11.2	1.4 1.8 1.6 0.9 1.4 0.7 1.8 1.6 1.6	-29 *58 *-49 *195 *-106 *-59 *-82 *-165 *-128 *-25	-0.3 *4.4 *-3.1 *1.5 *-1.7 *-1.9 *-2.9 *-3.8 *-2.9 *-1.9	
Maryland Massachusetts. Michigan Minnesota Mississippi Missouri Montana. Nebraska Newada New Hampshire	588 724 1,449 547 606 910 148 201 434 98	50 75 114 56 55 122 20 30 40	10.1 11.1 14.9 10.4 20.7 15.3 14.9 11.0 16.0 7.6	0.9 1.2 1.2 1.1 1.9 2.1 2.1 1.6 1.5	783 903 1,318 514 471 738 119 178 537 133	64 75 112 50 40 112 14 20 45 13	13.4 13.8 13.5 9.7 16.1 12.4 12.1 9.8 19.8	1.1 1.2 1.2 1.0 1.4 1.9 1.5 1.1	*195 *180 *-130 *-33 *-135 *-172 *-28 *-22 *102 *34	*3.3 *2.7 *-1.3 *-0.6 *-4.6 *-2.9 *-2.9 *-1.2 *3.8 *2.6	
New Jersey New Mexico. New York North Carolina North Dakota Ohio. Oklahoma Oregon. Pennsylvania Rhode Island	930 416 3,179 1,596 77 1,748 606 548 1,652 143	98 39 164 149 8 171 55 55 121	10.7 20.3 16.5 16.8 11.5 15.4 16.3 14.3 13.1	1.1 1.9 0.9 1.6 1.2 1.5 1.5 1.4 1.0	1,345 331 3,487 1,348 62 1,496 501 533 1,596	118 35 155 130 7 118 49 58 105	15.5 16.1 18.1 14.2 9.2 13.2 13.4 13.9 12.6 13.6	1.3 1.7 0.8 1.4 1.0 1.0 1.3 1.5 0.8	*415 *–86 *308 *–249 *–15 *–252 *–105 –14 –56 –2	*4.8 *-4.2 *1.6 *-2.6 *-2.3 *-2.2 *-2.8 -0.4 -0.4 -0.2	
South Carolina South Dakota Tennessee Texas Utah Vermont Virginia Washington West Virginia Wisconsin Wyoming	814 113 1,101 4,549 302 70 874 822 313 664 58	65 17 135 253 40 7 88 81 43 70 8	17.6 13.9 17.3 17.7 10.7 11.3 11.0 12.1 17.2 11.7	1.4 2.2 2.2 1.0 1.4 1.2 1.1 1.2 2.3 1.2	732 86 985 4,211 326 62 1,055 828 235 611 52	58 11 111 237 56 7 98 75 30 71	15.8 10.6 15.5 16.4 11.6 10.1 13.3 12.2 12.9 10.8 9.2	1.3 1.4 1.8 0.9 2.0 1.2 1.2 1.1 1.6 1.3 1.2	*-82 *-27 *-116 *-338 23 *-8 *181 6 *-78 *-53 *-6	*-1.8 *-3.3 *-1.8 *-1.3 0.8 *-1.3 *2.3 0.1 *-4.3 *-0.9 *-1.0	

^{*} Statistically different from zero at the 90 percent confidence level. ** Includes unrelated individuals under the age of 15.

[†] A 90 percent confidence interval is a measure of an estimate's variability. The larger the confidence interval in relation to the size of the estimate, the less reliable the estimate. Confidence intervals shown in this table are based on standard errors calculated using replicate weights. For more information, see "Standard Errors and Their Use" at

 https://www.census.gov/hhes/www/p60_245sa.pdf
 ¹ Consistent with 2011 and 2012 data through implementation of Census 2010 based population controls. Figures differ from previously published estimates due to changes in the tax calculations and the valuation of WIC benefits. See Macartney, 2013.
 Source: U.S. Census Bureau, Current Population Survey, 2011–2013 Annual Social and Economic Supplements.

payments received are counted as income in both the official measure and the SPM.

Removing one item from the calculation of family resources and recalculating poverty rates shows, for example, that without Social Security benefits, the SPM rate would have been 24.5 percent rather than 16.0 percent. Not including refundable tax credits (the EITC and the refundable portion of the child tax credit) in resources, the poverty rate for all people would have been 19.0 percent rather than 16.0 percent, all else constant. On the other hand, removing amounts paid for child support, income and payroll taxes, work-related expenses, and MOOP expenses from the calculation resulted in lower poverty rates. Without subtracting MOOP from income, the SPM rate would have

been 12.6 percent rather than 16.0 percent. Table 5b shows the same calculations for the year 2011.¹⁸

Tables 5a and 5b also show the same calculations for three age groups for 2012 and for 2011. In 2012, not accounting for refundable tax credits would have resulted in a poverty rate of 24.7 percent for children rather than 18.0 percent. Not subtracting MOOP from the income of families with children would have resulted in a poverty rate of 14.9 percent. Findings are similar for the other two age groups shown. For the 65 years and older group, however, WIC and payments for child support had no statistically significant effect, while SPM rates increased

with the subtraction of MOOP from income. Clearly, the subtraction of

MOOP had an important effect on

other hand, Social Security benefits

lowered poverty rates by 39.9 per-

centage points for the 65 and over

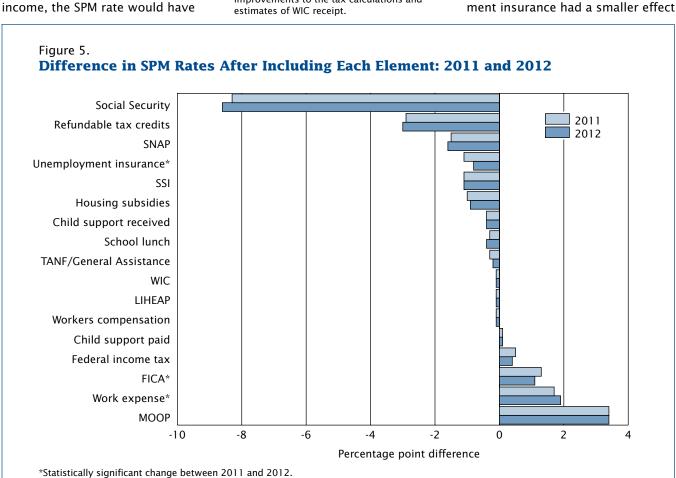
items had small differences in their

effect on poverty rates. Unemploy-

SPM rates for this group. On the

by about 6.4 percentage points

¹⁸ Estimates for calendar year 2011 differ from previously published estimates due to improvements to the tax calculations and estimates of WIC receipt.



14 U.S. Census Bureau

Source: U.S. Census Bureau, Current Population Survey, 2012 and 2013 Annual Social and Economic Supplements.

group.

Figure 5 shows the percentage point difference in the SPM rate for each item for the two years and allows us to compare the effect of transfers, both cash and noncash, and nondiscretionary expenses on SPM rates. For most elements, the effect of additions and subtractions between the two years was not statistically different, however, some

Table 5a.

Effect of Excluding Individual Elements on SPM Rates: 2012

(Confidence intervals [C.I.] in percentage points. Percent of people as of March of the following year. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see www.census.gov/prod/techdoc/cps/cpsmar13.pdf)

	All pe	rsons	Child	dren	Nonelder	ly adults	65 years and older		
Elements		90 percent		90 percent		90 percent		90 percent	
	Estimate	Ċ.I.† (±)	Estimate	Ċ.I.† (±)	Estimate	Ċ.I.† (±)	Estimate	Ċ.I.† (±)	
Research SPM	16.0	0.3	18.0	0.5	15.5	0.3	14.8	0.5	
Social Security	24.5	0.3	20.0	0.5	19.6	0.3	54.7	0.7	
Refundable tax credits	19.0	0.3	24.7	0.6	17.7	0.3	15.0	0.5	
SNAP	17.6	0.3	21.0	0.5	16.7	0.3	15.6	0.5	
Unemployment insurance	16.8	0.3	18.8	0.5	16.4	0.3	15.1	0.5	
SSI	17.1	0.3	18.9	0.5	16.6	0.3	16.0	0.5	
Housing subsidies	16.9	0.3	19.4	0.5	16.1	0.3	16.0	0.5	
Child support received	16.4	0.3	19.0	0.5	15.8	0.3	14.9	0.5	
School lunch	16.4	0.3	18.9	0.5	15.7	0.3	14.9	0.5	
TANF/General Assistance	16.2	0.3	18.5	0.5	15.6	0.3	14.9	0.5	
WIC	16.1	0.3	18.3	0.5	15.6	0.3	14.8	0.5	
LIHEAP	16.1	0.3	18.1	0.5	15.5	0.3	14.9	0.5	
Workers compensation	16.1	0.3	18.1	0.5	15.6	0.3	14.9	0.5	
Child support paid	15.9	0.3	17.8	0.5	15.3	0.3	14.8	0.5	
Federal income tax	15.6	0.3	17.7	0.5	14.9	0.3	14.6	0.5	
FICA	14.8	0.3	16.4	0.5	14.3	0.3	14.6	0.5	
Work expense	14.1	0.3	15.4	0.5	13.5	0.3	14.4	0.5	
MOOP	12.6	0.3	14.9	0.5	12.6	0.3	8.4	0.4	

[†] A 90 percent confidence interval is a measure of an estimate's variability. The larger the confidence interval in relation to the size of the estimate, the less reliable the estimate. Confidence intervals shown in this table are based on standard errors calculated using replicate weights. For more information see "Standard Errors and Their Use" at www.census.gov/hhes/www/p60_245sa.pdf>.

Table 5b.

Effect of Excluding Individual Elements on SPM Rates: 2011¹

(Confidence intervals [C.I.] in percentage points. Percent of people as of March of the following year. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see www.census.gov/prod/techdoc/cps/cpsmar12.pdf)

	All pe	rsons	Child	dren	Nonelder	ly adults	65 years and older		
Elements		90 percent		90 percent		90 percent		90 percent	
	Estimate	C.I.† (±)	Estimate	C.I.† (±)	Estimate	C.I.† (±)	Estimate	C.I.† (±)	
Research SPM	16.1	0.3	18.0	0.5	15.5	0.3	15.1	0.5	
Social Security	24.4	0.3	20.1	0.5	19.6	0.3	54.1	0.8	
Refundable tax credits	18.9	0.3	24.3	0.6	17.6	0.3	15.2	0.5	
SNAP	17.6	0.3	20.9	0.5	16.7	0.3	15.8	0.6	
Unemployment insurance	17.2	0.3	19.3	0.5	16.7	0.3	15.5	0.5	
SSI	17.1	0.3	18.8	0.5	16.7	0.3	16.3	0.6	
Housing subsidies	17.0	0.3	19.4	0.5	16.2	0.3	16.3	0.6	
Child support received	16.5	0.3	19.0	0.5	15.8	0.3	15.1	0.5	
School lunch	16.4	0.3	18.9	0.5	15.7	0.3	15.1	0.5	
TANF/General Assistance	16.3	0.3	18.6	0.5	15.7	0.3	15.1	0.5	
WIC	16.2	0.3	18.4	0.5	15.6	0.3	15.1	0.5	
LIHEAP	16.1	0.3	18.1	0.5	15.6	0.3	15.1	0.5	
Workers compensation	16.2	0.3	18.1	0.5	15.6	0.3	15.1	0.5	
Child support paid	15.9	0.3	17.9	0.5	15.4	0.3	15.0	0.5	
Federal income tax	15.6	0.3	17.7	0.5	14.9	0.3	14.8	0.5	
FICA	14.8	0.3	16.3	0.5	14.2	0.3	14.8	0.5	
Work expense	14.4	0.3	15.7	0.5	13.8	0.3	14.7	0.5	
MOOP	12.7	0.3	15.2	0.5	12.7	0.3	8.0	0.4	

[†] A 90 percent confidence interval is a measure of an estimate's variability. The larger the confidence interval in relation to the size of the estimate, the less reliable the estimate. Confidence intervals shown in this table are based on standard errors calculated using replicate weights. For more information see "Standard Errors and Their Use" at www.census.gov/hhes/www/p60_243sa.pdf>.

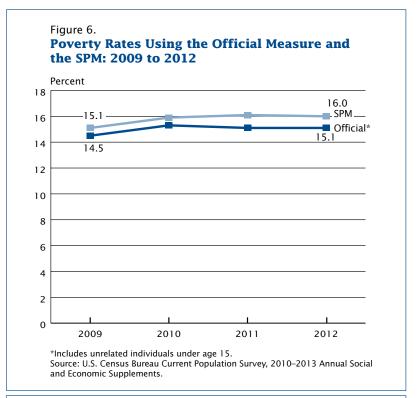
Source: U.S. Census Bureau, Current Population Survey, 2013 Annual Social and Economic Supplement.

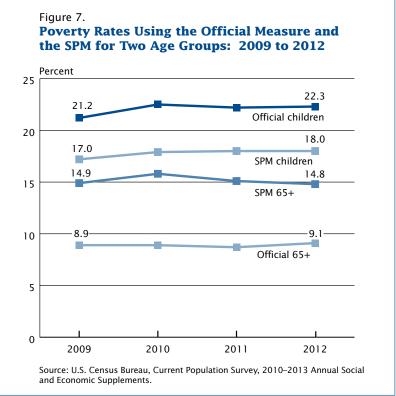
¹ Estimates for calendar year 2011 differ from previously published estimates due to changes to the tax calculations and the valuation of WIC benefits. See Macartney, 2013.

Source: U.S. Census Bureau, Current Population Survey, 2012 Annual Social and Economic Supplement.

in 2012 than in 2011. Payroll taxes (FICA) increased poverty rates less in 2012 than in 2011, while work expenses, such as commuting and child care costs, increased poverty rates more. Federal income taxes shown here exclude refundable tax credits, the earned income tax credit, and the advance child tax credit, but include the nonrefundable child tax credit.

Notable among the differences in the effects of benefits and expenses was the increased effect of work-related expenses. The increased effect of work expenses likely reflected increased commuting costs caused by an increase in the IRS mileage allowance used to value the cost of driving to work. 19 Declines in the effect of unemployment benefits in moving people out of poverty reflect a decline in the number receiving benefits between 2011 and 2012. The percent of individuals who reported receiving unemployment benefits fell from 9.0 percent in 2011 to 7.4 percent in 2012. Declines in the effect of payroll taxes in pulling people below the poverty line reflect the extension into 2012 of the Tax Relief Act of 2010 by the Temporary Payroll Tax Cut Continuation Act of 2011 and may also reflect a decrease in the number of workers with income just above their SPM threshold.





¹⁹ The mileage allowance for 2012 was 55.5 cents per mile. For the first 6 months of 2011 it was 51 cents and 55.5 cents for the remainder of the year. These amounts are used to value reported miles traveled to work in the SIPP 2008 panel wave 10.

Table 6.

Percentage of People in Poverty Using the Supplemental Poverty Measure: 2011 and 2012

(Numbers in thousands. Confidence intervals [C.I.] in thousands or percentage points as appropriate. People as of March of the following year. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see www.census.gov/prod/techdoc/cps/cpsmar13.pdf)

see www.census.gov/prou/tecnuoc/cp	5, 6,5111611	13.001)		Below pov	erty level						
		SPM	2012			SPM	2011¹		Difference		
Characteristic	Num		Perd		Num		Perd				
		90 percent		90 percent		90 percent		90 percent			
	Estimate		Estimate		Estimate		Estimate		Number	Percent	
All people	49,730	923	16.0	0.3	49,567	902	16.1	0.3	163	-0.1	
Sex Male Female	23,278 26,452	474 534	15.3 16.7	0.3 0.3	23,057 26,511	473 502	15.3 16.8	0.3 0.3	222 –59	0.0 -0.2	
Age Under 18 years	13,358 29,953 6,419	366 584 217	18.0 15.5 14.8	0.5 0.3 0.5	13,349 29,971 6,247	376 578 229	18.0 15.5 15.1	0.5 0.3 0.5	9 –18 172	0.0 0.0 -0.2	
Type of Unit Married couple. Female householder Male householder New SPM.	18,703 18,137 7,766 5,124	668 577 291 360	10.0 28.9 23.1 18.4	0.4 0.8 0.7 1.1	18,488 18,969 7,071 5,039	631 516 313 305	9.9 29.9 21.9 18.7	0.3 0.7 0.9 1.0	215 *–832 *695 85	0.1 *–1.1 *1.3 –0.4	
Race² and Hispanic Origin White	34,002 20,946 10,363 2,737 14,819	724 596 415 213 450	14.0 10.7 25.8 16.7 27.8	0.3 0.3 1.0 1.2 0.8	34,339 21,406 10,180 2,715 14,589	732 586 405 215 502	14.2 11.0 25.6 16.9 27.9	0.3 0.3 1.0 1.3 1.0	-337 -460 182 21 229	-0.2 -0.2 0.1 -0.2 0.0	
Nativity Native born Foreign born Naturalized citizen Not a citizen	39,538 10,192 3,361 6,831	837 367 195 307	14.6 25.4 18.5 31.2	0.3 0.7 0.9 1.1	39,280 10,288 3,280 7,007	754 387 184 330	14.6 25.7 18.3 31.8	0.3 0.9 0.9 1.3	258 -96 81 -176	0.0 -0.3 0.2 -0.6	
Tenure Owner Owner/mortgage Owner/no mortgage/rent free. Renter	20,512 11,676 9,694 28,360	604 443 402 747	9.9 8.5 13.4 28.1	0.3 0.3 0.5 0.7	19,955 11,114 9,580 28,873	615 479 397 735	9.7 8.1 13.0 29.3	0.3 0.3 0.5 0.6	557 561 114 –513	0.3 0.3 0.3 *–1.1	
Residence Inside metropolitan statistical areas. Inside principal cities. Outside principal cities. Outside metropolitan statistical areas ³ .	43,064 21,401 21,664 6,666	956 667 701 478	16.4 21.1 13.4 13.9	0.3 0.6 0.4 0.7	43,203 21,681 21,521 6,365	894 714 702 492	16.5 21.6 13.4 13.4	0.3 0.6 0.4 0.7	-138 -281 143	-0.2 -0.5 0.0	
Region Northeast	8,570 8,268 18,939 13,953	362 382 605 473	16.3	0.7 0.6 0.5 0.6	8,232 8,431 18,372 14,533	334 347 642 511	15.0 12.8 16.0 20.0	0.6 0.5 0.6 0.7	339 -163 567 -580	0.6 -0.3 0.3 *-1.0	
Health Insurance Coverage With private insurance With public, no private insurance Not insured	15,273 19,655 14,802	446 559 449	30.5	0.2 0.7 0.8	15,000 19,587 14,981	476 486 451	7.6 31.1 30.8	0.2 0.7 0.8	273 68 –179	0.1 -0.6 0.1	

See footnotes at end of table.

Table 6.

Percentage of People in Poverty Using the Supplemental Poverty Measure: 2011 and 2012—Con.

(Numbers in thousands, confidence intervals [C.I.] in thousands or percentage points as appropriate. People as of March of the following year. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see www.census.gov/prod/techdoc/cps/cpsmar13.pdf)

				Below pov	erty level					
		SPM	2012			SPM :	2011¹		Difference	
Characteristic	Num	ber	Perc	ent	Number		Percent			
		90		90		90		90		
		percent		percent		percent		percent		
	Estimate	C.I.† (±)	Estimate	C.I.† (±)	Estimate	C.I.† (±)	Estimate	C.I.† (±)	Number	Percent
Work Experience										
Total, 18 to 64 years	29,953	584	15.5	0.3	29,971	578	15.5	0.3	-18	0.0
All workers	14,066	358	9.6	0.2	13,585	349	9.4	0.2	*481	0.2
Worked full-time, year-round	5,252	183	5.3	0.2	4,967	177	5.1	0.2	*285	0.2
Less than full-time, year-round	8,814	275	18.7	0.5	8,618	278	18.4	0.6	196	0.3
Did not work at least 1 week	15,887	390	33.2	0.7	16,386	400	33.4	0.7	-499	-0.2
Disability Status ⁴										
Total, 18 to 64 years	29,953	584	15.5	0.3	29,971	578	15.5	0.3	-18	0.0
With a disability	3,979	167	26.5	0.9	4,133	186	27.6	1.1	-154	-1.1
With no disability	25,921	536	14.6	0.3	25,746	527	14.5	0.3	175	0.1

^{*} Statistically different from zero at the 90 percent confidence level.

Changes in SPM Rates Between 2011 and 2012

As has been documented (DeNavas-Walt et al., 2013), real median household gross cash income did not change significantly between 2011 and 2012. Despite increased official poverty thresholds, there was also no change in the official poverty rate. Median total SPM resources fell from \$37,186 for 2011 (in 2012 dollars) to \$36,761 in 2012, a decline of 1.1 percent. Table 6 shows SPM rates for 2011 and 2012, calculated in a comparable way between the two years.

In 2012, the percent poor using the SPM was 16.0 percent and in 2011 that rate was 16.1 percent, not statistically different. While for most groups there were no changes in SPM rates across the two years, there were small increases for those in male-headed households, and in the number of workers including year-round, full-time workers who were poor. These increases may reflect increased work expenses or declines in the effect of unemployment insurance between 2011 and 2012 as shown in Figure 5.

On the other hand, SPM rates for individuals in female-headed families, renters, and those residing in the West declined. Decreases for renters reflect the decline in SPM thresholds for this group. This may also explain the result for individuals in female-headed families, a group with a high proportion of renters. The decline for those living in the West region is consistent with the decline for this group using the official poverty measure.

Finally, we show the official measure and the SPM over the four years for which we have estimates.

[†] A 90 percent confidence interval is a measure of an estimate's variability. The larger the confidence interval in relation to the size of the estimate, the less reliable the estimate. Confidence intervals shown in this table are based on standard errors calculated using replicate weights. For more information see "Standard Errors and Their Use" at www.census.gov/hhes/www/p60_245sa.pdf>.

¹ Estimates for calendar year 2011 differ from previously published estimates due to changes to the tax calculations and in the valuation of WIC benefits. See Macartney. 2013.

² Federal surveys give respondents the option of reporting more than one race. Therefore, two basic ways of defining a race group are possible. A group such as Asian may be defined as those who reported Asian and no other race (the race-alone or single-race concept) or as those who reported Asian regardless of whether they also reported another race (the race-alone-or-in-combination concept). This table shows data using the first approach (race alone). The use of the single-race population does not imply that it is the preferred method of presenting or analyzing data. The Census Bureau uses a variety of approaches. Information on people who reported more than one race, such as White *and* American Indian and Alaska Native or Asian *and* Black or African American, is available from Census 2010 through American FactFinder. About 2.9 percent of people reported more than one race in Census 2010. Data for American Indians and Alaska Natives, Native Hawaiians and Other Pacific Islanders, and those reporting two or more races are not shown separately.

³ The "Outside metropolitan statistical areas" category includes both micropolitan statistical areas and territory outside of metropolitan and micropolitan statistical areas. For more information, see "About Metropolitan and Micropolitan Statistical Areas" at <www.census.gov/population/metro>.

⁴ The sum of those with and without a disability does not equal the total because disability status is not defined for individuals in the Armed Forces. Source: U.S. Census Bureau, Current Population Survey, 2012 and 2013 Annual Social and Economic Supplements.

As noted earlier, the estimates differ from those previously published due to implementation of corrections to WIC participation and other changes to the tax calculator. Figure 6 shows the official measure and the SPM across four years, and Figure 7 shows the poverty rate using both measures for children and for those over 64 years.²⁰

SUMMARY

This report provides estimates of the Supplemental Poverty Measure (SPM) for the United States. The results shown illustrate differences between the official measure of poverty and a poverty measure that takes account of noncash benefits received by families and nondiscretionary expenses that they must pay. The SPM also employs a new poverty threshold that is updated with information on expenditures for FCSU by the BLS. Results showed higher poverty rates using the SPM than the official measure for most groups.

The SPM allows us to examine the effects of taxes and noncash transfers on the poor and on important groups within the poverty population. As such, there are lower percentages of the SPM poverty populations in the very high and very low resource categories than we find using the official measure. Since noncash benefits help those

in extreme poverty, there were lower percentages of individuals with resources below half the SPM threshold for most groups. In addition, the effect of benefits received from each program and taxes and other nondiscretionary expenses on SPM rates were examined.

These findings are similar to those reported in earlier work using a variety of experimental poverty measures that followed recommendations of the National Academy of Sciences (NAS) poverty panel (Short et al., 1999 and Short, 2001). Experimental poverty rates based on the NAS panel's recommendations have been calculated every year since 1999. While SPM rates are available only from 2009, estimates are available for earlier years for a variety of experimental poverty measures, including the most recent for 2012.21 They include poverty rates that employ CE-based thresholds, as well as thresholds that increase each year from 1999 based on changes in the Consumer Price Index (similar to the official thresholds) and estimates that do not adjust thresholds for geographic differences in housing costs. However, the methods used for many of the elements in the experimental measures differ markedly from those in the SPM and, therefore, they are not considered to be comparable measures.

FUTURE RESEARCH AND PLANS FOR THE SPM

The ITWG was charged with developing a set of initial starting points to permit the Census Bureau, in cooperation with the BLS, to produce the SPM that would be released along with the official measure each year. In addition to specifying the nature and use of the SPM, the ITWG laid out a research agenda for many of the elements of this new measure. They stated:

As with any statistic regularly published by a Federal statistical agency, the Working Group expects that changes in this measure over time will be decided upon in a process led by research methodologists and statisticians within the Census Bureau in consultation with BLS and with other appropriate data agencies and outside experts, and will be based on solid analytical evidence.

Among the elements designated by the ITWG for further development were methods to include noncash benefits in the thresholds, improving geographic adjustments for price differences across areas, improving methods to estimate work-related expenses (commuting costs), and evaluating methods for subtracting MOOP expenses having to do with the uninsured. For a discussion of ongoing research on these and other related topics see Short and Garner (2012).

²⁰ SPM thresholds are updated each year with more recent estimates of spending on FCSU from the CE. Had the SPM thresholds increased from 2009 following the updating mechanism of the official thresholds, the SPM rate in 2012 would have been 16.5 percent.

²¹ These estimates are available on the Census Bureau Web site <www.census.gov/hhes/povmeas/data/nas/index.html>.

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APPENDIX—SPM METHODOLOGY

Poverty Thresholds

Consistent with the NAS panel recommendations and the suggestions of the ITWG, the SPM thresholds are based on out-of-pocket spending on food, clothing, shelter, and utilities (FCSU). Five years of Consumer Expenditure Survey (CE) data for consumer units with exactly two children (regardless of relationship to the family) are used to create the estimation sample. Unmarried partners and those who share expenses with others in the household are included in the consumer unit. FCSU expenditures are converted to adult equivalent values using a three-parameter equivalence scale (see below for description). The average of the FCSU expenditures defining the 30th and 36th percentile of this distribution is multiplied by 1.2 to account for additional basic needs. The three-parameter equivalence scale is applied to this amount to produce an overall threshold for a unit composed of two adults and two children.

To account for differences in housing costs, a base threshold for all consumer units with two children was calculated, and then the overall shelter and utilities portion was replaced by what consumer units with different housing statuses spend on shelter and utilities. Three housing status groups were determined and their expenditures on shelter and utilities produced within the 30-36th percentiles of FCSU expenditures. The three groups are: owners with mortgages, owners without mortgages, and renters.

Equivalence Scales

The ITWG guidelines state that the "three-parameter equivalence scale" is to be used to adjust reference thresholds for the number of adults and children. The three-parameter scale allows for a different adjustment for single parents (Betson, 1996). This scale has been used in several BLS and Census Bureau studies (Short et al., 1999; Short, 2001). The three-parameter scale is calculated in the following way:

One and two adults: $scale = (adults)^{0.5}$

Single parents: scale = (adults + 0.8*first child + 0.5*other children)^{0.7}

All other families: $scale = (adults + 0.5*children)^{0.7}$

In the calculation used to produce thresholds for two adults, the scale is set to 1.41. The economy of scale factor is set at 0.70 for other family types. The NAS panel recommended a range of 0.65 to 0.75.

Geographic Adjustments

The American Community Survey (ACS) is used to adjust the FCSU thresholds for differences in prices across geographic areas. The geographic adjustments are based on 5-year ACS estimates of median gross rents for two-bedroom apartments with complete kitchen and plumbing facilities. Separate medians were estimated for each of the 264 metropolitan statistical areas (MSAs) large enough to be identified on the public use version of the CPS ASEC file. This results in 358 adjustment factors. For each

state, a median is estimated for all non-metro areas (48), for each MSA with a population above the CPS ASEC limit (264), and for a combination of all other metro areas within a state (46). For details, see Renwick (2011).

Unit of Analysis

The ITWG suggested that the "family unit" include all related individuals who live at the same address, any coresident unrelated children who are cared for by the family (such as foster children²²), and any cohabitors and their children. This definition corresponds broadly with the unit of data collection (the consumer unit) that is employed for the CE data that are used to calculate poverty thresholds. They are referred to as SPM Resource Units and include units that added a cohabitor, an unrelated individual under 15 years, foster child aged 15 to 21, or an unmarried parent of a child in the family. Note that some units change for more than one of these reasons. Further, sample weights differ due to forming these units of analysis. For all new family units that have a set of male/female partners, the female partner's weight is used as the SPM family weight. For all other new units there is no change.23

Noncash Benefits

Supplemental Nutrition Assistance Program (SNAP)

SNAP benefits (formerly known as food stamps) are designed to allow eligible low-income households to afford a nutritionally adequate diet. Households who participate in the SNAP program are assumed to devote 30 percent of their countable monthly cash income

to the purchase of food, and SNAP benefits make up the remaining cost of an adequate low-cost diet. This amount is set at the level of the U.S. Department of Agriculture's Thrifty Food Plan. In the CPS ASEC, respondents report if anyone in the household ever received SNAP benefits in the previous calendar year and, if so, the face value of those benefits. The annual household amount is prorated to SPM Resource Units within each household.

National School Lunch Program

This program offers children free meals if family income is below 130 percent of federal poverty guidelines, reduced-price meals if family income is between 130 and 185 percent of the federal poverty guidelines, and a subsidized meal for all other children. In the CPS ASEC, the reference person is asked how many children 'usually' ate a complete lunch at school, and if it was a free or reduce-priced school lunch. Since we have no further information, the value of school meals is based on the assumption that the children received the lunches every day during the last school year. Note that this method may overestimate the benefits received by each family. To value benefits, we obtain amounts on the cost per lunch from the Department of Agriculture Food and Nutrition Service that administers the school lunch program. There is no value included for school breakfast.24

Supplementary Nutrition Program for Women, Infants, and Children (WIC)

This program is designed to provide food assistance and nutritional screening to low-income pregnant and postpartum women and their infants and to low-income children up to age 5. Incomes must be at or below 185 percent of the poverty guidelines and participants must be nutritionally at-risk (having abnormal nutritional conditions, nutrition-related medical conditions, or dietary deficiencies). Benefits include supplemental foods in the form of food items or vouchers for purchases of specific food items. There are questions on current receipt of WIC in the CPS ASEC. Lacking additional information, we assume 12 months of participation and value the benefit using program information obtained from the Department of Agriculture. As with school lunch, assuming year-long participation may overestimate the value of WIC benefits received by a given SPM family.

The estimates presented here differ from previous estimates of WIC benefits from the CPS ASEC. In these estimates we assume that all children less than 5 years old in a household where someone reports receiving WIC are also assigned receipt of WIC. If the child is age 0 or 1 years old then we assume that the mother also gets WIC. If there is no child in the family but the household reference person said yes to the WIC question, we assume this is a pregnant woman receiving WIC. This change to the editing of the file results in increases in the number of people covered by WIC. For details see Macartney (2013).

²² Foster children up to the age of 22 are included in the new unit.

²³ Appropriate weighting of these new units is an area of additional research at the Census Bureau.

²⁴ In the SIPP, respondents report the number of breakfasts eaten by the children per week, similar to the report of school lunches. Calculating a value for this subsidy in the same way as was done for the school lunch program yielded an amount of approximately \$2.8 billion for all families in the SIPP for the year 2004. For information on confidentiality protection, sampling error, nonsampling error, and definitions, for the 2004 Survey of Income and Program Participation, see <www.census.gov/sipp/>, accessed September 2013.

Low-Income Home Energy Assistance Program (LIHEAP)

This program provides three types of energy assistance. Under this program, states may help pay heating or cooling bills, provide allotments for low-cost weatherization, or provide assistance during energy-related emergencies. States determine eligibility and can provide assistance in various ways, including cash payments, vendor payments, two-party checks, vouchers/coupons, and payments directly to landlords. In the CPS ASEC, the question on energy assistance asks for information about the entire year and captures assistance for cooling paid in the summer months or emergency benefits paid after the February/ March/April survey date. Many households receive both a "regular" benefit and one or more crisis or emergency benefits. Additionally, since LIHEAP payments are often made directly to a utility company or fuel oil vendor, many households may have difficulty reporting the precise amount of the LIHEAP payment made on their behalf.

Housing Assistance

Households can receive housing assistance from a plethora of federal, state, and local programs. Federal housing assistance consists of a number of programs administered primarily by the Department of Housing and Urban Development (HUD). These programs traditionally take the form of rental subsidies and mortgage-interest subsidies targeted to very-low-income renters and are either project-based (public housing) or tenant-based (vouchers). The value of housing subsidies is estimated as the difference between the "market rent" for the housing unit and the total tenant payment. The "market rent" for the household is estimated

using a statistical match with HUD administrative data from the Public and Indian Housing Information Center and the Tenant Rental Assistance Certification System. For each household identified in the CPS ASEC as receiving help with rent or living in public housing, an attempt was made to match on state, CBSA (Core Based Statistical Area), and household size.25 The total tenant payment is estimated using the total income reported by the household on the CPS ASEC and HUD program rules. Generally, participants in either public housing or tenant-based subsidy programs administered by HUD are expected to contribute the greater of onethird of their "adjusted" income or 10 percent of their gross income towards housing costs.26 See Johnson et al. (2010) for more details on this method. Initially, subsidies are estimated at the household level. If there is more than one SPM family in a household, then the value of the subsidy is prorated based on the number of people in the SPM family relative to the total number of people in the household.

Housing subsidies help families pay their rent and as such are added to income for the SPM. However, there is general agreement that, while the value of a housing subsidy can free up a family's income to purchase food and other basic items, it will do so only to the extent that it meets the need for shelter. Thus, the values for housing subsidies included as income are limited to the proportion of the threshold that is allocated to housing costs. The subsidy is capped at the housing portion of the appropriate threshold MINUS the total tenant payment.

Necessary Expenses Subtracted From Resources

Taxes

The NAS panel and the ITWG recommended that the calculation of family resources for poverty measurement should subtract necessary expenses that must be paid by the family. The measure subtracts federal, state, and local income taxes and Social Security payroll taxes (FICA) before assessing the ability of a family to obtain basic necessities such as food, clothing, and shelter. Taking account of taxes allows us to account for receipt of the federal or state earned income credit (EITC) and other tax credits. The CPS ASEC does not collect information on taxes paid but relies on a tax calculator to simulate taxes paid. These simulations include federal and state income taxes and Social Security payroll taxes. These simulations also use a statistical match to the Statistics of Income (SOI) microdata file of tax returns.

Work-Related Expenses

Going to work and earning a wage often entails incurring expenses, such as travel to work and purchase of uniforms or tools. For work-related expenses (other than child care), the NAS panel

²⁵ HUD operates two major housing assistance programs: public housing and tenantbased or voucher programs. Since the HUD administrative data only include estimates of gross or contract rent for tenant-based housing assistance programs, the contract rents assigned to CPS ASEC households living in public housing are adjusted by a factor derived from data published in the "Picture of Subsidized Households," that estimates the average tenant payment and the average subsidy by type of assistance. The average contract rent would be the sum of these two estimates. See <www.huduser.org/portal /datasets/picture/yearlydata.html>, accessed September 2013.

²⁶ HUD regulations define "adjusted household income" as cash income excluding income from certain sources minus numerous deductions. Three of the income exclusions can be identified from the CPS ASEC: income from the employment of children, student financial assistance, and earnings in excess of \$480 for each full-time student 18 years or older. Deductions that can be modeled from the CPS ASEC include: \$480 for each dependent, \$400 for any elderly or disabled family member, child care, and medical expenses.

recommended subtracting a fixed amount for each earner 18 years or older. Their calculation was based on 1987 Survey of Income and Program Participation (SIPP) data that collected information on work expenses in a set of supplementary questions. They calculated 85 percent of median weekly expenses -\$14.42 per week worked for anyone over 18 in the family in 1992. Total expenses were obtained by multiplying this fixed amount by the number of weeks respondents reported working in the year. Since the 1996 panel of SIPP, the workrelated expenses topical module has been repeated every year.27 Each person in the SIPP reports their own expenditures on workrelated items in a given week. The most recent available data are used to calculate median weekly expenses. The number of weeks worked, reported in the CPS ASEC, is multiplied by the 85 percent of median weekly work-related expenses for each person to arrive at annual work-related expenses.

Child Care Expenses

Another important part of work-related expenses is paying someone to care for children while parents work. These expenses have become important for families with young children in which both parents (or a single parent) work. To account for child care expenses while parents worked, in the CPS ASEC, parents are asked whether or not they pay for child care and how much they spent. The amounts paid for any type of child care while parents are at work are summed over all children. The NAS

report recommended capping the amount subtracted from income, when combined with other work-related expenses, so that these do not exceed reported earnings of the lowest earner in the family. The ITWG also made this recommendation. This capping procedure is applied before determining poverty status.²⁸

Child Support Paid

The NAS panel recommended that, since child support received from other households is counted as income, child support paid out to those households should be deducted from those households that paid it. Without this subtraction, all child support is double counted in overall income statistics. New questions ascertaining amounts paid in child support are included in the CPS ASEC, and these reported amounts are subtracted in the estimates presented here.

Medical Out-of-Pocket (MOOP) Expenses

The ITWG recommended subtracting MOOP expenses from income, following the NAS panel. The NAS panel was aware that expenditures for health care are a significant portion of a family budget and have become an increasingly larger budget item since the 1960s. These expenses include the payment of health insurance premiums plus other medically necessary items such as prescription drugs and doctor copayments that are not paid for by insurance. Subtracting these "actual" amounts from income, like

taxes and work expenses, leaves the amount of income that the family has available to purchase the basic bundle of goods.

While many individuals and families have health insurance that covers most of the very large expenses, the typical family pays the costs of health insurance premiums and other small fees out of pocket. In these questions, respondents report expenditures on health insurance premiums that do not include Medicare Part B premiums. Medicare Part B premiums pose a particular problem for these estimates. The CPS ASEC instrument identifies when a respondent reported Social Security Retirement (SSR) benefits net of Medicare Part B premiums. For these respondents, a Part B premium set at the standard amount per month is automatically added to income. Corrections for these applied amounts are discussed in Caswell and Short (2011) and applied here. To be consistent with what is added to the SSR income in these cases, the same amount is added to reported premium expenditures.29 For the remaining respondents that report Medicare status, Medicare Part B premiums are simulated using the rules for income and tax filing status (Medicare.gov).30 The simplifying

²⁷ The 2004 panel, wave 9 topical modules were not collected due to budget considerations.

²⁸ Some analysts have suggested that this cap may be inappropriate in certain cases, such as if the parent is in school, looking for work, or receiving types of compensation other than earnings.

²⁹ In these cases, it is important to assign an amount for Medicare Part B premiums that is equal to what is added to the resource side, i.e., SSR income, of the poverty calculation. Note that the instrument calculation is done irrespective of Medicaid status, and therefore dual-enrollees who report "net" SSR income receive an estimate for Medicare Part B that is added to reported premiums.

³⁰ The CPS ASEC does not collect the number of months that a person was on Medicare; therefore we make the simplifying assumption that respondents were insured for the entire year. Given this data limitation, this assumption is appropriate as few individuals on Medicare transition out of Medicare.

assumption is made that married respondents with "spouse present" file married joint returns. For these cases, the combined reported income of both spouses is used to determine the appropriate Part B premium. Finally, it is assumed that the following two groups pay zero

Part B premiums: (1) dual-eligible respondents (i.e., Medicare and Medicaid) and (2) those with a family income less than 135 percent of the federal poverty level. The latter assumption is based on a rough estimate of eligibility and participation in at least one of the following

programs: Qualified Medicare Beneficiary (QMB), Specified Low-Income Medicare Beneficiary (SLMB), or Qualified Individual -1 (QI-1). We abstract from the possibility of (state-specific) asset requirements.