# The Supplemental Poverty Measure: 2013

#### **Current Population Reports**

By Kathleen Short Issued October 2014 P60-251

#### INTRODUCTION

This is the fourth report describing the Supplemental Poverty Measure (SPM) released by the U.S. Census Bureau, with support from the Bureau of Labor Statistics (BLS). 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.

Concerns about the adequacy of the official measure culminated 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, an Interagency Technical Working Group on Developing a Supplemental Poverty Measure (ITWG) listed suggestions for a new measure that would supplement the current official measure

of poverty.<sup>1</sup> 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. 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, nonworkrelated transportation). This threshold should be calculated with 5 years of expenditure data for family units 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

• The SPM family unit 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. In-kind benefits include nutritional assistance, subsidized housing, and home 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. health insurance premiums, and other medical out-of-pocket costs.

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



of goods at the 33rd percentile of the expenditure distribution. So far as possible with available data, the calculation of FSCU should include any noncash benefits that are counted on the resource side for food, shelter, clothing, and utilities. This is necessary for consistency of the threshold and resource definitions.

<sup>&</sup>lt;sup>1</sup> For information, see ITWG, Observations From the Interagency Technical Working Group on Developing a Supplemental Poverty Measure (Interagency), March 2010, available at <a href="https://www.census.gov/hhes/www/poverty/SPM\_TWGObservations.pdf">www.census.gov/hhes/www/poverty/SPM\_TWGObservations.pdf</a>, accessed September 2014.

	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, and any coresident unrelated children who are cared for by the family (such as foster children) and any cohabiters and their relatives
Poverty Threshold	Three times the cost of a minimum food diet in 1963	The mean of the 30th to 36th 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

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 well-being. 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 2013 are compared with the 2012 figures to assess changes in SPM rates from the previous year. SPM rates for the 5 years for which there are comparable estimates, 2009 to 2013, are also shown.

### POVERTY ESTIMATES FOR 2013: OFFICIAL AND SPM

The measures presented in this study use the 2014 Current Population Survey Annual Social and Economic Supplement (CPS ASEC) income information that refers to calendar year 2013 to estimate SPM

resources.<sup>2</sup> These are the same data used for the preparation of official

<sup>&</sup>lt;sup>2</sup> The data in this report are from the 2010 to 2014 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/p60-243sa .pdf>, <www.census.gov/hhes/www /p60-245sa.pdf>, and <ftp://ftp2.census .gov/library/publications/2014/demo /p60-249sa.pdf>, accessed September 2014. The 2014 CPS ASEC included redesigned questions for income and health insurance coverage. All of the approximately 98,000 addresses were eligible to receive the improved set of health insurance coverage items. The redesigned income questions were implemented using a split panel design. Approximately 68,000 addresses were selected to receive a set of income questions similar to those used in the 2013 CPS ASEC. The remaining 30,000 addresses were selected to receive the redesigned income questions. The source of data for this report is the portion of the CPS ASEC sample which received the income questions consistent with the 2013 CPS ASEC, approximately 68,000 addresses. Estimates published in this report and the corresponding income and poverty detailed tables available on the Internet may vary from estimates based on the full sample.

Table 1.

Two Adult, Two Child Poverty Thresholds: 2012 and 2013
(In dollars)

Measure	2012	Standard error	2013	Standard error
Official Poverty Measure	23,283	Х	23,624	X
Supplemental Poverty Measure				
Owners with a mortgage	25,784	368	25,639	289
Owners without a mortgage	21,400	233	21,397	337
Renters	25,105	398	25,144	400

X Not applicable.

Source: Bureau of Labor Statistics, September 2014 < www.bls.gov/pir/spmhome.htm>.

	Resource Estimates SPM Resources = Money Income From All Sources										
Plus:	Minus:										
Supplemental Nutritional Assistance (SNAP)	Taxes (plus credits such as the Earned Income Tax Credit [EITC])										
National School Lunch Program	Expenses Related to Work										
Supplementary Nutrition Program for Women Infants and Children (WIC)	Child Care Expenses										
Housing subsidies	Medical Out-of-Pocket Expenses (MOOP)										
Low-Income Home Energy Assistance (LIHEAP)	Child Support Paid										

poverty statistics and reported in DeNavas-Walt and Proctor (2014).3

The SPM thresholds for 2013 are based on out-of-pocket spending on basic needs (FCSU).<sup>4</sup>
Thresholds use 5 years of quarterly data from the Consumer Expenditure Survey (CE); the thresholds are produced at the BLS.<sup>5, 6</sup>

Expenditures on shelter and utilities are determined for three housing tenure groups. 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.7 Thresholds for 2012 and 2013 are in Table 1. The American Community Survey (ACS) data on rents paid are used to adjust the SPM thresholds for differences in spending on housing across geographic areas.8

The two measures use different units of analysis. The official measure of poverty uses the censusdefined 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 "family unit" includes 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 cohabiters and their children.9 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

<sup>&</sup>lt;sup>3</sup> The official 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.

<sup>&</sup>lt;sup>4</sup> See appendix for description of threshold calculation.

<sup>&</sup>lt;sup>5</sup> Bureau of Labor Statistics, Experimental Poverty Measure Web site, <www.bls.gov/pir /spmhome.htm>, accessed September 2014.

<sup>&</sup>lt;sup>6</sup> See <www.bls.gov/cex/anthology08 /csxanth2.pdf> or <www.bls.gov/cex /anthology08/csxanth3.pdf> for information on the CE, accessed September 2014.

<sup>&</sup>lt;sup>7</sup> 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.

<sup>8</sup> See appendix for description of the geographic adjustments.

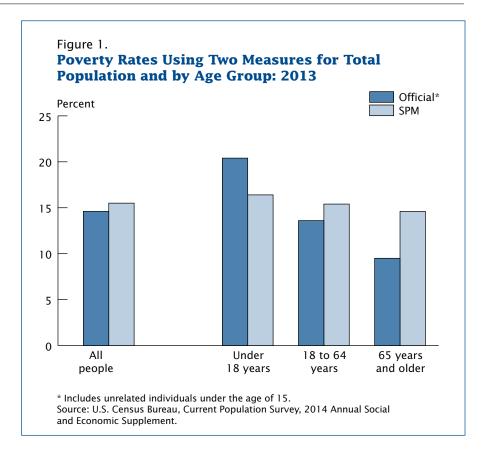
<sup>&</sup>lt;sup>9</sup> This definition corresponds broadly with the unit of data collection (the consumer unit) that is employed for the CE data used to calculate poverty thresholds.

an equivalence scale.10 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 was \$23,624 in 2013. The SPM thresholds vary by housing tenure 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 \$341 between 2012 and 2013. None of the SPM thresholds changed significantly between 2012 and 2013.

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 and minus taxes (plus tax credits), work expenses, and out-of-pocket medical expenses. The text box summarizes the additions and subtractions for the SPM; descriptions are in the appendix.

#### POVERTY RATES: OFFICIAL AND SPM

Figure 1 shows poverty rates using the two measures for the total population and for three age groups: under 18 years, 18 to 64 years, and 65 years and over. Table 2 shows rates for a variety of selected demographic groups. The percent of the population that was poor using the official measure for 2013 was 14.5 percent (DeNavas-Walt and Proctor, 2014). For this study, including unrelated individuals under age 15 in the universe, the official poverty rate was 14.6 percent.<sup>11</sup> The SPM yields a rate



of 15.5 percent for 2013. 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 2013, 48.7 million were poor using the SPM definition of poverty, more than the 45.8 million using the official definition of poverty with our universe. For most groups, SPM rates were higher than the official poverty rates. Compared with the official measure, the SPM shows lower poverty rates for children, individuals included in new SPM Resource Units, Blacks, renters, those living outside metropolitan areas, 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 or the Midwest, and those not working at least 1 week 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.12

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

Comparing the distribution of gross cash income with that of SPM

<sup>&</sup>lt;sup>10</sup> See appendix for description of the three-parameter scale.

<sup>&</sup>lt;sup>11</sup> The 14.5 and 14.6 rates are not statistically different.

<sup>&</sup>lt;sup>12</sup> For more information about the SPM and the aged population, see Bridges and Gesumaria (2014).

Table 2.

Number and Percentage of People in Poverty by Different Poverty Measures: 2013

(Data are based on the CPS ASEC sample of 68,000 addresses.¹ 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 <a href="ftp://ftp2.census.gov/programs-surveys/cps/techdocs/cpsmar14.pdf">ftp2.census.gov/programs-surveys/cps/techdocs/cpsmar14.pdf</a>)

		Official**					<u>, , , , , , , , , , , , , , , , , , , </u>				
	Num-	Num	ber	Perd	ent	Num	ber	Perd	cent	Differ	ence
Characteristic	ber**		90		90		90		90		
	(in thou- sands)	Esti- mate	percent C.I.† (±)	Esti- mate	percent C.I. <sup>†</sup> (±)	Esti- mate	percent C.I.† (±)	Esti- mate	percent C.I.† (±)	Number	Percent
All people	313,395	45,748	1,013	14.6	0.3	48,671	1,051	15.5	0.3	*2,923	*0.9
	,		ĺ								
Sex Male	153,596	20,355	571	13.3	0.4	22,839	593	14.9	0.4	*2,484	*1.6
Female	159,799	25,393	571	15.9	0.4	25,832	581	16.2	0.4	439	0.3
Age											
Under 18 years	74,055 194,833	15,089 26,429	453	20.4 13.6	0.6 0.3	12,177 29,987	388 700	16.4 15.4	0.5	*–2,912 *3,558	*–3.9 *1.8
18 to 64 years	44,508	4,231	648 227	9.5	0.5	6,507	271	14.6	0.4 0.6	*2,276	*5.1
Type of Unit											
Married couple	188,571	12,630	627	6.7	0.3	17,855	709	9.5	0.4	*5,226	*2.8
Female householder	62,924	17,998	630	28.6	0.9	17,959	652	28.5	0.9	-39 *1 406	-0.1 *4.4
Male householder	33,947 27,953	6,357 8,764	334 427	18.7 31.4	0.9 1.3	7,853 5,004	394 379	23.1 17.9	1.1 1.3	*1,496 *–3,760	*–13.5
Race <sup>2</sup> and Hispanic Origin											
White	243,399	30,250	815	12.4	0.3	33,445	818	13.7	0.3	*3,195	*1.3
White, not Hispanic	195,399 40,671	19,027 11,097	723 507	9.7 27.3	0.4 1.3	20,946 10,056	668 498	10.7 24.7	0.3 1.2	*1,919 *–1,041	*1.0 *–2.6
Asian	17,070	1,792	176	10.5	1.0	2,800	260	16.4	1.5	*1,008	*5.9
Hispanic (any race)	54,253	12,853	512	23.7	0.9	14,085	556	26.0	1.0	*1,232	*2.3
Nativity											
Native born	272,387 41,009	38,339 7,409	945 372	14.1 18.1	0.3 0.8	38,928 9,743	949 427	14.3 23.8	0.3	589 *2,334	0.2 *5.7
Naturalized citizen	19,150	2,428	172	12.7	0.9	3,356	204	17.5	1.0	*928	*4.8
Not a citizen	21,859	4,981	311	22.8	1.2	6,387	366	29.2	1.3	*1,406	*6.4
Tenure	000 747	40.407	704		0.0	00.504	704	0.0	0.4	*4.077	+0.4
Owner	208,717 136,059	16,127 7,739	734 479	7.7 5.7	0.3 0.4	20,504 11,267	761 569	9.8 8.3	0.4 0.4	*4,377 *3,528	*2.1 *2.6
Owner/no mortgage/rent free	75,999	9,254	486	12.2	0.5	9,970	524	13.1	0.6	*716	*0.9
Renter	101,338	28,755	876	28.4	0.7	27,434	855	27.1	0.7	*–1,321	*–1.3
Residence											
Inside metropolitan statistical areas	266,259	38,089	1,006	14.3	0.3	42,452	1,052	15.9	0.4	*4,362	*1.6
Inside principal cities	102,295	19,676	845	19.2	0.7	20,516	760	20.1	0.6	*840	*0.8
Outside principal cities  Outside metropolitan statistical	163,963	18,413	746	11.2	0.4	21,936	819	13.4	0.4	*3,523	*2.1
areas <sup>3</sup>	47,137	7,659	675	16.2	1.0	6,220	586	13.2	0.9	*-1,439	*-3.1
Region											
Northeast	55,566	7,134	442	12.8	0.8	7,947	490	14.3	0.9	*813	*1.5
Midwest	66,872 117,109	8,677 19,018	432 708	13.0 16.2	0.7 0.6	8,351 18,565	416 705	12.5 15.9	0.6 0.6	-326 -454	-0.5 -0.4
West	73,849	10,919	433	14.8	0.6	13,809	495	18.7	0.7	*2,890	*3.9
Health Insurance Coverage											
With private insurance With public, no private insurance	201,064 70,378	10,440 23,996	461 776	5.2 34.1	0.2 0.9	16,439 20,032	604 681	8.2 28.5	0.3	*5,999	*3.0 *–5.6
Not insured		11,313				12,201			0.8 1.0		

See footnotes at end of table.

### Table 2. Number and Percentage of People in Poverty by Different Poverty Measures: 2013—Con.

(Data are based on the CPS ASEC sample of 68,000 addresses.<sup>1</sup> 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 <a href="ftp://ftp2.census.gov/programs-surveys/cps/techdocs/cpsmar14.pdf">ftp://ftp2.census.gov/programs-surveys/cps/techdocs/cpsmar14.pdf</a>)

			Offic	ial**			SP	М			
	Num-	Num	nber	Percent		Number		Percent		Difference	
Characteristic	ber**		90		90		90		90		
	(in thou-	Esti-	percent	Esti-	percent	Esti-	percent	Esti-	percent		
	sands)	mate	C.I. <sup>†</sup> (±)	mate	C.I. <sup>†</sup> (±)	mate	C.I. <sup>†</sup> (±)	mate	C.I. <sup>†</sup> (±)	Number	Percent
Work Experience											
Total, 18 to 64 years	194,833	26,429	648	13.6	0.3	29,987	700	15.4	0.4	*3,558	*1.8
All workers	146,252	10,736	347	7.3	0.2	14,357	447	9.8	0.3	*3,621	*2.5
Worked full-time, year-round	100,855	2,771	155	2.7	0.2	5,479	214	5.4	0.2	*2,708	*2.7
Less than full-time, year-round	45,397	7,965	322	17.5	0.6	8,878	353	19.6	0.7	*913	*2.0
Did not work at least 1 week	48,581	15,693	515	32.3	0.9	15,630	504	32.2	0.8	-63	-0.1
Disability Status <sup>4</sup>											
Total, 18 to 64 years	194,833	26,429	648	13.6	0.3	29,987	700	15.4	0.4	*3,558	*1.8
With a disability	15,098	4,352	233	28.8	1.2	4,126	235	27.3	1.2	*-226	*–1.5
With no disability	178,761	22,023	567	12.3	0.3	25,799	649	14.4	0.4	*3,776	*2.1

<sup>\*</sup> An asterisk preceding an estimate indicates change is statistically different from zero at the 90 percent confidence level.

Source: U.S. Census Bureau, Current Population Survey, 2014 Annual Social and Economic Supplement.

resources also allows an examination of the effect of taxes and non-cash 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 2 shows the percent distribution of income-to-threshold 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 the age groups shown in Table 3, except for those over age 64. They showed a higher percentage below half of the poverty line with the SPM: 4.8 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 (9.3 percent). Subtracting MOOP and other expenses and adding noncash benefits in the SPM narrowed the differences across the three age groups.

<sup>\*\*</sup> Includes unrelated individuals under the age of 15.

<sup>†</sup> 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 <ftp://ftp2.census.gov/library/publications/2014/demo/p60-249sa.pdf>.

¹ The 2014 CPS ASEC included redesigned questions for income and health insurance coverage. All of the approximately 98,000 addresses were eligible to receive the redesigned set of health insurance coverage questions. The redesigned income questions were implemented to a subsample of these 98,000 addresses using a probability split panel design. Approximately 68,000 addresses were eligible to receive a set of income questions similar to those used in the 2013 CPS ASEC and the remaining 30,000 addresses were eligible to receive the redesigned income questions. The source of the 2013 data for this table is the portion of the CPS ASEC sample which received the income questions consistent with the 2013 CPS ASEC, approximately 68,000 addresses.

<sup>&</sup>lt;sup>2</sup> 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.

<sup>&</sup>lt;sup>3</sup> 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>.

<sup>&</sup>lt;sup>4</sup>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.

Table 3.

Percentage of People by Ratio of Income/Resources to Poverty Threshold: 2013

(Data are based on the CPS ASEC sample of 68,000 addresses.<sup>1</sup> 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 <a href="ftp://ftp2.census.gov/programs-surveys/cps/techdocs/cpsmar14.pdf">ftp://ftp2.census.gov/programs-surveys/cps/techdocs/cpsmar14.pdf</a>)

	Less	90		90		90		90		90		90
Characteristic	than	percent	0.5 to	percent	1.0 to	percent	1.5 to	percent		percent	4.0 or	percent
	0.5	C.I. <sup>†</sup> (±)	0.99	C.I. <sup>†</sup> (±)	1.49	C.I. <sup>†</sup> (±)	1.99	C.I.† (±)	3.99	C.I. <sup>†</sup> (±)	more	C.I. <sup>†</sup> (±)
OFFICIAL*												
All people	6.5	0.2	8.1	0.3	9.8	0.2	9.6	0.3	30.0	0.4	36.1	0.5
Age												
Under 18 years	9.3	0.4	11.0	0.6	12.1	0.5	10.4	0.4	29.1	0.7	28.0	0.6
18 to 64 years	6.2	0.2	7.3	0.2	8.5	0.2	8.6	0.3	29.6	0.4	39.7	0.5
65 years and older	2.7	0.3	6.8	0.4	11.5	0.5	12.1	0.6	33.0	0.9	33.8	1.0
Race <sup>2</sup> and Hispanic Origin												
White	5.4	0.2	7.0	0.3	9.1	0.3	9.5	0.3	30.5	0.5	38.4	0.5
White, not Hispanic	4.4	0.2	5.3	0.2	7.4	0.3	8.5	0.3	30.8	0.6	43.5	0.6
Black	12.3	0.8	14.9	1.0	13.5	0.9	10.0	0.7	27.1	1.1	22.1	1.1
Asian	5.2	0.7	5.3	0.8	8.7	1.2	8.9	1.1	29.6	1.9	42.3	2.0
Hispanic (any race)	9.6	0.6	14.1	0.8	15.8	0.8	13.6	0.7	29.1	1.0	17.8	0.8
SPM												
All people	5.2	0.2	10.3	0.3	17.0	0.3	14.4	0.3	34.7	0.4	18.4	0.4
Age												
Under 18 years	4.4	0.3	12.0	0.5	21.5	0.6	16.7	0.5	33.2	0.6	12.2	0.4
18 to 64 years	5.6	0.2	9.8	0.3	15.2	0.4	13.8	0.3	35.5	0.4	20.2	0.5
65 years and older	4.8	0.4	9.8	0.5	17.2	0.7	13.3	0.6	33.9	0.9	20.9	0.8
Race <sup>2</sup> and Hispanic Origin												
White	4.7	0.2	9.0	0.3	15.5	0.3	14.0	0.4	36.2	0.5	20.5	0.4
White, not Hispanic	4.1	0.2	6.6	0.3	12.6	0.4	13.4	0.4	39.3	0.5	24.0	0.5
Black	7.7	0.7	17.0	1.0	24.2	1.1	16.1	0.9	26.6	1.2	8.5	0.6
Asian	6.0	0.8	10.4	1.3	16.9	1.5	14.4	1.4	35.1	1.9	17.1	1.4
Hispanic (any race)	7.0	0.5	18.9	0.9	27.5	0.9	16.3	0.8	24.0	1.0	6.2	0.4

<sup>\*</sup> Includes unrelated individuals under the age of 15.

Source: U.S. Census Bureau, Current Population Survey, 2014 Annual Social and Economic Supplement.

<sup>†</sup> 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 <ftp://ftp2.census.gov/library/publications/2014/demo/p60-249sa.pdf>.

<sup>&</sup>lt;sup>1</sup> The 2014 CPS ASEC included redesigned questions for income and health insurance coverage. All of the approximately 98,000 addresses were eligible to receive the redesigned set of health insurance coverage questions. The redesigned income questions were implemented to a subsample of these 98,000 addresses using a probability split panel design. Approximately 68,000 addresses were eligible to receive a set of income questions similar to those used in the 2013 CPS ASEC and the remaining 30,000 addresses were eligible to receive the redesigned income questions. The source of the 2013 data for this table is the portion of the CPS ASEC sample which received the income questions consistent with the 2013 CPS ASEC, approximately 68,000 addresses.

<sup>&</sup>lt;sup>2</sup> 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.

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. For Blacks, the percentage in this lowest category was 12.3 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.

On the other hand, the SPM shows a smaller percentage with income or resources in the highest category—4 or more times the thresholds. The SPM resource measure subtracts taxes—compared with the official measure, which does not—bringing down the percentage of people with income in the highest category.

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

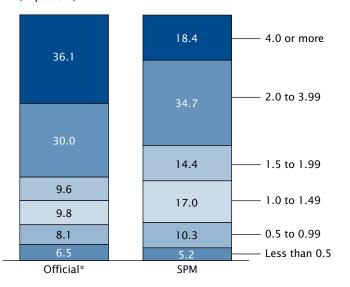
### Poverty Rates by State: Official and SPM

The Census Bureau recommends using the American Community Survey (ACS) for state-level poverty estimates, however, it is difficult to calculate the SPM with data from that survey. (Future research will explore use of the ACS for this purpose.) With CPS data, the Census Bureau recommends the

Figure 2.

Distribution of People by Income-to-Threshold
Ratios: 2013

(In percent)



\* Includes unrelated individuals under age 15.
Source: U.S. Census Bureau, Current Population Survey, 2014 Annual Social and Economic Supplement.

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 2011, 2012, and 2013 were 14.9 percent with the official measure and 15.9 percent using the SPM.

Figure 3 shows the United States divided into three categories by state: states where the rates are higher or lower using the SPM compared with using the official measure and states where the rates 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 Alaska, California, 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 26 states where SPM rates were lower than the official poverty rates. These states were Alabama, Arkansas, Idaho, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Michigan, Mississippi, Missouri, Montana, Nebraska, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, 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

Table 4.

Number and Percentage of People in Poverty by State Using 3-Year Average Over 2011, 2012, and 2013

(Data for 2013 are based on the CPS ASEC sample of 68,000 addresses.¹ Numbers in thousands, confidence intervals [C.l.] 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 <a href="ftp://ftp2.census.gov/programs-surveys/cps/techdocs/cpsmar14.pdf">ftp://ftp2.census.gov/programs-surveys/cps/techdocs/cpsmar14.pdf</a>)

		Offici 3-year a 2011 to	verage			SP 3-year a 2011 to	verage		Difference		
State		90 per- cent C.I.†	_	90 per- cent C.I.†		90 per- cent C.I.†	_	90 per- cent C.I.†			
	Number	(±)	Percent	(±)	Number	(±)	Percent	(±)	Number	Percent	
United States	46,444	584	14.9	0.2	49,323	614	15.9	0.2	*2,879	*0.9	
Alabama	772	60	16.2	1.2	672	69	14.1	1.4	*–100	*-2.1	
Alaska	79	10	11.2	1.5	90	10	12.7	1.3	*11	*1.6	
Arizona	1,253	123	18.9	1.9	1,259	118	19.0	1.8	6	0.1	
Arkansas	547	65	18.7	2.3	470	55	16.1	1.9	*–77	*–2.6	
California	6,072	207	16.0	0.5	8,871	266	23.4	0.7	*2,798	*7.4	
Colorado	620	63	12.0	1.2	660	57	12.8	1.1	41	0.8	
Connecticut	376	35	10.7	1.0	441	35	12.5	1.0	*65	*1.9	
Delaware	125	11	13.8	1.2	126	11	13.9	1.2		0.1	
District of Columbia	127	10	19.9	1.5	142	11	22.4	1.7	*15	*2.4	
Florida	2,896	150	15.1	0.8	3,675	152	19.1	0.8	*779	*4.1	
Georgia	1,712	121	17.6	1.2	1,695	131	17.5	1.3	-17	-0.2	
Hawaii	169	19	12.4	1.4	249	22	18.4	1.6	*81	*5.9	
Idaho	228	32	14.4	2.0	176	29	11.1	1.9	*–52	*-3.3	
Illinois	1,717	118	13.5	0.9	1,905	113	14.9	0.9	*188	*1.5	
Indiana	905	85	14.2	1.3	841	85	13.2	1.3	*–64	*–1.0	
lowa	323	27	10.6	0.9	264	21	8.7	0.7	*–60	*–2.0	
Kansas	399	35	14.1	1.3	334	32	11.8	1.2	*–64	*–2.3	
Kentucky	789	71	18.1	1.6	599	61	13.8	1.4	*–190	*-4.4	
Louisiana	926	122	20.6	2.7	822	89	18.3	1.9	*–104	*–2.3	
Maine	172	16	13.0	1.2	142	14	10.7	1.1	*–30	*–2.3	
Maryland	586	45	9.9	0.8	792	67	13.4	1,1	*206	*3.5	
Massachusetts	753	69	11.5	1.0	906	73	13.8	1.1	*152	*2.3	
Michigan	1,413	113	14.5	1.2	1,305	103	13.4	1.1	*–109	*-1.1	
Minnesota	577	52	10.8	1.0	562	49	10.5	0.9	-14	-0.3	
Mississippi	603	57	20.7	2.0	446	36	15.3	1.3	*–157	*-5.4	
Missouri	887	114	14.9	1.9	733	101	12.3	1.7	*–154	*–2.6	
Montana	149	19	15.0	2.0	117	15	11.7	1.5	*–33	*-3.3	
Nebraska	209	28	11.3	1.5	189	21	10.3	1.1	*–20	*-1.1	
Nevada	445	39	16.3	1.4	545	43	20.0	1.6	*100	*3.7	
New Hampshire	109	11	8.3	0.9	138	14	10.5	1.0	*28	*2.2	
New Jersey	936	91	10.7	1.0	1,394	111	15.9	1.3	*458	*5.2	
New Mexico	444	44	21.5	2.1	331	33	16.0	1.6	*–113	*-5.4	
New York	3,104	134	16.0	0.7	3,403	154	17.5	0.8	*299	*1.5	
North Carolina	1,649	164	17.2	1.7	1,484	123	15.4	1.3	*–165	*–1.7	
North Dakota	73	10	10.5	1.4	64	6	9.2	0.9	*–9	*–1.3	
Ohio	1,688	148	14.8	1.3	1,438	111	12.6	1.0	*–250	*-2.2	
Oklahoma	580	56	15.5	1.5	462	43	12.4	1.2	*–118	*-3.2	
Oregon	563	56	14.5	1.4	564	59	14.5	1.5	1	Z	
Pennsylvania	1,668	133	13.1	1.1	1,621	122	12.7	1.0	-47	-0.4	
Rhode Island	141	12	13.6	1.2	145	13	14.0	1.2	4	0.4	
South Carolina	804	68	17.3	1.4	763	65	16.4	1.4	*-42	*-0.9	
South Dakota	106	18	12.8	2.3	80	14	9.7	1.7	*–26	*-3.1	

See footnotes at end of table.

#### Table 4.

### Number and Percentage of People in Poverty by State Using 3-Year Average Over 2011, 2012, and 2013—Con.

(Data for 2013 are based on the CPS ASEC sample of 68,000 addresses.¹ Numbers in thousands, confidence intervals [C.l.] 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 <a href="ftp://ftp2.census.gov/programs-surveys/cps/techdocs/cpsmar14.pdf">ftp://ftp2.census.gov/programs-surveys/cps/techdocs/cpsmar14.pdf</a>)

State		Offici 3-year a 2011 to	verage			SP 3-year a 2011 to		Difference		
Siale		90 per- cent C.I.†		90 per- cent C.I.†		90 per- cent C.I.†	,	90 per- cent C.I.†		
	Number	(±)	Percent	(±)	Number	(±)	Percent	(±)	Number	Percent
Tennessee	1,139	126	17.8	2.0	1,003	102	15.6	1.6	*-136	*-2.1
Texas	4,484	233	17.2	0.9	4,143	218	15.9	0.8	*-341	*-1.3
Utah	289	39	10.2	1.4	315	50	11.1	1.8	25	0.9
Vermont	66	6	10.6	1.0	60	6	9.7	1.0	-6	-0.9
Virginia	880	81	10.9	1.0	1,092	108	13.6	1.3	*211	*2.6
Washington	833	76	12.2	1.1	866	63	12.6	0.9	33	0.5
West Virginia	317	52	17.4	2.7	240	36	13.2	1.9	*-77	*-4.2
Wisconsin	680	64	12.0	1.1	635	60	11.2	1.1	*–45	*-0.8
Wyoming	63	7	10.9	1.3	55	6	9.7	1.1	*-7	*-1.3

Z Represents or rounds to zero.

Source: U.S. Census Bureau, Current Population Survey, 2012 to 2014 Annual Social and Economic Supplements.

noncash benefits. Darker shades are those 11 states that were not statistically different under the two measures and include Arizona, Colorado, Delaware, Georgia, Minnesota, Oregon, Pennsylvania, Rhode Island, Utah, Vermont, and Washington. 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 the SPM. This exercise allows us to gauge the effects of taxes and transfers and other

necessary expenses using the SPM as the measure of economic well-being. The previous section characterized the poverty population using the SPM in comparison with the current official measure. This section examines in more detail the population defined as poor when using the SPM.

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 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 and MOOP expenses.

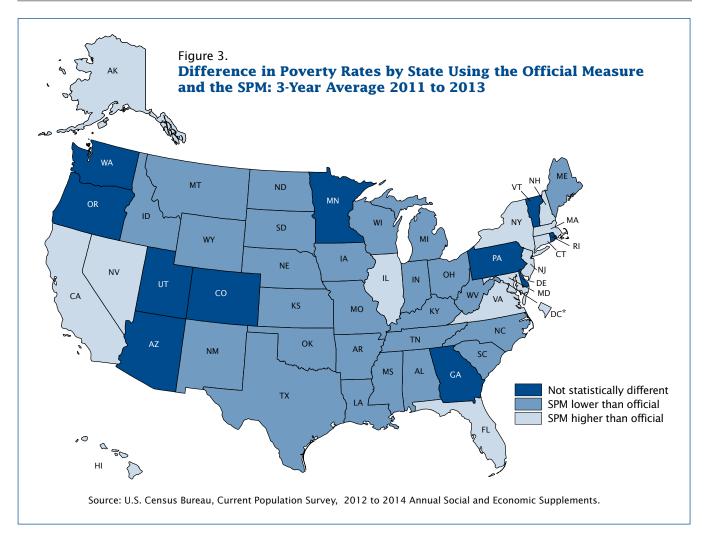
Table 5a shows the effect that various additions and subtractions had on the SPM rate in 2013, holding all else the same and assuming no behavioral changes. Additions and subtractions are shown for the total population and by three age groups. Additions shown in the table include cash benefits, also

<sup>\*</sup> An asterisk preceding an estimate indicates change is statistically different from zero at the 90 percent confidence level.

<sup>\*\*</sup> Includes unrelated individuals under the age of 15.

<sup>†</sup> 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 <ftp://ftp2.census.gov/library/publications/2014/demo/p60-249sa.pdf>.

¹ The 2014 CPS ASEC included redesigned questions for income and health insurance coverage. All of the approximately 98,000 addresses were eligible to receive the redesigned set of health insurance coverage questions. The redesigned income questions were implemented to a subsample of these 98,000 addresses using a probability split panel design. Approximately 68,000 addresses were eligible to receive a set of income questions similar to those used in the 2013 CPS ASEC and the remaining 30,000 addresses were eligible to receive the redesigned income questions. The source of the 2013 data for this table is the portion of the CPS ASEC sample which received the income questions consistent with the 2013 CPS ASEC, approximately 68,000 addresses.



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, we also examine the effect of child support received on alleviating poverty. Child support 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 24.1 percent, rather than 15.5 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 18.4 percent, rather than 15.5 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 expenses from income, the SPM rate would have been 12.0 percent, rather than 15.5 percent. Table 5b shows the same calculations for the year 2012.

In 2013, not accounting for refundable tax credits would have resulted in a poverty rate of 22.8 percent for children, rather than

16.4 percent. Not subtracting MOOP expenses from the income of families with children would have resulted in a poverty rate of 13.3 percent. For the 65 years and over group, however, WIC and payments for child support had no statistically significant effect, while SPM rates increased by about 6.3 percentage points with the subtraction of MOOP expenses from income. Clearly, the subtraction of MOOP expenses had an important effect on SPM rates for this group. On the other hand, Social Security benefits lowered poverty rates by 38.0 percentage points for the 65 and over group.

Figure 4 shows the percentage point difference in the SPM rate when each item is included in the

Table 5a.

Effect of Individual Elements on SPM Rates: 2013

(Data are based the CPS ASEC sample of 68,000 addresses.¹ 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 ftp://ftp2.census.gov/programs-surveys/cps/techdocs/cpsmar14.pdf)

	All pe	ople	Under 1	8 years	18 to 64	1 years	65 years and over		
Elements		90 percent		90 percent		90 percent		90 percent	
	Estimate	C.I. <sup>†</sup> (±)	Estimate	C.I. <sup>†</sup> (±)	Estimate	C.I. <sup>†</sup> (±)	Estimate	C.I. <sup>†</sup> (±)	
SPM	15.5	0.3	16.4	0.5	15.4	0.4	14.6	0.6	
ADDITIONS									
Social Security	24.1	0.4	18.6	0.6	19.8	0.4	52.6	1.0	
Refundable tax credits	18.4	0.4	22.8	0.6	17.5	0.4	14.8	0.6	
SNAP	17.1	0.3	19.3	0.5	16.6	0.4	15.4	0.6	
Unemployment insurance	16.2	0.3	17.3	0.5	16.0	0.4	14.9	0.6	
SSI	16.8	0.3	17.4	0.5	16.7	0.4	16.1	0.6	
Housing subsidies	16.5	0.3	17.8	0.5	16.2	0.4	15.8	0.6	
Child support received	16.0	0.3	17.4	0.5	15.7	0.4	14.7	0.6	
School lunch	16.0	0.3	17.5	0.6	15.7	0.4	14.7	0.6	
TANF/General Assistance	15.8	0.3	16.9	0.5	15.6	0.4	14.7	0.6	
WIC	15.7	0.3	16.8	0.5	15.5	0.4	14.6	0.6	
LIHEAP	15.6	0.3	16.5	0.5	15.5	0.4	14.7	0.6	
Workers' compensation	15.6	0.3	16.5	0.5	15.5	0.4	14.6	0.6	
SUBTRACTIONS									
Child support paid	15.4	0.3	16.3	0.5	15.3	0.4	14.6	0.6	
Federal income tax	15.1	0.3	16.2	0.5	14.8	0.4	14.5	0.6	
FICA	14.0	0.3	14.4	0.5	13.8	0.3	14.3	0.6	
Work expenses	13.6	0.3	13.9	0.5	13.4	0.3	14.2	0.6	
MOOP	12.0	0.3	13.3	0.5	12.3	0.3	8.3	0.5	

<sup>†</sup> 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 <ftp://ftp2.census.gov/library/publications/2014/demo/p60-249sa.pdf>.

Source: U.S. Census Bureau, Current Population Survey, 2014 Annual Social and Economic Supplement.

resource measure for the 2 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 2 years was not statistically different, however, some items had small differences in their effect on poverty rates. Tax credits and unemployment insurance had a smaller effect in 2013 than in 2012, while SSI was slightly more effective in reducing poverty rates. Payroll taxes (FICA) increased

poverty rates more.<sup>13</sup> Several of these differences reflect increases in the number of individuals working year-round, full-time between 2012 and 2013, as noted in DeNavas-Walt et al. (2014). Other changes include declines in percentages of people in families receiving unemployment benefits (7.4 percent in 2012 and 6.1 percent in 2013) and changes to the tax code that increased the payroll

taxes that are subtracted from income in 2013.<sup>14</sup>

#### Changes in SPM Rates Between 2012 and 2013

As has been documented (DeNavas-Walt et al., 2014), real median household income was not changed between 2012 and 2013. Median total SPM resources were

<sup>&</sup>lt;sup>1</sup> The 2014 CPS ASEC included redesigned questions for income and health insurance coverage. All of the approximately 98,000 addresses were eligible to receive the redesigned set of health insurance coverage questions. The redesigned income questions were implemented to a subsample of these 98,000 addresses using a probability split panel design. Approximately 68,000 addresses were eligible to receive a set of income questions similar to those used in the 2013 CPS ASEC and the remaining 30,000 addresses were eligible to receive the redesigned income questions. The source of the 2013 data for this table is the portion of the CPS ASEC sample which received the income questions consistent with the 2013 CPS ASEC, approximately 68,000 addresses.

<sup>13</sup> Federal income tax liabilities shown here are before refundable tax credits, the earned income tax credit, and the additional child tax credit, but include the nonrefundable child tax credit.

<sup>&</sup>lt;sup>14</sup> There are two changes to the tax code incorporated into our tax simulation for 2013 that increased payroll tax estimates. The first is the expiration of a 2 percent reduction in Old-Age, Survivors, and Disability Insurance (OASDI) taxes for all employees and self-employed workers that returned the OASDI rate to 6.2 percent, instead of 4.2 percent as it had been in 2011 and 2012. The second is the implementation in 2013 of an additional Hospital Insurance tax of 0.9 percent on earned income exceeding \$200,000 for all individuals.

Table 5b.

Effect of 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 <a href="https://www.census.gov/prod/techdoc/cps/cpsmar13.pdf">www.census.gov/prod/techdoc/cps/cpsmar13.pdf</a>)

	All pe	ople	Under 1	8 years	18 to 64	l years	65 years and over		
Elements		90 percent		90 percent		90 percent		90 percent	
	Estimate	C.I.† (±)	Estimate	C.I. <sup>†</sup> (±)	Estimate	C.I.† (±)	Estimate	C.I.† (±)	
Research SPM	16.0	0.3	18.0	0.5	15.5	0.3	14.8	0.5	
ADDITIONS									
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	
SUBTRACTIONS									
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 expenses	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	

<sup>†</sup> 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>.

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

\$37,295 for 2012 (in 2013 dollars) and \$37,116 in 2013, not statistically different. Despite increased official poverty thresholds, there was a decline in the official poverty rate. Both the official and the SPM rates declined by 0.5 percentage points between 2012 and 2013.

Table 6 shows SPM rates for 2012 and 2013, calculated in a comparable way for each year. In 2013, the percent poor using the SPM was 15.5 percent, and in 2012 that rate was 16.0 percent. While for most groups there were no changes in SPM rates across the 2 years, there were small increases for those with private health insurance and declines for those with public insurance and the uninsured. Changes to the 2014 CPS ASEC questionnaire about health insurance premiums and other out-of-pocket costs may

be reflected in the 2013 rates by health insurance status.<sup>15</sup>

SPM rates also declined for several groups including children, those in married-couple families, Hispanics, the foreign born, noncitizens, renters, and those residing inside principal cities or in the Northeast. There were declines in the official measure for most of these groups including females, children, those in married-couple families, Hispanics, the foreign born, and noncitizens (DeNavas-Walt et al., 2014). All other groups in Table 6 showed no change in SPM rates between 2012 and 2013.

Finally, we show the official measure and the SPM over the 5 years for which we have estimates.
Figure 5 shows the official measure

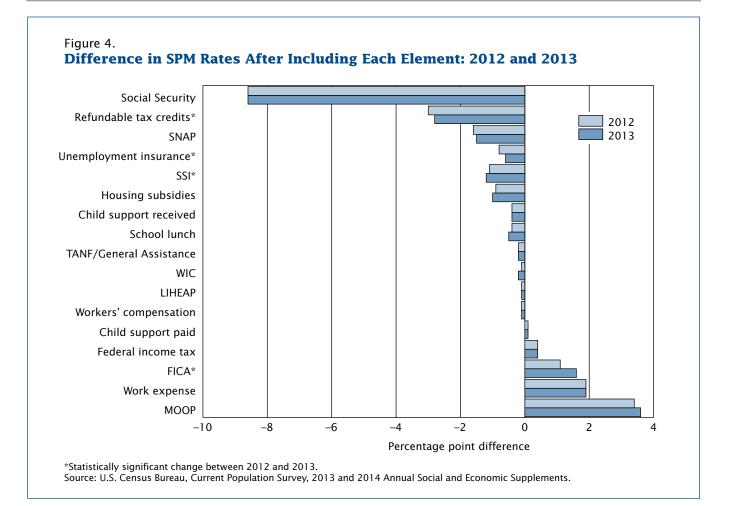
and the SPM across 4 years. Figure 6 shows the poverty rate using both measures for children and for those over 64 years.<sup>16</sup>

#### SUMMARY

This report provides estimates of the Supplemental Poverty Measure 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.

<sup>&</sup>lt;sup>15</sup> See Janicki (2014) and Smith and Medalia (2014) for more details on questionnaire changes to the 2014 ASEC.

<sup>&</sup>lt;sup>16</sup> For SPM estimates from 1967 to 2012, see Fox et al. (2013).



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 effects 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 vears for a variety of experimental poverty measures, including the most recent for 2013.17 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.

#### RESEARCH 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

<sup>&</sup>lt;sup>17</sup>These estimates are available on the Census Bureau Web site, <www.census .gov/hhes/povmeas/data/nas/index.html>.

Table 6.

# Percentage of People in Poverty Using the Supplemental Poverty Measure: 2012 and 2013

(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 <a href="ftp://ftp2.census.gov/programs-surveys/cps/techdocs/cpsmar14.pdf">ftp://ftp2.census.gov/programs-surveys/cps/techdocs/cpsmar14.pdf</a>)

		SPM	2013¹			SPM	2012		D:"		
	Nun	nber	1	cent	Num	nber	Perd	cent	Differ	Difference	
Characteristic		90 per- cent C.I.†		90 per- cent C.I.†		90 per- cent C.I.†		90 per- cent C.I.†			
	Estimate	(±)	Estimate	(±)	Estimate	(±)	Estimate	(±)	Number	Percent	
All people	48,671	1,051	15.5	0.3	49,730	923	16.0	0.3	-1,059	*-0.5	
Sex											
Male	22,839	593	14.9	0.4	23,278	474	15.3	0.3	-439	-0.4	
Female	25,832	581	16.2	0.4	26,452	534	16.7	0.3	-620	-0.5	
Age											
Under 18 years	12,177	388	16.4	0.5	13,358	366	18.0	0.5	*–1,181	*-1.6	
18 to 64 years	29,987	700	15.4	0.4	29,953	584	15.5	0.3	34	-0.1	
65 years and older	6,507	271	14.6	0.6	6,419	217	14.8	0.5	88	-0.2	
Type of Unit											
Married couple	17,855	709	9.5	0.4	18,703	668	10.0	0.4	-848	*-0.5	
Female householder	17,959	652	28.5	0.9	18,137	577	28.9	0.8	-178	-0.4	
Male householder	7,853 5,004	394	23.1 17.9	1.1	7,766 5,124	291	23.1 18.4	0.7	87	Z -0.5	
New Srivi utilit	5,004	379	17.9	1.3	5,124	360	10.4	1.1	-120	-0.5	
Race <sup>2</sup> and Hispanic Origin											
White	33,445	818	13.7	0.3	34,002	724	14.0	0.3	-557	-0.3	
White, not Hispanic	20,946	668	10.7	0.3	20,946	596	10.7	0.3		Z	
Black	10,056	498	24.7	1.2	10,363	415	25.8	1.0	-307	-1.0	
Asian	2,800	260	16.4	1.5	2,737	213	16.7	1.2	64	-0.2	
Hispanic (any race)	14,085	556	26.0	1.0	14,819	450	27.8	0.8	<del>-733</del>	*–1.9	
Nativity											
Native born	38,928	949	14.3	0.3	39,538	837	14.6	0.3	-610	-0.3	
Foreign born	9,743 3,356	427 204	23.8 17.5	0.9 1.0	10,192 3,361	367 195	25.4 18.5	0.7 0.9	-449 -5	*–1.7 –0.9	
Not a citizen	6,387	366	29.2	1.3	6,831	307	31.2	1.1	-444	* <u>-</u> 2.0	
Tenure											
Owner	20,504	761	9.8	0.4	20,512	604	9.9	0.3	-8	-0.1	
Owner/mortgage	11,267	569	8.3	0.4	11,676	443	8.5	0.3	-409	-0.2	
Owner/no mortgage/rent free	9,970	524	13.1	0.6	9,694	402	13.4	0.5	276	-0.2	
Renter	27,434	855	27.1	0.7	28,360	747	28.1	0.7	-926	*-1.1	
Residence											
Inside metropolitan statistical areas	42,452	1,052	15.9	0.4	43,064	956	16.4	0.3	-613	-0.4	
Inside principal cities	20,516	760	20.1	0.6	21,401	667	21.1	0.6	-885	*-1.1	
Outside principal cities	21,936	819	13.4	0.4	21,664	701	13.4	0.4	272	Z	
Outside metropolitan statistical											
areas <sup>3</sup>	6,220	586	13.2	0.9	6,666	478	13.9	0.7	-446	-0.8	
Region											
Northeast	7,947		14.3	0.9	8,570	362	15.5	0.7	*–624	*-1.2	
Midwest	8,351	416	12.5	0.6	1 ′	382	12.4	0.6	82	Z	
South	18,565	705	15.9	0.6	18,939	605	16.3	0.5	-374	-0.5	
West	13,809	495	18.7	0.7	13,953	473	19.0	0.6	-144	-0.3	
Health Insurance Coverage											
With private insurance	16,439		8.2	0.3	15,273	446		0.2	*1,166	*0.5	
With public, no private insurance	20,032		28.5	0.8	19,655	559			376	*–2.1 * 1.9	
Not insured	12,201	468	29.1	1.0	14,802	449	30.9	0.8	*–2,601	*–1.8	

See footnotes at end of table.

Table 6.

### Percentage of People in Poverty Using the Supplemental Poverty Measure: 2012 and 2013—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 <a href="ftp://ftp2.census.gov/programs-surveys/cps/techdocs/cpsmar14.pdf">ftp://ftp2.census.gov/programs-surveys/cps/techdocs/cpsmar14.pdf</a>)

		SPM 2	2013¹			SPM	2012		Difference		
	Number		Perd	Percent		Number		Percent		Dillefefice	
Characteristic		90 per- cent C.I.†		90 per- cent C.I.†	l	90 per- cent C.I.†		90 per- cent C.I.†			
	Estimate	(±)	Estimate	(±)	Estimate	(±)	Estimate	(±)	Number	Percent	
Work Experience											
Total, 18 to 64 years	29,987	700	15.4	0.4	29,953	584	15.5	0.3	34	-0.1	
All workers	14,357	447	9.8	0.3	14,066	358	9.6	0.2	292	0.2	
Worked full-time, year-round	5,479	214	5.4	0.2	5,252	183	5.3	0.2	228	0.1	
Less than full-time, year-round	8,878	353	19.6	0.7	8,814	275	18.7	0.5	64	0.8	
Did not work at least 1 week	15,630	504	32.2	0.8	15,887	390	33.2	0.7	-258	-1.0	
Disability Status <sup>4</sup>											
Total, 18 to 64 years	29,987	700	15.4	0.4	29,953	584	15.5	0.3	34	-0.1	
With a disability	4,126	235	27.3	1.2	3,979	167	26.5	0.9	147	0.8	
With no disability	25,799	649	14.4	0.4	25,921	536	14.6	0.3	-123	-0.2	

Z Represents or rounds to zero

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.

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<sup>\*</sup> An asterisk preceding an estimate indicates change is statistically different from zero at the 90 percent confidence level.

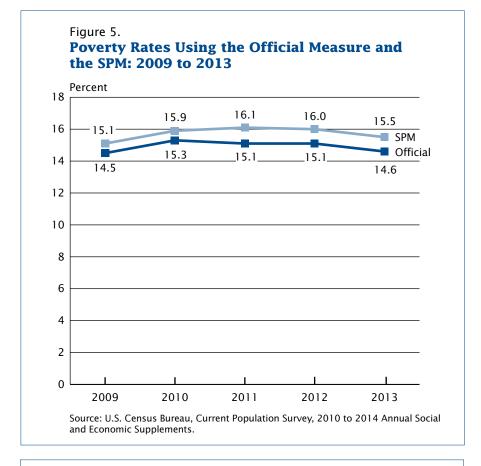
<sup>†</sup> A 90 percent confidence interval is a measure of an estimate's variability. The larger the confidence interval in relation to the size of the estimate, the less reliable the estimate. Confidence intervals shown in this table are based on standard errors calculated using replicate weights. For more information see "Standard Errors and Their Use" at <ftp://ftp2.census.gov/library/publications/2014/demo/p60-249sa.pdf>.

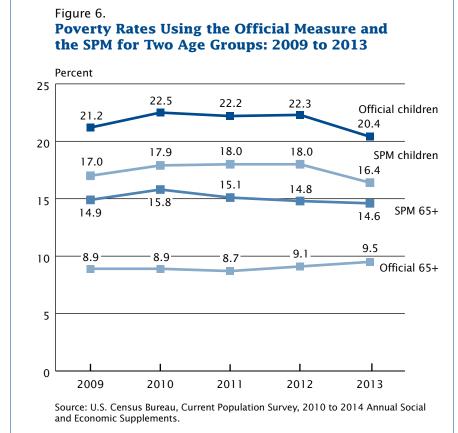
<sup>&</sup>lt;sup>1</sup> The 2014 CPS ASEC included redesigned questions for income and health insurance coverage. All of the approximately 98,000 addresses were eligible to receive the redesigned set of health insurance coverage questions. The redesigned income questions were implemented to a subsample of these 98,000 addresses using a probability split panel design. Approximately 68,000 addresses were eligible to receive a set of income questions similar to those used in the 2013 CPS ASEC and the remaining 30,000 addresses were eligible to receive the redesigned income questions. The source of the 2013 data for this table is the portion of the CPS ASEC sample which received the income questions consistent with the 2013 CPS ASEC, approximately 68,000 addresses.

<sup>&</sup>lt;sup>2</sup> 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.

<sup>&</sup>lt;sup>3</sup> 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/>.

<sup>&</sup>lt;sup>4</sup> 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 and 2014 Annual Social and Economic Supplements.





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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 next page 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 nonmetro 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).18

#### **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 children), and any

cohabiters and their children.19 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 cohabiter, an unrelated individual under 15 years of age, a 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.20

#### **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 that 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, 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 school lunches if family income is below 130 percent of federal poverty guidelines, reduced-price school meals if family income is between 130 and 185 percent of the federal poverty guidelines, and a subsidized school meal for all other children. In the CPS, 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, which administers the school lunch program. There is no value included for school breakfast.21

# 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

<sup>&</sup>lt;sup>18</sup> Renwick et al. (2014) examined an alternative method of calculation for the geographic indexes using Regional Price Parities from the Bureau of Economic Analysis.

<sup>&</sup>lt;sup>19</sup> Foster children up to the age of 22 are included in the new unit.

<sup>&</sup>lt;sup>20</sup> Appropriate weighting of these new units is an area of additional research at the Census Bureau.

<sup>&</sup>lt;sup>21</sup> In the Survey of Income and Program Participation (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 SIPP, see <www.census.gov/sipp/>accessed September 2013.

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. 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 yearlong participation may overestimate the value of WIC benefits received by a given SPM family. In these estimates, we assume that all children less than 5 years of age in a household where someone reports receiving WIC are also assigned receipt of WIC. If the child is aged 0 or 1 year, 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.

The 2014 CPS ASEC traditional survey instrument did not work properly when asking about WIC benefits and did not collect any information about the receipt of WIC in the calendar year 2013. To remedy this problem, a Monte Carlo approach was used to provide the missing data. Thus, all WIC information was imputed and the imputation flag was set to "1." The Monte Carlo method used the following information to generate responses:

- Sex (women only)
- Age (15–45; 46 and over)
- Presence of a child under age 5
- Participation in other meanstested programs (TANF, SSI, rental subsidy, food stamps)
- Receipt of WIC in the previous year (based on CPS ASEC sample overlap)

 Change between 2012 and 2013 in administrative roles

Based on a probability function using the noted characteristics and a random number generator, if the random number was less than the probability target, WIC was assigned.

#### 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 (TRACS). 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, Core-Based Statistical Area, and household size.22 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.23 See Johnson et al. (2010) for more details on this method. Initially, subsidies

<sup>22</sup> HUD operates two major housing assistance programs: public housing and tenantbased or youcher programs. Since the HUD administrative data include only 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 August 2014.

<sup>&</sup>lt;sup>23</sup> 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.

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, shelter and utilities. 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 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 recommended subtracting a fixed amount for each earner 18 years or over. 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.24 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.25

#### Child Care Expenses

Another important part of workrelated 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, 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.26

#### 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 the resources of 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

<sup>&</sup>lt;sup>24</sup>The 2004 panel, wave 9 topical modules were not collected due to budget considerations.

<sup>&</sup>lt;sup>25</sup> Edwards et al. (2014) examined alternative methods of valuing work-related expenses using the American Community Survey.

<sup>&</sup>lt;sup>26</sup> 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.

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.27 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).28 The simplifying 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 familv income less than 135 percent of

ily income less than 135 percent of

27 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.

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

Changes were made to the questions about health insurance coverage and MOOP in the 2014 ASEC. Details about those changes can be found in Smith and Medalia (2014) and Janicki (2014).

<sup>&</sup>lt;sup>28</sup> 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.

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