Appendix C: Poverty Data

Table 3.E1 presents weighted average poverty thresholds for families in the United States for 1959–2016. Table 3.E2 presents year-end data on the number and percentage of people in poverty in the United States for selected years 1959–2016. Tables 3.E3 and 3.E6 present more detailed data on people and families in poverty in the United States during 2016; Table 3.E4 presents similar data by current living arrangement in March 2017. (Both poverty thresholds and poverty population data are issued by the Census Bureau.) Table 3.E8 presents poverty guidelines by family size for the contiguous United States, Alaska, and Hawaii for 1965–2017. (Poverty guidelines are issued by the Department of Health and Human Services.)

Poverty thresholds are used primarily for statistical purposes—to produce statistics on the number of Americans in poverty. Poverty guidelines are used for administrative purposes—for example, to determine whether a person or family is financially eligible for assistance or services under certain federal government programs (not including cash public assistance). Both the thresholds and the guidelines are sets of dollar figures that vary by family size and (in the case of the thresholds) family composition.

The poverty thresholds were developed in 1963 and 1964 by Mollie Orshansky of the Social Security Administration as a measure of income inadequacy. The poverty definition was modified in 1969 and in 1981 by federal interagency committees. The thresholds were based on ratios of food expenditure to money income (from the Department of Agriculture's 1955 Household Food Consumption Survey) and the costs of the Department of Agriculture's economy food plan for families of different sizes and compositions (see Gordon M. Fisher, "The Development of the Orshansky Poverty Thresholds and Their Subsequent History as the Official U.S. Poverty Measure" [1992] at https://www.census.gov /library/working-papers/1997/demo/fisher-02.html; and Joseph Dalaker and Bernadette D. Proctor, "Poverty in the United States: 1999," Census Bureau, Current Population Reports, P60-210 [2000], Appendix A). Although the poverty thresholds in some sense represent families' needs, the official poverty measure should be interpreted as a statistical yardstick rather than as a complete description of what people and families need to live.

The poverty thresholds have become the basis for the official statistics on the extent of poverty in the United States, which are issued annually by the Census Bureau in the *Current Population Reports* series. The thresholds

are adjusted annually for price changes using the annual average Consumer Price Index for All Urban Consumers (CPI-U). (See Census Bureau, "Revision in Poverty Statistics, 1959 to 1968," *Current Population Reports,* Special Studies, P-23, No. 28 [1969]; and Department of Commerce, Office of Federal Statistical Policy and Standards, "Directive No. 14: Definition of Poverty for Statistical Purposes," *Statistical Policy Handbook* [1978].) The thresholds are the same for all 50 states and the District of Columbia.

The poverty guidelines are a simplified version of the poverty thresholds. There are separate sets of guidelines for the two noncontiguous states (Hawaii and Alaska). The guidelines are used for determining whether a person or family is financially eligible for assistance or services under certain federal programs. Authorizing legislation or regulations for specific programs indicate whether a program uses the poverty guidelines as one of several eligibility criteria, uses a modification of the guidelines (for example, 125 percent or 185 percent of the guidelines), or uses them for the purpose of setting priorities in providing assistance or services.

Since 1973, the guidelines have been computed from the poverty thresholds by increasing the most recently published weighted average poverty thresholds by the percentage change in the CPI-U over the past year (more precisely, from the next most recent calendar year to the most recent calendar year) and rounding the figure for a family of four up to the next highest multiple of \$50. Guidelines for all family sizes over and under four persons are computed by adding or subtracting equal dollar amounts derived from the average difference between poverty lines for different family sizes (rounded to the nearest multiple of \$20).

As noted above, the poverty thresholds were developed in 1963 and 1964 by Mollie Orshansky of the Social Security Administration. In May 1965—just over a year after the Johnson administration had initiated the War on Poverty—the Office of Economic Opportunity adopted Orshansky's thresholds as a working or quasi-official definition of poverty. At that time, the thresholds comprised a matrix of 124 detailed poverty thresholds based on the total number of family members, the number of family members who were related children under age 18, the sex of the family householder, the age of the individual or family householder (for one- and two-person units only), and whether the family lived on a farm. Orshansky calculated the poverty thresholds using data (from the 1955 Household Food Consumption Survey) that defined income as after-tax money income. However, when the thresholds were used to calculate poverty population figures, they were applied to family income microdata (from the Census Bureau's Current Population Survey) that defined income as before-tax money income, because no other good source of family income microdata was available in the 1960s that used after-tax income as a definition of income.

In 1969, a federal interagency committee made two changes in the poverty definition: the thresholds would be annually updated by the CPI-U instead of by the per capita cost of the economy food plan, and farm poverty thresholds would be set at 85 percent rather than 70 percent of corresponding nonfarm thresholds. (Poverty threshold and poverty population figures for prior years were retabulated retrospectively on this basis.) In August 1969, the Bureau of the Budget designated the poverty thresholds with these revisions as the federal government's official statistical definition of poverty.

In 1981, several other changes recommended by a subsequent interagency committee were made in the poverty definition: (1) elimination of separate thresholds for farm families, (2) elimination (through appropriate averaging) of separate thresholds for femalehouseholder and "all other" families, and (3) extension of the poverty matrix to make the largest family size category "nine persons or more" rather than "seven or more persons." (See Census Bureau, "Characteristics of the Population Below the Poverty Level: 1980," Current Population Reports, P-60, No. 133 [1982], pp. 2-5, 9, and 186.) As a result of these changes, the current matrix of poverty thresholds used by the Census Bureau to determine the poverty status of families and unrelated individuals consists of a set of 48 detailed thresholds arranged in a two-dimensional matrix by family size (number of family members, ranging from one person, that is, an unrelated individual, to nine or more persons) cross-classified by the presence and number of family members who are related children under age 18 (from no children to eight or more children present). Unrelated individuals and two-person families are further differentiated by the age of the individual or family householder (under age 65 and aged 65 or older).

The current official definition of poverty is more than 40 years old. In 1990, Congress requested a study of the official U.S. poverty measure by the National Research Council (NRC) to provide a basis for a possible revision of the poverty measure. In 1992, the NRC's Committee on National Statistics appointed a Panel on Poverty and Family Assistance to conduct this study. In 1995, the panel published its report of the study, *Measuring Poverty: A New Approach,* Constance F. Citro and Robert T. Michael, eds. (Washington, DC: National Academy Press, 1995). In the report, the panel proposed a new approach for developing an official poverty measure for the United States—although it did not propose a specific set of dollar figures. The panel's proposed approach focused on three major areas: new poverty thresholds, a new and consistent definition of family resources (income), and data sources.

In July 1999, the Census Bureau, in collaboration with the Bureau of Labor Statistics, released a report, "Experimental Poverty Measures: 1990 to 1997," *Current Population Reports,* P60-205 (1999), that examined the effects of different resource definitions and thresholds on poverty and estimated several experimental poverty rates based on the NRC panel's recommendations. The Census Bureau's poverty measurement website tracks more recent developments at https://www.census .gov/topics/income-poverty/poverty/guidance/poverty -measures.html.

In 2010, an interagency technical working group with representatives from the Bureau of Labor Statistics, the Census Bureau, the Economics and Statistics Administration, the Council of Economic Advisers, the Department of Health and Human Services, and the Office of Management and Budget examined ways to develop a Supplemental Poverty Measure (SPM). They drew on the recommendations of a 1995 National Academy of Science report and the extensive research on poverty measurement conducted over the preceding 15 years. The SPM will not replace the official poverty measure and will not be used to determine eligibility for government programs.

The SPM uses thresholds derived from Consumer Expenditure Survey data for food, shelter, clothing, and utilities. These thresholds vary by housing tenure (renter, homeowner with mortgage, homeowner without mortgage) and are adjusted for geographic differences in the cost of housing. The SPM defines resources as cash income plus any federal in-kind benefits that families can use to meet their food, clothing, shelter, and utility needs minus necessary expenses. The SPM defines necessary expenses as taxes, child support, work-related expenses (including child-care), and medical out-of-pocket expenses. The official poverty measure counts only persons related by birth, marriage, or adoption as members of the resource sharing unit, but the SPM also includes any unrelated children who are cared for by the family (such as foster children), and

any cohabitors and their children. The new measure is intended to serve as an additional indicator of economic well-being in order to provide a deeper understanding of economic conditions and policy effects. For additional details, see https://www.census.gov/topics/income -poverty/supplemental-poverty-measure.html.

The Census Bureau's statistical experts, with assistance from the Bureau of Labor Statistics and in consultation with other agencies and outside experts, are responsible for the measure's technical design. The Census Bureau has published poverty estimates using the SPM since 2010 (the report containing the most recent estimates, for 2016, is available at https://www.census.gov/content/dam /Census/library/publications/2017/demo/p60-261.pdf).

Data on the poverty population and on family and personal income are collected in the Current Population Survey Annual Social and Economic Supplement (CPS ASEC), formerly known as the March Supplement. Following the standard Census Bureau definition, *family* is defined as two or more persons related by birth, marriage, or adoption and residing together. *Income* refers to money income before federal, state, or local personal income taxes and excludes capital gains and lump-sum payments; however, public income transfers are included. Money income does not reflect that many families receive noncash benefits, such as employee use of business transportation and facilities, employerpaid health insurance and other employer-supported fringe benefits, Medicare, Medicaid, Supplemental Nutrition Assistance Program benefits (formerly known as food stamps), and housing assistance. Many farm families receive benefits in the form of rent-free housing or goods produced and consumed by the family.

Every year between February and April, the sample of U.S. households interviewed in the monthly CPS is asked to provide information on household members' incomes during the preceding calendar year. Survey experience indicates that respondents tend to underreport their income in household surveys. Underreporting is most pronounced for dividends, interest, public assistance, and workers' compensation; less pronounced for veterans' payments and private pensions; and modest for Social Security and other federal retirement programs. The proportion of nonresponses to CPS income questions is greater among middle income and higher income families than among lower income families.

Because the CPS sample size, content, and procedures have changed several times, some differences in the data over time may in part reflect these methodological changes, not just changes in the population. Important changes to the CPS methodology took place for data years 1976, 1979, 1980, 1987, 1988, 1992, 1994, 1995, 2000, and 2013. The table below presents a summary of the methodological changes and provides references for more information concerning these changes. The report numbers, "P60-#," refer to the *Current Population Reports,* Consumer Income series.

Year	Methodological change	Reference
1959	First year for which poverty data are available. The poverty measure was developed in 1963 and 1964.	P60-210, Appendixes
1969	Modification of poverty measure. Bureau of the Budget prescribed the new measure as the official poverty measure for statistical use in federal agencies.	P60-68, pp. 11–12
1979	"Householder" concept first implemented, replacing "head" concept—the husband is no longer automatically the family reference person. Secondary families (people who are related to each other but not the householder) are tallied separately from "families."	P60-130, pp. 6–10
	Change in universe—income questions no longer asked of 14-year-olds. Poverty universe changed—people under age 15 not living with any family members are excluded. (Previously, unrelated individuals under age 14 were excluded.)	
1980	Modification of poverty measure (final approval in 1981). Estimates weighted using 1980 Census results.	P60-133, pp. 2–7
1987	New CPS processing system.	P60-166, pp. 1, 14–17; Welniak, 1990 ASA proceedings
1992	Estimates first weighted using 1990 Census results.	P60-188, p. vii
1994	Computer-assisted interviewing replaced pencil-and-paper interviewing.	P60-189, p. vii
1994– 1995	New CPS sample design.	P60-189, p. vii and Table D-3; P60-194, pp. v and xiii and Table D-3
		Continued

Year	Methodological change	Reference
1995	Revised edit and allocation procedures for race groups.	P60-194, pp. v and xiii
2000	Expansion of CPS sample interviewed from about 50,000 households to about 78,000 households nationwide. Poverty data for 2000 and 2001 from sample expansion first published in P60-219, "Poverty in the United States: 2001." In the same report, data were weighted using Census 2000 results.	P60-219, Appendix B
2002	For the first time, the CPS ASEC of 2003 recorded multiple categories for respondents who identified themselves with more than one race. We do not know how people who reported more than one race in 2002 previously reported their race. Therefore, there is no single way to compare changes to poverty by race between 2001 and 2002. The "Asian or Pacific Islander" race category was divided into two groups: "Asians" and "Native Hawaiians and Other Pacific Islanders."	P60-222, pp. 2–3, 5
2013	Redesigned questions on income were tested using a probability split panel design, with redesigned questions provided to 30,000 addresses and traditional income questions provided to the remaining sample of 68,000 addresses. In addition, a new set of health insurance questions was provided to all 98,000 addresses.	P60-249, Appendix D
2014	New CPS sample design includes full-sample implementation of redesigned income questions.	P60-252, Appendixes D and E

For details about how questionnaire changes and file processing changes affected the data, see Edward J. Welniak Jr., "Effects of the March Current Population Survey's New Processing System on Estimates of Income and Poverty," paper presented at the annual meeting of the American Statistical Association (1990).

Further details about CPS methodology may be found in Technical Paper 63RV, available at https://www .census.gov/prod/2002pubs/tp63rv.pdf.

For additional poverty data, browse the Census Bureau poverty website at https://www.census.gov /topics/income-poverty/poverty/about.html, contact the Census Bureau's Customer Services Center at 1-800-923-8282 (toll free), or visit the Census Bureau's Question & Answer Center at https://ask.census.gov. For further information about technical changes to the poverty measure, contact Bernadette Proctor at (301) 763-3213 or e-mail bernadette.d.proctor@ census.gov.

For further information about the statistical reliability of the CPS estimates, contact dsmd_s&a@census.gov.

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