Alternative Poverty Estimates in the United States: 2003

Consumer Income

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INTRODUCTION

The official poverty rate and the number of people in poverty are important measures of the country's economic well-being. These measures, developed in the 1960s, have been criticized, however, because they do not reflect changes in public policies since then, such as the Earned Income Tax Credit and the use of in-kind benefits such as food stamps.

This report explains how the official poverty measure was computed, how several series of alternative estimates were developed, and how the alternative and official measures offer different profiles of people in poverty. The data in this report were obtained from the Annual Social and Economic Supplement (ASEC) to the Current Population Survey (CPS), collected by the U.S. Census Bureau from February through April 2004.

OVERVIEW OF POVERTY MEASURES

All the measures of poverty in this report are determined by a comparison of two components: needs and resources. Needs are expressed in dollar amounts called poverty thresholds. These thresholds serve as the benchmark against which a family's or person's resources are compared in order to determine whether they are in poverty.[1]

[1] When computing poverty status in the official and alternative estimates shown in this report, the Census Bureau adds together the income of all people living together who are related by birth, marriage, or adoption, and compares that dollar figure with a poverty threshold. For an unrelated individual, his or her own income is compared with the appropriate threshold. How "income" is defined and what dollar value the "threshold" is vary among the alternative measures.

The three approaches to measuring poverty examined here are:

- The official poverty measure as defined by the Office of Management and Budget (OMB) (see text box, "The Official Poverty Measure," on page 2).
- Measures that use alternative definitions of income to define resources. Those resources are then compared with either the same thresholds as the official measure, or with similar thresholds updated for inflation using a different price index.
- Measures based on recommendations from a National Academy of Sciences (NAS) panel that use alternative

Sources of Estimates and Statistical Accuracy

The estimates in this report (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.

For further information about the source and accuracy of the estimates, go to <www.census.gov /hhes/www/p60-226sa.pdf>.

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definitions both of resources and of thresholds.

These three approaches measure needs differently.

- The official measure, explained in detail in Appendix A, uses thresholds that vary by family size and the members' ages. They initially were derived in the 1960s using U.S. Department of Agriculture (USDA) data on food budgets and estimates of what percentage of families' income was spent on food. Following the practices specified by OMB, the official thresholds are updated annually for inflation, now using the Consumer Price Index for All Urban Consumers (CPI-U).
- Two series of measures are based on alternative income definitions and use similar poverty thresholds. One series of measures uses the official thresholds, which are adjusted for inflation from 1978 forward using the CPI-U. The other series also adjusts the thresholds for inflation since 1978, but it uses the CPI-U-RS, a revised inflation index that uses current price index methodology, computed for earlier dates by the Bureau of Labor Statistics (see text box, "What are the CPI-U and the CPI-U-RS?" on page 3). In that series, the base thresholds (for 1978) are first computed in CPI-U-RS-adjusted dollars, then those thresholds are adjusted forward for inflation using the CPI-U-RS.
- Measures based on the NAS recommendations assign a dollar amount for need for a family of four (two adults and two children) using the cost of food, clothing, shelter, utilities, a small amount for miscellaneous expenses, and, for some of the measures, medical expenses. That threshold is then scaled—adjusted by family size and composition—using three parameters, or factors that describe how family size and composition affect a family's needs.[2] The thresholds for this approach were computed using data from the Consumer Expenditure Survey.

The Official Poverty Measure

The Office of Management and Budget's (OMB) Statistical Policy Directive 14 specifies the official measure of poverty for statistical work. The directive states, "For the years 1969 and thereafter, the statistics contained in subsequent applicable reports in this series [the Census Bureau's Current Population Reports, Series P-60] shall be used." However, the directive also states that "[the official poverty thresholds] were not developed for administrative use in any specific program and nothing in this Directive should be construed as requiring that they should be applied for such a purpose." Many government aid programs use different dollar amounts as eligibility criteria. See Appendix A for references and a discussion of how the official measure was computed. The full text of Statistical Policy Directive 14 may be accessed at <www.census.gov/hhes/poverty/povmeas/ombdir14.html>.

The three measurement approaches also differ in the way they value resources:

- The official measure uses money income before taxes, excluding capital gains, to determine poverty status.
- In the measures that use alternative income definitions, taxes are subtracted from income and for some measures various noncash benefits are added to income. Each alternative income definition uses a different combination of taxes and noncash benefits.
- The measures based on the NAS panel recommendations also expand the definition of resources. Like the measures based on alternative income definitions, total resources in the NAS-based measures include the cash equivalent of noncash benefits and exclude taxes. In addition, they exclude some work-related expenses (such as transportation and child care). The NAS measures also take into account medical expenses paid by the patient, although each NAS measure uses a different method for doing so.

None of the measures considered in this report count assets as resources when determining poverty status. Some do impute income in the form of a return on home equity for those who own and occupy their home.

[2] The first scale parameter reflects that children, on average, consume less than adults; the second parameter reflects that as family size doubles, not every expense becomes twice as high, and the third parameter allows the first child in a single-adult family to represent a greater increase in expenses than the first child in a two-adult family. For a more technical explanation of how the equivalence scales (adjustments by family size and composition) were derived, see Citro and Michael, eds., *Measuring Poverty: A New Approach* (National Academy Press, 1995), Chapter 3, and Kathleen Short et al., *Experimental Poverty Measures: 1990 to 1997*, U.S. Census Bureau, (P60-205), Appendix C at <www.census.gov/prod/99pubs/p60-205.pdf>.

MEASURES USING ALTERNATIVE INCOME DEFINITIONS

The following alternatives illustrate how poverty rates are affected when various types of noncash benefits are treated as income and when taxes are taken into account while holding constant the measure of need (the thresholds). These data series were first developed in the early 1980s, in response to a congressional request. The U.S. Senate included the following statement in the appropriations bill for the Department of Commerce's 1981 fiscal year: "The official statistics show no significant reduction in recent years in the incidence of poverty, although in-kind benefit programs have expanded greatly. The Committee considers it essential that official poverty statistics reflect, at the earliest possible date, the effects of in-kind benefits. Without such information, Congress and the Executive Branch cannot be certain that Government transfer programs are properly targeted."[3]

[3] U.S. Senate Statement, "Data Collection and Poverty Level," *Department of State, Justice, and Commerce, The Judiciary and Related Agencies Appropriation Bill,* 1981, U.S. Senate, 96th Congress, 2nd Session, September 16, 1980: 33-34. Cited in U.S. Census Bureau, Technical Paper 56, *Estimates of Poverty Including the Value of Noncash Benefits: 1985,* U.S. Government Printing Office, Washington, DC, 1986, Appendix A.

After research and discussion with academic professionals, other government agencies, private sector organizations, and nonprofit and public-interest organizations, the Census Bureau published 17 alternative definitions of income in 1993.[4] Also pursuant to such discussions, the Census Bureau has produced a series of reports about the valuation of noncash benefits and taxes and their effects on income and poverty.[5] Analysts have used these data to examine to what extent taxes and various types of noncash benefits affect people's economic well-being. Four of the 17 alternative definitions are discussed below; historical tables for all 17 may be found in Appendix B. Detailed tables and more historical tables may be accessed on the Census Bureau's poverty Web site at <www.census.gov/hhes/www/poverty.html>. A report on the income estimates for 2003, *Alternative Income Estimates in the United States: 2003* (P60-228), is

[4] For an example of the research discussion that took place while the measures were under development, see the proceedings of the "Conference on the Measurement of Noncash Benefits," Fort Magruder Inn & Conference Center, Williamsburg, VA, December 12-14, 1985. Eleven alternative income definitions were presented in a subsequent Census Bureau report, *Measuring the Effect of Benefits and Taxes on Income and Poverty: 1986* (P60-164-RD-1, issued in December 1988). By 1993, 17 alternative income definitions had been developed.

According to the Williamsburg conference's statement of purpose, "[t]he conference [which the Census Bureau organized] was designed to provide a wide variety of academic, private sector, and government researchers, as well as representatives from public interest groups and interested Congressional committees, an opportunity to learn about the issues involved [in considering noncash benefits as income] and to make their own views known to the Census Bureau."

[5] See, for example, U.S. Census Bureau, *Measuring the Effects of Benefits and Taxes on Income and Poverty: 1986,* Current Population Reports, Series P60, No. 164-RD-1, U.S. Government Printing Office, Washington, DC, 1988, at <www.census.gov/hhes/www/prevcps/p60-164rd-1.pdf>.

What are the CPI-U and the CPI-U-RS?

The CPI-U (Consumer Price Index for All Urban Consumers) and the CPI-U-RS (Consumer Price Index Research Series Using Current Methods) are both price indexes, used to update dollar figures for inflation. These indexes are computed by the Bureau of Labor Statistics (BLS).

The CPI-U is used to update the official poverty thresholds for inflation. Statistical Policy Directive 14, issued by the Office of Management and Budget (OMB), states that the official poverty measure is to be updated this way.

The CPI-U-RS is an inflation index covering 1978 to the present. The CPI-U-RS applies most of the methodological improvements made to the CPI-U since 1978 to every year of the series. Among other improvements, the CPI-U-RS retroactively applies the newest methods of quality adjustment for many items, including personal computers, televisions, apparel, and many appliances, and it takes better account of how consumers might buy lower-priced goods or services to protect themselves from price increases on similar items. Dollar figures updated with the CPI-U-RS tend to be lower than those updated with the CPI-U, partly because the CPI-U-RS uses a corrected method for calculating homeownership costs. Although the research series has some limitations, including being subject to annual revisions, the BLS states that this is the most detailed and systematic index available of a consistent CPI.*

More information about the CPI-U-RS is available on the BLS Web site at <www.bls.gov/cpi/cpirsdc.htm>.

* For information about the benefits and limitations of the CPI-U-RS, see Kenneth J. Stewart and Stephen B. Reed, "Consumer Price Index research series using current methods, 1978–98," *Monthly Labor Review*, June, 1999, pp 29-38. This article is available on the Internet at <www.bls.gov/opub/mlr/1999/06/art4full.pdf>.

available at <www.census.gov /hhes/www/income.html>.

Table 1 lists ten sets of poverty estimates. The first is the official poverty measure, which is based on money income (MI). The next four compare modified definitions of income (described in the text box titled "Which Alternative Measures of Income Are Used to Compute These Alternative Poverty Estimates?") with the official poverty thresholds, which are updated for inflation using the CPI-U. The remaining five are similar to the first five, except that the poverty thresholds have been updated for inflation based on the CPI-U-RS instead of the CPI-U and thus differ from the official ones (see the text box titled "What are the CPI-U and CPI-U-RS?" on page 3). Table 2 displays poverty rates using these measures by selected demographic groups and by region.

Taxes and the value of noncash benefits are important components of the alternative approaches. Among its questions, the ASEC asks respondents about whether they received certain types of noncash benefits. The respondents are not asked to report whether they pay taxes or to estimate a dollar value for every noncash benefit they may receive.

To compute the alternative income estimates, dollar values of taxes and noncash benefits were generated using statistical models. Except for food stamps, the monetary values of the noncash benefits included in the income definitions were imputed. Those noncash benefits included values of employers' contributions for health insurance, Medicare and Medicaid, rent subsidies, free and reduced-price school lunches, and return on equity in one's own home.[6] Food stamp amounts were those reported in the ASEC. This report presents several approaches to defining income—some include the values of selected noncash transfers, others exclude them.

The tax data used in the alternative income definitions were simulated from a newly revised tax model, for both the 2002 and 2003 estimates.[7] Four types of

Which Alternative Measures of Income Are Used to Compute These Alternative Poverty Estimates?

Money income (MI) is collected for all people in the sample 15 years old and over. Money income includes:

Earnings	Dividends
Unemployment compensation	Rents
Workers' compensation	Royalties
Social Security	Income from estates
Supplemental Security Income	Trusts
Public assistance	Educational assistance
Veterans' payments	Alimony
Survivor benefits	Child support
Pension or retirement income	Assistance from outside the household
Interest	Other miscellaneous sources

It is income before deductions for taxes or other expenses and does not include lump-sum payments (such as contest prize winnings won as a single payment) or capital gains.

MI - Tx is money income plus realized capital gains (losses), less federal and state income taxes and less payroll taxes.

MI - Tx + NC - MM is money income plus realized capital gains (losses), less federal and state income taxes, less payroll taxes, plus the value of employer-provided health benefits and the value of noncash transfers except Medicare and Medicaid. Noncash transfers included here are food stamps, rent subsidies, and free and reduced-price school lunches.

MI - Tx + NC is money income plus realized capital gains (losses), less federal and state income taxes, less payroll taxes, plus the value of employer-provided health benefits and noncash transfers.

MI - Tx + NC + HE is money income plus realized capital gains (losses), less federal and state income taxes, less payroll taxes, plus the value of employer-provided health benefits and noncash transfers, plus the annual benefits of converting one's home equity into an annuity, net of property taxes.

[6] For descriptions of how the noncash benefits were estimated in the alternative measures, see Appendixes B and C of P60-186RD, *Measuring the Effect of Benefits and Taxes on Income and Poverty: 1992*.

[7] Information on the new methodology used to simulate federal and state income taxes and payroll taxes can be found in *New Methods for Simulating CPS Taxes*, by Amy O'Hara, available at <www.census.gov/hhes /www/income/oharataxmodel.pdf>. See also Appendix A in *Alternative Income Estimates in the United States: 2003* (P60-228) at <www.census.gov/prod /2005pubs/p60-228.pdf>.

Table 1.

Poverty Estimates Based on Alternative Measures of Income: 2002 and 2003

(Numbers of people and their confidence intervals in thousands, poverty rates and their confidence intervals in percentage points)

Selected alternative income definitions	2002				2003				Change (2003 less 2002)[2]			
	Number below poverty	90-percent confidence interval[1] (+/-)	Poverty rate	90-percent confidence interval[1] (+/-)	Number below poverty	90-percent confidence interval[1] (+/-)	Poverty rate	90-percent confidence interval[1] (+/-)	Number below poverty	90-percent confidence interval[1] (+/-)	Poverty rate	90-percent confidence interval[1] (+/-)
THRESHOLDS ADJUSTED FOR INFLATION USING CPI-U												
MI (Money income; used in official measure of poverty)	34,570	660	12.1	0.2	35,861	671	12.5	0.2	*1,291	698	*0.3	0.2
MI-Tx (Money income plus realized capital gains (losses), less income and payroll taxes)	33,035	647	11.6	0.2	34,409	659	12.0	0.2	*1,374	685	*0.4	0.2
MI-Tx+NC-MM (Money income plus realized capital gains (losses), less income and payroll taxes, plus value of employer-provided health benefits and all noncash transfers except Medicare and Medicaid)	28,074	602	9.8	0.2	29,243	613	10.2	0.2	*1,169	638	*0.4	0.2
MI-Tx+NC (Money income plus capital gains (losses), less income and payroll taxes, plus value of all noncash transfers)	26,662	589	9.3	0.2	27,792	600	9.7	0.2	*1,130	623	*0.4	0.2
MI-Tx+NC+HE (Money income plus capital gains (losses), less income and payroll taxes, plus value of all noncash transfers, plus imputed return to home equity)	24,581	567	8.6	0.2	25,956	582	9.0	0.2	*1,375	603	*0.4	0.2
THRESHOLDS ADJUSTED FOR INFLATION USING CPI-U-RS												
MI (Money income; used in official measure of poverty)	28,909	610	10.1	0.2	30,304	623	10.5	0.2	*1,395	647	*0.4	0.2
MI-Tx (Money income plus realized capital gains (losses), less income and payroll taxes)	27,038	592	9.5	0.2	28,205	604	9.8	0.2	*1,167	627	*0.3	0.2
MI-Tx+NC-MM (Money income plus realized capital gains (losses), less income and payroll taxes, plus value of employer-provided health benefits and all noncash transfers except Medicare and Medicaid)	22,393	544	7.8	0.2	23,224	553	8.1	0.2	*831	575	*0.3	0.2
MI-Tx+NC (Money income plus capital gains (losses), less income and payroll taxes, plus value of all noncash transfers)	21,872	538	7.7	0.2	22,704	547	7.9	0.2	*832	569	*0.2	0.2
MI-Tx+NC+HE (Money income plus capital gains (losses), less income and payroll taxes, plus value of all noncash transfers, plus imputed return to home equity)	20,188	518	7.1	0.2	21,228	531	7.4	0.2	*1,040	550	*0.3	0.2

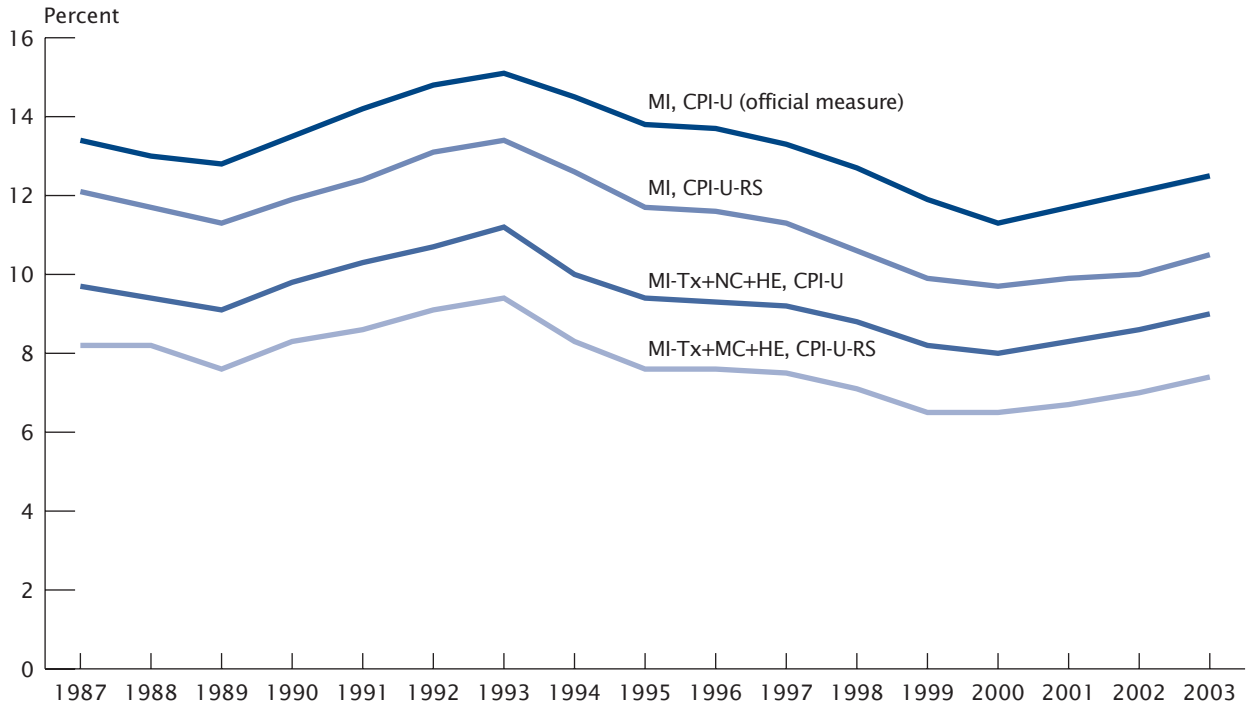
* Statistically different from zero at the 90-percent confidence level.

[1]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. For more information, see "Standard Errors and Their Use" in *Source and Accuracy of Estimates for Income, Poverty, and Health Insurance Coverage in the United States: 2003* at <www.census.gov/hhes/www/p60-226sa.pdf>.

[2]Details may not sum to totals because of rounding.

Source: U.S. Census Bureau, Current Population Survey, 2003 and 2004 Annual Social and Economic Supplements.

Figure 1.
Poverty Estimates Based on Selected Alternative Definitions of Income and Deflators: 1987 to 2003



Note: The data points are placed at the midpoints of the respective years.
MI means "Money income."
MI-Tx+NC+HE means "Money income less taxes, plus the value of noncash benefits, plus imputed net return on home equity."
CPI-U means "Thresholds were adjusted using the Consumer Price Index for All Urban Consumers."
CPI-U-RS means "Thresholds were adjusted using the Consumer Price Index Research Series Using Current Methods."
Source: U.S. Census Bureau, Current Population Survey, 1988 to 2004 Annual Social and Economic Supplements.

taxes were simulated: federal individual income taxes, state individual income taxes, property taxes on owner-occupied housing, and payroll taxes. Federal, state, and payroll taxes were modeled, in part, using administrative records. Property taxes were imputed using data from the American Housing Survey.[8] To illustrate the effects of the changes to the tax model, Tables C-1 and C-2 in Appendix C present poverty estimates for 2003 under the previous tax model and the revised tax model.

[8] Property taxes were subtracted from income only for the alternative measures that included the return on home equity in income.

Some of the alternative income definitions include the value of noncash transfers, some of which are designed to pay for expenditures that were largely nonexistent when the official poverty definition was developed. Some analysts argue that it is inconsistent with the original concept of the thresholds to include those benefits (such as government health insurance programs) in income without also including them in the thresholds. Hence, some alternative measures include the value of in-kind transfers in income and in the thresholds (discussed on pages 8-14), while others include them only in income (discussed below).

Looking at the CPI-U-adjusted estimates in Table 1, using the MI-Tx income definition while holding the thresholds constant lowered the 2003 percentage of people in families with incomes below the thresholds from the official poverty rate of 12.5 percent to 12.0 percent. While it may seem counterintuitive that a measure using after-tax income and the same thresholds would have a lower poverty rate, this income measure (MI-Tx) also takes into account the state and federal Earned Income Tax Credits, which benefit some people with low income, and capital gains and losses.

Table 2.
Poverty Rate Estimates by Selected Demographic Characteristics and by Region, Based on Alternative Measures of Income: 2003

(Poverty rate estimates and their confidence intervals in percentage points. Estimates are based on poverty thresholds adjusted for inflation using the CPI-U)

Characteristic	**MI** (Money income; used in official measure of poverty)	90-percent confidence interval[1] (+/-)	**MI-Tx** (Money income plus realized capital gains (losses), less income and payroll taxes)	90-percent confidence interval[1] (+/-)	**MI-Tx+NC-MM** (Money income plus realized capital gains (losses), less income and payroll taxes, plus value of employer-provided health benefits and all noncash transfers except Medicare and Medicaid)	90-percent confidence interval[1] (+/-)	**MI-Tx+NC** (Money income plus capital gains (losses), less income and payroll taxes, plus value of all noncash transfers)	90-percent confidence interval[1] (+/-)	**MI-Tx+NC+HE** (Money income plus capital gains and (losses), less income and payroll taxes, plus value of all noncash transfers, plus imputed return to home equity)	90-percent confidence interval[1] (+/-)
All people	**12.5**	**0.2**	**12.0**	**0.2**	**10.2**	**0.2**	**9.7**	**0.2**	**9.0**	**0.2**
People in families	**10.8**	**0.2**	**9.9**	**0.2**	**8.2**	**0.2**	**7.8**	**0.2**	**7.4**	**0.2**
People in married-couple families	6.2	0.2	5.6	0.2	4.7	0.2	4.3	0.2	4.0	0.2
People in families with a female householder, no husband present	30.0	0.9	27.8	0.8	23.2	0.8	22.3	0.8	21.4	0.8
People in families with a male householder, no wife present	14.2	1.1	13.4	1.1	11.1	1.0	10.9	1.0	10.5	1.0
Age										
Under 18 years	17.6	0.5	16.0	0.5	13.0	0.4	12.3	0.4	12.0	0.4
18 to 64 years	10.8	0.3	10.7	0.3	9.3	0.3	8.9	0.3	8.5	0.2
65 years and over	10.2	0.4	10.2	0.4	8.7	0.4	8.1	0.3	5.7	0.3
Race[2] and Hispanic Origin										
White alone[3]	10.5	0.2	10.1	0.2	8.6	0.2	8.2	0.2	7.6	0.2
Non-Hispanic White alone	8.2	0.2	8.0	0.2	7.0	0.2	6.6	0.2	6.0	0.2
Black alone[4]	24.4	0.9	23.4	0.8	19.4	0.8	18.5	0.8	17.5	0.8
Asian alone[5]	11.8	1.2	11.1	1.1	9.8	1.0	9.6	1.0	9.1	1.0
Hispanic (of any race)	22.5	0.8	21.0	0.8	17.4	0.7	16.3	0.7	15.8	0.7
Region										
Northeast	11.3	0.5	10.5	0.5	8.7	0.4	8.3	0.4	7.8	0.4
Midwest	10.7	0.5	10.3	0.4	8.6	0.4	8.2	0.4	7.8	0.4
South	14.1	0.5	13.5	0.4	11.7	0.4	11.3	0.4	10.4	0.4
West	12.6	0.6	12.3	0.5	10.4	0.5	9.7	0.5	9.0	0.5

[1]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. For more information, see "Standard Errors and Their Use" in *Source and Accuracy of Estimates for Income, Poverty, and Health Insurance Coverage in the United States: 2003* at <www.census.gov/hhes/www/p60-226sa.pdf>.

[2]Data for American Indians and Alaska Natives, and Native Hawaiians and Other Pacific Islanders are not shown separately.

[3]The 2003 and 2004 CPS asked respondents to choose one or more races. White alone refers to people who reported White and did not report any other race category. The use of this 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 2000 through American FactFinder. About 2.6 percent of people reported more than one race in Census 2000.

[4]Black alone refers to people who reported Black and did not report any other race category.

[5]Asian alone refers to people who reported Asian and did not report any other race category.

Source: U.S. Census Bureau, Current Population Survey, 2004 Annual Social and Economic Supplement.

Including noncash benefits as income produced a greater effect on poverty rates than adjustments for taxes and capital gains. The poverty rate estimate that included the value of noncash benefits other than Medicaid and Medicare was 10.2 percent in 2003 (MI-Tx+NC-MM, again based on CPI-U-adjusted thresholds). Including those medical programs as well resulted in an even lower poverty rate, 9.7 percent (MI-Tx+NC). Similarly, including the imputed returns on home equity further reduced the poverty rate by another 0.7 percentage points, to 9.0 percent in 2003 (MI-Tx+NC+HE), as shown in Figure 1.

Estimates adjusted using the CPI-U-RS followed the same pattern as their CPI-U-adjusted counterparts. Because the CPI-U-RS-adjusted thresholds were lower than the official thresholds (by approximately 12 percent in 2002 and 2003), the poverty rate for each alternative income definition estimate was lower than its counterpart adjusted with the CPI-U.

Table 1 shows that all of the alternative income definitions yielded poverty rate increases of 0.2 percentage points to 0.4 percentage points between 2002 and 2003, as did the official measure (0.3 percentage points).[9] Before interpreting these data, please see the text box on page 1 titled "Sources of Estimates and Statistical Accuracy."

Table 2 displays estimates by selected demographic characteristics and region, using the CPI-U-adjusted thresholds for 2003. As stated earlier, including noncash benefits as income produced a greater effect on poverty rates than adjustments for taxes and capital gains. Four demographic groups illustrate those effects. For people in female-householder families, people under 18, Blacks, and Hispanics (who may be any race), poverty rates fell by more than 3.5 percentage points between the MI-Tx definition and the MI-Tx+NC definition.[10] Among the groups shown in the table, adding the imputed net return on home equity (MI-Tx+NC+HE) produced the greatest decline for people 65 years and over (a poverty rate of 5.7 percent, compared with 8.1 percent under the MI-Tx+NC definition).

In summary, income definitions that used after-tax income and included the values of noncash benefits—leaving the thresholds the same—lowered the percentage of people falling below the thresholds, but they did not change the timing of peaks and troughs over time (see the CPI-U-adjusted estimates in Figure 1). This result occurred regardless of the price index used to adjust the thresholds.

MEASURES BASED ON NATIONAL ACADEMY OF SCIENCES RECOMMENDATIONS

In 1995, a panel of the National Academy of Sciences (NAS) issued a report that recommended new ways to define resources, needs, and other aspects related to measuring poverty.[11] Because the official poverty measure does not take into account how taxes, noncash benefits, and work-related and medical expenses affect people's well-being, the NAS panel observed that the official measure does not show how policy changes in those areas affect who is considered to be in poverty. In addition, the panel concluded that the alternative measures that only change income are inadequate because they are not accompanied by parallel and consistent changes to the poverty thresholds. The current thresholds also do not reflect variation in the cost of goods and services by geography.[12] According to the NAS panel, the official thresholds also do not accurately account for increased expenses and economies of scale that occur as family size increases. Hence, the NAS panel suggested a way that a new poverty measure be constructed that addresses these issues.[13]

In response to the public debate that followed publication of the NAS report, under the auspices of an OMB Interagency Technical

[9] The difference between the poverty rates before rounding for 2002 (12.12 percent) and 2003 (12.46 percent) is 0.3 percentage points when it is rounded.

[10] Federal surveys now ask people to report one or more races. Therefore, two ways of defining a group such as Asian are possible. The first includes those who reported Asian and no other race; the second includes everyone who reported Asian regardless of whether they also reported another race. Data using the first concept are presented in Table 2 and Table 4.

Because Hispanics may be any race, data in this report for Hispanics overlap with data for racial groups. In 2003, being Hispanic was reported by 16.1 percent of people who reported White as their only race; 3.3 percent of people who reported Black as their only race; 29.4 percent of people who reported American Indian or Alaska Native as their only race; 1.3 percent of people who reported Asian as their only race; and 10.3 percent of people who reported Native Hawaiian or Other Pacific Islander as their only race.

[11] Citro, Constance F. and Robert T. Michael, *Measuring Poverty: A New Approach,* Washington, DC, National Academy Press, 1995. As Robert T. Michael indicated in the preface (p. xv), "...the Joint Economic Committee of Congress initiated an independent, in-depth review of the U.S. poverty measure, working with the House Subcommittee on Census, Statistics, and Postal Personnel. ...Subsequently, the scope of the study was broadened to include consideration of conceptual and methodological issues for establishing standards of welfare payments to needy families with children. The Administration for Children and Families... of the U.S. Department of Health and Human Services provided funding for this second request...." Additional funding for the panel was granted by various federal agencies. The panel members were scholars from universities and research institutions.

[12] *Measuring Poverty,* pp. 67-68.

[13] A dissenting opinion objected to the basic approach of the panel. See Appendix A of the NAS panel's report, *Measuring Poverty,* pp. 385-390.

Working Group, the Census Bureau has been conducting research to refine some of the panel's measurement methods and to examine how the NAS panel's approach would affect the number of people below poverty and the poverty rate. Twelve NAS-based alternative measures are discussed below. These measures each account for work-related expenses and noncash benefits (such as food stamps and housing subsidies) and adjust thresholds by family size in similar ways, but the measures differ among one another in three aspects: the manner in which they take account of health care costs, whether they consider geographic differences in the cost of living, and the method used to update the base threshold for a family of four over time.[14]

Health care costs. To take account of health care costs, the NAS panel recommended accounting for Medical Out-Of-Pocket expenditures, or MOOP. These medical expenses include health insurance premiums, copayments made to medical providers that are not covered by insurance, and other expenses paid out of the patient's pocket, such as over-the-counter medications. The NAS-based measures use three different methods for taking account of MOOP.

- **Medical out-of-pocket expenses subtracted from income (MSI)**. The MSI measure subtracts MOOP from family income before comparing the income to the family's threshold, which in this case does not include a separate computation for medical expenditures.
- **MOOP in the threshold (MIT)**. The MIT measure increases the poverty threshold to take a family's potential MOOP expenses into account, instead of subtracting their actual expenses from income. Using data from the 1997–1999 Consumer Expenditure Survey and the 1996 Medical Expenditures Panel Survey, the Census Bureau computed a threshold to allow for food, clothing, shelter, utilities, and MOOP. How much money was allowed for MOOP depended on the family's size, the presence of elderly family members, the self-reported health status of the family members, and differences in health insurance coverage across families. Thus, for the MIT measures, the thresholds' allowances for MOOP reflect expected—that is, average—medical expenses along those dimensions, not the family's actual expenses.
- **Combined method (CMB)**. The CMB measure combines attributes of both the MSI and MIT measures. Like the MIT measure, the CMB includes expected MOOP expenditures in the thresholds. In addition, like the MSI measure, the CMB takes into account variations in medical expenditures across families. The CMB measure calculates the difference between the expected MOOP and the actual amounts each family spent out-of-pocket for medical care and subtracts the difference from family income. This way, families that had greater than expected medical expenses may be classified as "in poverty" when they otherwise would not be, but those that were unexpectedly healthy—and thus spent less on MOOP than expected, leaving those funds available for other purposes—are classified as better off than they would be under both the official and MIT measures.

Geographic differences in the cost of living. The official measure applies the same poverty thresholds nationally. Similarly, the measures labeled NGA (for "no geographic adjustment") do not consider geographic variations in costs.

The measures labeled GA (for "geographic adjustment") do account for some geographic differences in the cost of living. The thresholds in the GA measures are multiplied by an index constructed from Fair Market Rent data calculated by the Department of Housing and Urban Development. The index thus reflects differences in rental housing costs by state and by metropolitan/nonmetropolitan status within states.[15]

Method for updating the base threshold. As explained earlier, the official poverty measure was derived in the 1960s, using U.S. Department of Agriculture food budgets and data from 1955 about what percentage of a family's income was spent on food—it did not stem from comprehensive judgments about how family needs compare among all sizes of families.[16] The CPI-U is used to update

[14] For a full discussion of the methods used to derive the NAS-based measures, see Short, Kathleen, *Experimental Poverty Measures: 1999,* U.S. Census Bureau, (P60-216), Washington, DC, 2001 at <www.census.gov/prod/2001pubs/p60-216.pdf>.

[15] For more information about Fair Market Rents (FMRs), see the Department of Housing and Urban Development Web site, <www.huduser.org/datasets/fmr.html>. For information about how FMRs are used to geographically adjust the poverty thresholds see Kathleen Short, "Where We Live – Geographic Differences in Poverty Thresholds," <www.census.gov/hhes/poverty/povmeas/papers/sgepaper.pdf>.

[16] The thresholds for unrelated individuals were computed as a proportion of thresholds for two-person families. See Appendix A for details and references.

Table 3.
Alternative Poverty Estimates Based on National Academy of Sciences Recommendations, by Geographic and Inflationary Adjustments: 2002 and 2003

(Numbers of people and their confidence intervals in thousands, poverty rates and their confidence intervals in percentage points)

Poverty measurement method	2002				2003				Change (2003 less 2002)[2]			
	Number below poverty level	90-percent confidence interval[1] (+/-)	Poverty rate	90-percent confidence interval[1] (+/-)	Number below poverty level	90-percent confidence interval[1] (+/-)	Poverty rate	90-percent confidence interval[1] (+/-)	Number below poverty level	90-percent confidence interval[1] (+/-)	Poverty rate	90-percent confidence interval[1] (+/-)
THRESHOLDS UPDATED USING THE CPI-U:												
No Geographic Adjustment of Thresholds												
Official measure	34,570	660	12.1	0.2	35,861	671	12.5	0.2	*1,291	698	*0.3	0.2
MSI-NGA (Medical out-of-pocket expenses (MOOP) subtracted from income)	34,971	664	12.3	0.2	36,557	676	12.7	0.2	*1,585	703	*0.5	0.2
MIT-NGA (MOOP in the thresholds)	36,463	676	12.8	0.2	37,921	687	13.2	0.2	*1,458	715	*0.4	0.2
CMB-NGA (Combined methods)	36,729	678	12.9	0.2	38,362	690	13.3	0.2	*1,633	718	*0.5	0.2
Geographic Adjustment of Thresholds												
MSI-GA	34,448	659	12.1	0.2	36,159	673	12.6	0.2	*1,711	699	*0.5	0.2
MIT-GA	35,923	671	12.6	0.2	37,350	683	13.0	0.2	*1,428	710	*0.4	0.2
CMB-GA	36,341	675	12.7	0.2	38,022	688	13.2	0.2	*1,682	715	*0.5	0.2
THRESHOLDS COMPUTED USING THE CONSUMER EXPENDITURE SURVEY:												
No Geographic Adjustment of Thresholds												
MSI-NGA	38,343	690	13.4	0.2	40,083	703	13.9	0.2	*1,740	731	*0.5	0.3
MIT-NGA	39,740	701	13.9	0.2	41,621	715	14.5	0.2	*1,882	742	*0.5	0.3
CMB-NGA	39,024	695	13.7	0.2	41,004	710	14.3	0.2	*1,980	737	*0.6	0.3
Geographic Adjustment of Thresholds												
MSI-GA	37,683	685	13.2	0.2	39,556	699	13.7	0.2	*1,873	726	*0.5	0.3
MIT-GA	39,170	697	13.7	0.2	40,816	709	14.2	0.2	*1,646	737	*0.5	0.3
CMB-GA	38,319	690	13.4	0.2	40,468	706	14.1	0.2	*2,149	732	*0.6	0.3

- Represents zero or rounds to zero.
* Statistically different from zero at the 90-percent confidence level.

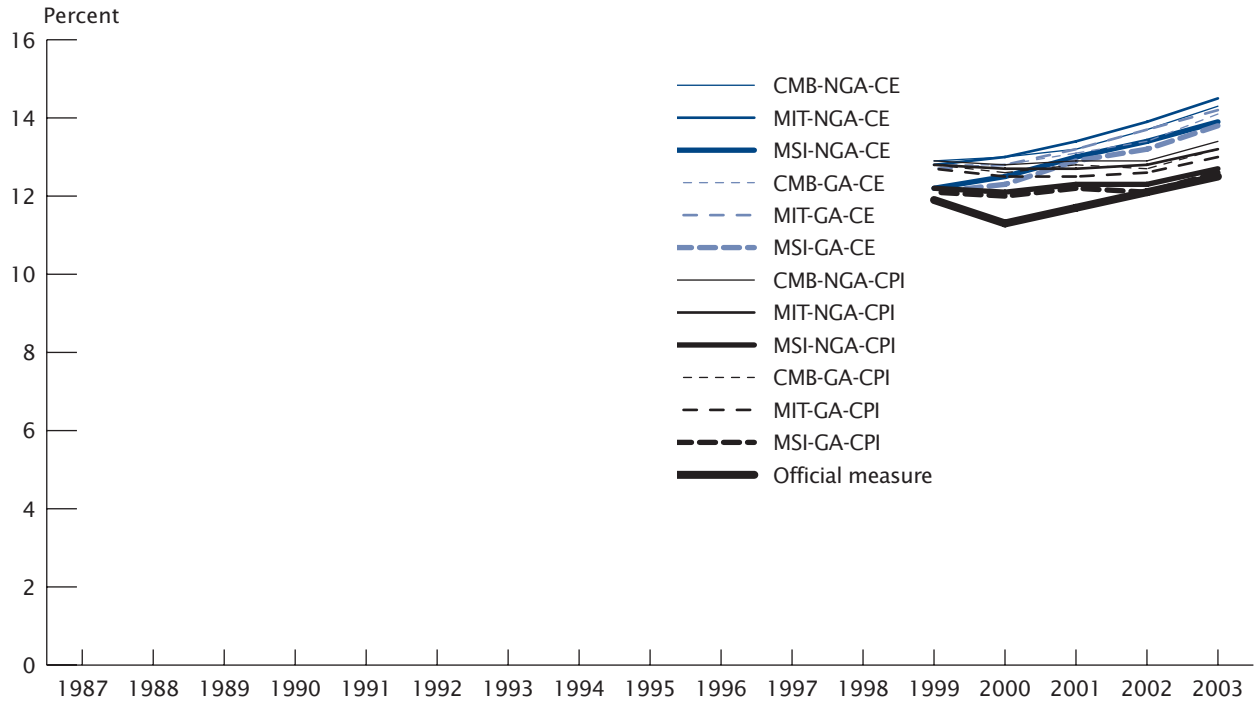
Note: While the alternative measures differ among one another in their computation of medical expenses, geographic variations in costs, and inflation adjustment methods, they are similar in their scaling of thresholds by family size and their treatment of noncash benefits and child care and work-related expenses. See text and footnotes for additional information and references.

[1]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. For more information, see "Standard Errors and Their Use" in *Source and Accuracy of Estimates for Income, Poverty, and Health Insurance Coverage in the United States: 2003* at <www.census.gov/hhes/www/p60-226sa.pdf>.

[2]Details may not sum to total because of rounding.

Source: U.S. Census Bureau, Current Population Survey, 2003 and 2004 Annual Social and Economic Supplements.

Figure 2.
Poverty Rates Based on National Academy of Sciences (NAS) Recommendations: 1999 to 2003



Note: The data points are placed at the midpoints of the respective years.
MSI means "Medical out-of-pocket expenses (MOOP) subtracted from income."
MIT means "MOOP in the thresholds."
CMB means "Combined methods."
GA means "Geographic Adjustment (of poverty thresholds)."
NGA means "No Geographic Adjustment (of poverty thresholds)."
CPI means "Thresholds were adjusted since 1999 using the Consumer Price Index for All Urban Consumers."
CE means "Thresholds were recomputed since 1999 using data from the Consumer Expenditure Survey."
Source: U.S. Census Bureau, Current Population Survey, 2000 to 2004 Annual Social and Economic Supplements.

these thresholds for inflation, by expressing the threshold matrix for 1978 in terms of the most recent year's dollars.[17]

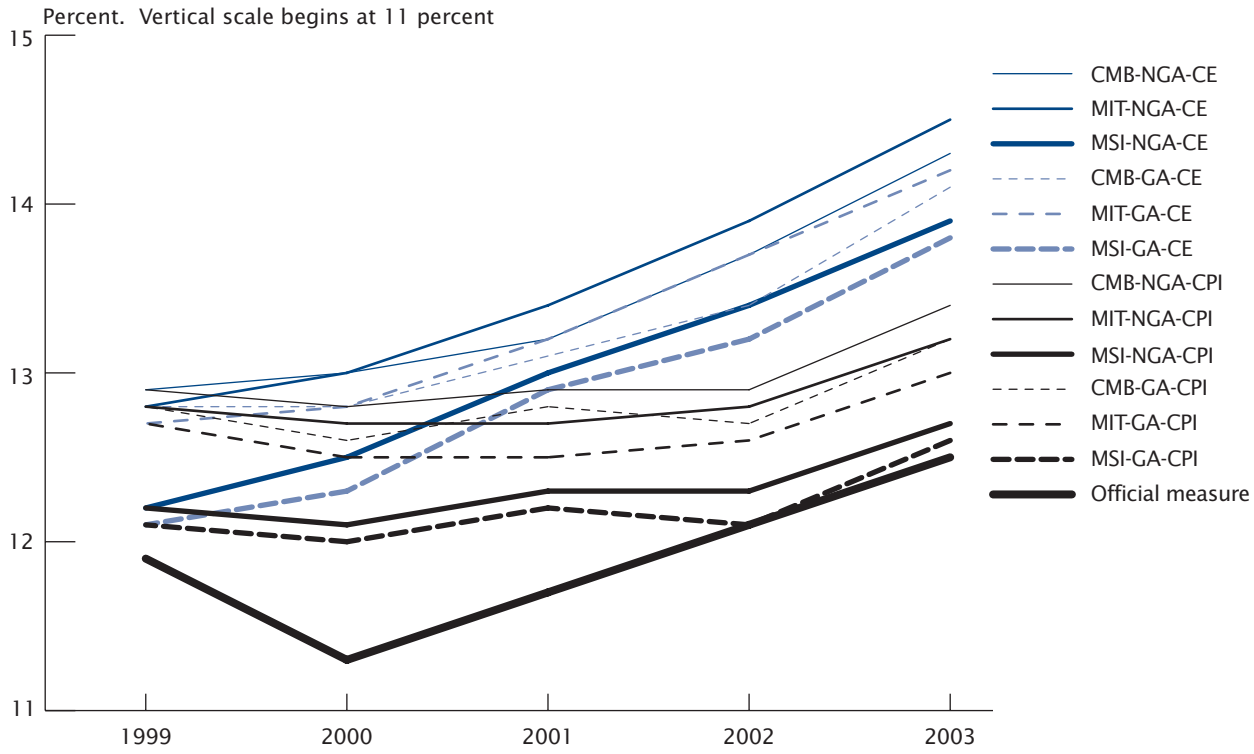
The NAS-based measures instead compute a threshold for a family of four—two adults and two children—and scale it by family size using three parameters (see Footnote 2).

- The measures in the top half of Table 3 (and labeled "CPI" in Figure 2) use as their base threshold a dollar figure computed using Consumer Expenditure Survey data from 1997 to 1999, and this threshold value is adjusted for inflation since 1999 using the CPI-U. While the threshold amounts are expressed in the current year's dollars, these measures reflect families' spending on food, clothing, shelter, utilities, and (for the MIT and CMB measures) medical expenses during 1997 through 1999.
- The measures in the bottom half of Table 3 (and labeled "CE" in Figure 2) estimate the base threshold for a family of four for 2003 using median expenditures from the latest available 12 quarters of Consumer Expenditure Survey data. While the CPI measures adjust the thresholds for overall changes in prices, the CE measures

[17] The earliest thresholds available for the threshold matrix now in use—which includes thresholds for families of seven, eight, and nine or more people—are for 1978. Previously, families of seven or more members were included in the same category. See U.S. Census Bureau, *Characteristics of the Population Below the Poverty Level: 1980* (P60-133), available at <www.census.gov/hhes/www/prevcps.html>, for information about the 1980–1981 modifications to the poverty threshold matrix.

Figure 3.

Poverty Rates Based on National Academy of Sciences Recommendations, With Scales Magnified to Show Differences Among Measures: 1999 to 2003



Note: The data points are placed at the midpoints of the respective years. Scale has been magnified to make the measures easier to distinguish; for absolute comparisons, see Figure 2.
MSI means "Medical out-of-pocket expenses (MOOP) subtracted from income."
MIT means "MOOP in the thresholds."
CMB means "Combined method."
GA means "Geographic Adjustment (of poverty thresholds)."
NGA means "No Geographic Adjustment (of poverty thresholds)."
CPI means "Thresholds were adjusted since 1999 using the Consumer Price Index for All Urban Consumers."
CE means "Thresholds were recomputed since 1999 using data from the Consumer Expenditure Survey."
Source: U.S. Census Bureau, Current Population Survey, 2000 to 2004 Annual Social and Economic Supplements.

reflect families' spending on the set of goods in the threshold.

As shown in Table 3 and Figures 2 and 3, the NAS alternative poverty measures produced higher poverty rates than the official measure. The MSI measures updated with the CPI (labeled "MSI-GA-CPI" and "MSI-NGA-CPI" in Figures 2 and 3) were closest to the official measure. The MIT measure with no geographic adjustment was the highest among the CE measures. The CMB measure with no geographic adjustment was the highest among the CPI-adjusted measures. The CE poverty measures were higher than their CPI-adjusted counterparts because their thresholds rose along with expenditures for the bundle of goods in the threshold, which rose faster than overall prices during the 1999–2003 period.

As seen in Figure 2, the NAS alternative poverty rates were all at or within about 2 percentage points above the official rate in each of the 5 years for which the Census Bureau has data. The geographically-adjusted MSI measure updated with the CPI (MSI-GA-CPI) consistently produced poverty rates lower than the other alternative measures. The gap between that measure and the official measure was largest in 2000 and smallest in 2002, when both the MSI-GA-CPI and the official measure estimated a poverty rate of 12.1 percent. The largest differences between the alternative and the official estimates occurred in 2003, when the MIT measure with no geographical adjustment that used CE thresholds (MIT-NGA-CE) was 14.5 percent and the official measure was 12.5 percent.

Table 4.

Alternative Poverty Estimates Based on National Academy of Sciences Recommendations, by Selected Demographic Characteristics and by Region: 2003

(Poverty rate estimates and their confidence intervals in percentage points. All measures use thresholds adjusted for inflation using the CPI-U)

Characteristic	NGA (No Geographic Adjustment of poverty thresholds)								GA (Geographic Adjustment of poverty thresholds)					
	Official poverty measure	90-percent confidence interval[1] (+/-)	MSI-NGA (Medical out-of-pocket expenses (MOOP) subtracted from income)	90-percent confidence interval[1] (+/-)	MIT-NGA (MOOP included in the thresholds)	90-percent confidence interval[1] (+/-)	CMB-NGA (Combined methods)	90-percent confidence interval[1] (+/-)	MSI-GA	90-percent confidence interval[1] (+/-)	MIT-GA	90-percent confidence interval[1] (+/-)	CMB-GA	90-percent confidence interval[1] (+/-)
All people	**12.5**	**0.2**	**12.7**	**0.2**	**13.2**	**0.2**	**13.3**	**0.2**	**12.6**	**0.2**	**13.0**	**0.2**	**13.2**	**0.2**
People in families	**10.8**	**0.2**	**10.7**	**0.2**	**11.3**	**0.2**	**11.2**	**0.2**	**10.7**	**0.2**	**11.2**	**0.2**	**11.3**	**0.2**
People in married-couple families	6.2	0.2	6.7	0.2	7.1	0.2	7.1	0.2	6.7	0.2	7.1	0.2	7.1	0.2
People in families with a female householder, no husband present	30.0	0.9	26.9	0.8	28.2	0.8	28.1	0.8	26.7	0.8	27.3	0.8	27.8	0.8
People in families with a male householder, no wife present	14.2	1.1	16.0	1.2	16.6	1.2	16.6	1.2	16.7	1.2	17.0	1.2	17.2	1.2
Age														
Under 18 years	17.6	0.5	14.7	0.4	16.0	0.4	15.4	0.4	14.6	0.4	15.8	0.4	15.4	0.4
18 to 64 years	10.8	0.3	11.2	0.3	11.9	0.3	11.7	0.3	11.1	0.3	11.8	0.3	11.7	0.3
65 years and over	10.2	0.4	16.3	0.5	14.0	0.4	17.3	0.5	15.7	0.5	13.3	0.4	16.6	0.5
Race[2] and Hispanic Origin														
White alone[3]	10.5	0.2	11.3	0.2	11.7	0.3	11.8	0.3	11.1	0.2	11.4	0.2	11.7	0.3
Non-Hispanic White alone	8.2	0.2	9.2	0.2	9.3	0.2	9.6	0.3	8.5	0.2	8.6	0.2	9.0	0.2
Black alone[4]	24.4	0.9	21.6	0.8	22.5	0.8	22.7	0.8	20.7	0.8	21.3	0.8	21.6	0.8
Asian alone[5]	11.8	1.2	11.9	1.1	12.0	1.1	12.5	1.1	14.3	1.2	15.1	1.2	15.3	1.3
Hispanic (of any race)	22.5	0.8	21.9	0.8	23.7	0.8	22.9	0.8	24.3	0.8	26.2	0.8	25.7	0.8
Region														
Northeast	11.3	0.5	10.3	0.5	10.6	0.5	11.0	0.5	12.3	0.5	12.7	0.5	13.1	0.5
Midwest	10.7	0.5	11.0	0.4	11.3	0.4	11.5	0.5	9.5	0.4	9.7	0.4	9.9	0.4
South	14.1	0.5	15.0	0.4	15.6	0.5	15.6	0.5	12.7	0.4	13.0	0.4	13.2	0.4
West	12.6	0.6	12.8	0.5	13.3	0.6	13.4	0.6	15.5	0.6	16.4	0.6	16.6	0.6

Note: While the alternative measures differ among one another in their computation of medical expenses and geographic variations in costs, they are similar in their scaling of thresholds by family size, their inflation adjustment method (based on the CPI-U), and their treatment of noncash benefits and child care and work-related expenses. See text and footnotes for additional information and references.

[1]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. For more information see "Standard Errors and Their Use" in *Source and Accuracy of Estimates for Income, Poverty, and Health Insurance Coverage in the United States: 2003* at <www.census.gov/hhes/www/p60-226sa.pdf>.

[2]Data for American Indians and Alaska Natives, and Native Hawaiians and Other Pacific Islanders are not shown separately.

[3]The 2003 and 2004 CPS asked respondents to choose one or more races. White alone refers to people who reported White and did not report any other race category. The use of this 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 2000 through American FactFinder. About 2.6 percent of people reported more than one race in Census 2000.

[4]Black alone refers to people who reported Black and did not report any other race category.

[5]Asian alone refers to people who reported Asian and did not report any other race category.

Source: U.S. Census Bureau, Current Population Survey, 2004 Annual Social and Economic Supplement.

Figure 3 magnifies the relative differences between the poverty rates plotted in Figure 2 to better illustrate that the CE measures diverge from their CPI-adjusted counterparts. As noted earlier, because the CE thresholds are computed using median expenditures, they take account of families' spending on a set of goods.

Table 3, like Table 1, shows that all the NAS-based alternative poverty measures yielded poverty rate increases, in this case ranging from 0.4 percentage points to 0.6 percentage points between 2002 and 2003. In comparison, the official measure increased 0.3 percentage points in that same time period.

From this point forward, the text discusses only the NAS measures that use the CPI-adjusted thresholds. Table 4 illustrates how the NAS measures using the CPI-adjusted thresholds lead to varying poverty rates by selected demographic characteristics. Each of these alternative measures yielded lower poverty rates than the official measure for people in families with a female householder and no husband present, whereas the opposite was true for people in married-couple families and male-householder families. This was because families with a female householder and no husband present received more in-kind benefits and paid less in taxes and work expenses than did married-couple families.[18]

Similarly, poverty rates by age from the NAS alternative measures differed from the official measure. People under 18 had lower poverty rates than under the official measure, while those aged 18 to 64 had higher rates. People 65 and older had the largest difference from the official measure among the three age groups. Including medical expenses when measuring poverty affected poverty rates by age because the elderly tend to have high out-of-pocket expenses for health care. The opposite was true for children, who are healthier than older people, on average.

The method by which one accounts for medical care expenditures also affects poverty rates by age. The poverty rate for people 65 and over according to the MIT measure with no geographic adjustment (14.0 percent), though higher than the official measure (10.3 percent), was not as high as the measures that subtract actual MOOP from income (16.3 percent for MSI-NGA and 17.3 percent for CMB-NGA). The same relationship among the methods for measuring medical care expenses holds when the thresholds are adjusted for geographic variation in prices. In that case, the poverty rates for people 65 and over are 13.3 percent using the MIT-GA measure, 15.7 percent for the MSI-GA, and 16.6 percent for the CMB-GA measure.

The NAS alternative and the official measures showed different poverty rates by race and Hispanic origin. The alternative measures yielded slightly higher poverty rates for Asians and non-Hispanic Whites, and lower rates for Blacks, than the official measure. While these comparisons against the official measure held true regardless of geographic adjustment, geographic adjustment either amplified or lessened the difference from the official measure, depending on how each group was geographically distributed. For Asians and Hispanics (who may be any race), the geographically adjusted measures produced higher rates than the measures without geographic adjustment, reflecting the fact that these groups tend to live in areas with higher housing costs, such as California. Conversely, the poverty rates for non-Hispanic Whites and Blacks were lower using the geographically adjusted measures than those without geographic adjustment.

Finally, regional poverty rates based on the NAS alternative measures differed from the official poverty rates and geographic adjustments did affect the rates. Among the measures without geographic adjustment, the Midwest, the South, and the West had higher poverty rates than the official measure, while the Northeast had lower rates. In contrast, among the measures with geographic adjustments, the Northeast and the West had higher poverty rates than the official measure, while the Midwest and the South had lower rates. These differences by region may reflect the lower housing costs in the Midwest and the South than in the Northeast and the West.

CPS DATA COLLECTION

The information in this report was collected in the 50 states and the District of Columbia and does not represent residents of Puerto Rico and outlying areas. It is based on a sample of about 100,000 addresses. The estimates in this report are controlled to national population estimates by age, race, sex, and Hispanic origin, and to state population estimates by age. The population controls used to prepare estimates for 1999 to 2003 were based on the results from Census 2000 and are updated annually using administrative records such as birth and death certificates.

[18] Short, Kathleen, and John Iceland, "Who is Better Off Than We Thought? Evaluating Poverty with a Different Measure," prepared for the Annual Meeting of the American Economic Association, January 8, 2000, pp. 12-13 and Table 3. This paper is available at <www.census.gov/hhes/poverty/povmeas/papers/whor.pdf>.

Additional Data and Contacts

Detailed tables, historical tables, press releases and briefings, and unpublished data are available electronically on the U.S. Census Bureau's Poverty Web site, which may be accessed through the Census Bureau's home page at <www.census.gov> or directly at <www.census.gov/hhes/www/poverty.html>. Technical methods have been applied to CPS microdata to avoid disclosing the identities of individuals from whom data were collected. These protected microdata are available for downloading by clicking on "Data Tools" on the Census Bureau's home page and then clicking the "DataFerrett" link.

For assistance with poverty data, contact the Housing and Household Economic Statistics Division statistical information staff by telephone at 301-763-3242 or search your topic of interest using the Census Bureau's "Question and Answer Center" found at <http://ask.census.gov>.

The CPS is primarily an employment survey of households. The sample universe for the basic CPS consists of the resident civilian noninstitutionalized population of the United States. It does not include people in institutions, such as prisons, long-term care hospitals, and nursing homes. Students living in dormitories are only included in the estimates if information about them is reported in an interview at their parents' homes.

The sample universe for the ASEC supplement is slightly larger than for the basic CPS since it includes military personnel who live in a household with at least one other civilian adult, regardless of whether they live off post or on post. All Armed Forces households without a civilian adult are excluded. For further documentation about the ASEC, see <www.bls.census.gov/cps/ads/adsmain.htm>.

COMMENTS

The Census Bureau welcomes the comments and advice of data and report users. If you have suggestions or comments, please write to:

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APPENDIX A.
How the Official Poverty Measure is Computed

Following the Office of Management and Budget's (OMB) Statistical Policy Directive 14, the Census Bureau uses a set of money income thresholds that vary by family size and composition to determine who is in poverty (see Table A-1).[20]

If a family's total income is less than that family's threshold, then that family, and every individual in it, is considered to be "in poverty." The official poverty thresholds do not vary geographically, and they are updated annually for inflation, now using the Consumer Price Index (CPI-U). The official poverty definition counts money income before taxes and does not include capital gains and noncash benefits (such as public housing, Medicaid, and food stamps).

Example: Suppose Family A consists of five people: two children, their mother, father, and great-aunt. Family A's poverty threshold in 2003 was $22,509. Suppose also that each member had the following income in 2003:

Mother	$ 10,000
Father	5,000
Great-aunt	10,000
First child	0
Second child	0
Total:	$ 25,000

Since their total family income, $25,000, was greater than their threshold ($22,509), the family would not be considered "in poverty" according to the official poverty measure.

While the thresholds represent one measure of families' needs, the official poverty measure should be interpreted as a statistical yardstick rather than as the only description of what people and families need to live. Many government aid programs use different dollar amounts as eligibility criteria.

Official poverty rates and the number below poverty are one important way of examining well-being. Other approaches are described in this report and in the Census Bureau's companion report, *Supplemental Measures of Material Well-Being: Basic Needs, Consumer Durables, Energy, and Poverty, 1981-2002* (P23-202), by Kurt Bauman.

Some data users want a summary of the 48 thresholds to get a general sense of the "poverty line." The weighted average thresholds in the first column of Table A-1 provide that summary, but they are not used to compute poverty data.

[20] The entire text of Statistical Policy Directive 14 may be accessed at <www.census.gov/hhes/poverty/povmeas/ombdir14.html>.

Table A-1.
Poverty Thresholds in 2003 by Size of Family and Number of Related Children Under 18 Years

(Dollars)

Size of family unit	Weighted average thresholds	Related children under 18 years								
		None	One	Two	Three	Four	Five	Six	Seven	Eight or more
One person (unrelated individual)	9,393									
Under 65 years	9,573	9,573								
65 years and over	8,825	8,825								
Two people	12,015									
Householder under 65 years	12,384	12,321	12,682							
Householder 65 years and over	11,133	11,122	12,634							
Three people	14,680	14,393	14,810	14,824						
Four people	18,810	18,979	19,289	18,660	18,725					
Five people	22,245	22,887	23,220	22,509	21,959	21,623				
Six people	25,122	26,324	26,429	25,884	25,362	24,586	24,126			
Seven people	28,544	30,289	30,479	29,827	29,372	28,526	27,538	26,454		
Eight people	31,589	33,876	34,175	33,560	33,021	32,256	31,286	30,275	30,019	
Nine people or more	37,656	40,751	40,948	40,404	39,947	39,196	38,163	37,229	36,998	35,572

Source: U.S. Census Bureau, Current Population Survey, 2004 Annual Social and Economic Supplement.

Derivation of the Official Poverty Thresholds

Mollie Orshansky, an analyst at the Social Security Administration, developed a set of poverty thresholds in 1963–1964, initially for research purposes, which the Bureau of the Budget (renamed as the Office of Management and Budget) later adopted and modified for the official poverty measure.

Orshansky focused on family food consumption because, as she wrote in a 1965 article, "...there is no generally accepted standard of adequacy for essentials of living except food."[21] She used data from the U.S. Department of Agriculture (USDA), which had already constructed food plans for families based on the nutritional needs of children and adults. Within each food plan, dollar amounts varied according to the total number of people in the family and the family's composition, such as the number of children within each family. The most stringent of these plans, the Economy Food Plan, was designed to address the dietary needs of families on an austere budget.[22]

Because Orshansky observed that families of three or more people, across all income levels, spent roughly one-third of their income on food (according to the USDA's 1955 Food Consumption Survey), she multiplied the cost of the Economy Food Plan by three to obtain dollar figures for the poverty thresholds. Since the Economy Food Plan budgets varied by family size and composition, so did the poverty thresholds. For two-person families, she adjusted the thresholds by slightly higher factors because those families were thought to have higher fixed costs. Thresholds for unrelated individuals were calculated as a fixed proportion of the corresponding thresholds for two-person families.

For a more detailed history of the official poverty measure, see "The Development of the Orshansky Thresholds and Their Subsequent History as the Official U.S. Poverty Measure," by Gordon M. Fisher, at <www.census.gov/hhes/poverty/povmeas/papers/orshansky.html>.

[21] Orshansky, Mollie, "Counting the Poor: Another Look at the Poverty Profile," *Social Security Bulletin*, Vol. 28, No. 1, January 1965, pp. 3-29.

[22] Gordon Fisher, "The Development of the Orshansky Thresholds and Their Subsequent History as the Official U.S. Poverty Measure," available at <www.census.gov/hhes/poverty/povmeas/papers/orshansky.html>. In footnote 23 he states that the characterization of the Economy Food Plan as being for "temporary or emergency use" has its bibliographic source in Betty Peterkin, "Family Food Plans, Revised 1964," *Family Economics Review* October 1964, p. 12.

Appendix B.

Table B-1.

Percentage of People in Poverty, by Definition of Income: 1980 to 2003 (Poverty Thresholds Based on CPI-U)

(People as of March of the following year)

Year	Total (thousand)	Excluding capital gains (current official measure) (MI)	Money income		Before taxes				After taxes										
			Definition 1 less taxes plus capital gains (losses)		Money income —		Definition 3 plus health insurance supplements to wage or salary income	Definition 4 less social security payroll taxes	Definition 5 less federal income taxes	Definition 6 plus EIC	Definition 7 less state income taxes	Definition 8 plus non-means-tested government cash transfers	Definition 9 plus Medicare	Definition 10 plus regular-price school lunches	Definition 11 plus means-tested government cash transfers	Definition 12 plus Medicaid	Definition 13 plus other means-tested government —		Definition 14 plus net imputed return on equity in own home (MI-Tx+NC+HE)
			Without earned income credit (EIC)	With EIC (MI-Tx)	Definition 1 less government transfers	Definition 2 plus capital gains (losses)											Non-cash transfers (MI-Tx+NC)	Non-cash transfers less medical programs (MI-Tx+NC-MM)	
	thousand	1	1a	1b	2	3	4	5	6	7	8	9	10	11	12	13	14	14a	15
2003	287,699	12.5	13.5	12.0	20.5	20.1	19.5	20.6	20.6	19.2	19.2	12.3	11.9	11.9	11.2	10.5	9.7	10.2	9.0
2002	285,317	12.1	13.0	11.6	20.0	19.7	19.0	20.0	20.0	18.7	18.7	11.8	11.5	11.5	10.9	10.3	9.3	9.8	8.6
2002[1]	285,317	12.1	13.2	11.6	20.0	20.0	19.3	20.3	20.3	18.9	19.1	11.9	11.6	11.6	10.9	10.3	9.4	9.9	8.6
2001	281,475	11.7	12.7	11.3	19.2	19.1	18.5	19.3	19.5	18.2	18.4	11.6	11.3	11.3	10.5	9.9	9.0	9.6	8.3
2000[2]	278,944	11.3	12.4	11.0	18.7	18.5	18.0	19.0	19.2	17.8	17.9	11.3	11.0	11.0	10.3	9.8	8.8	9.3	8.0
1999[3]	276,208	11.9	12.9	11.3	19.4	19.2	18.7	19.7	19.7	18.3	18.4	11.8	11.3	11.3	10.5	9.9	8.9	9.4	8.2
1998	271,059	12.7	13.6	12.0	20.1	19.9	19.3	20.2	20.4	18.9	19.0	12.4	12.0	12.0	11.2	10.6	9.5	10.0	8.8
1997	268,480	13.3	14.3	12.7	21.0	20.9	20.3	21.3	21.4	20.0	20.1	13.4	12.9	12.9	12.0	11.2	10.0	10.8	9.2
1996	266,218	13.7	14.9	13.3	21.6	21.5	20.8	21.8	22.0	20.5	20.7	13.9	13.5	13.5	12.4	11.5	10.2	11.1	9.3
1995	263,733	13.8	14.8	13.4	21.9	21.8	21.1	22.0	22.1	20.9	21.0	14.1	13.7	13.7	12.5	11.7	10.3	11.1	9.4
1994	261,616	14.5	15.8	14.6	22.8	22.7	22.0	23.0	23.2	22.0	22.2	15.1	14.8	14.7	13.5	12.6	11.1	12.0	10.0
1993	259,278	15.1	16.3	15.5	23.4	23.3	22.6	23.6	23.8	23.1	23.2	16.1	15.6	15.6	14.5	13.5	12.1	13.1	11.2
1992[4]	256,549	14.8	16.2	15.2	22.8	22.7	22.1	23.2	23.4	22.6	22.8	15.8	15.4	15.4	14.3	13.3	11.9	12.8	10.7
1991[5]	251,192	14.2	15.4	14.7	21.8	21.8	21.1	22.0	22.3	21.6	21.8	15.1	14.7	14.6	13.6	12.9	11.4	12.2	10.3
1990	248,644	13.5	(NA)	(NA)	20.5	20.4	19.9	20.9	21.1	20.6	20.8	14.7	14.2	14.2	13.2	12.4	10.9	(NA)	9.8
1989	245,992	12.8	(NA)	(NA)	20.0	19.9	19.4	20.3	20.5	20.1	20.3	14.0	13.5	13.5	12.5	11.7	10.4	(NA)	9.1
1988	243,530	13.0	(NA)	(NA)	20.2	20.2	19.7	20.6	20.7	20.3	20.5	14.1	13.6	13.6	12.7	12.1	10.8	(NA)	9.4
1987	240,982	13.4	(NA)	(NA)	20.4	20.2	19.7	20.5	20.7	20.4	20.6	14.3	13.8	13.8	13.0	12.4	11.0	(NA)	9.7
1986	238,554	13.6	(NA)	(NA)	20.8	20.4	19.9	20.7	21.1	20.9	21.0	14.7	14.2	14.2	13.3	12.8	11.3	(NA)	10.1
1985	236,594	14.0	(NA)	(NA)	21.3	20.9	20.4	21.3	21.6	21.5	21.7	15.2	14.8	14.8	13.8	13.2	11.7	(NA)	9.9
1984	233,816	14.4	(NA)	(NA)	21.8	21.4	20.8	21.6	22.0	21.9	22.0	15.5	15.1	15.1	14.2	13.5	12.0	(NA)	9.9
1983	231,700	15.2	(NA)	(NA)	23.0	22.5	21.8	22.6	23.0	22.8	22.9	16.1	15.7	15.7	14.8	14.2	12.7	(NA)	10.4
1982	229,412	15.0	(NA)	(NA)	23.0	22.7	22.0	22.9	23.3	23.1	23.3	16.0	15.5	15.5	14.6	14.0	12.3	(NA)	9.9
1981	227,157	14.0	(NA)	(NA)	22.0	21.8	21.1	22.0	22.5	22.3	22.4	15.3	14.8	14.8	13.7	13.0	11.5	(NA)	8.7
1980	225,027	13.0	(NA)	(NA)	20.8	20.7	20.1	20.8	21.1	20.8	20.9	14.1	13.7	13.6	12.5	11.7	10.1	(NA)	8.2

NA Not available.

[1]The Census Bureau changed the way it modeled taxes, effective with the 2002 estimates. Consequently, comparisons with earlier years may be affected. See Appendix C, Tables C-1 and C-2, and *Alternative Income Estimates in the United States: 2003* (P60-228), Appendix A, for further information.

[2]Implementation of Census 2000-based population controls and sample expanded by 28,000 households.

[3]Revised to reflect Census 2000-based population controls.

[4]Implementation of 1990 census population controls.

[5]CPS file for March 1992 (1991 data) was corrected after the release of the 1991 Income and Poverty reports. Weights for nine person records were omitted on the original file. (See P60-184 for further details.)

Source: U.S. Census Bureau, Current Population Survey, 1981 to 2004 Annual Social and Economic Supplements.

Table B-2.

Percentage of People in Poverty, by Definition of Income: 1987 to 2003 (Poverty Thresholds Based on CPI-U-RS)

(People as of March of the following year)

Year	Total (thousand)	Excluding capital gains (MI)	Money Income: Definition 1 less taxes plus capital gains (losses): Without earned income credit (EIC)	Money Income: Definition 1 less taxes plus capital gains (losses): With EIC (MI-Tx)	Before taxes: Money income — Definition 1 less government transfers	Before taxes: Money income — Definition 2 plus capital gains (losses)	Before taxes: Definition 3 plus health insurance supplements to wage or salary income	After taxes: Definition 4 less social security payroll taxes	After taxes: Definition 5 less federal income taxes	After taxes: Definition 6 plus EIC	After taxes: Definition 7 less state income taxes	After taxes: Definition 8 plus non-means-tested government cash transfers	After taxes: Definition 9 plus Medicare	After taxes: Definition 10 plus regular price-school lunches	After taxes: Definition 11 plus means-tested government cash transfers	After taxes: Definition 12 plus Medicaid	After taxes: Definition 13 plus other means tested government — Non-cash transfers (MI-Tx+NC)	After taxes: Definition 13 plus other means tested government — Non-cash transfers less medical programs (MI-Tx+NC-MM)	After taxes: Definition 14 plus net imputed return on equity in own home (MI-Tx+NC+HE)
		1	1a	1b	2	3	4	5	6	7	8	9	10	11	12	13	14	14a	15
2003	287,699	10.5	11.3	9.8	18.7	18.3	17.8	18.6	18.7	17.2	17.2	10.3	10.1	10.1	9.3	9.0	7.9	8.1	7.4
2002	285,317	10.1	10.8	9.5	18.1	17.8	17.4	18.1	18.2	16.8	16.8	10.0	9.8	9.8	9.0	8.7	7.7	7.8	7.1
2002[1]	285,317	10.1	11.0	9.5	18.1	18.1	17.6	18.3	18.4	17.0	17.2	10.0	9.8	9.8	9.0	8.7	7.7	7.8	7.1
2001	281,475	9.9	10.6	9.2	17.5	17.4	16.9	17.6	17.7	16.3	16.5	9.8	9.5	9.5	8.7	8.3	7.3	7.5	6.7
2000[2]	278,944	9.7	10.3	9.0	17.0	16.9	16.5	17.2	17.3	15.9	16.0	9.5	9.2	9.2	8.5	8.1	7.2	7.4	6.5
1999[3]	276,208	9.9	10.7	9.2	17.6	17.4	16.9	17.8	17.9	16.4	16.5	9.9	9.6	9.6	8.6	8.3	7.2	7.4	6.5
1998	271,059	10.6	11.6	9.9	18.1	18.0	17.4	18.4	18.5	16.9	17.0	10.5	10.2	10.2	9.3	9.0	7.7	7.9	7.1
1997	268,480	11.3	12.1	10.6	19.2	19.2	18.7	19.5	19.6	18.1	18.3	11.5	11.1	11.1	10.1	9.5	8.2	8.5	7.5
1996	266,218	11.6	12.6	11.0	19.6	19.6	19.1	19.9	20.1	18.6	18.8	12.1	11.8	11.8	10.4	9.9	8.4	8.7	7.6
1995	263,733	11.7	12.6	11.2	20.1	20.0	19.5	20.3	20.4	19.0	19.1	12.3	12.0	12.0	10.7	10.0	8.5	8.9	7.6
1994	261,616	12.6	13.4	12.3	21.0	21.0	20.3	21.2	21.3	20.2	20.3	13.2	12.9	12.9	11.6	10.8	9.2	9.6	8.3
1993	259,278	13.4	14.1	13.4	21.8	21.7	21.1	21.9	22.0	21.3	21.4	14.4	14.1	14.1	12.7	12.0	10.3	10.8	9.4
1992[4]	256,549	13.1	13.9	13.1	21.2	21.1	20.6	21.5	21.6	20.8	20.9	14.1	13.8	13.8	12.5	11.8	10.2	10.7	9.1
1991[5]	251,192	12.4	13.3	12.6	20.2	20.1	19.7	20.6	20.7	20.1	20.2	13.6	13.2	13.2	12.1	11.4	9.7	10.2	8.6
1990	248,644	11.9	12.8	12.3	19.1	19.1	18.7	19.4	19.6	19.1	19.2	13.1	12.8	12.7	11.6	10.9	9.3	9.8	8.3
1989	245,992	11.3	12.2	11.7	18.7	18.6	18.1	19.0	19.2	18.7	18.8	12.5	12.1	12.1	11.0	10.3	8.8	9.4	7.6
1988	243,530	11.7	12.5	12.1	19.0	19.0	18.5	19.4	19.4	19.0	19.1	12.8	12.4	12.4	11.4	10.8	9.4	10.0	8.2
1987	240,982	12.1	12.8	12.4	19.3	19.2	18.7	19.4	19.5	19.2	19.3	13.0	12.7	12.7	11.7	11.0	9.5	10.1	8.2

[1]The Census Bureau changed the way it modeled taxes, effective with the 2002 estimates. Consequently, comparisons with earlier years may be affected. See Appendix C, Tables C-1 and C-2, and *Alternative Income Estimates in the United States: 2003* (P60-228), Appendix A, for further information.

[2]Implementation of Census 2000-based population controls and sample expanded by 28,000 households.

[3]CPS ASEC file revised to reflect Census 2000-based population controls.

[4]Implementation of 1990 census population controls.

[5]CPS file for March 1992 (1991 data) was corrected after the release of the 1991 Income and Poverty reports. Weights for nine person records were omitted on the original file. (See P60-184 for further details.) For definition 15, an estimate of 0.92817 was used to represent the annual change in the value of household equity, in an attempt to make the poverty estimate comparable with its corresponding CPI-U-based estimate.

Source: U.S. Census Bureau, Current Population Survey, 1988 to 2004 Annual Social and Economic Supplements.

Table B-3.
Official and National Academy of Sciences (NAS) Based Poverty Rates: 1999 to 2003

(Percent)

Measurement method	1999	2000	2001	2002 (old tax model)	2002 (new tax model)	2003
Official measure	11.9	11.3	11.7	12.1	12.1	12.5
MSI-GA-CPI	12.1	12.0	12.2	12.2	12.1	12.6
MIT-GA-CPI	12.7	12.5	12.5	12.6	12.6	13.0
CMB-GA-CPI	12.8	12.6	12.8	12.8	12.7	13.2
MSI-NGA-CPI	12.2	12.1	12.3	12.3	12.3	12.7
MIT-NGA-CPI	12.8	12.7	12.7	12.9	12.8	13.2
CMB-NGA-CPI	12.9	12.8	12.9	12.9	12.9	13.3
MSI-GA-CE	12.1	12.3	12.9	13.3	13.2	13.7
MIT-GA-CE	12.7	12.8	13.2	13.9	13.7	14.2
CMB-GA-CE	12.8	12.8	13.1	13.6	13.4	14.1
MSI-NGA-CE	12.2	12.5	13.0	13.5	13.4	13.9
MIT-NGA-CE	12.8	13.0	13.4	14.1	13.9	14.5
CMB-NGA-CE	12.9	13.0	13.2	13.8	13.7	14.3

The Census Bureau changed the way it modeled taxes, effective with the revised 2002 estimates. Consequently, comparisons with earlier years may be affected. See Appendix C, Tables C-1 and C-2, and *Alternative Income Estimates in the United States: 2003* (P60-228), Appendix A, for further information.

MSI means "Medical out-of-pocket expenses (MOOP) subtracted from income."
MIT means "MOOP in the thresholds."
CMB means "Combined method."
GA means "Geographic Adjustment (of poverty thresholds)."
NGA means "No Geographic Adjustment (of poverty thresholds)."
CPI means "Thresholds were adjusted since 1999 using the Consumer Price Index for All Urban Consumers."
CE means "Thresholds were recomputed since 1999 using data from the Consumer Expenditure Survey."

Source: U.S. Census Bureau, Current Population Survey, 2000 to 2004 Annual Social and Economic Supplements.

Appendix C.

Table C-1.
Poverty Rate Estimates Based on Alternative Measures of Income and Original and New Tax Models, by Selected Demographic Characteristics and by Region: 2003

(Poverty rate estimates in percentage points. Estimates are based on poverty thresholds adjusted for inflation using the CPI-U)

Characteristic	**MI** (Money income; used in official measure of poverty)		**MI-Tx** (Money income plus realized capital gains (losses), less income and payroll taxes)		**MI-Tx+NC-MM** (Money income plus realized capital gains (losses), less income and payroll taxes, plus value of employer-provided health benefits and noncash transfers except Medicare and Medicaid)		**MI-Tx+NC** (Money income plus capital gains (losses), less income and payroll taxes, plus value of noncash transfers)		**MI-Tx+NC+HE** (Money income plus capital gains (losses), less income and payroll taxes, plus value of noncash transfers, plus imputed return to home equity)	
	Old tax model	New tax model	Old tax model	New tax model	Old tax model	New tax model	Old tax model	New tax model	Old tax model	New tax model
All people	**12.5**	**12.5**	**12.1**	**12.0**	**10.2**	**10.2**	**9.7**	**9.7**	**9.1**	**9.0**
People in families	**10.8**	**10.8**	**10.0**	**9.9**	**8.2**	**8.2**	**7.8**	**7.8**	**7.4**	**7.4**
People in married-couple families	6.2	6.2	5.8	5.6	4.7	4.7	4.4	4.3	4.0	4.0
People in families with a female householder, no husband present	30.0	30.0	28.0	27.8	22.9	23.2	22.2	22.3	21.3	21.4
People in families with a male householder, no wife present	14.2	14.2	13.3	13.4	11.1	11.1	10.9	10.9	10.6	10.5
Age										
Under 18 years	17.6	17.6	16.1	16.0	13.0	13.0	12.3	12.3	12.0	12.0
18 to 64 years	10.8	10.8	10.8	10.7	9.4	9.3	9.0	8.9	8.5	8.5
65 years and over	10.2	10.2	10.3	10.2	8.7	8.7	8.3	8.1	5.8	5.7
Race[1] and Hispanic Origin										
White alone[2]	10.5	10.5	10.2	10.1	8.7	8.6	8.2	8.2	7.6	7.6
Non-Hispanic White alone	8.2	8.2	8.1	8.0	7.0	7.0	6.7	6.6	6.1	6.0
Black alone[3]	24.4	24.4	23.6	23.4	19.5	19.4	18.6	18.5	17.6	17.5
Asian alone[4]	11.8	11.8	11.4	11.1	10.1	9.8	9.8	9.6	9.1	9.1
Hispanic (of any race)	22.5	22.5	21.2	21.0	17.5	17.4	16.5	16.3	16.0	15.8
Region										
Northeast	11.3	11.3	11.1	10.5	9.1	8.7	8.6	8.3	8.1	7.8
Midwest	10.7	10.7	10.5	10.3	8.8	8.6	8.4	8.2	7.9	7.8
South	14.1	14.1	13.5	13.5	11.6	11.7	11.2	11.3	10.3	10.4
West	12.6	12.6	12.3	12.3	10.3	10.4	9.7	9.7	9.1	9.0

[1]Data for American Indians and Alaska Natives, and Native Hawaiians and Other Pacific Islanders are not shown separately.

[2] The 2003 and 2004 CPS asked respondents to choose one or more races. White alone refers to people who reported White and did not report any other race category. The use of this 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 2000 through American FactFinder. About 2.6 percent of people reported more than one race in Census 2000.

[3] Black alone refers to people who reported Black and did not report any other race category.

[4] Asian alone refers to people who reported Asian and did not report any other race category.

Source: U.S. Census Bureau, Current Population Survey, 2004 Annual Social and Economic Supplement.

Table C-2.

Alternative Poverty Estimates Based on National Academy of Sciences Recommendations and Original and New Tax Models, by Selected Demographic Characteristics and by Region: 2003

(Poverty rate estimates in percentage points. All measures were adjusted for inflation using the CPI-U)

Characteristic	NGA (No Geographic Adjustment)						GA (Geographic Adjustment of poverty thresholds)					
	MSI-NGA		MIT-NGA		CMB-NGA		MSI-GA		MIT-GA		CMB-GA	
	Old tax model	New tax model	Old tax model	New tax model	Old tax model	New tax model	Old tax model	New tax model	Old tax model	New tax model	Old tax model	New tax model
All people	**12.9**	**12.7**	**13.4**	**13.2**	**13.6**	**13.3**	**12.8**	**12.6**	**13.1**	**13.0**	**13.4**	**13.2**
People in families	**10.8**	**10.7**	**11.4**	**11.3**	**11.5**	**11.3**	**10.8**	**10.7**	**11.3**	**11.2**	**11.4**	**11.3**
People in married-couple families	6.9	6.7	7.3	7.1	7.3	7.1	6.9	6.7	7.2	7.1	7.3	7.1
People in families with a female householder, no husband present	26.7	26.9	28.2	28.1	28.0	28.1	26.5	26.7	27.3	27.3	27.6	27.8
People in families with a male householder, no wife present	16.3	16.0	17.1	16.6	17.0	16.6	17.0	16.7	17.4	17.0	17.4	17.2
Age												
Under 18 years	14.8	14.7	16.2	15.9	15.6	15.4	14.8	14.6	15.8	15.8	15.6	15.4
18 to 64 years	11.4	11.2	12.1	11.9	11.9	11.7	11.3	11.1	11.9	11.9	11.8	11.7
65 years and over	16.5	16.3	14.0	14.0	17.6	17.3	16.0	15.7	13.4	13.3	16.9	16.6
Race[1] and Hispanic Origin												
White alone[2]	11.4	11.3	11.8	11.7	12.0	11.8	11.3	11.1	11.6	11.4	11.8	11.7
Non-Hispanic White alone	9.3	9.2	9.5	9.3	9.8	9.6	8.7	8.5	8.7	8.6	9.1	9.0
Black alone[3]	21.9	21.6	22.6	22.5	23.0	22.7	20.7	20.7	21.4	21.3	21.7	21.6
Asian alone[4]	12.4	11.9	12.9	12.0	13.2	12.5	14.9	14.3	15.5	15.1	15.7	15.3
Hispanic (of any race)	21.9	21.9	23.9	23.7	23.2	22.9	24.6	24.3	26.5	26.2	26.1	25.7
Region												
Northeast	10.8	10.3	11.1	10.6	11.3	10.9	12.8	12.3	13.0	12.7	13.5	13.1
Midwest	11.3	10.9	11.6	11.3	12.0	11.5	9.8	9.5	10.0	9.7	10.1	9.9
South	15.0	15.0	15.6	15.6	15.7	15.6	12.6	12.7	12.9	13.0	13.1	13.2
West	12.8	12.8	13.5	13.3	13.6	13.4	15.8	15.5	16.5	16.4	16.9	16.6

Note: While the alternative measures differ among one another in their computation of medical expenses and geographic variations in costs, they are similar in their scaling of thresholds by family size, their inflation adjustment method (based on the CPI-U), and their treatment of noncash benefits and child care and work-related expenses. See text and footnotes for additional information and references.

MSI means "Medical out-of-pocket expenses (MOOP) subtracted from income."

MIT means "MOOP in the thresholds."

CMB means "Combined methods."

[1]Data for American Indians and Alaska Natives, and Native Hawaiians and Other Pacific Islanders are not shown separately.

[2]The 2003 and 2004 CPS asked respondents to choose one or more races. White alone refers to people who reported White and did not report any other race category. The use of this 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 2000 through American FactFinder. About 2.6 percent of people reported more than one race in Census 2000.

[3]Black alone refers to people who reported Black and did not report any other race category.

[4]Asian alone refers to people who reported Asian and did not report any other race category.

Source: U.S. Census Bureau, Current Population Survey, 2004 Annual Social and Economic Supplement.

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