# The Effect of Taxes and Transfers on Income and Poverty in the United States: 2005

Consumer Income

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#### INTRODUCTION

This report examines how income distributions change when the definition of income is varied to reflect the inclusion or exclusion of different components. The measure of household income reported in the publication *Income*, *Poverty, and Health Insurance Coverage in the United States: 2005* (P60-231) uses the pretax, money income concept. Money income in this instance includes cash income before taxes are paid.

The government provides resources to households through cash and noncash transfer programs. These programs may be open to all or limited to those with incomes below set amounts. Holding other income components constant, transfers from the Social Security Administration, Veterans Administration, and state governments increase household income. Payroll, state, and federal tax liabilities reduce household income. Certain tax credits, such as the Earned Income Tax Credit and the Additional Child Tax Credit, are refundable and may increase household income.

This report also includes imputed resource measures not directly related to government programs. Imputed realized capital gains and rental income on owner-occupied homes increase household income; imputed realized capital losses and work expenses decrease household income. The net impact of positive transfers (government programs, realized capital gains, and imputed rent estimates) and negative transfers (tax liabilities, realized capital

losses, and work expenses) varies at a household level.

This report presents medians that illustrate the aggregate impact of all of these programs and transfers on income distribution. Money income is compared with three additional income definitions: market income, post-social insurance income, and disposable income. These measures are presented to illustrate various dimensions of economic well-being and the impact of taxes and transfers. The text box called "Definitions of Income" details the components of these income definitions.

While the income definitions presented in this report resemble the income measurements recommended by the Canberra Group (an international group of household income experts convened under the auspices of the United Nations Statistics Division), the definitions differ, due to both the lack of certain elements in the survey data and ongoing developmental efforts.<sup>2</sup> This report does not present international comparisons.

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<sup>&</sup>lt;sup>1</sup> A list of variables included in each definition is available at <www.census.gov/hhes/www/income /definitions.html>.

<sup>&</sup>lt;sup>2</sup> Money income in this report is similar to the Canberra Total Income concept. Disposable income is similar to the Canberra Adjusted Disposable Income concept. Canberra suggested adding some components, such as the value of home production, which are not incorporated into the income definitions reported here. Another difference is that the Canberra Report does not include realized capital gains and losses, which are imputed for use in this report. For further explanations about the Canberra Group's recommendations, see <a href="https://www.lisproject.org/links/canberra/finalreport.pdf">www.lisproject.org/links/canberra/finalreport.pdf</a>. Development efforts include improvements to the modeling used to impute flows from capital gains, imputed rent, and noncash benefits.

#### **DEFINITIONS OF INCOME**

This report presents alternative measures of income that include estimates of taxes and values of various noncash benefits for calendar years 2004 and 2005. These measures were derived from information collected in the 2005 and 2006 Annual Social and Economic Supplements (ASEC) to the Current Population Survey (CPS). The following terms are used to describe the four measures of income used in this report:

**Money Income**: Includes all cash income received by individuals who are 15 years or older. It consists of income as reported, before deductions for taxes and other expenses. It does not include realized capital gains or lump-sum payments that may be disbursed from insurance companies, workers' compensation, or pension plans.

Market Income: Includes money income as described above and deducts government cash transfers. Government cash transfers are social security; supplemental security income (SSI); public assistance (including Temporary Assistance for Needy Families [TANF]); unemployment compensation; workers' compensation; veterans' payments; and survivor, pension, and disability benefits from certain sources.<sup>3</sup> This definition also includes imputed net realized capital gains and imputed rental income (also called return on home equity) and subtracts imputed work expenses excluding child care.<sup>4</sup>

**Post-Social Insurance Income**: Includes money income, imputed net realized capital gains, and imputed rental income; subtracts imputed work expenses as in market income; and also deducts government means-tested cash transfers. These include SSI, public assistance, and government paid means-tested veterans' payments. Post-social insurance income differs from market income by adding back non-means-tested government transfers, most notably social security.<sup>5</sup>

**Disposable Income**: Includes money income, imputed net realized capital gains, and imputed rental income; and subtracts imputed work expenses. Disposable income also deducts federal payroll taxes, federal and state income taxes, and property taxes for owner-occupied homes.<sup>6</sup> The value of noncash transfers is added, including food stamps, public or subsidized housing, and free or reduced-price school lunches.<sup>7</sup>

<sup>&</sup>lt;sup>3</sup> Government paid survivor, pension, and disability benefits include those paid by workers' compensation, U.S. Railroad Retirement, Black Lung Benefits, and State Temporary Sickness.

<sup>&</sup>lt;sup>4</sup> Capital gains and losses are imputed using a statistical match to the 2001 Statistics of Income public use file from the Internal Revenue Service as part of the CPS ASEC tax model. For modeled tax filers, the imputed amounts are added to money income and are included as taxable income. Imputed rental income reflects the income homeowners would receive if they rented out their home; this value is added to money income to put homeowners and renters on a more equal footing. The return on home equity imputed for the CPS ASEC is an approximation of this income flow computed by applying a rate of return to imputed home equity. The American Housing Survey (AHS) provides the home and land values and mortgage debt used to compute home equity. The current year's return on municipal bonds is used as the rate of return. The 2006 ASEC uses 2003 National AHS data. Previous years used

home equity based on 1995 National AHS data. This modeling improvement was repeated for the 2005 ASEC to make valid year-to-year comparisons in Table A-1. Work expenses are imputed from the Survey of Income and Program Participation (SIPP) 2001 Panel. The Census Bureau is considering changes to its child-care expenses imputation procedures and is deferring their inclusion in the report until either the current method can be validated or an improved method can be found.

<sup>&</sup>lt;sup>5</sup> Non-means-tested government transfers include unemployment compensation, workers' compensation, social security, and the survivor, pension, and disability benefits described in footnote 18.

<sup>&</sup>lt;sup>6</sup> Property taxes are imputed from the 2003 National AHS.

<sup>&</sup>lt;sup>7</sup> The reported value of food stamps is used; the value of housing subsidies is modeled using the 1985 National AHS; and the value of school lunches is modeled using parameters from the Food and Nutrition Service of the U.S. Department of Agriculture.

Table 1.

Median Income of Households by Income Definition: 2005

Definition	Median income (dollars)	Percent difference from previous definition	Percent difference from money income definition
Money income	46,326	(X)	(X)
	43,701	-5.7	-5.7
	47,975	9.8	3.6
	40,843	-14.9	-11.8

<sup>(</sup>X) Not applicable.

Source: U.S. Census Bureau, Current Population Survey, 2006 Annual Social and Economic Supplement.

Using households as the units of analysis for income and using people as the units of analysis for poverty, this report primarily presents data for income year 2005 using information collected in the 2006 Annual Social and Economic Supplement (ASEC) to the Current Population Survey (CPS). The CPS ASEC is augmented with data from the Internal Revenue Service, the U.S. Department of Agriculture, and the U.S. Department of Housing and Urban Development to compute the three income definitions. This report examines interdefinition differences and intradefinition comparisons; it then examines changes from 2004 to 2005.

In the 1990s, the National Academies of Science (NAS) convened a panel to review how poverty is measured (Citro and Michael, 1995). The panel asserted that any change in the income definition used to determine how much a person or a family needs to meet the basic necessities of life should be accompanied by a consistent adjustment of the measure of basic necessities (Recommendation 41.1, P. 10.) Further, that group of researchers believed it is necessary

to update the thresholds used to define poverty, which were developed in the 1960s, to fully represent a person's or a family's changing needs. Although the U.S. Census Bureau has produced several reports based on the NAS panel's recommendations, this report does not address these poverty threshold issues. (Short, 1999, and Dalaker, 2003, use the NAS recommendations.) Rather than propose a revised measure of poverty, this report examines the effects of changing the resource definitions.8 Different income definitions are compared to a set of thresholds that vary by the size and the composition of the family, but the same thresholds are used regardless of the income definition. The thresholds are based on the four-person family threshold designed by Mollie Orshansky in the 1960s.

#### **Household Income**

The effects of government taxes and transfers on 2005 median household income are shown in Table 1 by comparing the traditional money income concept with the three alternative definitions: market income, post-social insurance income, and disposable income.

Market income represents resources available to people and families based on labor and capital market activities and does not include income from government sources including social security and public assistance.9 It includes imputed rental income for owneroccupied housing and imputed realized capital gains and losses. Work expenses, excluding childcare costs, are also deducted to arrive at market income. 10 The number of households with net deductions exceeds the number of households with net additions from market sources. The result is median household market income that is lower than under the money income definition. Median household market income was \$43,701 in 2005, or 5.7 percent lower than median household money income, \$46,326. Market income can serve as a reference point to evaluate the impact of government transfers and the imputed return on home equity across the income distribution and the effect of imputed realized capital gains at the high end of the income distribution.

s Alternative poverty estimates based on the NAS recommendations for 2005 are available at <www.census.gov/hhes/www/povmeas/nas.html>. The main differences between the measures presented in this report and the NAS measures are the inclusion of medical care and child-care expenses in the NAS estimates, the inclusion of imputed rent in the estimates in this report, and the use of different thresholds.

<sup>&</sup>lt;sup>9</sup> Refer to text box "Definitions of Income" for a listing of all government cash transfers that are deducted from money income.

The Census Bureau is considering changes to its child-care expenses imputation procedures and is deferring their inclusion in the report until either the current method can be validated or an improved method can be found.

Table 2.

Index of Median Household Income by Selected Characteristic and Income Definition:
2005

	Mo	ney ome	Ma inco		Post-socia inco			osable ome
Characteristic	Median (dollars)	Percent of money income	Median (dollars)	Percent of money income	Median (dollars)	Percent of money income	Median (dollars)	Percent of money income
All households	46,326	100.0	43,701	94.3	47,975	103.6	40,843	88.2
Type of Household								
Family households  Married-couple  Female householder, no husband	57,278 66,067	100.0 100.0	55,650 65,564	97.2 99.2	59,731 69,349	104.3 105.0	50,707 57,786	88.5 87.5
present	30,650 27,326	100.0 100.0	27,107 24,712	88.4 90.4	30,419 29,395	99.2 107.6	29,464 25,283	96.1 92.5
Race <sup>1</sup> and Hispanic Origin								
White	48,554 50,784 30,858 61,094	100.0 100.0 100.0 100.0	46,153 48,513 27,370 61,505	95.1 95.5 88.7 100.7	50,482 53,142 30,713 64,362	104.0 104.6 99.5 105.3	42,883 44,599 28,416 53,051	88.3 87.8 92.1 86.8
Hispanic origin (any race)	35,967	100.0	33,730	93.8	35,744	99.4	32,769	91.1
Work Experience of Householder								
Worked Worked full-time, year-round Did not work	57,802 63,610 23,801	100.0 100.0 100.0	57,510 64,232 13,973	99.5 101.0 58.7	59,326 65,537 27,421	102.6 103.0 115.2	48,561 52,711 26,478	84.0 82.9 111.2

<sup>&</sup>lt;sup>1</sup> Federal surveys now give respondents the option of reporting more than one race. Therefore, two basic ways of defining a race group are possible. A group such as Asian may be defined as those who reported Asian and no other race (the race-alone or single-race concept) or as those who reported Asian regardless of whether they also reported another race (the race-alone-or-in-combination concept). This table shows data using the first approach (race alone). The use of the single-race population does not imply that it is the preferred method of presenting or analyzing data. The Census Bureau uses a variety of approaches. Information on people who reported more than one race, such as White **and** Asian 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.

Source: U.S. Census Bureau, Current Population Survey, 2006 Annual Social and Economic Supplement.

Post-social insurance income is defined as market income plus non-means-tested government cash transfers, such as social security, unemployment compensation, and workers' compensation. Households with income from at least one of these sources have higher post-social insurance income than market income. Thus, at \$47,975 in 2005, median household post-social insurance income was higher than median household market income.

Disposable income has the lowest median income of all the definitions and represents the net income households have available to meet living expenses.

Disposable income includes all resources in post-social insurance income and adds the value of

noncash transfers such as food stamps, public or subsidized housing, and school lunches, along with means-tested cash transfers, while deducting property taxes, payroll taxes, and state and federal income taxes.11 The net result of these additions and deductions lowered median household income by 14.9 percent from the postsocial insurance income definition. At \$40,843, the median household disposable income estimate is 11.8 percent lower than income under the money income definition, \$46,326.

Table 2 uses median money income as the base to gauge the effects of the other income definitions on

subgroups of households. It shows how the inclusion and exclusion of income components under the various definitions affects the income of various demographic groups. For households with a female householder with no husband present, the market income definition results in a median that is 88.4 percent of their median household money income. To married-couple households, median market income composes 99.2 percent of their median money

<sup>&</sup>lt;sup>11</sup> More information on how taxes are modeled in the CPS ASEC can be found in O'Hara, 2004.

<sup>&</sup>lt;sup>12</sup> The householder is the person (or one of the people) in whose name the home is owned or rented and the person to whom the relationship of other household members is recorded. If a married couple jointly owns the home, either the husband or the wife may be listed as the householder. Since only one person in each household is designated as the householder, the number of householders is equal to the number of households. This report uses the characteristics of the householder to describe the household.

income. Households with a female householder with no husband present typically have incomes low enough to be affected by the deduction of work expenses and government transfers in the market income definition. The post-social insurance income definition brings the female householder with no husband present index value nearer to the money income base by adding back nonmeans-tested government transfers. Median disposable household income for female householders with no husband present is 96.1 percent of median money income. By incorporating noncash transfers (such as food stamps, housing subsidies, and school lunches), meanstested cash transfers, and taxes, this definition affects female householders with no husband present more than other household types. Noncash transfers and tax credits, such as the Earned Income Tax Credit, add resources to low-income households, but subtractions for work expenses and payroll taxes prevent the median disposable income from equaling the full base value of median money income.

Asian households have the highest median money income (\$61,094) among the race groups shown in Table 2.<sup>13</sup> While median market income is lower than median

money income for all households, Asian households have higher median household market income than median money income (100.7 percent of median money income). Asian households have one of the highest relative percentages of median post-social insurance income to money income, at 105.3 percent, and one of the lowest relative percentages of median disposable income to money income, at 86.8 percent.<sup>14</sup> These figures indicate that Asian households are affected less by the subtraction of government transfers and are affected more by the deduction of modeled taxes or the inclusion of imputed realized capital gains and net rent.

Among race groups and Hispanics, median money income is lowest for Black households and Hispanic households (\$30,858 and \$35,967, respectively).15 In addition, Black households had the lowest ratio, by race and Hispanic origin, of median market income to median money income when government cash transfers and work expenses are deducted (88.7 percent). Conversely, Black households and Hispanic households have the highest ratios of median disposable income to money income. Black households have median disposable income that is 92.1 percent of the group's median money income, and Hispanic households have median disposable income that is 91.1 percent of their

median money income.<sup>16</sup> This suggests that Black and Hispanic households (those with lower median money income) are being positively affected by government cash and noncash transfers such as public assistance, including Temporary Assistance for Needy Families (TANF), public or subsidized housing, and food stamps.

Households with a householder who did not work have lower median money income (\$23,801) than households with a working householder (\$57,802). Among the work experience comparisons in Table 2, the households with a householder who did not work display the largest difference between money income and market income, with a ratio of 58.7 percent. Households with a nonworking householder include a high percentage of nonworking elderly, disabled, or other low-income householders. The median household market income of the elderly is affected by the deduction of social security, government-paid veterans' payments, survivor benefits, and disability benefits. Lowincome households are affected by the deduction of government means-tested cash transfers such as supplemental security income (SSI) and public assistance in the market and post-social insurance definitions. The median postsocial insurance income for households with a nonworking householder is slightly less than twice the median market income (\$27,421 and \$13,973, respectively), capturing the effect of including social security income for retirees in the post-social insurance income definition. Households with nonworking

<sup>13</sup> Federal surveys now give respondents the option of reporting more than one race. Therefore, two basic ways of defining a race group are possible. A group such as Asian may be defined as those who reported Asian and no other race (the race-alone or singlerace concept) or as those who reported Asian regardless of whether they also reported another race (the race-alone-or-in-combination concept). The body of this report (text, figures, and tables) shows data using the first approach (race alone). Use of the single-race population does not imply that it is the preferred method of presenting or analyzing data. The Census Bureau uses a variety of approaches. The CPS does not use separate population controls for weighting the Asian sample to national totals.

In this report, the term "non-Hispanic White" refers to people who are not Hispanic and who reported White and no other race. The Census Bureau uses non-Hispanic Whites as the comparison group for other race groups and Hispanics.

<sup>&</sup>lt;sup>14</sup> Not statistically different from White and White alone, not Hispanic.

<sup>15</sup> Because Hispanics may be any race, data in this report for Hispanics overlap with data for racial groups. Data users should exercise caution when interpreting aggregate results for the Hispanic population or for race groups because these populations consist of many distinct groups that differ in socioeconomic characteristics, culture, and recency of immigration. Data were first collected for Hispanics in 1972 and for Asians and Pacific Islanders in 1987. For further information, see <www.bls.census.gov/cps/ads/adsmain.htm>.

<sup>&</sup>lt;sup>16</sup> The difference in ratios of disposable income to money income for Black households and Hispanic households are not statistically different.

householders have higher disposable income than money income, at a ratio of 111.2, showing that the resources added in the disposable income definition exceed the deductions for this group.

Two widely used measures of income inequality are the shares of aggregate income and the Gini Index. The shares of aggregate income are presented by quintile and are derived by dividing aggregate income for each quintile by overall aggregate household income. The Gini Index summarizes the dispersion of income and ranges from 0 (indicating perfect equality) to 1 (indicating perfect inequality). Table 3 presents these two measures of income inequality for each income definition. The share of aggregate income held by the lowest quintile is largest under the disposable income definition. Conversely, the disposable income definition shows the smallest share of aggregate household income for the highest quintile. Comparing the distributions by income definitions shows how government programs redistribute income. The distribution of income under the market definition is more unequal than under the money income definition. The Gini Index for money income is 0.450, and for market income it is 9.6 percent higher at 0.493. Figure 1 shows that under the market income definition, the lowest three quintiles have a smaller share of aggregate income than under any of the other three income definitions, and the top quintile has the largest share shown under any of the definitions. The Gini Index under the disposable income definition was 0.418, showing the most equal income distribution.

Figure 2 shows the income density functions for money income and disposable income, illustrating the impact taxes and transfers have on

Table 3.

Share of Aggregate Household Income by Quintile and the Gini Index: 2005

Quintile	Money income	Market income		Disposable income
Lowest Second Third Fourth Highest	3.42 8.79 14.42 23.03 50.34	1.50 7.26 14.00 23.41 53.83	22.80	4.42 9.86 15.33 23.11 47.28
Gini index	0.450	0.493	0.447	0.418

Source: U.S. Census Bureau, Current Population Survey, 2006 Annual Social and Economic Supplement.

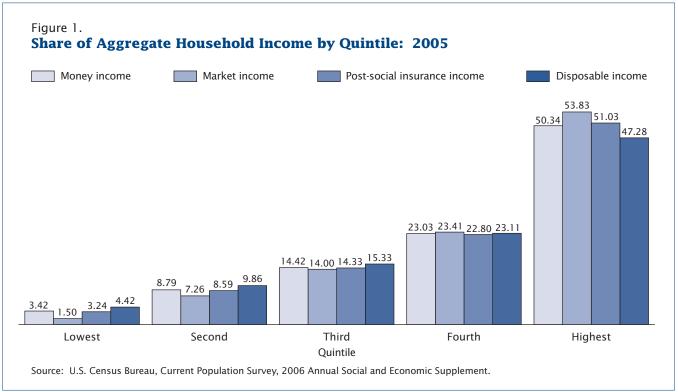
the entire income distribution. Household income is on the horizontal axis. The vertical axis indicates the frequency at which the value occurs in the data.17 The area under each curve is equal to 1. Using the disposable income definition (the blue density function), the overall distribution slides to the left and compresses, exhibiting less variance around its median. As the figure shows, there are more households in the middle and fewer in the lower and upper sections using the disposable income definition. This illustrates the redistributional effect of government taxes and transfers resulting in less inequality using the disposable income definition than using the money income definition. The additions and subtractions used to construct disposable income have a differential impact on various segments of the income distribution. Under the disposable income definition, the density is increased between zero and the median. The increased area under the disposable income curve indi-

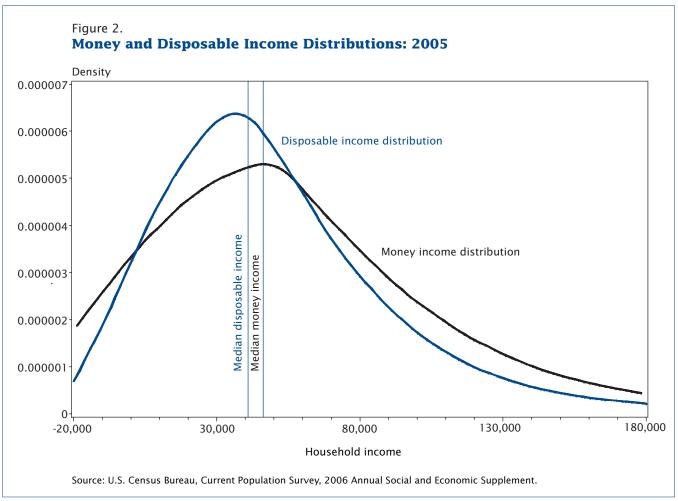
cates that more households have income between 0 and \$40,843. This is due to the redistributional effects of the additions (noncash transfers and net realized capital gains) and subtractions (work expenses and all taxes) under the disposable income definition. Above \$60,000, the density decreases under the disposable income definition; there is less area under the disposable income curve compared with the area under the money income curve, indicating fewer households. This trend continues to the high end of the income distribution, indicating the impact of progressive taxes.

Comparing the 2005 data to the previous year, there are changes in real median household incomes under the money income and disposable income definitions for all households (Table A-1).<sup>18</sup> Money income increased 1.1 percent and disposable income decreased 1.5 percent between 2004 and 2005.

<sup>17</sup> To plot the income distributions using all weighted ASEC households, a smoothing function in SAS is employed to determine the probability that a particular income value occurs. To display all probabilities, the density of each income amount is plotted, forming the distribution. The vertical axis is labeled "Density" since this continuous distribution is determined by a statistical function. Similarly, if discrete observations were plotted using a bar graph, the vertical axis would be labeled "Frequency."

<sup>&</sup>lt;sup>18</sup> All income values are adjusted to reflect 2005 dollars. "Real" refers to income after adjusting for inflation. The adjustment is based on percentage changes in prices between earlier years and 2005 and is computed by dividing the annual average Consumer Price Index Research Series (CPI-U-RS) for 2005 by the annual average for earlier years. The CPI-U-RS values for 1947 to 2005 are available on the Internet at <www.census.gov/hhes/www/income/income05/cpiurs.html>. Inflation between 2004 and 2005 was 3.3 percent. See the text box "What Are the CPI-U and the CPI-U-RS?" on p. 14 for more information on the CPI-U-RS.





The decline in real disposable income was the result of a net increase in modeled taxes over government transfers between 2004 and 2005. The general trend for most demographic groups is a decline in real median income under the disposable income definition, with no change in money, market, and post-social insurance income definitions. Median income in the Northeast, however, increased in real terms under each of the income definitions except disposable income, where it remained statistically unchanged.

## **Comparing Income Definitions** to Thresholds

This section examines the number and the percentage of people who are living in families or in households with unrelated individuals with incomes below a set of thresholds using each of the four income definitions discussed in the previous sections. This is a way to assess the effect of taxes and transfers on people at the low end of the income distribution as the thresholds are held constant. The thresholds used in this report are based on the official poverty thresholds for a two-adult, twochild family as prescribed by the Office and Management and Budget's (OMB) Statistical Policy Directive 14.19 This report modifies this four-person family threshold for other family sizes by incorporating an equivalence scale that reflects different assumptions about resource sharing and economies of scale. (See Appendix B for more details.) The derived

set of thresholds (called threeparameter thresholds in this report) is not very different from the official thresholds in magnitude; they are distributed differently among families by size and composition.<sup>20</sup>

Table 4 presents the number of people with money income below their three-parameter poverty threshold. As in Table 2, money income is used as the base to gauge the effects of using the other income definitions. The indexes are the number of people below their thresholds using the alternative income divided by those under their thresholds using the money income definition.

The number of people with market income below their three-parameter thresholds is higher than the number using the money income definition (as seen with an index over 100). Market income deducts government transfers and work expenses and adds imputed net rent for owners and net realized capital gains. The impact of the deductions outweighs that of the

additions on the lower end of the income distribution. Reinstating non-means-tested government transfers to the market income components reduces the number of people with income below their thresholds from 55.4 million using the market income definition to 37.3 million using the post-social insurance income definition. The differences between post-social insurance income and money income are the inclusion of imputed net rent and net realized capital gains, and the exclusion of modeled work expenses and means-tested cash assistance. The number of people with disposable income below their three-parameter thresholds is less than the number using the money income definition. All groups show an index value below 100 using the disposable income definition. Certain additions and subtractions in the disposable income definition affect the lower end of the income distribution, resulting in fewer people with disposable income below their threshold compared with the number of people with money income below their threshold (as seen with an index lower than 100).

Table 4 also presents differences in the number of people below their three-parameter thresholds across demographic groups. The second column shows that the number of people is higher when only market income is counted. (Market income includes imputed net realized capital gains and imputed rental income and excludes government transfers, such as social security.)

Looking at age, more than three times the number of people over age 65 have market income below their three-parameter thresholds

<sup>&</sup>lt;sup>19</sup> The official thresholds were used in the report *Income, Poverty, and Health Insurance Coverage in the United States: 2005* (P60-231).

<sup>&</sup>lt;sup>20</sup> The official thresholds are compared to the equivalence scale thresholds in Table B-1. The equivalence scale thresholds do not separate one- and two-person family units by age as in the official thresholds; people aged 65 and over are treated the same as people under 65. The table indicates that the equivalence scale thresholds are higher for all zeroone-, and two-child family units with two exceptions-the two adult, two-child base of \$19.806 around which the adjustments are made and the two-adult, seven-child threshold, which is lower after adjustment than the official amount. For all family units with three or more related children, the equivalence scale adjusted threshold amounts are lower than the official amounts. For more information about the impact of the equivalence scale and other thresholds, see Betson, 1996; Johnson, Shipp, and Garner, 1997; and Olsen, 1999. These papers are available at <www.census.gov/hhes/www/povmeas /papers.html>.

Table 4. People With Income Below the Three-Parameter Thresholds by Selected Characteristic and Income Definition: 2005

(Numbers in thousands. People as of March of the following year)

Observatorialis	Ni walan waka	alternative incom	er of people below the definitions to the using money incom-	number below the
Characteristic	Number with money income below their thresholds	Market income	Post-social insurance income	Disposable income
Total <sup>1</sup>	36,804	150.4	101.4	81.7
Age Under 18 years 18 to 64 years 65 years and older	12,764 20,234 3,805	115.4 133.1 360.1	104.4 104.3 75.6	74.4 89.9 62.8
Family Status				
In families Married-couple families Female householder, no husband present Unrelated individuals	26,923 11,505 13,401 9,424	146.0 174.3 122.7 164.7	102.5 99.3 104.8 97.6	78.1 76.1 78.3 91.3
Race <sup>2</sup> and Hispanic Origin				
White White, not Hispanic Black Asian Hispanic (any race)	24,604 16,011 9,251 1,436 9,335	160.5 181.2 130.6 127.7 121.8	99.9 97.0 103.9 105.4 105.7	82.4 82.9 79.2 88.2 81.6
Educational Attainment (People 25 years and older)				
Less than 12th grade, no diploma	6,788 6,618 3,710 1,894	170.4 196.6 180.1 176.5	100.7 98.3 96.4 88.8	77.2 83.9 85.0 85.2

Source: U.S. Census Bureau, Current Population Survey, 2006 Annual Social and Economic Supplement.

than below their money income threshold. The majority of people 65 and older receive some income from government transfer programs such as social security, and government transfer payments are subtracted from money income to form market income. Imputed net realized capital gains and imputed rental income on owner-occupied homes are included in the market income definition. These two imputed income sources generally benefit those in the 65 and older category who are retired and may

live in their own (paid-in-full) homes.<sup>21</sup> Since the number of people 65 and older who are below their three-parameter thresholds is

higher using market income, the omission of social security in this definition has a larger impact than the inclusion of the imputed rental income and realized capital gains on people 65 and older.

Differences among people by family status are driven by the prevalence of female householder with no husband present families. Of the 26.9 million people in families with money income below their thresholds, 13.4 million, or about 50 percent, are living in family

Details may not sum to total because of rounding or omitted groups.
Federal surveys now give respondents the option of reporting more than one race. Therefore, two basic ways of defining a race group are possible. A group such as Asian may be defined as those who reported Asian and no other race (the race-alone or single-race concept) or as those who reported Asian regardless of whether they also reported another race (the race-alone-or-in-combination concept). This table shows data using the first approach (race alone). The use of the single-race population does not imply that it is the preferred method of presenting or analyzing data. The Census Bureau uses a variety of approaches. Information on people who reported more than one race, such as White **and** Asian 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.

<sup>21</sup> If imputed net rent is excluded from the market income definition, the number of people with disposable income below their thresholds is 32.7 million. This is an 8.6 percent increase over the number of people below their thresholds when imputed net rent is included. Looking specifically at people aged 65 and over, excluding the net rent value increases the number below their thresholds by 41.8 percent (from 2.4 million to 3.4 million). A summary of this data, excluding imputed net rent, is available at <www.census.gov/hhes/www/povmeas /povmeas.html>.

units with a female householder with no husband present. Using the post-social insurance income definition, people in female householder with no husband present families have an index value of 104.8, meaning that, among people in this family type, more have income below their threshold than would be below their threshold under the money income definition. This 4.8 percentage-point increase over the money income definition base captures the exclusion of cash means-tested government transfers, particularly public assistance that includes TANF, from the resource definition.

The final column in Table 4 displays the most comprehensive measure of income, disposable income. This definition expands on those detailed thus far by incorporating noncash transfers and deducting all taxes. The net effect of these additions and subtractions moves people of all characteristics below the 100.0 base of money income. The largest reduction is for those 65 and older. This definition reflects the impact of noncash government transfers, as well as tax credits such as the Earned Income Tax Credit and the Additional Child Tax Credit, which specifically target lowincome people.

Table 5 shows that using disposable income instead of money income lowers the percentage of people below their three-parameter thresholds from 12.6 percent to 10.3 percent, a 2.3 percentage-point decline.<sup>22</sup> This follows since more resources have been incorporated into the income definition than have been subtracted for

Table 5.

The Percentage of People Below the Three-Parameter
Thresholds by Selected Characteristic and Income
Definition: 2005

(People as of March of the following year)

Characteristic	Money income	Disposable income
Total	12.6	10.3
Age		
Under 18 years	17.4	13.0
18 to 64 years		9.9 6.7
Family Status		
In families Married-couple families Female householder, no husband present Unrelated individuals		8.7 4.7 24.8 17.4
Race <sup>1</sup> and Hispanic Origin		
White	8.2	8.6 6.8 19.9 10.1 17.7
Educational Attainment (People 25 years and older)		
Less than 12th grade, no diploma	24.3 10.9 7.5 3.5	18.8 9.1 6.4 3.0

<sup>&</sup>lt;sup>1</sup> Federal surveys now give respondents the option of reporting more than one race. Therefore, two basic ways of defining a race group are possible. A group such as Asian may be defined as those who reported Asian and no other race (the race-alone or single-race concept) or as those who reported Asian regardless of whether they also reported another race (the race-alone-or-in-combination concept). This table shows data using the first approach (race alone). The use of the single-race population does not imply that it is the preferred method of presenting or analyzing data. The Census Bureau uses a variety of approaches. Information on people who reported more than one race, such as White *and* Asian 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.

those at the lower end of the income distribution.

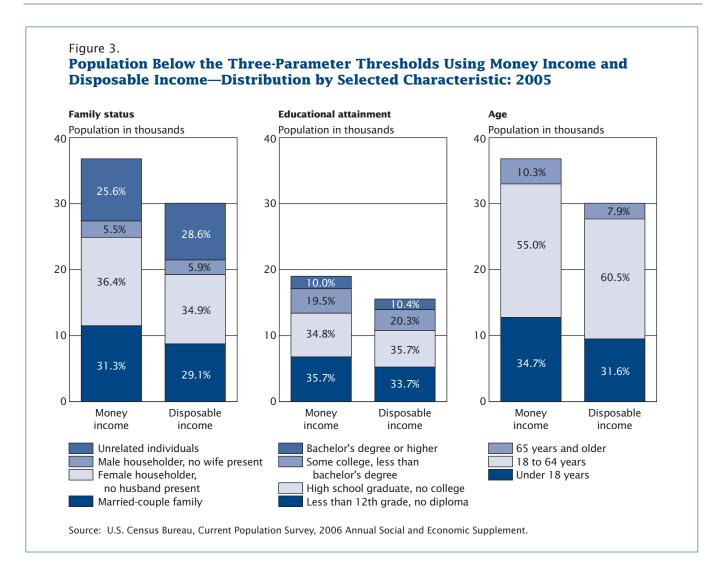
Table 5 displays the percentage of people below their three-parameter thresholds for selected characteristics using the money income and disposable income definitions. Female householders with no husbands present show a 6.9 percentage-point difference between the money income and disposable income definitions (31.7 percent and 24.8 percent, respectively). The proportion of people with fewer than 12 years of education below their thresholds was 5.5

percentage points lower under the disposable income definition than under the money income definition. The difference in the percentage below their thresholds between definitions was larger for Blacks (5.2 percentage points) and Hispanics (4.0 percentage points) than for non-Hispanic Whites and Asians (both approximately 1.3 percentage points).<sup>23</sup> Looking at the age categories, the disposable income

<sup>&</sup>lt;sup>22</sup> If child-care expenses are included in work expenses, the percentage of people with disposable income below their thresholds is 10.5 percent rather than the 10.3 percent in the text above. A summary of this data, with modeled child-care expenses, is available at <www.census.gov/hhes/www/povmeas/povmeas.html>.

Source: U.S. Census Bureau, Current Population Survey, 2006 Annual Social and Economic Supplement.

<sup>&</sup>lt;sup>23</sup> The difference in the rates for Blacks (5.2 percentage points) is not statistically different from the difference in the rates for people with less than 12 years of education (5.5 percentage points).



definition shows a lower percentage for all three age groups.

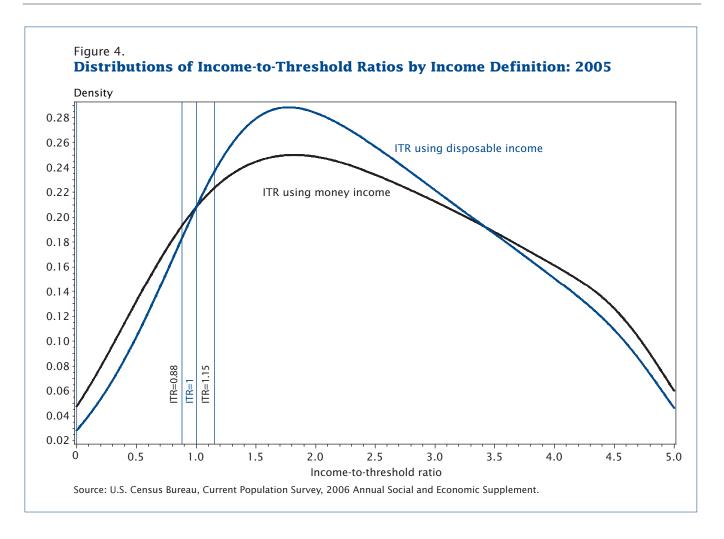
Figure 3 shows the breakdown of the population below their three-parameter thresholds using money income and disposable income by selected characteristics. The bars are different heights because, by construction, fewer people have income below their three-parameter threshold using the disposable income definition.

People in female householder with no husband present families have a lower percentage below their three-parameter thresholds when the disposable income definition is used, and they remain the largest group regardless of income definition. Using the money income definition, they compose 36.4 percent of all people below their thresholds. Using the disposable income definition, they compose 34.9 percent of the people below their three-parameter thresholds.

The young and the old benefit from the inclusion of more resources, such as imputed rental income and noncash transfers. People under 18 years old represent 34.7 percent of the population with money income less than their thresholds and 31.6 percent of the population with disposable income (which includes the value of noncash transfers) below their

thresholds. The number of people 65 and older below their thresholds fell 2.4 percentage points (from 10.3 percent to 7.9 percent) using the inclusive disposable income definition, which incorporates all transfers, taxes, and imputed rental income, compared with using money income.

Data are presented for income years 2004 and 2005 in Table A-2. For the total poverty universe, no significant changes occurred across all four definitions between 2004 and 2005. Changes across demographic characteristics, such as the increase in poverty for female householder with no husband present families from



2004 to 2005 across all definitions, can also be determined from Table A-2.

Another way to view income distribution is by calculating income-to-threshold ratios (ITR). Since this report uses four income definitions and one set of thresholds, four ratios are possible, where the numerator varies by the definition and the denominator stays the same. If income is below a given threshold, then the ITR is less than 1.0. Values at or above 1.0 indicate that income is equal to or greater than the threshold. Federal and state governments use this ratio

concept with the official poverty thresholds to determine eligibility for various programs. For instance, the food stamp program determines eligibility for people below 130 percent of the federal poverty guidelines, and free school lunches are available to families with income below 180 percent of the federal poverty guidelines.

Figure 4 illustrates the distribution of people according to their ITR for the money income and disposable income definitions. The two curves show that the number of people with income below the thresholds varies between the

definitions when holding the thresholds constant. The area under the curve to the left of the vertical line at 1.0 illustrates the population below the thresholds— 36.8 million people using money income and 30.1 million people using disposable income (Table 6). The area between the curves to the left of the 1.0 vertical line represents the people who are no longer below the threshold if the disposable income definition is used but remain below the threshold if the money income definition is used, indicating the impact of taxes and transfers on income distributions.

Table 6.

People With Income Below Specified Ratios of Their Three-Parameter Thresholds by Definition of Income: 2005

(Numbers in thousands, People as of March of the following year)

	Income-to-threshold ratio									
Definition of income	Unde	r 0.88	Unde	r 1.00	Unde	r 1.15				
	Number	Percentage	Number	Percentage	Number	Percentage				
Money income Market income Post-social insurance income Disposable income	30,896 49,640 31,848 24,059	10.5 16.9 10.9 8.2	36,804 55,369 37,306 30,075	12.6 18.9 12.7 10.3	44,844 62,272 44,120 39,075	15.3 21.2 15.1 13.3				

Source: U.S. Census Bureau, Current Population Survey, 2006 Annual Social and Economic Supplement.

The ratios can also be used to illustrate the impact of changing the threshold amounts to revise the concept of need to 2005 standards or to update the threshold amounts by a different CPI index. Figure 4 and Table 6 show the impact of raising and lowering the thresholds. If the thresholds are updated using the CPI-U-RS instead of the CPI-U, the amounts are 12 percent lower, resulting in a threshold amount that is 88 percent of the 100 percent three-parameter thresholds used in this report. (See the text box "What Are the CPI-U and the CPI-U-RS" for more information.) The line labeled 0.88 on Figure 4 represents this inflation adjustment. Under both income definitions, the number of people below their thresholds is lower if the CPI-U-RS is used instead

of the CPI-U. Similar to the income distributions shown in Figure 2, the ITR distributions indicate that disposable income is less dispersed than money income. As in Figure 2, the area under each curve sums to 1. As seen in Table 6, using the 88 percent ITR lowers the percentage of people with money income below their threshold from 12.6 percent to 10.5 percent and the percentage with disposable income below their threshold from 10.3 percent to 8.2 percent. These results are intuitive, as incomes are being compared against a lower dollar amount.

If the thresholds are modified to incorporate income growth over the past several decades, the amounts would be 15 percent higher, resulting in a threshold

amount that is 115 percent of the 100 percent three-parameter thresholds used elsewhere in this report. The 115 percent level is based on the approximate increase in real median family income for four-person families from 1978 to 2005 using the CPI-U. At 1.15 on Figure 4, the disposable income curve is higher than the money income curve, but the area under the curves—representing the total number of people with ITR less than 1.15—still finds more people below the inflation-adjusted 1.15 ITR using the money income definition. The higher threshold increases the percentage of people with money income and the percentage with disposable income below their threshold, as seen in Table 6.

#### 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) to track the average change in prices for consumer goods and services used for consumption. More than 200 categories are tracked for the CPI, including food and beverages, housing, apparel, transportation, medical care, recreation, and education. The index does not include taxes or investments such as stocks, real estate, or life insurance.

The CPI-U is used to update the official poverty thresholds for inflation. This means that each year since 1967 the poverty thresholds have been updated to a higher level using the change in the CPI-U. 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.

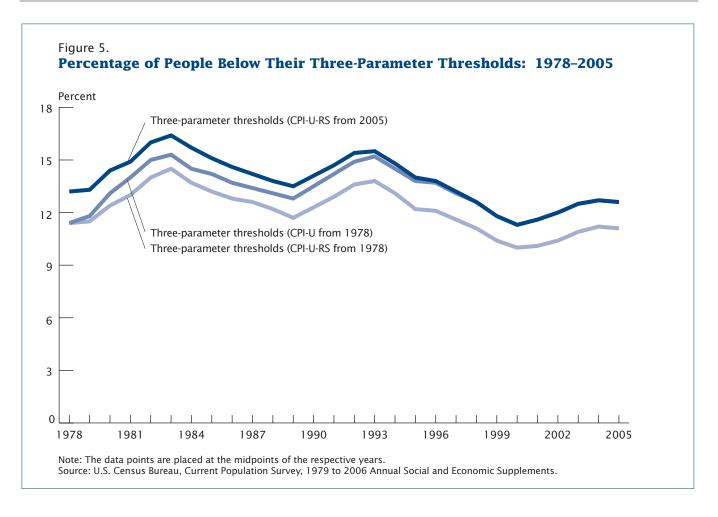
The CPI-U-RS is an inflation index covering 1978 to the present. It applies most of the methodological improvements made to the CPI-U since 1978 to every year of the series. Among other improvements, the CPI-U-RS retroactively applies the newest methods of quality adjustment for many items, including 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 also uses a corrected method for calculating homeownership costs.

Although the CPI-U-RS has some limitations, including being subject to annual revisions, the BLS states that "the CPI-U-RS can serve as a valuable proxy for researchers needing a historical estimate of inflation using current methods. The direct adjustment of individual CPI index series makes this the most detailed and systematic estimate available of a consistent CPI series." More information about the CPI-U-RS is available on the BLS Web site at <www.bls.gov/cpi/cpirsdc.htm>.

The results in this report use two sets of thresholds to evaluate the percentage of people living with incomes below these thresholds. Like the official thresholds, the three-parameter thresholds in this report have been updated annually (since 1978) using the CPI-U. An alternative series of thresholds could also be obtained by using alternative updating methods. One alternative method is to use the CPI-U-RS series to update the thresholds. To produce a series of thresholds, a base year must be chosen. The base year is usually the first year of analysis or the most recent year.

Comparing the outcomes when alternative inflation indexes are used to adjust the thresholds highlights the effects of the indexes on trends in poverty. For example, using 1978 as the base year and adjusting the three-parameter thresholds each year by the change in the CPI-U-RS yields thresholds that are slightly lower than the official thresholds in each subsequent year. As a result, the 2005 threshold is 88 percent of the three-parameter thresholds updated using the CPI-U. This is because the change in the CPI-U-RS between 1978 and 2005 is lower than the change in the CPI-U during this time. As Figure 5 shows, the resulting series of the percentage of people living below these thresholds is also lower than the rates using the CPI-U.

Alternatively, the current year (2005) can be used as the base year. Following the treatment of income in the report Income, Poverty, and Health Insurance Coverage in the United States: 2005 (P60-231), the current (2005) poverty thresholds could be adjusted back to 1978 using the CPI-U-RS. Because the CPI-U-RS increases less than the CPI-U, the poverty thresholds in 1978 would be higher than the thresholds obtained using the CPI-U, which yields a higher percentage of people living with incomes below these thresholds. The trends in both series are similar no matter which base period is used. Both trends, however, differ from the trend using the CPI-U. Using the CPI-U-RS yields a slight decrease in poverty between 1978 and 2005, while the CPI-U yields an increase between these 2 years.



#### SOURCE OF THE DATA AND ACCURACY OF THE ESTIMATES

The data in this report are from the ASEC to the 2005 and 2006 CPS conducted by the Census Bureau. The population represented in the survey (the population universe) is the civilian noninstitutionalized population living in the United States. Members of the armed forces living off post or with their families on post are included if at least one civilian adult lives in the household. Most of the data from the CPS ASEC were collected in March (with some data collected in February and April), and the data were controlled to independent population estimates for March of the survey year.

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. Further information about the source and accuracy of the estimates is available at <www.census.gov/hhes/www /income/p60\_231sa.pdf>.

#### **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 U.S. island 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, race, and sex. The population controls used to prepare estimates for 1999 to 2006 were based on the results from Census 2000 and are updated annually using administrative records such as birth and death certificates.

The CPS is a household survey primarily used to collect employment data. The sample universe for the basic CPS consists of the resident civilian noninstitutionalized population of the United States. People in institutions, such as prisons, long-term care hospitals, and nursing homes, are therefore not

eligible to be interviewed in the CPS. 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 CPS ASEC is slightly larger than 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 other armed forces are excluded. For further documentation about the CPS ASEC, see <a href="https://www.bls.census.gov/cps/ads/adsmain.htm">www.bls.census.gov/cps/ads/adsmain.htm</a>.

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#### **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. DETAILED TABLES

Table A-1. **Median Income of Households by Selected Characteristic and Income Definition: 2004 and 2005** 

(Households as of March of the following year)

Oh over the visitie		in	loney come ollars)	in	larket come ollars)	in	ial insurance come ollars)	in	posable come ollars)
Characteristic	Number (thou- sands)	Median	90-percent confidence interval <sup>1</sup> (±)	Median	90-percent confidence interval <sup>1</sup> (±)	Median	90-percent confidence interval <sup>1</sup> (±)	Median	90-percent confidence interval <sup>1</sup> (±)
2005									
All households	114,384	46,326	255	43,701	297	47,975	272	40,843	229
Type of Household									
Family households	77,402 58,179	57,278 66,067	332 402	55,650 65,564	400 488	59,731 69,349	359 414	50,707 57,786	290 324
present	14,093 36,982	30,650 27,326	432 267	27,107 24,712	597 345	30,419 29,395	546 284	29,464 25,283	328 227
Race <sup>2</sup> and Hispanic Origin									
White	93,588 82,003 14,002 4,273 12,519	48,554 50,784 30,858 61,094 35,967	349 283 495 1,171 586	46,153 48,513 27,370 61,505 33,730	371 350 677 2,507 632	50,482 53,142 30,713 64,362 35,744	348 363 623 1,884 639	42,883 44,599 28,416 53,051 32,769	245 261 400 1,276 484
Region									
Northeast	7,400 14,904 8,406 25,174	50,882 45,950 42,138 50,002	610 578 349 608	48,875 43,387 39,022 48,413	806 562 440 644	53,688 47,487 43,457 52,143	875 548 484 662	44,151 39,886 37,919 44,846	562 410 333 526
Number of Earners									
No earners One earner Two earners or more Two earners Three earners Four earners or more	24,244 42,066 48,095 38,327 7,337 2,430	16,893 37,541 75,293 70,952 87,905 100,000	209 324 398 391 1,208 (NA)	6,650 35,565 75,434 71,159 88,086 100,000	163 337 502 531 1,155 (NA)	20,381 38,719 77,343 72,967 90,055 100,000	278 295 481 510 1,124 (NA)	19,984 33,027 62,556 59,184 72,998 87,912	235 227 351 373 830 1,991
Work Experience of Householder									
Worked	79,087 57,418 35,297	57,802 63,610 23,801	446 480 272	57,510 64,232 13,973	358 423 273	59,326 65,537 27,421	354 448 303	48,561 52,711 26,487	276 331 251
2004 <sup>3</sup> (in 2005 dollars)									
All households	113,343	45,817	333	43,589	307	48,089	309	41,446	228
Type of Household									
Family households	76,858 57,975	57,179 65,946	338 489	55,645 65,844	423 492	60,148 69,732	360 477	51,656 58,602	294 327
present	13,981 36,485	30,824 27,128	530 262	27,725 24,738	587 320	31,178 29,237	543 263	30,563 25,205	356 218
Race <sup>2</sup> and Hispanic Origin		,		,. 20		-,		-,3	
White	92,880 81,628 13,809 4,123	48,218 50,546 31,102 59,427	311 380 532 2,078	46,245 48,674 27,785 61,771	356 398 799 2,041	50,707 53,235 31,175 63,245	301 374 591 2,190	43,470 45,247 28,931 52,485	247 279 465 1,559
Hispanic (any race)	12,178	35,418	816	33,415	697	35,608	586	33,367	459

See footnotes at end of table.

Table A-1.

Median Income of Households by Selected Characteristic and Income Definition: 2004 and 2005—Con.

(Households as of March of the following year)

Charactaristic		in	loney come ollars)	in	larket come ollars)	in	ial insurance come ollars)	Disposable income (dollars)		
Characteristic	Number (thou- sands)	Median	90-percent confidence interval <sup>1</sup> (±)	Median	90-percent confidence interval <sup>1</sup> (±)	Median	90-percent confidence interval <sup>1</sup> (±)	Median	90-percent confidence interval <sup>1</sup> (±)	
Region										
Northeast	21,187 25,939 41,224 24,993	49,462 46,134 42,108 49,244	819 661 375 669	47,700 43,739 39,326 47,871	636	52,477 48,163 43,512 52,083	838 709 445 767	43,949 40,969 38,375 45,480	613 440 348 528	
Number of Earners										
No earners One earner Two earners or more Two earners Three earners Four earners or more	23,952 41,799 47,593 38,119 7,202 2,271	16,667 37,371 75,024 71,224 86,628 100,000	214 254 452 519 1,258 (NA)	7,344 35,430 75,744 71,689 87,908 100,000	507 1,181	20,664 38,763 77,728 73,528 89,651 100,000	258 310 512 492 1,135 (NA)	20,284 33,442 63,841 60,346 74,081 90,445	218 222 381 385 1,069 1,739	
Work Experience of Householder										
Worked	78,490 56,605 34,853	57,706 63,624 22,951	328 301 242	57,605 64,223 14,068		59,773 65,441 27,123	346 416 318	49,324 53,540 26,283	300 312 287	

Source: U.S. Census Bureau, Current Population Survey, 2005 and 2006 Annual Social and Economic Supplements.

<sup>(</sup>NA) Not available.

¹ The 90-percent confidence interval is computed by multiplying the standard errors by 1.645. 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" at <www.census.gov/hhes/www /p60\_231sa.pdf>.

² Federal surveys now give respondents the option of reporting more than one race. Therefore, two basic ways of defining a race group are possible. A group such as Asian may be defined as those who reported Asian and no other race (the race-alone or single-race concept) or as those who reported Asian regardless of whether they also reported another race (the race-alone-or-in-combination concept). This table shows data using the first approach (race alone). The use of the single-race population does not imply that it is the preferred method of presenting or analyzing data. The Census Bureau uses a variety of approaches. Information on people who reported more than one race, such as White *and* Asian 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 The 2004 data have been revised to reflect a correction to the weights in the 2005 ASEC.

Table A-2.
Number and Percentage of People With Alternative Definitions of Income Below the Three-Parameter Poverty Thresholds by Selected Characteristic: 2004 and 2005

(Numbers in thousands, confidence intervals (C.I.) in thousands or percentage points as appropriate. People as of March of the following year)

			Money	income			Market	income		Post-	social ins	urance in	come	Disposable income				
Characteristic	Total	Num- ber below thresh- old	90- per- cent C.I. <sup>1</sup> (±)	Per- cent- age below thresh- old	90- per- cent C.I. <sup>1</sup> (±)	Num- ber below thresh- old	90- per- cent C.I. <sup>1</sup> (±)	Per- cent- age below thresh- old	90- per- cent C.I. (±)	Num- ber below thresh- old	90- per- cent C.I. <sup>1</sup> (±)	Per- cent- age below thresh- old	90- per- cent C.I. <sup>1</sup> (±)	Num- ber below thresh- old	90- per- cent C.I. <sup>1</sup> (±)	Per- cent- age below thresh- old	90- percent C.I. <sup>1</sup> (±)	
2005 Total <sup>2</sup>	293,135	36,804	678	12.6	0.2	55,369	801	18.9	0.3	37,306	682	12.7	0.2	30,075	621	10.3	0.2	
Age																		
Under 18 years	73,285 184,345	12,764 20,235	344 514	17.4 11.0	0.5	14,731 26,936	365 583	20.1 14.6	0.5 0.3	13,321 21,109	350 523	18.2 11.5	0.5 0.3	9,495 18,191	304 489	13.0 9.9	0.4 0.3	
65 years and older	35,505	3,805	136	10.7	0.3	13,701	214	38.6	0.6	2,876	120	8.1	0.3	2,389	110	6.7	0.3	
Family Status																		
In families	242,389 185,723 42,244	26,923 11,505 13,401	591 397 428	11.1 6.2 31.7	0.2 0.2 1.1	39,319 20,051 16,443	698 517 471	16.2 10.8 38.9	0.3 0.3 1.2	27,602 11,429 14,040	598 396 437	11.4 6.2 33.2	0.2 0.2 1.1	21,039 8,757 10,496	528 348 380	8.7 4.7 24.8	0.2 0.2 1.0	
Unrelated individuals	49,526	9,424	210	19.0	0.4	15,526	293	31.3	0.6	9,197	207	18.6	0.4	8,603	198	17.4	0.4	
Race <sup>3</sup> and Hispanic Origin	,	,								,				,				
White not Hispania	235,430 195,553	24,604 16,011	568 465	10.5 8.2	0.2	39,491 29,019	699 611	16.8 14.8	0.3	24,578 15,524	567 458	10.4 7.9	0.2	20,275 13,272	519 426	8.6 6.8	0.2 0.2	
White, not Hispanic Black	36,802	9,251	333	25.1	0.2	12,084	369	32.8	1.0	9,612	338	26.1	0.2	7,330	302	19.9	0.2	
Asian	12,580	1,436	138	11.4	1.1	1,834	155	14.6	1.2	1,513	142	12.0	1.1	1,267	130	10.1	1.0	
Hispanic (any race)	43,020	9,335	323	21.7	0.8	11,373	346	26.4	0.8	9,865	330	22.9	0.8	7,622	299	17.7	0.7	
Nativity																		
Native	257,513 35,621	30,908 5,896	629 328	12.0 16.6	1.0	47,880 7,489	757 368	18.6 21.0	0.3 1.1	31,121 6,185	631 335	12.1 17.4	1.0	24,963 5,112	571 306	9.7 14.4	0.2 0.9	
Educational Attainment (People 25 years and older)																		
Less than 12th grade, no diploma	27,896	6,788	308	24.3	1.2	11,570	396	41.5	1.5	6,837	308	24.5	1.2	5,238	270	18.8	1.0	
High school graduate, no college	60,898	6,618	303	10.9	0.5	13,009	419	21.4	0.7	6,506	301	10.7	0.5	5,553	278	9.1	0.5	
Some college, less than bachelor's degree	49,371	3,710	229	7.5	0.5	6,683	304	13.5	0.7	3,575	224	7.2	0.5	3,153	211	6.4	0.5	
Bachelor's degree or higher	53,720	1,894	165	3.5	0.3	3,342	217	6.2	0.3	1,682	155	3.1	0.3	1,614	151	3.0	0.3	
Region	- 4 0 4 0							4=0				44.0						
Northeast	54,010 64,973	6,094 7,400	285 311	11.3 11.4	0.5 0.5	9,353 11,520	341 373	17.3 17.7	0.6 0.6	6,255 7,358	288 310	11.6 11.3	0.5 0.5	4,855 6,103	257 285	9.0 9.4	0.5 0.4	
South	106,089	14,904	444	14.0	0.4	22,631	523	21.3	0.5	14,963	445	14.1	0.4	12,237	408	11.5	0.4	
West	68,063	8,406	340	12.4	0.5	11,865	392	17.4	0.6	8,729	345	12.8	0.5	6,880	311	10.1	0.5	
2004 <sup>4</sup> Total <sup>2</sup>	290,617	36,764	678	12.7	0.2	54,550	797	18.8	0.3	36,595	677	12.6	0.2	29,488	616	10.1	0.2	
Age Under 18 years	73,241	12,736	345	17.4	0.5	14,628	364	20.0	0.5	13,117	349	17.9	0.5	9,366	303	12.8	0.4	
18 to 64 years	182,166	20,330	517	11.2	0.3	26,521	582	14.6	0.3	20,788	522	11.4	0.3	17,854	487	9.8	0.4	
65 years and older	35,209	3,697	134	10.5	0.4	13,401	210	38.1	0.6	2,690	116	7.6	0.3	2,267	107	6.4	0.3	
Family Status																		
In families	240,754 184,772	27,045 12,017	592 406	11.2 6.5	0.2 0.2	39,116 20,454	696 522	16.2 11.1	0.3 0.3	27,201 11,687	594 400	11.3 6.3	0.2 0.2	20,709 9,034	525 354	8.6 4.9	0.2 0.2	
husband present Unrelated individuals	42,053 48,609	13,034 9,141	422 206	31.0 18.8	1.1 0.4	15,962 14,816	464 284	38.0 30.5	1.2 0.6	13,479 8,794	429 201	32.1 18.1	1.1 0.4	9,981 8,264	371 193	23.7 17.0	0.9 0.4	
Race <sup>3</sup> and Hispanic Origin	000 744	05.070	F-70	10-	2.0	00.040	000	100		04.554	507	10.5		00.40=	540	0.0		
White	233,741 195,098	25,073 16,718	573 475	10.7 8.6	0.2	39,340 29,307	698 614	16.8 15.0	0.3	24,551 15,953	567 464	10.5 8.2	0.2 0.2	20,167 13,551	518 430	8.6 6.9	0.2 0.2	
Black	36,426	8,988	338	24.7	0.9	11,546	376	31.7	1.0	9,153	341	25.1	0.9	7,052	303	19.4	0.2	
Asian	12,231	1,224	131	10.0	1.1	1,678	153	13.7	1.2	1,301	135	10.6	1.1	1,149	127	9.4	1.0	
Hispanic (any race)	41,690	9,053	317	21.7	0.8	10,919	337	26.2	0.8	9,358	320	22.4	0.8	7,134	290	17.1	0.7	
Nativity Native	255,443	30,715	627	12.0	0.2	46,831	750	18.3	0.3	30,253	623	11.8	0.2	24,260	564	9.5	0.2	
Foreign born	35,173	6,048	332	17.2	1.0	7,719	374	21.9	1.1	6,342	340	18.0	1.0	5,228	309	14.9	0.9	

See footnotes at end of table.

Table A-2. Number and Percentage of People With Alternative Definitions of Income Below the Three-Parameter Poverty Thresholds by Selected Characteristic: 2004 and 2005—Con.

(Numbers in thousands, confidence intervals (C.I.) in thousands or percentage points as appropriate. People as of March of the following year)

			Money	income			Market	income		Post-	social ins	urance in	come		Disposat	ole income	Э
Characteristic	Total	Num- ber below thresh- old	90- per- cent C.I. <sup>1</sup> (±)	Per- cent- age below thresh- old	90- per- cent C.I. <sup>1</sup> (±)	Num- ber below thresh- old	90- per- cent C.I. <sup>1</sup> (±)	Per- cent- age below thresh- old	90- per- cent C.I. <sup>1</sup> (±)	Num- ber below thresh- old	90- per- cent C.I. <sup>1</sup> (±)	Per- cent- age below thresh- old	90- per- cent C.I. <sup>1</sup> (±)	Num- ber below thresh- old	90- per- cent C.I. <sup>1</sup> (±)	Per- cent- age below thresh- old	90- percent C.I. <sup>1</sup> (±)
Educational Attainment (People 25 years and older)																	
Less than 12th grade, no diploma	28,015	6,756	306	24.1	1.2	11,583	396	41.3	1.5	6,623	303	23.6	1.2	5,088	266	18.2	1.0
High school graduate, no college	60,893	6,646	304	10.9	0.5	12,746	415	20.9	0.7	6,377	298	10.5	0.5	5,385	275	8.8	0.5
Some college, less than bachelor's degree	48,077	3,411	219	7.1	0.5	6,245	294	13.0	0.7	3,235	214	6.7	0.5	2,757	197	5.7	0.5
Bachelor's degree or higher	52,381	2,118	173	4.0	0.3	3,260	214	6.2	0.5	1,843	161	3.5	0.3	1,841	161	3.5	0.3
Region																	
Northeast	53,906	6,269	279	11.6	0.5	9,242	337	17.1	0.7	6,232	279	11.6	0.5	4,931	248	9.1	0.5
Midwest	64,740	7,430	307 479	11.5 14.2	0.5 0.5	11,505 22,043	379 576	17.8 21.0	0.6 0.6	7,352	305 474	11.4 13.9	0.5 0.5	5,922 11,979	275 432	9.1 11.4	0.4 0.4
South	104,887 67,083	14,848 8,217	375	12.2	0.5	11,760	446	17.5	0.6	14,528 8,483	381	12.6	0.5	6,655	338	9.9	0.4

<sup>&</sup>lt;sup>1</sup> The 90-percent confidence interval is computed by multiplying the standard errors by 1.645. 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" at <www.census.gov/hhes/www/p60\_231sa.pdf>.

2 Details may not sum to total because of rounding.

Source: U.S. Census Bureau, Current Population Survey, 2005 and 2006 Annual Social and Economic Supplements.

<sup>/</sup>p600\_231sa.pdf>.
2 Details may not sum to total because of rounding.
3 Federal surveys now give respondents the option of reporting more than one race. Therefore, two basic ways of defining a race group are possible. A group such as Asian may be defined as those who reported Asian regardless of whether they also reported another race (the race-alone-or-in-combination concept). This table shows data using the first approach (race alone). The use of the single-race population does not imply that it is the preferred method of presenting or analyzing data. The Census Bureau uses a variety of approaches. Information on people who reported more than one race, such as White and Asian 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 The 2004 data have been revised to reflect a correction to the weights in the 2005 ASEC.

## Appendix B. THREE-PARAMETER EQUIVALENCE SCALE POVERTY THRESHOLDS

Official poverty thresholds, those calculated following the Office of Management and Budget's (OMB) Statistical Policy Directive 14, are described on the Internet and in the report Income, Poverty, and Health *Insurance Coverage in the United* States: 2005 (P60-231). The Census Bureau uses a set of money thresholds that vary by family size and composition to determine who is in poverty (Table B-1). Social Security Administration economist Mollie Orshansky devised the thresholds in the 1960s, based in large part on the U.S. Department of Agriculture's food plan, which defined a generally accepted adequate amount of food. Although the matrix has undergone a few slight revisions since then, thresholds reflecting a revised concept of need (or as Orshansky might have called it "adequacy for essentials of living") have not been included in the poverty series. Instead, for official poverty estimates, the thresholds are updated each year for the cost of inflation using the Consumer Price Index for All Urban Consumers (CPI-U). For a 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 Fisher, available at <www.census.gov/hhes /povmeas/papers/orshansky.html>. Although this report does not propose a revised poverty measure, it does examine a modification to the

official poverty threshold matrix by instituting a three-parameter scale, as shown in Table B-1.

The three-parameter scale used here has the following characteristics:

- The first parameter reflects that children, on average, consume less than adults.
- The second parameter reflects that as family size increases, expenses do not increase at the same rate.
- The third parameter allows the first child in a single-adult family to represent a larger increase in expenses than the first child in a two-adult family.

For details on the derivation of this equivalence scale, see Appendix A of Short, 2001.

As with the official definition of poverty, if a family's total income is less than that family's threshold, then that family and every individual in it is considered below the threshold in this report. While the official poverty definition uses money income before taxes and does not include realized capital gains or the value of noncash benefits (such as public housing, Medicaid, and food stamps), this report compares three alternative measures of resources to the same set of three-parameter scale thresholds to determine how the number and characteristics of people with income below the

thresholds vary as taxes and transfers are incorporated.

Example: Suppose Family A consists of four people: two children, their mother, and their father. Family A's poverty threshold in 2005 was \$19,809. Suppose also that each member had the following income in 2005:

	Money income	Disposable income
Mother	\$10,000	\$10,000
Father	5,000	15,000
First child	0	0
Second child	0	0
Total:	\$15,000	\$25,000

Under the money income definition, the family had total income equal to \$15,000, which was less than their threshold (\$19,809); hence, the people in this family would be counted among those with money income less than their threshold. Under the disposable income definition, the family's total income was \$25,000, possibly due to the inclusion of tax credits, food stamps, and housing subsidies. Since this amount is higher than their threshold (\$19,809), the family members would be counted among those with disposable income above their thresholds. For each calculation, the threshold is the same and only the measure of resources differs.

Table B-1 Official Poverty Thresholds and Three-Parameter Scaled Thresholds Used in Alternative Poverty Estimates: 2005 (Dollars)

			Num	ber of relat	ted children	under 18 y	ears		
Size of family unit	None	One	Two	Three	Four	Five	Six	Seven	Eight or more
Official Thresholds									
One person Under 65 years	10,160 9,367								
Two people Householder under 65 years Householder 65 years and older	13,078 11,805	13,461 13,410							
Three people Four people Five people Six people Seven people Eight people Nine people or more	15,277 20,144 24,293 27,941 32,150 35,957 43,254	15,720 20,474 24,646 28,052 32,350 36,274 43,463	15,735 19,806 23,891 27,474 31,658 35,621 42,885	19,874 23,307 26,920 31,176 35,049 42,400	22,951 26,096 30,277 34,237 41,603	25,608 29,229 33,207 40,507	28,079 32,135 39,515	31,862 39,270	37,757
Four-Person Threshold With Three- Parameter Equivalence Scale Thresholds									
One person. Two people. Three people. Four people	9,179 12,943 19,806 24,224	13,852 17,433 22,063	16,445 <b>19,806</b>	18,872	04 470				

24,224

28,320

32,175

35,841

39,353

22,063

26,306

30,274

34,029

37,614

21,172

24,224

28,320

32,175

35,841

23,370

26,306

30,274

34,029

25,482

28,320

32,175

27,522

30,274

29,499

26,306

30,274

34,029

37,614

41,059

28,320

32,175

35,841

39,353

42,735

Source: U.S. Census Bureau.

Five people.....

Six people.....

Eight people .....

Nine people or more.....

## Appendix C. LIMITATIONS OF THE DATA

## **Income Underreporting in the CPS ASEC**

The collection vehicle for the estimates shown in this release is the Annual Social and Economic Supplement (ASEC) to the Current Population Survey (CPS). Problems with income reporting in the ASEC are well documented (see Roemer, 2000, for example). A recent study by analysts at the Census Bureau and the Bureau of Economic Analysis (BEA) compared BEA State Personal Income (SPI) aggregates with those from the CPS for income year 2001 (Ruser, Pilot, and Nelson, 2004). They found that once the necessary adjustments were made to make the two datasets conceptually the same, the CPS ASEC aggregate was about \$806 billion less than the SPI aggregate—a difference of around 11 percent. About onehalf of this difference is due to adjustments BEA makes to its SPI for unreported earnings (wages and salaries and self-employment income). The study also found that the differences are not consistent by type of income. For example, the wage and salary difference was around 3 percent while the difference for transfer incomes was around 23 percent. Clearly there needs to be more research on the effect of underreporting of key income types on important summary measures such as the poverty rate and median household income. Weinberg, 2005, contains tabulations based on files created by the Urban Institute with support from the U.S. Department of Health and Human Services Office of the Assistant Secretary for Planning and Evaluation. These files include underreporting adjustment models for three transfer programs: Temporary Assistance for Needy Families (TANF), supplemental security income (SSI), and food stamps. Tabulations from this file illustrate the potential importance of underreporting adjustments. They showed that the effect of using the file that incorporated imputations for unreported TANF, SSI, and food stamp benefits was to reduce the overall poverty rate by around 1 percentage point in 2002.

## Imputed Values for Items Not Included in the CPS ASEC

The CPS ASEC does not collect data on the value of home production or the value of imputed rent from owner-occupied dwellings—though the latter uses a statistical match to the American Housing Survey to impute the value of rent and incorporate it into the market income definition. Imputed realized capital gains and losses are also included in market income. These imputed realized gains or losses are not incorporated into the Canberra Group recommendations, though they are also included by other international statistical agencies.24 Realized capital gains and losses are often found in wealth distribution analyses, as they increase (or reduce) income when measuring household well-being.

Penalty for Private Use \$300

<sup>&</sup>lt;sup>24</sup> Finland and Norway include realized capital gains in their national income distribution statistics. See <www.stat.fi/eusilc/tormalehto\_v02.pdf> for a fuller discussion of the issue.