

Alternative Measures of Income Poverty and the Anti-poverty Effects of Taxes and Transfers

by

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June 13, 2005

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ABSTRACT

The Census Bureau prepared a number of alternative income-based measures of poverty to illustrate the distributional impacts of several alternatives to the official measure. The paper examines five income variants for two different units of analysis (families and households) for two different assumptions about inflation (the historical Consumer Price Index and a “Research Series” alternative that uses current methods) for two different sets of thresholds (official and a formula-based alternative base on three parameters). The poverty rate effects are analyzed for the total population, the distributional effects are analyzed using poverty shares, and the anti-poverty effects of taxes and transfers are analyzed using a percentage reduction in poverty rates. Suggestions for future research are included.

ACKNOWLEDGEMENTS

This paper is based on a presentation to a University of Maryland-American Enterprise Institute seminar on “Revisiting the Federal Poverty Measure,” May 10, 2005. This paper is released to inform interested parties of research and to encourage discussion. The views expressed on technical issues are those of the author and not necessarily those of the U.S. Census Bureau. The author would like to acknowledge and thank Douglas Besharov, Rebecca Blank, Nancy Gordon, Gordon Green, David Hornick, Charles Nelson, Robert Rector, Robert Reischauer, and Kathleen Short for their comments and suggestions; they bear no responsibility for any errors that remain. I also wish to thank Joseph Dalaker of the Census Bureau and John Coder of Sentier Research for carrying out the tabulations presented here.

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In July 2004, at the invitation of several federal agencies and with the funding of the U.S. Census Bureau, the University of Maryland's Welfare Reform Academy began a series of seminars on "Revisiting the Federal Poverty Measure" held at the American Enterprise Institute. As noted in the project's prospectus (Besharov and Germanis, 2004), despite its wide use as a measure of material well-being, numerous commentators have identified flaws in the construction of the official measure of poverty (see for example, Citro and Michael, 1995; Ruggles, 1990). The purpose of the project was to establish a "strongly diverse 'research seminar' to explore the limitations of the current federal poverty measure and identify alternative approaches for gauging the well-being of low-income Americans" [Besharov and Germanis, 2004, p. 2].

In response to a request from the seminar organizers, the Census Bureau prepared a number of alternative income-based measures of poverty to illustrate the distributional impacts of those alternatives and suggest a method for gauging the impact of taxes and transfers on poverty. This paper discusses those alternatives in four sections. The first section describes the measures being calculated. The second section discusses pre-transfer poverty and its distribution. The third section discusses the anti-poverty effect of taxes and transfers. The fourth section presents some findings on the effect of adjustments for unreported income.

In keeping with Census Bureau policy, no recommendations are made, though some further directions for research are indicated in the final section. The Office of Management and Budget (OMB) is responsible for any changes to the official measure of poverty.

I. Background

Five key decisions must be made for any income-based poverty measure:

- What is the income concept to be employed?
- What “unit of analysis” should be used?
- What threshold levels and equivalence scale should be used to designate poverty?
- What adjustment for inflation is appropriate?
- What data source should be used for the calculations?

(See Weinberg, 2004b, for a discussion of some other issues and approaches to measuring poverty.)

At the request of the seminar organizers, information is presented on five income variants (see Table 1 for a more complete description of the income sources included in each definition):

- Money income (used in official measure);
- Pre-tax pre-means-tested-transfer income: money income excluding *means-tested* cash transfers (this income measure thus includes income from non-means-tested transfers like Social Security and could be referred to as post-social insurance income);
- Pre-tax pre-means-tested-transfer income that includes an imputed return to home equity;
- Post-tax, post-transfer income: money income plus realized capital gains, plus non-cash transfers, plus the Earned Income Tax Credit (EITC), minus income and payroll taxes; and
- Post-tax, post-transfer income that includes an imputed return to home equity, minus property taxes.

These five variants are designed to investigate two issues: First, whether there are distributional effects of changing the definition, especially geographic effects, and second, can one use such measures to assess the effects of means-tested government programs and taxes on poverty.

Note that these income variants differ in three significant ways from the recommendations of the National Academy of Sciences (NAS) panel on poverty measurement (Citro and Michael, 1995): (1) there is no subtraction from income for work expenses (such as childcare and transportation) or for medical out-of-pocket expenses; (2) there is no geographic adjustment of thresholds to account for differences in cost-of-living (mainly housing costs); and (3) an imputed return to home equity is included as an alternative.

These income variants were computed for two definitions of the “unit of analysis”: (1) families and unrelated individuals, and (2) households.¹ A family is a group of two or more people who reside together and who are related by birth, marriage, or adoption. A household includes all the people who occupy a housing unit as their usual place of residence. Not all households contain families since a household may comprise a group of unrelated people or one person living alone.

In determining the threshold level for a unit’s income to be compared against, one has to make several decisions. First, what is the level for a reference unit? Second, what is the relationship between units of different sizes and compositions (termed the “equivalence scale”)? Third, how do these thresholds get updated over time to reflect inflation?

¹ To improve the comparability of the tabulations for households presented here with the official poverty measure, neither includes unrelated children under 15; any official poverty measure based on household income would likely include such children.

The official thresholds were based on work by Orshansky (1963) and were adopted by the federal government for use in the 1960s War on Poverty and reflected the equivalence scales implicit in her analysis of household food consumption and minimally adequate diets. These have been widely criticized and a three-parameter scale has been developed that eliminates the anomalies present in the official thresholds.² For this analysis, the level of the threshold for a two-adult two-child family was set equal to the level of the official threshold, and the relationships inherent in the thresholds were then applied to determine the appropriate levels for other families. Some have suggested setting the threshold level for an alternative such that the overall poverty rate is set equal to the official poverty rate for some reference year or years. The NAS panel suggested setting the threshold at a specified fraction of median expenditure for food, clothing, shelter, and utilities, and updating that threshold for changes in median expenditures (Citro and Michael, 1995).

In its Statistical Policy Directive 14, OMB set the inflation adjustment to be used to update the poverty thresholds from one year to the next as the official Consumer Price Index (now called the Consumer Price Index for Urban Consumers, or CPI-U). As the analysis in this paper is confined to one calendar year (2002), one might think that the choice of an inflation adjustment would be irrelevant. But it is linked to the levels of the thresholds in the following way. Two alternative levels were chosen for analysis, based on two alternative choices of inflation factors. The first was the historical CPI-U and the thresholds were scaled to the level in the official thresholds for 2002. The second uses the methodology adopted by the Bureau of Labor Statistics

² The three-parameter scale used in these calculations was developed by David Johnson of the Bureau of Labor Statistics and others. The scale for a single adult is set at 1.00, the scale for two adults is set at 1.41, the scale for single parents is $[1.8+0.5*(children-1)]^{0.7}$, and the scale for other families is $[adults+0.5*children]^{0.7}$.

(BLS) for the CPI-U in 2002, and backcast by them in a research series (called CPI-U-RS), to 1977. The alternative reference level is then the official thresholds as they existed in 1977, inflated using the CPI-U-RS to 2002.³ As an illustration of the differences in the threshold levels, note the values as shown in Table 2.

While the Survey of Income and Program Participation could be used to calculate these alternatives (and is even recommended by two National Academy of Sciences panels; see Citro and Kalton, 1993, and Citro and Michael, 1995), the organizers requested that the data source used to calculate the official measures be the source of these alternative estimates. Thus, these tabulations are based on the 2003 Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC), which collected income for calendar year 2002. In that year, official poverty for the overall population was calculated at 12.1 percent.

There are a few measurement issues to note. First, the Census Bureau was unable to partition all income sources into means-tested and non-means tested parts. A small component of Veterans' payments is means-tested, as is a small component of educational assistance (such as Pell Grants). These, as well as any means-tested transfers reported as part of "other income" will be included in the pre-tax/pre-means-tested transfer poverty measure. In addition, improved methods for valuing noncash benefits like housing assistance have not yet been implemented.

³ There was also a substantial change in the CPI-U methodology in 1983, when the BLS adopted a "rental equivalence" method for housing costs. They issued an "experimental" series that backcast the CPI to 1968, denoted CPI-U-X1. That further adjustment is not used in this analysis. See <http://www.census.gov/hhes/www/income/income03/cpiurs.html> for the CPI-U-RS series that also incorporates the CPI-U-X1 adjustments.

No significance tests have been performed. Because all these estimates are from the same dataset, conventional measures of sampling error do not apply. The reader will have to use his or her own judgment as to the importance of the findings. As a basis for an assessment of these differences, note that to find that a year-to-year change in the overall poverty rate is significant at the 90-percent confidence level requires a 0.3 percentage point difference.

II. Money Income and Pre-Transfer Poverty

Table 3 presents the overall poverty rates for the official poverty measure (unit of analysis: families and unrelated individuals; official thresholds; historical CPI[-U] inflation adjustment) and 29 alternatives. Detailed tables for each measure showing variation in poverty rate estimates by demographic characteristic are presented in the Appendix.

The first issue is how the choice of income variant affects pre-transfer poverty (the next section focuses on post-transfer poverty). Looking across the first row of Table 3, the pre-means-tested transfer pre-tax poverty rate (hereinafter called the pre-transfer rate) is 0.7 percentage points higher than the official rate (12.8 percent compared to 12.1 percent). Counting imputed return to home equity reduces pre-transfer poverty by 1.2 percentage points (12.8 percent to 11.6 percent).

Variations in the other three dimensions affect pre-transfer poverty as well. Using the three-parameter compared to the official thresholds has basically no effect on overall poverty (compare line 1 in the first column of Table 3 with line 2, or line 4 with 5). Using the current (RS) methodology instead of the historical CPI[-U] reduces poverty rates by about 2 percentage points (12.0 percent to 10.0 percent -- line 2 compared to 3 -- or 10.6 percent to 8.6 percent -- line 5

compared to 6). Using a household-based measure rather than a family-based one reduces poverty by about 1½ percentage points (compare lines 1 and 4, 2 and 5, or 3 and 6). Regardless of which rows or columns one examines, these effects seem to be more-or-less independent and additive, though the reduction due to the RS is slightly lower for the pre-transfer measure that accounts for home equity.

To make investigation of the effects of these alternative measures on the distribution of poverty easier to understand, a single statistic has been computed that shows the distributional effect. This index compares the percentage in poverty under the subject measure with the percentage of the same group in official poverty. Here is one example that illustrates the index for people in poverty in California. Under the official measure of poverty, 4.605 of the total 34.570 million in poverty were in California (13.32 percent). Using pre-transfer pre-tax income including imputed return to home equity, for people in households, using the three-parameter thresholds adjusted for inflation using the CPI-U-RS measure, 3.305 of the total 24.418 million in poverty were in California (13.54 percent). The index of the change in poverty shares is the ratio of 13.54 to 13.32, for an index of 101.6. Think about this number as follows: People in poverty in California are a larger percentage of all those in poverty when this particular alternative measure is used than when the official poverty measure is used (their *share* is 1.6 percent larger).

Tables 4 and 5 present the indexes of the change in poverty shares for all 50 states and the District of Columbia for families and households, respectively. Rather than discussing all 51 jurisdictions for all six measures and all five income variants, Figures 1 and 2 present these indexes for the four largest states -- California, Texas, New York, and Florida -- for both pre-

transfer measures. California and New York appear to have increased shares of pre-transfer poverty, Texas a reduced share, and Florida a slightly reduced share when the RS inflation adjustment is used. Counting an imputed return to home equity affects these ratios some, especially in New York and Florida.

There's a fairly wide range for these effects – especially for the household measures. Examining only the three-parameter RS pre-transfer measures for families without home equity, there were three states where the share increased 10 percent or more -- the District of Columbia, Connecticut, and Hawaii (Hawaii's index was 115.4) -- and two whose share decreased 10 percent or more – Missouri and Idaho (Idaho's index was 88.6) (see Table 4). Under the comparable household measure, several more states showed large changes – the shares for West Virginia, South Carolina, Mississippi, Louisiana, and the District of Columbia (DC's index was 120.1) increased 10 percent or more, and the shares for Washington, Idaho, Nevada, Vermont, Delaware, Alaska, and Minnesota (Minnesota's index was 71.4) decreased 10 percent or more (see Table 5).

Another interesting distributional effect is shown in Figure 3, where the poverty share change index is shown for children (people under 18) and seniors (people 65 and older); the estimates are shown in Table 6 for several age groups. Children's pre-transfer poverty is not much affected, though their share when home equity is accounted for is higher than when it is not (especially for household measures). Seniors have, in some cases, a much larger share of pre-transfer poverty unless imputed return to home equity is accounted for – counting an imputed return to home equity reduces their share by 25 to 30 percent compared to not counting it

III. Post-transfer Poverty

Both post-transfer post-tax measures include cash and non-cash transfers, realized capital gains, and the Earned Income Tax Credit, and subtract income and payroll taxes. As Table 3 demonstrates, including means-tested transfers and subtracting taxes cut about 2½ percentage points off the pre-transfer poverty rates (12.8 percent to 10.2 percent – column 4 compared to 2 – or 11.6 percent to 9.4 percent – column 5 compared to 3).⁴ Effects of the three “vertical” changes is about 3-3½ percentage points (for example 12.8 percent to 9.5 percent) – that is, when changing from families to households, official thresholds to three-parameter thresholds, and from CPI-U to CPI-U-RS indexing, poverty rates are reduced by 3-3½ percentage points. The effect of the “horizontal” changes -- going from the pre-transfer income variant excluding any consideration of home equity to the post-transfer income variant that includes return to home equity and subtracts property taxes -- is also about 3-3½ percentage points (for example, 12.8 to 9.4 percent). Together all these changes amount to nearly a 7 percentage point reduction in poverty (12.8 percent to 6.0 percent). These are illustrated in Figure 4.

One can use these estimates to compute the percentage reduction in pre-transfer poverty rates (as defined here) due to taxes and means-tested transfers. Overall, for families, the range for reductions is from 19.0 percent (the percentage reduction for the official threshold CPI measure that includes home equity) to 27.5 percent (the percentage reduction for the three-parameter RS

⁴ The household post-transfer poverty rates in Table 3 were computed by Sentier Research using the public use version of the CPS ASEC. Examination of comparable measures suggests that this alternative differs from the calculations that use internal Census Bureau files by at most 0.1 percentage point, except where the public use file deliberately has less detail than the internal files (for metropolitan and non-metropolitan residence).

measure that excludes home equity). For households, the reductions are in the same range: from 21.0 percent to 30.1 percent.⁵

Figures 5 and 6 show both pre- and post-transfer poverty rates for children and seniors, respectively; the estimates of the percentage reduction in their pre-transfer poverty rates due to taxes and means-tested transfers are shown in Table 7 for several age groups. Children are advantaged by government intervention – their poverty rates are lower: for family-based measures, the percentage reduction in poverty rates due to transfers and taxes ranges from a 26 percent to a 36 percent reduction. There’s not much effect of home equity on the poverty rates for children.

Turning to seniors, it was demonstrated above that counting imputed return to home equity has a huge effect on seniors’ poverty shares – Figure 6 confirms the effects on the rates themselves. As was true for children, pre-transfer poverty rates for seniors are substantially reduced by transfers (recall that Social Security is counted in both measures).

As was done for pre-transfer poverty, one can look at post-transfer poverty shares by state (see Tables 4 and 5). Among the four largest states, California and New York have a reduced share of post-transfer poverty. The variation among states in post-transfer poverty shares is larger than for pre-transfer poverty – many more states have changes of more than 10 percent. Again just focusing on the three-parameter RS measures, for families there were five states whose index of

⁵ To ensure consistency, the estimates of the percentage reduction in poverty rates due to taxes and transfers for households are based solely on the rates calculated by Sentier Research; as noted in footnote 4, these differ only slightly from the estimates prepared by the Census Bureau (see the Appendix tables marked [SR] for the appropriate pre-transfer poverty rates).

change in poverty shares increased 10 percent or more -- Nebraska, Indiana, Illinois, Ohio, and New Mexico (New Mexico's index was 113.2), and six states whose share decreased 10 percent or more -- Nevada, Massachusetts, Maine, Alaska, Kansas, and Connecticut (Connecticut's index was 83.1). There were similar increases in the numbers for households. Eight states had a share that increased 10 percent or more -- Ohio, North Carolina, Indiana, Tennessee, South Carolina, Illinois, New Mexico, and Louisiana (Louisiana's index was 122.6) -- and 12 states whose share decreased 10 percent or more -- Kansas, Hawaii, Utah, Wash., Nevada, Idaho, Massachusetts, Maine, Vermont, Delaware, Connecticut, and Minnesota (Minnesota's index was 70.1).

IV. The Effect of Imputations for Unreported Income

As reported in Weinberg (2004a), there is a substantial gap between the amount of income reported by household respondents to the CPS ASEC and the amount of income included in the National Income Accounts. Weinberg cited a Ruser, Pilot, and Nelson (2004) study that compared U.S. Bureau of Economic Analysis (BEA) State Personal Income (SPI) with CPS ASEC money income for 2001. The BEA estimate of aggregate income was \$8.670 trillion while the CPS estimate for the same calendar year was \$6.446 trillion, for a difference of \$2.233 trillion. However, adjustments to BEA SPI are needed to derive a concept consistent with CPS ASEC (for example, excluding the income of non-profit enterprises). Once those adjustments are made, the remaining gap is \$806 billion, about half of which is due to adjustments BEA makes in its SPI estimates for unreported earnings (wages, salaries, and self-employment income).

The key areas of CPS response error are four:

- *Wages and Salaries*: 3 percent underreporting accounts for \$158 billion of the gap;

- *Self-Employment income*: 48 percent underreporting accounts for \$302 billion of the gap;
 - *Interest and Dividends*: 32 percent underreporting accounts for \$132 billion of the gap;
- and
- *Transfer Programs*: 23 percent underreporting accounts for \$199 billion of the gap.

Little research has been done on developing comprehensive models for imputing the missing income to the CPS ASEC for the income sources noted as key. However, the Urban Institute, with the support of the Department of Health and Human Services Office of the Assistant Secretary for Planning and Evaluation, has developed adjustment models for three transfer programs: Temporary Assistance for Needy Families (TANF), Supplemental Security Income (SSI), and Food Stamps. Census Bureau analysts are unfamiliar with the adjustment methods used by the Urban Institute for its TRIM microsimulation model, so these adjustments were implemented by Sentier Research using the CPS ASEC public use file. There are two concerns that limit the generalizability of the findings that use these imputations, however. First, there is a concern that undercoverage of the low-income population by the CPS might affect the reliability of such an imputation. In effect, if the CPS has undercoverage that is not corrected for appropriately by weighting, then the missing income could be imputed to too few families and reduce the poverty rate too much. Second, there are income sources for which imputation is not made that might well affect the distribution of poverty (such as income and dividends, which would presumably affect the poverty of seniors who tend to own more assets than those who are younger); if possible, imputation should be made throughout the income distribution.

Table 8 presents one estimate of the effects of adjusting income for unreported TANF, SSI, and Food Stamp income on household poverty rate measures.⁶ Imputation for unreported TANF and SSI money income reduces poverty by about 0.3 percentage points (compare the money income-based estimates) but counting all three transfer program imputations reduces post-transfer poverty by about 1 percentage point (for example from 6.0 to 5.0 percent). Although it appears that unreported Food Stamps has the largest effect, that is only because it is the last program counted. The only valid conclusion is that the three programs in combination reduce poverty rates by about 1 percentage point. These effects are illustrated in Figure 7.

The effects of counting unreported income on the poverty shares of children are shown in Figure 8. Counting unreported transfer income reduces the poverty shares of children noticeably.

V. Further Research

There are a few technical issues that might benefit from additional work. These include:

1. Tables for a pre-transfer measure that also excludes all non-means-tested cash transfers (such as Social Security). Such a table would enable calculation of the full effect of government taxes and transfers.
2. Inclusion of estimates of state sales taxes since several states use that revenue source to substitute for income taxes. (Note that inclusion of local income and sales taxes is not feasible because it would preclude issuance of public use files due to confidentiality concerns.)

⁶ All these estimates use the public use file-based estimates to show the marginal effect of imputing unreported income.

3. An exploration of the impact of using both CPI-U-RS and CPI-U-X1 indexing on the current levels of the thresholds.
4. More research on the intra-household sharing of resources to determine the value of accepting a household compared to a family definition of the unit of analysis. It might be possible with enough research to make a reasonable distinction between cohabitators (who are romantically involved) and co-residents (who merely share housing expenses).
5. Examination of the reduction in the poverty gap (the difference between a unit's income and its poverty threshold) due to taxes and transfers.

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Table 1: Income Sources Included in Alternative Income Variants

	Income Source
Included in All Definitions	Money wage or salary income; farm and nonfarm self-employment income; unemployment compensation; workers compensation; Social Security; Veterans' payments; survivor, disability, and retirement benefits (including pensions); interest; dividends; rents, royalties, and estates and trusts; educational assistance; child support, alimony, and other financial assistance from outside the household; other cash income
Also Included in Money Income	Supplemental Security Income, public assistance/welfare payments including Temporary Assistance for Needy Families
Also Included in Post-tax, Post-transfer Definitions	Earned Income Tax Credit; Low Income Home Energy Assistance Program; Food Stamps; housing assistance; School Lunch program; realized capital gains; [Subtractions for the following taxes:] federal and state income tax, Social Security payroll tax, property tax (for the measure including imputed return to home equity only)

Notes:

1. The methods used to value non-cash benefits are described in U.S. Census Bureau (1988), Appendix B.
2. Imputed Return to Home Equity is calculated as a rate of return on imputed home equity minus an estimated property tax based on house value (both are imputed using a statistical match to the American Housing Survey). The rate of return used is the average for high-grade municipal bonds (5.85 percent in 2002) (see U.S. Census Bureau, 1988, p. 226).

Table 2: Poverty Thresholds, 2002: Examples

	Single under 65	Two-adult, two-child	Three-adult three-child
Official (CPI-U)	\$9,359	\$18,244	\$24,797
3-parameter (CPI-U)	\$8,455	\$18,244	\$24,232
3-parameter (CPI-U-RS)	\$7,460	\$16,095	\$21,378

Table 3: Percentage of People in Poverty Using Official Measure and 29 Variants: 2002

Income Variant:	Money income	Pre-tax pre-means-tested-transfer	Pre-tax pre-means-tested-transfer plus imputation for home equity	Post-tax post-transfer	Post-tax post-transfer plus imputation for home equity minus property taxes
Threshold and Inflation Adjustment					
Families					
Official-CPI	12.1	12.8	11.6	10.2	9.4
3 parameter-CPI	12.0	12.8	11.6	9.9	9.1
3 parameter-RS	10.0	10.9	9.9	7.9	7.3
Households					
Official-CPI	10.5	11.2	10.1	8.7	7.9
3 parameter-CPI	10.6	11.4	10.2	8.6	7.8
3 parameter-RS	8.6	9.5	8.6	6.6	6.0

Note: See text for description of variants.

Source: U.S. Census Bureau, Current Population Survey, 2003 Annual Social and Economic Supplement, except household post-transfer measures provided by Sentier Research using the public use version of the same data set.

Table 4: Index of Change in Poverty Shares for People in Families and Unrelated Individuals in Poverty Using Alternative Measures Compared to Official Poverty, by State: 2002 [Percent of People in Official Poverty=100]

State	Official Thresholds, CPI-U adjustment					Three-parameter Thresholds, CPI-U adjustment					Three-parameter Thresholds, CPI-U-RS adjustment				
	MI	PreT	PreT+HE*	PostT	PostT+HE	MI	PreT	PreT+HE*	PostT	PostT+HE	MI	PreT	PreT+HE*	PostT	PostT+HE
Alabama	100.0	101.7	98.1	100.1	93.0	101.3	99.8	100.6	98.3	88.9	100.0	102.5	98.2	94.5	84.3
Alaska	100.0	99.7	96.8	93.4	89.7	98.8	99.7	97.4	84.9	83.2	86.6	91.5	91.8	85.0	83.3
Arizona	100.0	96.3	102.0	103.8	103.4	102.1	97.2	102.7	110.2	110.2	105.7	99.2	103.3	108.4	106.5
Arkansas	100.0	95.8	95.9	97.2	95.6	98.7	94.8	94.0	93.3	92.4	99.1	94.6	93.0	97.8	94.3
California	100.0	104.9	103.7	98.7	98.0	100.2	105.9	104.3	95.7	95.4	94.8	101.3	101.8	94.8	93.3
Colorado	100.0	96.1	90.4	108.7	107.2	100.1	95.1	88.5	104.1	99.0	99.2	92.7	93.5	109.5	107.4
Connecticut	100.0	103.4	99.4	89.9	87.3	100.9	103.8	102.6	95.3	90.7	105.1	110.6	112.8	83.1	84.8
Delaware	100.0	102.4	98.6	100.9	93.5	99.2	103.7	100.6	100.2	93.0	93.0	96.1	100.6	103.0	102.7
District of Columbia	100.0	99.5	102.1	105.3	111.5	102.6	100.5	104.9	108.1	114.0	113.7	110.2	114.9	109.2	113.4
Florida	100.0	99.8	98.3	101.3	99.9	101.3	100.0	96.5	103.3	102.8	98.0	96.1	92.9	99.0	99.3
Georgia	100.0	100.0	100.7	96.8	90.5	101.1	101.5	99.9	100.9	94.6	95.0	96.2	98.7	94.0	97.6
Hawaii	100.0	103.5	108.8	92.1	92.4	102.0	106.3	112.5	95.4	95.5	106.3	115.4	119.8	96.8	100.2
Idaho	100.0	95.2	100.7	105.1	107.8	97.1	94.6	99.2	100.4	103.3	93.2	88.6	90.0	94.0	94.1
Illinois	100.0	97.0	99.6	100.0	105.2	102.5	100.4	102.1	104.2	109.4	102.3	99.6	102.7	110.7	114.0
Indiana	100.0	97.5	95.0	115.6	108.7	98.5	99.4	95.2	110.9	106.4	106.0	107.9	104.7	110.4	103.8
Iowa	100.0	100.6	101.6	106.4	113.9	100.9	101.4	102.9	107.8	112.7	101.2	102.6	102.7	107.5	112.3
Kansas	100.0	100.6	96.9	96.3	94.8	99.8	98.1	95.5	98.4	95.6	91.9	91.5	89.7	84.4	85.5
Kentucky	100.0	99.2	99.4	99.7	96.3	96.2	96.8	99.6	98.2	96.3	96.4	99.7	94.8	102.7	97.7
Louisiana	100.0	98.9	99.6	103.5	107.9	98.7	100.6	101.6	102.3	104.0	105.1	103.1	104.2	104.9	110.8
Maine	100.0	97.4	91.4	95.1	89.4	100.6	99.6	90.1	93.3	89.3	94.1	97.0	93.6	86.7	90.2
Maryland	100.0	99.3	93.6	101.0	96.6	98.5	98.2	93.1	98.8	96.6	100.3	98.3	96.4	108.6	105.4
Massachusetts	100.0	102.6	100.9	89.5	91.8	100.1	101.2	99.1	88.6	91.0	95.0	102.1	102.6	87.4	89.2
Michigan	100.0	97.8	97.5	102.3	102.9	98.5	95.2	93.3	102.6	105.8	99.2	96.5	99.5	108.3	112.7
Minnesota	100.0	97.5	99.8	101.3	101.1	91.6	92.0	94.6	96.8	98.3	91.7	94.6	96.1	95.9	100.0
Mississippi	100.0	102.3	101.6	96.6	90.6	101.1	101.6	101.4	103.9	95.8	105.8	107.2	105.3	91.2	80.5
Missouri	100.0	98.0	96.9	98.3	92.1	100.2	97.5	96.5	99.2	94.8	89.7	89.7	90.0	91.4	90.1
Montana	100.0	100.0	99.2	101.3	106.6	98.9	100.8	102.3	106.0	107.0	104.3	105.9	103.4	106.9	107.9
Nebraska	100.0	100.9	108.3	109.0	116.7	96.7	97.8	103.7	105.8	109.6	101.8	99.7	102.8	110.2	116.0
Nevada	100.0	99.6	98.2	101.8	101.4	96.8	95.6	96.5	99.3	103.4	92.8	95.4	90.5	89.8	93.0
New Hampshire	100.0	103.7	95.7	96.0	93.5	97.8	103.7	93.4	98.6	94.9	96.3	100.7	90.6	100.9	100.4
New Jersey	100.0	103.8	98.8	96.8	100.8	103.7	104.6	100.1	102.4	102.5	106.4	109.7	101.4	101.2	89.8
New Mexico	100.0	99.8	100.2	101.4	100.1	103.6	102.7	99.4	102.6	101.5	102.0	102.2	99.3	113.2	106.2
New York	100.0	102.0	105.3	91.3	95.5	100.9	102.3	105.0	92.7	97.2	99.2	101.9	104.4	90.7	95.6
North Carolina	100.0	99.9	102.6	103.4	102.3	100.8	100.6	103.4	106.7	101.4	102.8	103.1	104.9	106.2	102.2

Table 4: Index of Change in Poverty Shares for People in Families and Unrelated Individuals in Poverty Using Alternative Measures Compared to Official Poverty, by State: 2002 [Percent of People in Official Poverty=100]

State	Official Thresholds, CPI-U adjustment					Three-parameter Thresholds, CPI-U adjustment					Three-parameter Thresholds, CPI-U-RS adjustment				
	MI	PreT	PreT+HE*	PostT	PostT+HE	MI	PreT	PreT+HE*	PostT	PostT+HE	MI	PreT	PreT+HE*	PostT	PostT+HE
North Dakota	100.0	98.5	98.6	109.1	104.1	100.6	98.5	99.1	106.9	102.2	96.3	96.1	92.3	94.6	93.6
Ohio	100.0	99.3	101.5	107.4	109.7	101.7	100.3	101.0	107.5	104.9	104.9	101.5	102.6	111.9	109.3
Oklahoma	100.0	101.0	102.6	102.5	100.4	99.5	99.5	104.0	98.3	101.6	104.6	101.8	106.4	99.8	97.1
Oregon	100.0	97.3	100.7	93.8	96.9	97.9	96.6	99.9	94.0	97.8	98.2	97.9	101.2	94.1	96.9
Pennsylvania	100.0	102.1	101.4	102.8	103.2	99.0	101.1	101.9	101.1	97.0	102.7	104.3	99.2	104.0	101.5
Rhode Island	100.0	106.8	107.0	88.1	92.2	102.3	106.9	109.4	86.2	90.7	100.3	106.6	105.6	95.3	93.4
South Carolina	100.0	96.3	94.6	98.1	94.6	103.0	99.8	97.7	97.7	94.3	106.0	104.5	103.9	106.5	103.2
South Dakota	100.0	99.1	96.9	97.8	94.0	98.2	96.9	96.2	96.1	95.6	99.8	97.0	93.6	102.9	96.0
Tennessee	100.0	97.3	91.9	95.7	91.3	99.4	96.2	95.4	101.8	97.5	99.5	94.0	94.9	101.9	99.9
Texas	100.0	96.3	98.5	104.9	109.6	98.4	95.0	97.7	102.5	108.4	102.2	96.1	96.9	101.2	106.7
Utah	100.0	105.0	99.7	106.3	100.0	93.5	100.0	94.8	92.5	91.1	101.0	102.6	90.8	92.2	83.3
Vermont	100.0	103.9	104.3	85.7	86.6	100.6	103.9	106.6	92.0	96.1	93.4	100.4	100.4	90.6	92.9
Virginia	100.0	96.0	93.1	101.4	92.5	98.3	96.6	94.4	98.9	95.6	105.5	102.3	97.9	106.9	105.1
Washington	100.0	100.9	103.2	91.0	93.5	96.6	97.1	101.7	91.0	93.2	98.0	98.3	101.9	94.4	93.8
West Virginia	100.0	106.2	100.7	103.0	90.1	105.4	108.5	103.4	110.7	96.4	104.2	109.8	105.3	98.5	93.8
Wisconsin	100.0	96.2	94.7	103.0	104.8	99.7	95.2	95.9	101.1	105.5	104.8	99.4	99.4	108.8	114.2
Wyoming	100.0	98.9	101.9	94.5	99.5	100.6	98.9	100.1	91.5	93.8	99.2	98.7	97.4	97.7	94.7

Notes:

MI = Money Income (used in official measure)

PreT = Pre-tax pre-means-tested transfer income (without return to home equity)

PreT+HE* = Pre-tax pre-means-tested transfer income (with return to home equity)

PostT = Post-tax post-means-tested transfer income (without return to home equity)

PostT+HE = Post-tax post-means-tested transfer income (with return to home equity minus property taxes)

The index is computed as the ratio of the share of poverty under the subject measure to the share of poverty under the official measure.

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

Table 5: Index of Change in Poverty Shares for People in Households in Poverty Using Alternative Measures Compared to Official Poverty, by State: 2002 [Percent of People in Official Poverty=100]

State	Official Thresholds, CPI-U adjustment					Three-parameter Thresholds, CPI-U adjustment					Three-parameter Thresholds, CPI-U-RS adjustment				
	MI	PreT	PreT+HE*	PostT	PostT+HE	MI	PreT	PreT+HE*	PostT	PostT+HE	MI	PreT	PreT+HE*	PostT	PostT+HE
Alabama	108.3	109.6	105.6	108.5	109.9	109.2	108.3	108.7	109.6	108.8	108.9	110.9	106.4	109.0	111.2
Alaska	90.6	90.7	88.0	89.8	90.6	92.1	93.3	91.7	91.5	93.5	75.3	81.9	80.9	75.8	80.8
Arizona	96.7	94.5	101.3	96.9	94.7	99.6	96.5	102.8	98.2	94.6	98.1	95.0	99.2	96.8	93.9
Arkansas	105.8	100.1	101.3	106.0	100.4	104.2	98.8	98.3	104.6	99.3	105.9	99.7	97.7	106.1	99.8
California	98.8	104.6	103.2	98.7	104.8	98.4	105.0	103.0	98.4	105.3	92.9	100.7	101.6	93.1	100.9
Colorado	93.4	88.5	81.4	93.5	88.6	93.8	87.6	80.8	94.3	88.0	93.8	85.9	87.0	94.0	86.2
Connecticut	104.2	106.5	101.7	103.9	106.5	103.9	106.7	104.8	103.8	106.6	105.8	113.7	116.2	105.5	113.3
Delaware	91.6	96.2	90.6	91.9	95.9	91.0	97.9	94.8	91.3	97.2	82.8	85.5	91.2	81.5	85.7
District of Columbia	105.8	105.8	109.1	105.9	104.6	107.5	104.5	109.5	107.0	103.9	120.2	115.6	121.1	120.1	115.4
Florida	100.9	100.7	98.8	100.9	100.2	101.9	100.5	96.6	102.3	100.5	99.8	97.5	93.9	99.7	97.4
Georgia	102.3	101.6	101.7	102.6	101.8	105.1	104.3	101.1	105.4	104.7	91.6	92.6	95.3	91.8	92.7
Hawaii	98.6	105.7	111.5	99.2	103.7	100.5	109.0	115.0	101.1	107.1	99.8	109.9	113.9	99.5	110.1
Idaho	91.0	86.7	91.6	90.3	85.9	88.1	85.6	91.8	88.0	85.5	85.1	80.6	83.8	84.4	79.8
Illinois	100.7	97.8	100.8	101.0	98.1	104.2	102.1	104.5	103.3	101.3	104.7	101.9	105.5	104.9	102.0
Indiana	100.5	98.1	95.4	99.7	97.4	97.3	97.8	93.0	96.6	97.3	103.9	105.3	101.1	102.9	104.5
Iowa	95.5	95.5	95.9	95.8	95.5	96.1	95.5	96.6	96.3	95.9	97.9	98.8	98.1	98.2	99.1
Kansas	100.8	102.0	97.5	99.4	101.0	99.2	99.1	97.2	98.1	98.1	93.5	92.4	91.1	93.9	92.8
Kentucky	101.2	100.1	100.0	101.4	100.0	99.1	99.0	101.2	98.9	99.0	100.7	104.0	97.7	100.2	103.6
Louisiana	110.1	108.1	110.0	110.3	108.2	107.6	108.9	110.9	108.1	109.3	118.1	114.7	117.0	118.4	114.9
Maine	97.0	96.0	89.1	96.6	95.7	98.4	99.1	89.2	98.0	98.7	92.6	96.0	91.6	91.5	95.4
Maryland	94.6	93.5	86.9	92.4	91.5	96.0	94.1	88.6	94.1	92.4	96.6	94.0	91.0	96.7	94.0
Massachusetts	94.5	96.5	95.4	94.7	96.8	94.1	95.3	92.7	94.4	95.7	90.9	96.6	96.6	91.0	96.7
Michigan	101.0	97.9	97.8	101.3	98.1	99.3	94.9	92.7	99.6	95.2	100.4	96.6	99.8	100.6	96.8
Minnesota	82.0	79.1	80.3	82.2	79.3	76.9	77.1	78.6	77.1	77.4	71.3	75.7	76.2	71.4	75.8
Mississippi	107.5	110.6	109.2	107.8	110.8	107.4	109.6	108.9	107.9	110.0	112.9	115.3	112.3	113.1	115.4
Missouri	101.1	98.6	96.9	101.2	98.8	104.0	100.5	98.8	103.6	100.0	92.6	91.8	92.0	92.7	92.1
Montana	91.7	91.2	89.7	91.9	91.8	90.2	92.7	92.0	90.7	92.7	95.6	97.2	92.8	96.0	97.6
Nebraska	95.6	96.7	104.3	94.9	96.3	91.8	93.1	98.3	91.1	92.5	100.2	97.9	100.9	99.2	96.8
Nevada	92.0	91.4	88.3	92.0	91.4	92.6	90.8	90.2	92.7	91.1	83.7	86.8	81.3	83.9	86.7
New Hampshire	93.2	96.2	89.0	93.4	96.8	91.0	96.4	89.9	89.3	95.3	92.4	96.0	85.3	91.8	96.1
New Jersey	96.4	99.5	92.9	96.5	99.7	100.6	100.9	95.0	100.9	101.2	104.4	107.1	95.8	104.5	107.3
New Mexico	101.3	100.1	100.8	101.4	100.2	104.1	101.8	99.0	104.4	102.2	103.7	103.0	98.8	103.7	103.0
New York	100.1	103.2	106.9	99.7	102.8	100.4	102.4	105.9	100.0	102.2	99.1	102.3	105.2	98.3	101.6
North Carolina	101.9	100.4	103.6	101.8	100.4	102.8	101.3	104.2	102.9	101.4	105.1	104.1	106.1	105.0	104.0

Table 5: Index of Change in Poverty Shares for People in Households in Poverty Using Alternative Measures Compared to Official Poverty, by State: 2002 [Percent of People in Official Poverty=100]

State	Official Thresholds, CPI-U adjustment					Three-parameter Thresholds, CPI-U adjustment					Three-parameter Thresholds, CPI-U-RS adjustment				
	MI	PreT	PreT+HE*	PostT	PostT+HE	MI	PreT	PreT+HE*	PostT	PostT+HE	MI	PreT	PreT+HE*	PostT	PostT+HE
North Dakota	102.7	102.1	100.5	102.8	101.8	102.0	102.3	103.0	102.8	102.8	102.0	103.0	97.0	102.8	102.7
Ohio	98.8	98.4	102.0	98.9	98.7	101.8	102.1	103.9	102.1	102.5	102.2	98.9	100.4	102.3	99.1
Oklahoma	103.3	103.6	105.8	103.6	103.9	104.0	103.0	107.7	104.4	103.4	108.1	104.0	109.1	108.4	104.1
Oregon	98.3	95.0	98.1	97.7	94.5	95.3	93.8	96.4	95.6	94.0	98.0	96.6	99.8	98.2	96.9
Pennsylvania	99.2	100.5	99.9	99.0	100.2	97.5	99.6	101.2	97.3	99.6	101.1	102.4	98.2	101.3	102.6
Rhode Island	100.4	103.4	103.7	100.4	103.9	101.7	105.7	107.0	101.7	105.4	101.8	104.4	102.5	102.4	104.8
South Carolina	105.8	101.0	98.2	106.0	101.2	107.5	103.3	101.3	107.9	103.7	112.8	110.4	109.9	113.0	110.5
South Dakota	96.3	96.6	93.4	96.3	96.5	95.7	95.4	94.1	96.0	95.8	99.2	96.0	89.9	97.9	94.9
Tennessee	104.1	101.4	97.8	104.3	101.5	103.7	100.2	100.2	104.0	100.6	106.7	100.3	102.4	106.9	100.5
Texas	102.7	98.4	101.1	103.0	98.6	100.6	96.2	99.3	100.7	96.3	105.1	97.5	98.4	105.3	97.7
Utah	101.2	107.1	100.7	101.5	107.4	91.5	99.2	93.2	91.9	99.5	100.5	101.7	89.4	100.4	101.9
Vermont	90.8	93.9	94.6	90.5	94.2	90.2	94.4	95.9	90.3	94.4	82.9	87.8	85.9	82.7	87.7
Virginia	95.9	91.4	87.4	96.1	91.6	92.9	91.2	87.7	93.3	91.5	99.7	98.2	92.2	100.0	98.5
Washington	90.2	91.6	93.2	90.5	91.9	90.9	91.6	95.7	90.6	91.3	89.2	92.9	95.9	89.5	93.1
West Virginia	104.7	114.3	107.5	104.9	114.6	110.7	115.8	111.2	111.2	116.3	110.3	118.8	114.5	110.4	119.0
Wisconsin	88.4	86.5	83.7	87.7	85.4	88.3	85.9	85.9	87.9	84.8	91.8	88.2	89.1	90.9	87.4
Wyoming	91.7	93.3	92.9	92.7	92.4	91.1	92.1	89.5	92.2	91.3	89.4	89.8	90.1	91.1	91.1

Notes:

MI = Money Income (used in official measure)

PreT = Pre-tax pre-means-tested transfer income (without return to home equity)

PreT+HE* = Pre-tax pre-means-tested transfer income (with return to home equity)

PostT = Post-tax post-means-tested transfer income (without return to home equity)

PostT+HE = Post-tax post-means-tested transfer income (with return to home equity minus property taxes)

The index is computed as the ratio of the share of poverty under the subject measure to the share of poverty under the official measure.

Source: U.S. Census Bureau, Current Population Survey, 2003 Annual Social and Economic Supplement, except household post-transfer measures provided by Sentier Research using the public use version of the same data set.

Table 6: Index of Change in Poverty Shares for 15 Alternative Measures Compared to Official Poverty, by Age: 2002 [Percent of People in Official Poverty=100]															
Age	Official Thresholds, CPI-U adjustment					Three-parameter Thresholds, CPI-U adjustment					Three-parameter Thresholds, CPI-U-RS adjustment				
	MI	PreT	PreT+HE*	PostT	PostT+HE	MI	PreT	PreT+HE*	PostT	PostT+HE	MI	PreT	PreT+HE*	PostT	PostT+HE
People in Families and Unrelated Individuals															
Under 18 years	100.0	98.5	103.2	90.1	94.3	98.6	97.0	101.7	87.4	92.0	100.3	97.9	102.9	86.9	90.7
Related children under 18 years	100.0	98.6	103.0	89.2	93.2	98.5	97.0	101.5	86.4	90.8	99.8	97.6	102.3	85.1	88.6
Related children under 6 years	100.0	97.7	103.3	92.8	98.7	99.4	97.1	103.0	91.8	97.9	102.0	98.3	104.6	92.0	97.5
18 to 24 years	100.0	97.8	104.2	113.0	120.1	100.2	97.8	104.5	114.1	121.2	105.3	100.5	106.4	121.3	128.4
25 to 44 years	100.0	99.9	104.5	100.0	105.6	99.2	99.4	103.6	98.9	104.0	100.2	100.0	104.4	100.1	105.4
45 to 64 years	100.0	102.7	97.2	109.6	103.9	100.2	103.3	98.5	109.6	105.2	100.7	105.0	98.8	111.3	105.8
65 years and over	100.0	103.8	77.4	101.9	74.2	106.1	109.2	81.7	112.4	82.2	90.8	98.5	73.2	99.7	73.4
65 to 74 years	100.0	104.8	81.0	99.7	75.4	106.5	110.7	86.9	111.1	85.4	93.8	102.5	79.3	100.0	77.7
75 years and over	100.0	102.9	74.1	104.0	73.2	105.7	107.8	77.2	113.6	79.5	88.1	94.9	67.7	99.3	69.6
People in Households															
Under 18 years	105.9	103.7	109.6	105.8	103.7	103.1	101.0	106.7	103.2	101.0	105.4	102.4	108.5	105.5	102.4
Related children under 18 years	108.8	106.5	112.4	108.7	106.4	105.9	103.7	109.5	106.0	103.7	108.1	105.0	111.3	108.2	105.1
Related children under 6 years	107.3	104.2	111.1	107.3	104.3	105.4	102.5	109.4	105.5	102.6	108.4	104.0	112.1	108.5	104.1
18 to 24 years	80.4	78.7	83.8	80.5	78.8	83.3	81.4	86.7	83.4	81.6	85.6	81.7	86.5	85.7	81.7
25 to 44 years	96.2	96.5	101.1	96.2	96.5	96.3	96.8	101.2	96.0	96.5	96.9	96.8	101.3	96.8	96.7
45 to 64 years	102.0	105.5	100.2	102.0	105.5	102.1	105.8	101.3	102.0	105.8	103.7	108.7	102.5	103.5	108.5
65 years and over	110.9	114.4	85.0	111.1	114.5	116.6	119.1	89.1	116.9	119.4	101.8	109.5	81.3	102.0	109.6
65 to 74 years	108.1	113.3	87.0	108.3	113.4	114.4	118.7	92.8	114.5	118.9	102.8	112.0	86.4	102.9	112.1
75 years and over	113.4	115.4	83.2	113.6	115.6	118.7	119.4	85.7	119.1	119.8	100.9	107.3	76.7	101.1	107.5

Table 6, continued

Notes:

MI = Money Income (used in official measure)

PreT = Pre-tax pre-means-tested transfer income (without return to home equity)

PreT+HE* = Pre-tax pre-means-tested transfer income (with return to home equity)

PostT = Post-tax post-means-tested transfer income (without return to home equity)

PostT+HE = Post-tax post-means-tested transfer income (with return to home equity minus property taxes).

The index is computed as the ratio of the share of poverty under the subject measure to the share of poverty under the official measure.

Source: U.S. Census Bureau, Current Population Survey, 2003 Annual Social and Economic Supplement, except household post-transfer measures provided by Sentier Research using the public use version of the same data set.

Table 7: Percentage Reduction in Pre-Transfer Poverty Rate for Six Alternative Measures, by Age: 2002

Age	Official Thresholds, CPI-U adjustment		Three-parameter Thresholds, CPI-U adjustment		Three-parameter Thresholds, CPI-U-RS adjustment	
	PostT	PostT+HE	PostT	PostT+HE	PostT	PostT+HE
People in Families and Unrelated Individuals						
All people	20.3	19.0	22.7	21.6	27.5	26.3
Under 18 years	27.0	26.1	29.8	29.0	36.1	35.0
Related children under 18 years	27.8	26.7	31.1	29.3	36.6	36.8
Related children under 6 years	24.6	22.4	26.8	24.9	31.9	31.6
18 to 24 years	8.2	6.7	9.4	9.1	12.1	11.8
25 to 44 years	19.8	18.1	22.7	21.2	26.6	25.6
45 to 64 years	14.6	14.3	17.8	15.6	23.1	21.2
65 years and over	21.7	23.1	20.7	19.8	26.1	25.8
65 to 74 years	24.0	24.7	22.7	23.1	29.1	27.9
75 years and over	19.7	20.5	18.0	18.6	23.2	24.6
People in Households						
All People	22.4	21.0	24.0	23.0	30.1	29.2
Under 18 years	26.9	25.5	30.5	29.1	36.8	36.2
Related children under 18 years	26.9	25.5	30.7	29.2	37.0	36.4
Related children under 6 years	23.5	21.4	27.0	25.0	32.8	32.2
18 to 24 years	13.3	11.6	11.9	11.3	16.1	14.9
25 to 44 years	23.0	20.7	25.5	23.5	31.3	29.4
45 to 64 years	17.7	16.4	19.1	17.9	25.7	23.8
65 years and over	21.7	22.2	19.7	20.2	26.5	26.4
65 to 74 years	24.7	25.2	22.2	22.9	29.7	29.0
75 years and over	19.1	19.3	17.6	17.7	23.5	23.9

Notes:

PreT = Pre-tax pre-means-tested transfer income (without return to home equity)

PreT+HE* = Pre-tax pre-means-tested transfer income (with return to home equity)

PostT = Post-tax post-means-tested transfer income (without return to home equity)

PostT+HE = Post-tax post-means-tested transfer income (with return to home equity minus property taxes)

The percentage reduction is defined for the measures that exclude home equity as $\{100 - [100 \times (\text{PostT} - \text{PreT})/\text{PreT}]\}$,

with the analogous calculation for measures that include home equity.

Source: Sentier Research tabulations of Current Population Survey 2003 Annual Social and Economic Supplement Public Use File (with TRIM Substitutions for TANF, SSI, and Food Stamps).

Table 8. Effects of Adjusting for Unreported TANF, SSI, and Food Stamp Income on Household Poverty Rate Measures: 2002

Measure	Money Income	Post-tax post-transfer	Post-tax post-transfer plus imputation for home equity minus property taxes
No adjustment for unreported income			
Official Thresholds, CPI-U inflation adjustment	10.5	8.7	7.9
Three-parameter Thresholds, CPI-U inflation adjustment	10.5	8.6	7.8
Three-parameter Thresholds, CPI-U-RS inflation adjustment	8.6	6.6	6.0
Adjusted for unreported income			
Official Thresholds, CPI-U inflation adjustment	10.2	7.9	7.1
Three-parameter Thresholds, CPI-U inflation adjustment	10.2	7.8	6.9
Three-parameter Thresholds, CPI-U-RS inflation adjustment	8.3	5.6	5.0

Notes:

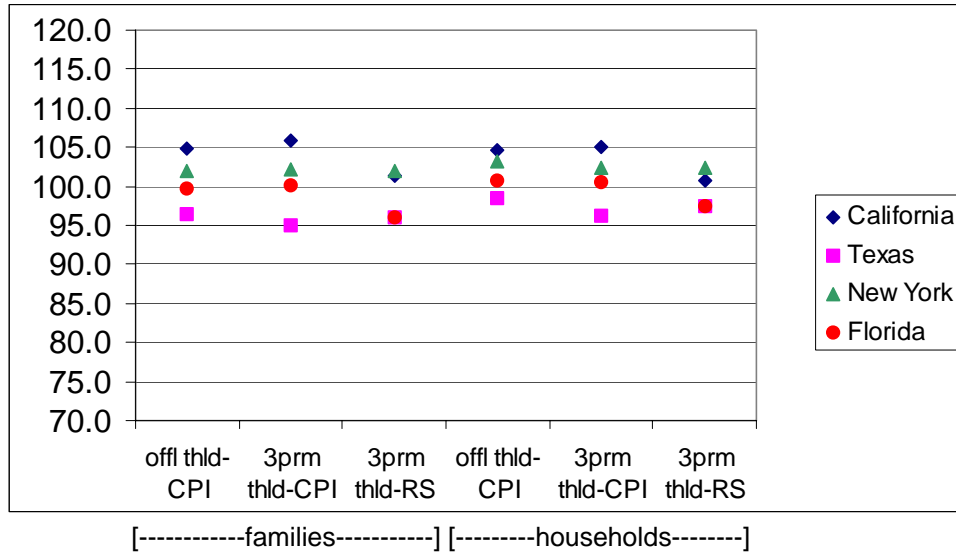
Official poverty rate for families and unrelated individuals is 12.1 percent.

TANF = Temporary Assistance for Needy Families

SSI = Supplemental Security Income

Source: Sentier Research tabulations of Current Population Survey 2003 Annual Social and Economic Supplement Public Use File (with TRIM Substitutions for TANF, SSI, and Food Stamps).

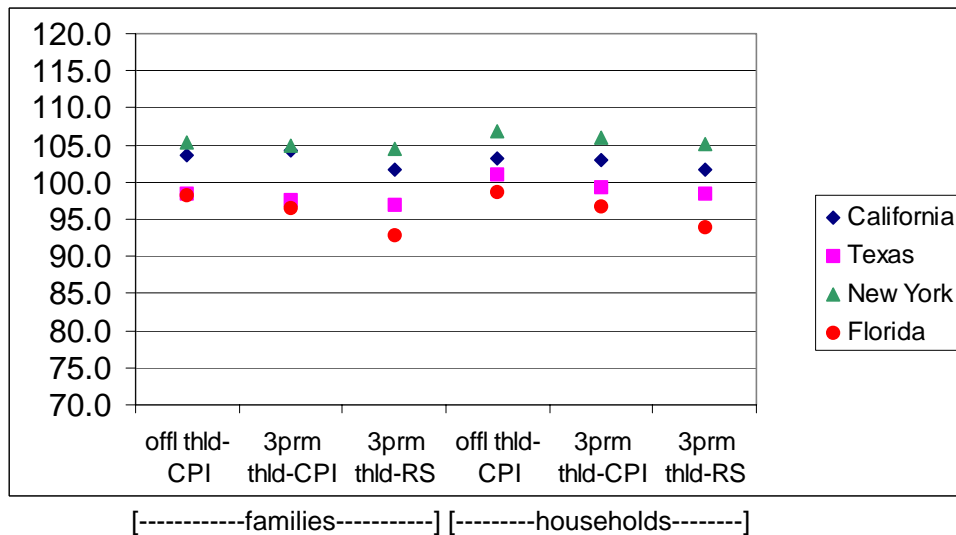
Figure 1. Index of Change in Poverty Shares for Six Pre-Transfer Poverty Measures for the Four Largest States: 2002



Note: The index is computed as the ratio of the share of poverty under the subject measure to the share of poverty under the official measure. See text for description of alternative measures.

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

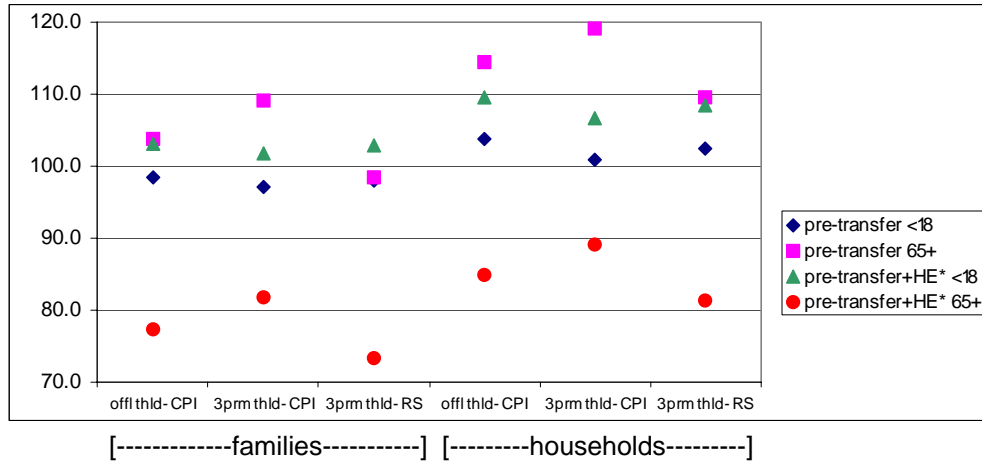
Figure 2. Index of Change in Poverty Shares for Six Pre-Transfer Poverty Measures that Include Imputed Return to Home Equity for the Four Largest States: 2002



Note: The index is computed as the ratio of the share of poverty under the subject measure to the share of poverty under the official measure. See text for description of alternative measures.

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

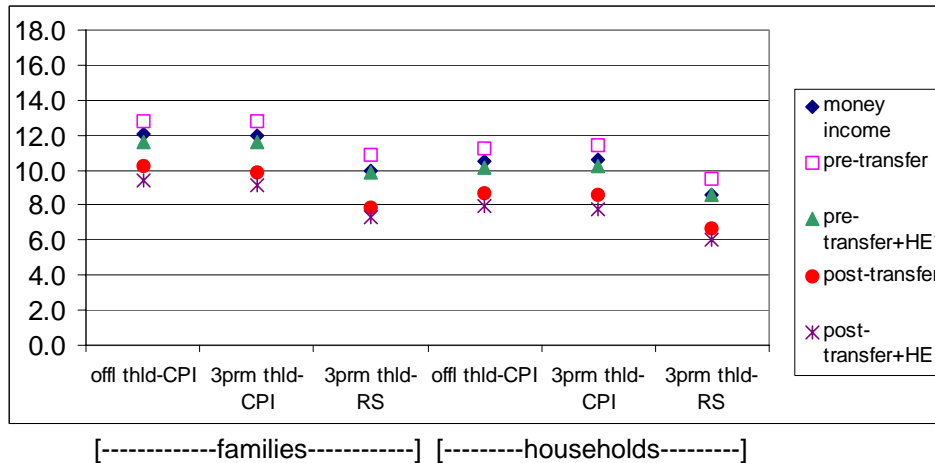
Figure 3. Index of Change in Poverty Shares for Six Pre-Transfer Poverty Measures for Children and Seniors: 2002



Note: The index is computed as the ratio of the share of poverty under the subject measure to the share of poverty under the official measure. See text for description of alternative measures.

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

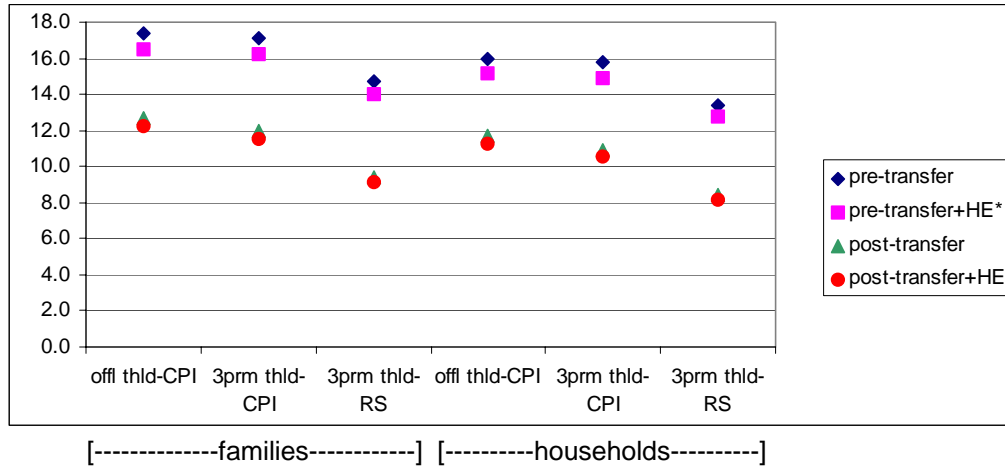
Figure 4. Poverty Rates -- Official and 29 Alternative Definitions: 2002



Note: See text for description of alternative measures. Official poverty is calculated by comparing money income to the official thresholds adjusted for inflation using the CPI-U for families [and unrelated individuals].

Source: U.S. Census Bureau, Current Population Survey, 2003 Annual Social and Economic Supplement, except household post-transfer measures provided by Sentier Research using the public use version of the same data set.

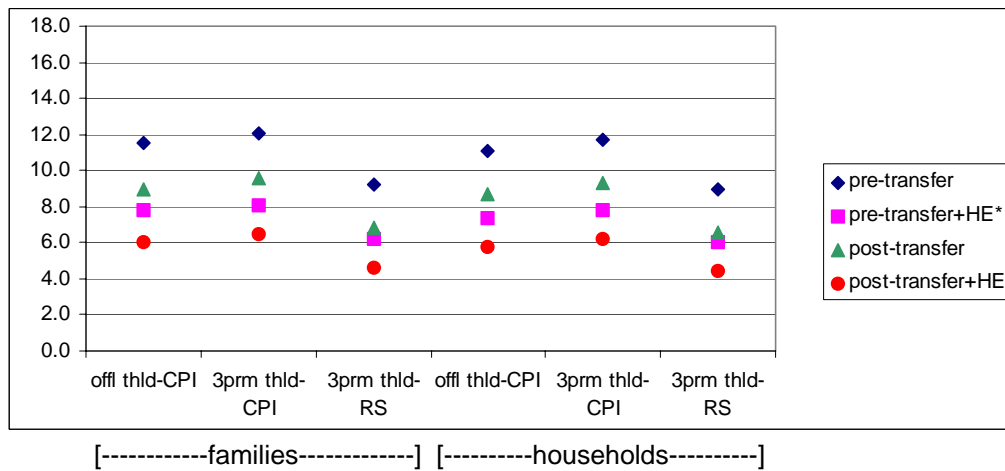
Figure 5. Effects of Means-Tested Transfers, Taxes, and Imputed Return to Home Equity on Poverty Rates of Children: 2002



Note: See text for description of alternative measures.

Source: U.S. Census Bureau, Current Population Survey, 2003 Annual Social and Economic Supplement, except household post-transfer measures provided by Sentier Research using the public use version of the same data set.

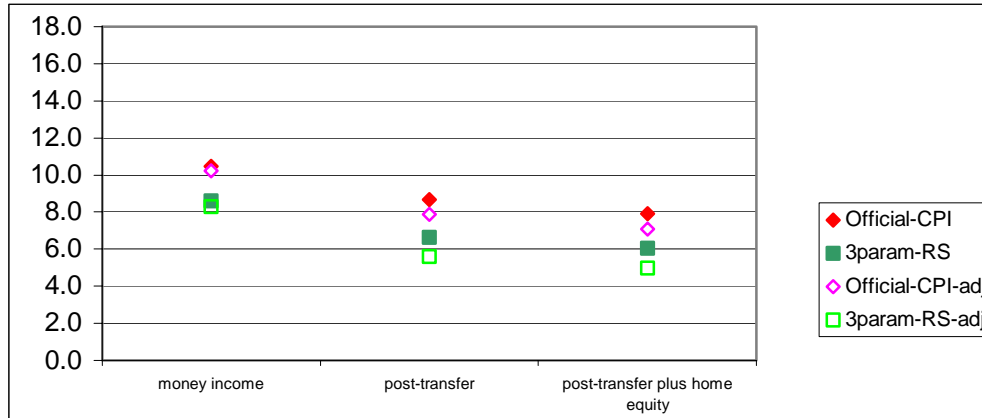
Figure 6. Effects of Means-Tested Transfers, Taxes, and Imputed Return to Home Equity on Poverty Rates of Seniors: 2002



Note: See text for description of alternative measures.

Source: U.S. Census Bureau, Current Population Survey, 2003 Annual Social and Economic Supplement, except household post-transfer measures provided by Sentier Research using the public use version of the same data set.

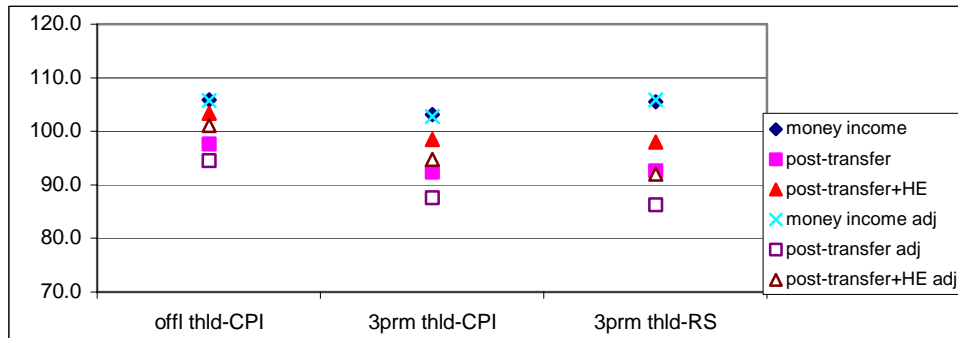
Figure 7. Household Poverty Rates under Alternative Definitions that Include Some Unreported Income: 2002



Note: See text for description of alternative measures.

Source: Sentier Research tabulations of Current Population Survey 2003 Annual Social and Economic Supplement Public Use File (with TRIM Substitutions for TANF, SSI, and Food Stamps).

Figure 8. Index of Change in Poverty Shares for Children for Household Measures that Include Some Unreported Income: 2002



Note: The index is computed as the ratio of the share of poverty under the subject measure to the share of poverty under the official measure. See text for description of alternative measures.

Source: Sentier Research tabulations of Current Population Survey 2003 Annual Social and Economic Supplement Public Use File (with TRIM Substitutions for TANF, SSI, and Food Stamps).