

Measuring American Poverty

Statement of Bruce D. Meyer¹

Testimony Before the Subcommittee on Income Security and Family Support
of the House Committee on Ways and Means

July 17, 2008

Chairman McDermott, Ranking Member Weller, and distinguished members of the Committee, I appreciate the opportunity to talk to you today about the measurement of poverty in the United States.

By now you will have been reminded of the many deficiencies of our current poverty measure. In commenting on these deficiencies and considering alternative measures, I would like to make seven observations. Prior to stating these observations, I want to emphasize that each of them concerns how we measure poverty for the purpose of assessing poverty reduction and economic performance. The issue of eligibility determination for receipt of government programs and the allocation of federal funds are fundamentally different issues. One way to insure that we have a flawed measure of poverty for the purposes of assessing poverty reduction and economic performance is to restrict ourselves to a measure that we will also use to determine program eligibility. Since program eligibility requires universally available information and simple rules, such a restriction would limit us unnecessarily.

First, our official poverty measure ignores many of the main anti-poverty efforts of the past thirty years. These anti-poverty efforts include the Food Stamp Program, the Earned Income Tax Credit (EITC), Medicaid, and Housing Assistance. This omission violates the basic principle that the measure of resources available to a household should include all resources available for consumption. This omission also violates common sense. A clear example of the weakness of the official measure is that the EITC lifted 3.7 million people above the poverty line in 2005, yet it did not affect the official poverty measure.²

Other deficiencies of the official poverty measure include a price adjustment that overcompensates for inflation, a definition of the family that is not based on who in the household shares resources, an adjustment for family size and composition with unattractive features, and no adjustment for geographic differences in living costs. I will discuss price adjustment at length and the family definition briefly.

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² Bruce D. Meyer, 2007, "The U.S. Earned Income Tax Credit, its Effects, and Possible Reforms, *Swedish Economic Policy Review* 14.

Second, the thresholds to which pre-tax money income is compared are updated annually to account for inflation using the Consumer Price Index (CPI-U). However, the CPI-U sharply overstates inflation. While described in Census publications as thresholds that are in constant dollars, i.e. ones that compensate for changes in the purchasing power of a dollar, the thresholds rise considerably faster than inflation, leading more people to be below the line. These biases accumulate over time, so over a decade or more the bias has a substantial effect on poverty rates.

The Boskin Commission, a group of eminent economists appointed by the Senate Finance Committee, issued a report in 1996 on the extent of CPI bias.³ They concluded that the annual bias in the CPI-U was 1.1 percentage points per year at the time of the report, but 1.3 percentage points prior to 1996. While there are criticisms of the Boskin Commission, there is little evidence that they overstated the bias.⁴ Some commentators suggest that the commission understated the bias.⁵ The Commission itself argued that the estimates were on the “conservative” side and tended to understate the bias.⁶

The Bureau of Labor Statistics (BLS), which has the unenviable job of constructing the CPI, has changed its methods since 1996 to eliminate about one-third of the earlier bias in the price adjustment. The BLS has applied these new methods going backward in time to provide an improved price index (the CPI-U-RS), but historical official poverty statistics are not revised based on such improvements. Even after recent improvements, outside experts have concluded that a bias of 0.8 percentage points per year remains in the CPI-U.⁷

³ Michael Boskin et al., 1996, “Toward a More Accurate Measure of the Cost of Living” Final Report to the Senate Finance Committee. In describing the bias, four types of biases in the CPI-U are commonly emphasized: substitution bias, outlet bias, quality bias, and new product bias. Substitution bias refers to the bias in the use of a fixed market basket when people substitute away from high relative price items. Outlet bias refers to the inadequate accounting for the movement of purchases toward low price discount or big box stores. For example, the BLS disregards the low prices in big box stores, assuming that the lower prices are offset by worse service. The shift of purchases to the likes of Home Depot, Costco and Wal-Mart shows how consumers view this choice. Quality bias refers to inadequate adjustments for the quality improvements in products over time, while new product bias refers to the omission or long delay in the incorporation of new products into the CPI. For example, the BLS did not include cellular phones in the CPI until 15 years after their introduction in the U.S.

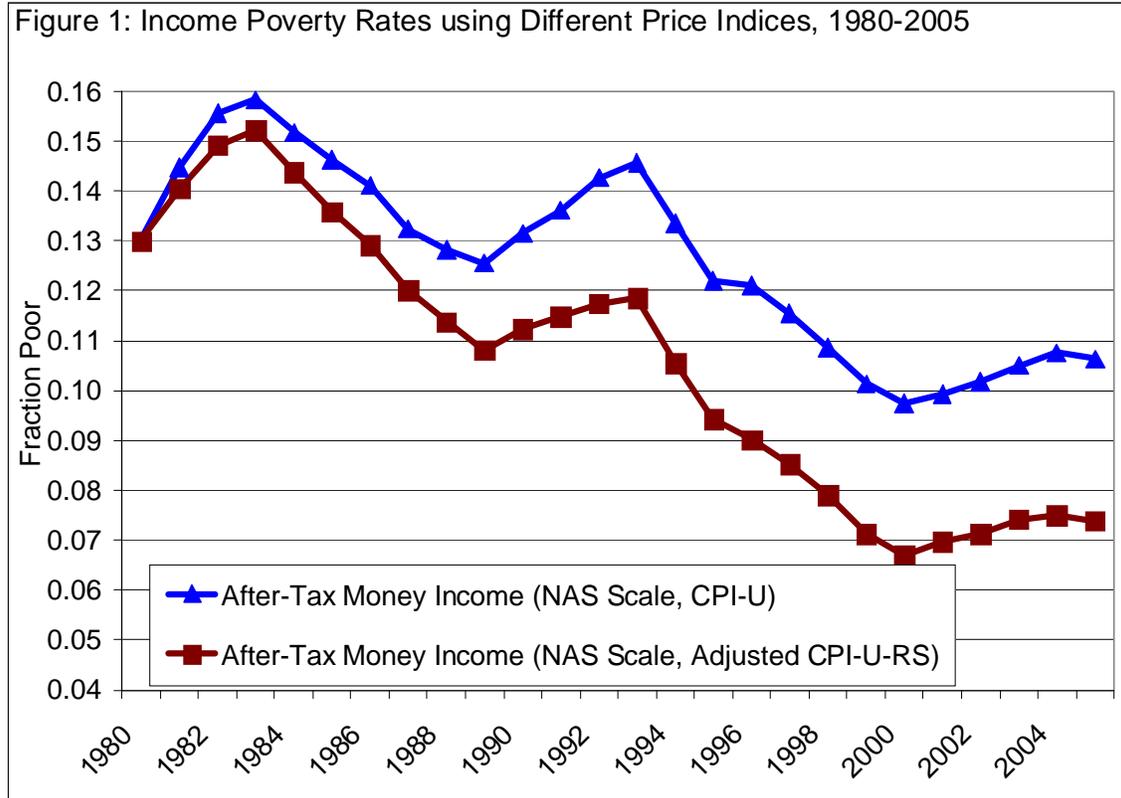
⁴ For summaries see Ernst R. Berndt, 2006, “The Boskin Commission Report After a Decade: After-life or Requiem?” *International Productivity Monitor* 12: 61-73; Robert J. Gordon, 2006, “The Boskin Commission Report: A Retrospective One Decade Later,” NBER Working Paper No. 12311; David S. Johnson, Stephen B. Reed and Kenneth J. Stewart, 2006, “Price Measurement in the United States: a Decade After the Boskin Report,” *Monthly Labor Review* 129:10-19.

⁵ Jerry Hausman, 2003, “Sources of Bias and Solutions to Bias in the Consumer Price Index,” *Journal of Economic Perspectives* 17(1):23-44.

⁶ Boskin et al. (1996), Section VI; Hausman (2003); and Gordon (2006), p. 13.

⁷ Berndt (2006) reports that when polled, the individual Boskin Committee members’ estimates for the bias remaining in 2000 was 0.73 to 0.9 percentage points per year. Also see Gordon (2006).

One can see in Figure 1 how important the inflation adjustment to the thresholds is for poverty measurement. Since 1980, after-tax poverty falls by more than an additional three percentage points when using a price index that accounts for the bias in the CPI-U.



Notes: Rates Anchored at 1980. In other words, the threshold in 1980 is equal to the value that yields a poverty rate equal to the official poverty rate in 1980 (13.0 percent). Income data are from the CPS-ASEC/ADF. All poverty rates are at the person level. Adjusted CPI-U-RS subtracts 0.8 percentage points from the CPI-U-RS per year.

Third, an absolute poverty measure avoids one layer of subjectivity that is inherent in a relative poverty measure. The choice between an absolute poverty standard and a relative poverty standard is a value judgment. Both approaches rely on thresholds that must be chosen subjectively. But, with an absolute poverty measure, once one chooses initial thresholds, the only adjustment over time is for inflation. With a relative poverty measure, there is an additional element of arbitrariness, in that one must choose how the thresholds change in real terms each year.

Relative poverty measures are in essence inequality measures. Some will argue that we should keep poverty and inequality separate because they are separate ideas. The Census Bureau already reports many inequality measures in a separate section of the same annual report that also includes the official poverty measure. These measures include percentiles

of the distribution, shares of income received by different parts of the income distribution, and summary measures including the Gini index.⁸

From the standpoint of understanding the material circumstances of the population, it is useful to know the share of people who are below an unchanging absolute standard, i.e. an absolute poverty measure. Such a measure is clear and easy to understand. A relative measure keeps adjusting the standard for overcoming poverty, making understanding what it captures much more difficult.

The most common type of relative poverty measures sets the thresholds as a given percentage of median income or consumption. Such a relative measure has some undesirable properties. The recent experience of Ireland with a relative poverty measure is instructive. Ireland grew rapidly in recent years with real growth in incomes throughout the distribution including the bottom. However, because the middle grew a bit faster than the bottom, a relative poverty measure shows an increase in poverty. Thus, we have a situation of nearly everyone being better off, but poverty nonetheless rising.⁹ Another troubling example is a recession during which median income or consumption falls. A relative poverty measure might very well say that poverty was reduced in such a situation, even when absolute deprivation rose. The choice between an absolute and a relative poverty measure is a question of judgment, unlike the decision about what to include in household resources and the price adjustment, which have a firm scientific basis.

Fourth, we should from time to time set new goals for poverty reduction. We are using the same measure that was devised almost fifty years ago. Though, as previously mentioned, despite how we officially describe the measure, the thresholds have risen in real terms because of CPI-bias. Nevertheless, we hope that a true absolute poverty rate would fall over time with economic growth and the success of anti-poverty programs. Thus, periodically we may want to raise the cutoff for an absolute poverty measure and set new poverty reduction goals. If thresholds are raised explicitly every decade or two, that is more transparent than a complicated annual adjustment.

Fifth, there are better measures of resources available for consumption than after-tax post-transfer income. Substantial evidence suggests that consumption data provide a better indicator of well-being than income for families with few resources. Consumption reflects lifetime income and wealth, and thus better captures the long-term prospects of a family than one year's income.¹⁰ Consumption is more likely to capture the effects of

⁸ U.S. Census Bureau, 2007, "Income, Poverty, and Health Insurance Coverage in the United States: 2006," *Current Population Reports*, Series P60-233, August.

⁹ Rebecca M. Blank, 2008, "Presidential Address: How to Improve Poverty Measurement in the United States," *Journal of Policy Analysis and Management*, 27(2): 233-254.

¹⁰ David M. Cutler and Lawrence F. Katz, 1991, "Macroeconomic Performance and the Disadvantaged," *Brookings Papers on Economic Activity* 2: 1-74; James M. Poterba, 1991, "Is the Gasoline Tax Regressive?" In *Tax Policy and the Economy* 5, ed. David Bradford, 145-164, Cambridge, MA: MIT Press; Daniel T. Slesnick, 1993, "Gaining Ground: Poverty in the Postwar United States," *Journal of Political*

saving and dissaving, the ownership of durable goods such as houses and cars, and access to credit. Consumption is also more likely to reflect private and government transfers.

Compared to available income data, available consumption data in the U. S. are better suited for imputing some non-money resources, particularly those related to housing and vehicle ownership, given the detail in the surveys.¹¹ Furthermore, one can exclude categories of consumption that may not directly increase well-being, such as work expenses and medical out-of-pocket expenses.

In work with James X. Sullivan, I found that consumption is a better predictor of well-being than income. For example, we examine measures of material hardship or adverse family outcomes for those with very low consumption or income. These problems are more severe for those with low consumption than for those with low income.¹²

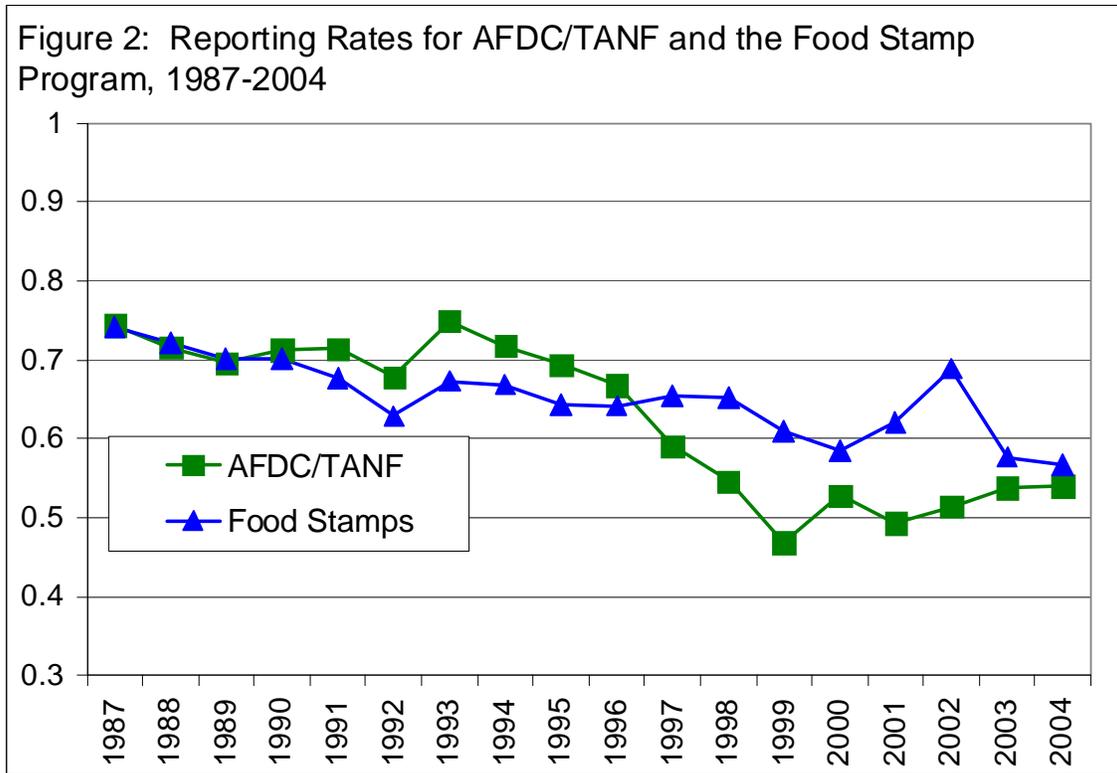
Consumption seems to be better measured than income for those with few resources. Under-reporting of transfer income is very pronounced and has increased over time. As can be seen in Figure 2, the share of AFDC/TANF dollars and Food Stamp dollars that are reported in the Current Population Survey (the official poverty source) is low and declining. While there is under-reporting of consumption, reported consumption tends to exceed reported income at the bottom of the distribution. As can be seen in Figure 3, which compares Consumer Expenditure Survey reported consumption to National Income Account consumption, a high share of food at home and rent plus utilities are reported in the survey.¹³ Other types of consumption are reported less well, including food eaten away from home and clothing. One can use as a poverty measure the consumption of food at home, housing including utilities, and transportation. This measure approximates necessities, and is measured well in the Consumer Expenditure Survey.

Economy 101(1): 1-38; Bruce D. Meyer and James X. Sullivan, 2003, "Measuring the Well-Being of the Poor Using Income and Consumption," *Journal of Human Resources* 38(S): 1180-1220; Bruce D. Meyer and James X. Sullivan, 2007, "Further Results on Measuring the Well-Being of the Poor Using Income and Consumption," NBER Working Paper 13413.

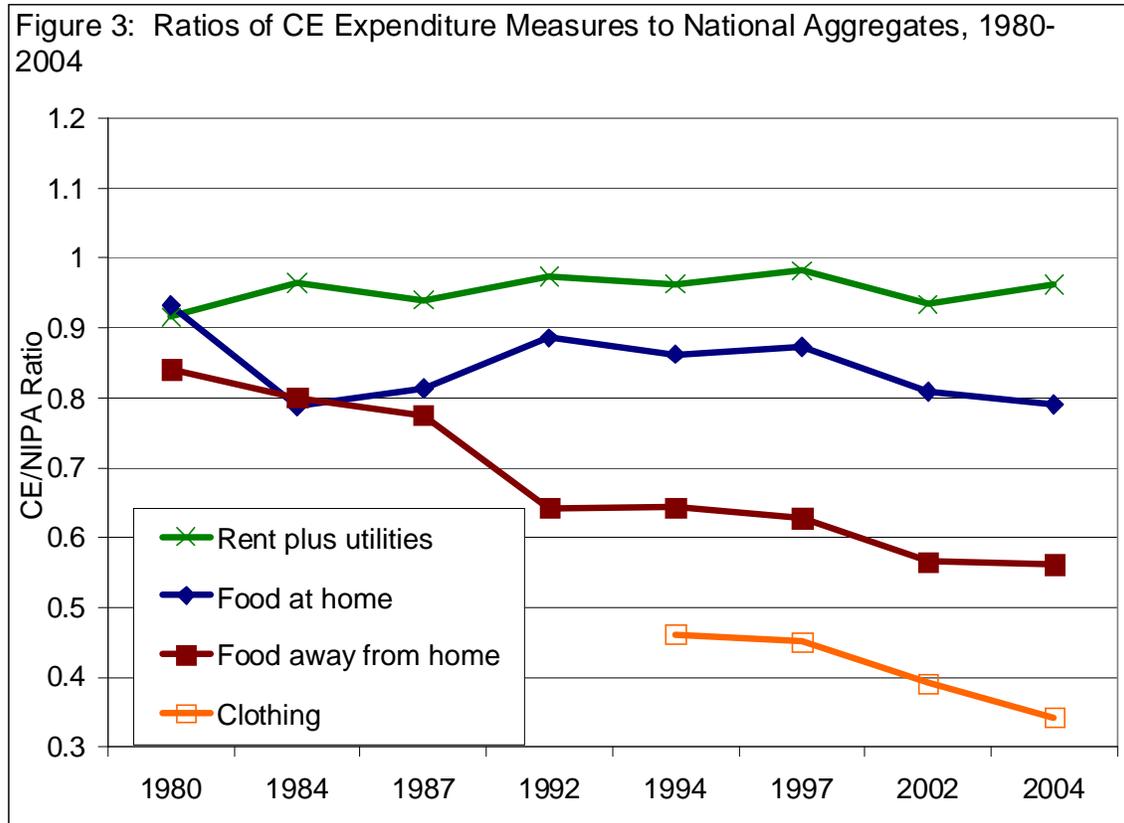
¹¹ For example, a reasonable estimate of housing subsidies can be computed using Consumer Expenditure (CE) Survey data because the survey provides information on out of pocket rent and the characteristics of the living unit including the total number of rooms, the number of bathrooms and bedrooms, and appliances such as a washer, dryer, etc. These characteristics can be used to impute a total rental value. In addition, for homeowners the CE Survey provides self reported values of the rental equivalent of the home. The data also include information on make, model and year of cars owned, allowing one to calculate the flow of consumption services from car ownership.

¹² Meyer and Sullivan (2003, 2007).

¹³ An important caveat is that a substantial part of the difference between the Consumer Expenditure Survey and the National Income and Product Accounts totals is likely attributable to lack of comparability between the two sources. See the discussion and references in Bruce D. Meyer and James X. Sullivan, 2008, "Three Decades of Consumption and Income Poverty," Working Paper, University of Chicago.



Notes: Reporting rates for each year are calculated as the ratio of the total weighted dollars reported for each program in the CPS-ASEC/ADF divided by the respective administrative aggregate. See Meyer, Mok, and Sullivan (2007) for sources and details.



Notes: Ratios are calculated as the weighted dollars spent on each expenditure category in the CE Interview Survey divided by the national aggregate for the respective category. National aggregates come from National Income and Product Account (NIPA) Table 2.5.5: Personal Consumption Expenditures by Type of Expenditure.

It should be evident from these figures that one needs to pay attention to the quality of data used in any poverty measure. While income data are easier to report for many people than consumption data, the poor often have many irregular sources of income that make reporting difficult. Income is also a more sensitive subject than consumption. Overall, a larger (dollar weighted) share of consumption questions are answered in the Consumer Expenditure Survey than income questions in the Current Population Survey ASEC. Lastly, the unit that shares resources is identified in the Consumer Expenditure Survey because it is asked directly. In the Current Population Survey there are no direct questions that allow you to determine if the resources of a cohabitor, for example, should be included. I should emphasize that current consumption datasets do not have the geographic coverage and sample size to measure poverty at the state and local level. Thus, consumption data cannot be used for poverty calculations at fine geographic detail without expanding data collection.

Sixth, what it means to be poor, when poverty is defined by the current official standard, has changed over time. This situation is true despite the official poverty rate in 1970 and 2005 being exactly the same, 12.6 percent.¹⁴ President Reagan famously quipped that we

¹⁴ U.S. Census Bureau (2007) p. 44.

fought a War on Poverty and poverty won. The former Chairman of this Committee said a dozen years ago that “Government has spent \$5.3 trillion on welfare since the war on poverty began, the most expensive war in the history of this country, and the Census Bureau tells us we have lost the war.”¹⁵ There are plenty of statistics that disagree with these statements, but our official poverty measure is not one of them.

The official poor of today are much better off than the poor of thirty years ago. But, this change is largely due to poverty thresholds that have risen in real terms over time, thus including additional, better-off families. In 1972, 54 percent of the officially poor owned a car, compared to 70 percent today.¹⁶ In 1972, 6 percent of the poor had central air conditioning, while now 38 percent do. For single mothers we have seen rates of leaky roofs and deficient plumbing fall sharply.¹⁷ Since 1980, the fraction of the poor having a dishwasher has risen from 18 percent to 31 percent. Similar increases have occurred in the ownership of washers, dryers and other appliances as can be seen in Table 1.

¹⁵ House Ways and Means Committee Chairman Bill Archer’s opening comments in the debate on the bill that became the 1996 welfare reform law (Congressional Record, 104th Cong., 1st sess., March 21, 1995).

¹⁶ Author’s tabulations using Consumer Expenditure Survey data for 1972/1973 and 2000-2005.

¹⁷ Bruce D. Meyer and James X. Sullivan, Forthcoming, “Changes in the Consumption, Income, and Well-Being of Single Mother Headed Families,” *American Economic Review*.

Table 1: Homeownership, Car Ownership, and Characteristics of the Living Unit for Individuals in Poverty

	1972- 1973	1980- 1989	1990- 1999	2000- 2005
	(1)	(2)	(3)	(4)
Homeownership	0.364	0.398	0.363	0.385
Car ownership	0.535	0.627	0.667	0.695
Number of rooms	4.801	5.210	5.059	5.080
Number of bedrooms		2.532	2.508	2.568
Number of bathrooms		1.464	1.216	1.315
Appliances				
Stove		0.976	0.970	0.962
Microwave		0.271	0.642	0.847
Refrigerator		0.985	0.983	0.984
Freezer		0.295	0.254	0.232
Disposal		0.157	0.219	0.267
Dishwasher		0.184	0.229	0.308
Window air conditioning	0.146	0.220	0.253	0.283
Central air conditioning	0.055	0.154	0.257	0.383
Washer		0.595	0.595	0.639
Dryer		0.390	0.456	0.546
Television		0.614	0.920	0.957
Computer		0.041	0.136	0.380
Stereo		0.290	0.490	0.625
VCR		0.254	0.575	0.762

Notes: Data are from the CE Survey, 1972-2005. Sample includes all individuals living in poor families using the official poverty definition. Incomplete income reporters are excluded. Column (2) does not include data from 1982-1984 due lack of data availability.

Looking at a wide range of indicators of children's living conditions including housing conditions, air conditioning, access to a telephone and doctor visits over a slightly earlier period, Jencks, Mayer and Swingle conclude that:

Almost all our measures suggest that low-income children's living conditions improved fairly steadily between 1969 and 1999. . . [O]fficial child poverty statistics do not currently provide reliable information about trends in material hardship among American children.¹⁸

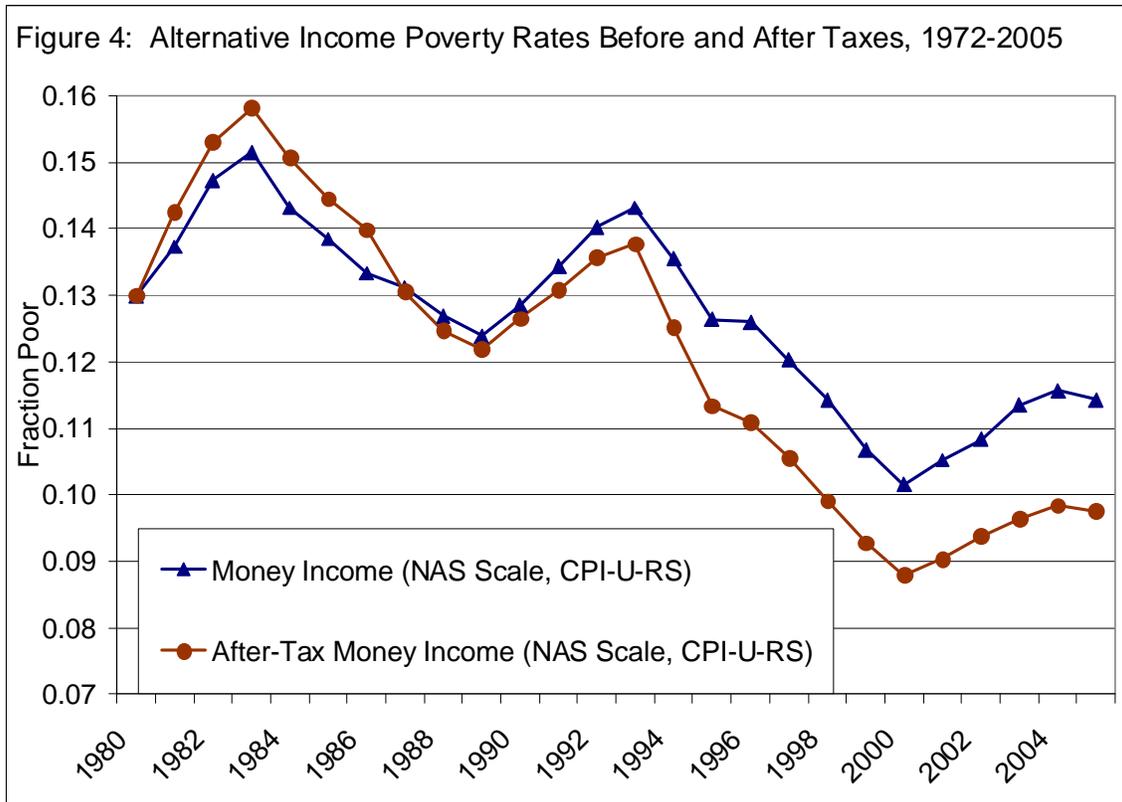
¹⁸ Christopher Jencks, Susan Mayer, and Joseph Swingle, 2004, "Can we Fix the Federal Poverty Measure So it Provides Reliable Information About Changes in Children's Living Conditions?" Working Paper. Harvard University.

There still are millions of people suffering material deprivation including millions of children whose long-term prospects are affected. But, if we are going to improve on our current policies to address poverty, we may want to recognize that the nature of poverty has changed over time. Forty years ago, one of the main food policy issues was making sure large numbers of people received sufficient calories. Now, the main health issue is making sure large numbers of people receive the right calories and not too much of the wrong kind.

Seventh and last, in understanding poverty and policy, it matters whether or not you use a better measure of poverty. In pointing out how poverty measures affect our understanding, I will focus on changes in poverty over time. We can discuss how including or excluding various things from resources will raise or lower the current rate. But, as others have emphasized, when one adds or subtracts something from resources, it may call for a similar adjustment to the thresholds. The thresholds are fundamentally subjective, one might even say arbitrary. What is more informative is how the exclusion or inclusion of something from resources affects changes over time in poverty rates. To facilitate such comparisons, I would urge any change to our current official measure to adjust thresholds so that the poverty rate is the same as the current official rate in some base year, probably the year of adoption. We can think of the differences reported here as looking at what would have happened if we adopted a different measure in 1980 and set thresholds to make the poverty rate the same in that initial year. This approach to assessing alternative poverty measures was also adopted by the Joint Economic Committee Democrats in a recent report.¹⁹

The effects of tax policy on poverty are evident in Figure 4, which compares the pre-tax and post-tax poverty rate over the last 30 years. One can see that the 1981 and 1982 tax acts were not particularly favorable to the poor. One can see that the 1986 tax act and the 1990 and 1993 budget agreements reduced poverty. It is also relatively easy to see the effects of the EITC on poverty in this figure. EITC changes were the main tax provisions affecting the poor in 1986, and the later expansions were the bulk of the tax changes in the 1990 and 1993 budget agreements (each of which was phased in over several years).

¹⁹ Joint Economic Committee Democrats, 2004, "Reduction in Poverty Significantly Greater in the 1990s than Official Estimates Suggest," Economic Policy Brief, August.



Notes: Data are from the CPS-ASEC/ADF. Rates Anchored at 1980. In other words, the threshold in 1980 is equal to the value that yields a poverty rate equal to the official poverty rate in 1980 (13.0 percent). The thresholds in 1980 are then adjusted over time using the CPI-U-RS. All poverty rates are at the person level. After-tax Money Income includes taxes and credits (calculated using the NBER's TAXSIM program).

The extent of progress against poverty for various population groups is different when one measures poverty with income compared to when one uses a more appropriate consumption measure. Looking at Table 2, one can see that using a poverty measure that directly reflects what households are able to consume shows that poverty rates have declined sharply since 1980 for single parent families and families with a head that is 65 or older. On the other hand, progress against poverty has been less successful for married couples with children. This type of information is essential in understanding the effects of anti-poverty policies and designing better policies for the poor.

Table 2: Consumption and Income Poverty by Demographic Group, 1980-2005

Year	Official Income Poverty	After-Tax Income + Noncash Benefits	Consumption
	(1)	(2)	(3)
Single Parent Families			
1980	0.438	0.390	0.378
1990	0.438	0.398	0.336
2000	0.324	0.261	0.232
2005	0.344	0.276	0.211
Change: 1980-2005	-0.094	-0.114	-0.167
Married Parent Families			
1980	0.087	0.104	0.106
1990	0.094	0.109	0.119
2000	0.072	0.065	0.101
2005	0.079	0.061	0.086
Change: 1980-2005	-0.008	-0.044	-0.019
Head 65 and Over			
1980	0.157	0.124	0.147
1990	0.121	0.090	0.090
2000	0.101	0.072	0.052
2005	0.104	0.076	0.056
Change: 1980-2005	-0.053	-0.049	-0.091

Notes: All poverty rates are at the person level. Consumption data are from the CE Survey and income data are from the CPS-ASEC/ADF. For each series, except official income poverty, the threshold is anchored in 1980 for the full sample, rather than for each demographic group, and is adjusted for differences in family size using the NAS recommend equivalence scale, and for inflation using the CPI-U-RS. After-tax Income + Noncash Benefits includes all money income, taxes and credits, food stamps, and CPS-imputed measures of housing and school lunch subsidies, the fungible value of Medicaid and Medicare, and the net return on home equity.

I am hopeful that we will officially report multiple poverty measures not tied to program eligibility, including consumption measures and income measures that incorporate in-kind transfers and taxes. Absolute poverty measures are an important part of this package, with thresholds periodically, but infrequently revised. Such poverty measures would insure that better information is widely available to assess the operation of the economy and design policies for the poor.

Thank you.