

**Who is Better Off Than We Thought?
Evaluating Poverty with a Different Measure**

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Background

In 1995 the National Academy of Sciences (NAS) Panel on Poverty and Family Assistance released a report describing their comprehensive examination of poverty measurement in the United States. This panel of scholars published their findings in a report titled *Measuring Poverty: A New Approach*². Included in their report were recommendations for improving the official poverty measure, along with examples of how to implement the recommendations. This report was influenced by earlier research by Patricia Ruggles. In her book, *Drawing the Line*³, Ruggles focused on alternative concepts of poverty and methods for measuring poverty; she also proposed methods to update and revise the poverty threshold and resource definitions.

In general, the NAS panel proposed eight broad sets of recommendations which focus on the following: (1) adopting a new poverty measure; (2) setting and updating the poverty threshold; (3) adjusting the threshold; (4) defining family resources; (5) identifying needed data; (6) highlighting other issues related to poverty measurement; (7) relating poverty measurement to assistance programs; and (8) linking states' needs to the Panel's proposed measure. The basic criteria for developing the poverty measure is that it should be understandable and broadly acceptable to the public, statistically defensible, internally consistent, and operationally feasible.

Census Bureau Report

In response to the panel's report and recommendations, the Census Bureau released a report in 1999.⁴ This report presented several variations of alternative methods of measuring who is poor based on the recommendations of the NAS panel. The work in

² Citro and Michael, 1995

³ Ruggles, 1990.

the Census Bureau report relied heavily on studies done in the early 1980s at the Census Bureau by Timothy Smeeding.⁵ Since that time, the Census Bureau has routinely calculated poverty rates based on different definitions of income, which include the effect of non-cash benefits and taxes. The recent *Experimental Poverty Measures* report differs from this previous work because it presents new poverty thresholds, as recommended by the NAS panel, which are constructed to be consistent with a more comprehensive measure of family income, or resources. The earlier work provided insights into the relative importance of non-cash benefits and taxes in poverty measures but were not conceptually consistent measures of poverty. All of the estimates presented in this paper and the Census Bureau report on experimental poverty measures are based on data from the March Current Population Survey (CPS).

Experimental Poverty Measures 1998

The Census Bureau report presented six experimental poverty measures. This paper builds on the work by presenting four of those measures and one additional measure, each in turn. Those measures are contrasted with the current official poverty measure, which indicates that 12.7 percent of all people had income below the official poverty threshold in 1998.

The NAS Measure

The first experimental measure shown is referred to as the NAS measure. It is calculated in a manner most similar to the measure described in the NAS panel's report. While there are a few minor differences from the measure that the panel recommended,

⁴ Short et al., 1999.

⁵ U.S. Census Bureau, 1982.

they are computational rather than conceptual in nature. More precisely, this measure is constructed in the following way:

Thresholds:

- Thresholds are set at the midpoints of the ranges recommended by the NAS panel – averaged over the three most recent years – e.g. data for 1995, 1996, and 1997 are averaged for the 1997 threshold, updated to 1998 using CPI-U.
- The equivalence scale is a two-parameter version
- Geographic indexes are those listed in the NAS panel report

Resources:

- Include the value of food assistance programs (food stamps and school lunches)
- Include the value of housing subsidies
- Include the value of energy assistance (only heating assistance)
- Subtract work-related and child care expenses using the panel's child care model
- Take account of taxes as modeled in the CPS
- Subtract medical out-of-pocket expenses (MOOP), modeled and calibrated to spending totals

The estimated poverty rate using this NAS measure is 14.4 percent in 1998, as shown in

Table 1.

Changing the valuation of child care expenses

The next measure is calculated exactly as the NAS measure but uses a different method for valuing child care expenses. The method for valuing child care expenses in the NAS measure is based on the method followed in the panel's report -- to subtract these costs from the income of families in which all resident parents work. Because the March CPS does not ask about actual child care expenses, the panel used a model to impute whether or not a family incurred child care expenses and, if so, the amount spent. The two-step method was estimated using SIPP data.

The method for valuing child care costs in our second measure imputes the incidence of child care expenses, as in the method above, but then subtracts a flat amount from resources based on deduction guidelines from the Food Stamp program and the

former Aid to Families with Dependent Children (AFDC) program for child care expenses. These programs have permitted parents to deduct from countable income some out-of-pocket spending for child care deemed necessary for the parent to work or participate in training. To take account of changing costs over time, these estimates are updated for inflation using the Consumer Price Index for all items (CPI-U). Accounting for child care expenses in this way gives a measure that is referred to here as the “Different Child Care Method 2” (DCM2), with all else the same as the NAS measure. This measure yields a poverty rate of 14.5 percent in 1998 (see **Table 1**.)

Changing equivalence scales

The NAS panel’s choice of a two-parameter scale was an attempt to be consistent with the cost-of-raising-children literature and to smooth out increases in the scale for larger family sizes. Recent research suggests an alternative three-parameter scale might be more appropriate for childless families.⁶ This scale attempts to reconcile differences between singles and childless couples, single-parent and two-parent families, and the cost-of-raising-children literature.

The three-parameter scale shown here allows for the first child in a single-adult family to increase the scale by more than the first child in a two-adult family. It also restricts the relationship between two-adult and one-adult families so that the scale for the two-adult family is 41 percent more than the scale for the single adult family. This implies a ratio of economies of scale for these two groups that is between those implied by the current official measure, 29 percent more, and that of the panel’s lower bound, 57 percent more.

⁶ Betson, 1996

The third measure presented here, then, uses the second method of valuing child care expenses and the three-parameter equivalence scale, with all else the same as the NAS measure. It is referred to as the “Different Equivalence Scale – Different Child Care Method 2” (DES-DCM2) measure. Using this measure gives us a poverty rate of 15.2 percent for 1998. Thus, using a different equivalence scale raises the poverty rate by 0.7 percentage points.

Geographic Differences in Housing Costs

To account for geographic cost of living differences in poverty thresholds, the NAS panel used a set of indexes based on housing values and monthly rents as reported in the 1990 Census. The procedure takes account of geographic differences in housing costs, but not differences in other costs, and even for housing costs it assigns index values to people in some areas that are in error.⁷ Because of limitations of the available data, the panel recommended additional research to determine a method for updating measures of housing costs more frequently than every 10 years using decennial census data.

As shown in the NAS report, the important effect of the geographic adjustments is that there are fewer poor in areas of relatively low living costs and more poor in areas of relatively high living cost. This then lowers estimates of poverty rates in the South and the Midwest, and increases them in the Northeast and the West. Overall, poverty rates using an experimental measure without the geographic adjustment tend to be slightly higher. The measure implemented here, referred to as the “Different Equivalence Scale – Different Child Care Method 2 – No Geographic Adjustment” (DES-DCM2-NGA), yields a poverty rate of 15.4 percent in 1998.

Medical Out-of-Pocket Spending (MOOP)

The panel's recommendations on handling the need for medical care have inspired more debate than any other element in its report. Their recommendations also raised issues of implementation. Their treatment of medical needs used rather complex statistical methods to assign amounts to each family. Their estimate of the impact of MOOP on poverty rates was relatively large, as is the Census Bureau's.⁸

The method that the panel used to value these expenses in a poverty measure using survey data such as the CPS is somewhat complex. Data from the 1987 National Medical Expenditure Survey (NMES) were used to develop a model that assigned the occurrence of such expenditures and the amount spent. Once these amounts were assigned to families, then the aggregate amount assigned across all families were adjusted to match benchmarks developed from the Health Care Financing Administration's National Health Accounts.⁹ Note that this step introduces some inconsistency in a complete poverty measure in that no other element described so far is adjusted to match independent aggregate estimates. That is, other elements in the panel's proposed poverty measures suffer from non-sampling error, such as underreporting of benefits, they are nevertheless unadjusted in the measures reported here, as they are in the official measure. The result of this inconsistent treatment may be an overstatement of the effect of MOOP on poverty rates.

In light of both the conceptual and practical issues raised by the panel's proposal for handling medical needs, an alternative treatment might be to include medical out-of-

⁷ Citro and Michael, 1995, p. 199.

⁸ Betson et al. 1997c. Other research (Doyle, 1997) has shown the marginal impact of MOOP to be less, though methods underlying these estimates differ.

⁹ See Betson, 1995b.

pocket needs to the thresholds rather than subtracting MOOP from income.¹⁰ Thus, the threshold for the reference family would include medical out-of-pocket spending along with spending on the basic bundle of food, clothing, shelter, and utilities. This threshold could be applied to different family types based on health care spending patterns as observed in the Consumer Expenditure Survey (CE) or the NMES which would result in different threshold amounts based on size of family, age of family members, and health insurance coverage status.

The NAS panel did not pursue this alternative because it would require a much larger number of thresholds to reflect different levels of medical care need.¹¹ They argued that medical care needs differ from the need for food or housing in that not every family requires medical care in a given year, but when they do, the associated costs may be extraordinarily large. Assigning an average or median expenditure to incorporate medical care needs in the thresholds may overestimate the costs for many families and underestimate the cost for a few families. The panel concluded that it would be impossible to capture the actual variation of medical needs by variations in the thresholds and that this could lead to what the panel termed “erroneous poverty classification.” For these reasons we use only the panel’s recommended method in the experimental measures shown, but encourage additional research in this area.

Due to the difficulty surrounding this particular element in the measure of poverty, a measure is presented here that includes all of the other elements, but does not account for medical out-of-pocket spending. It is very important to note here that this measure is not truly a plausible measure of poverty. In essence, when MOOP is not

¹⁰ See Bavier, 1998, and a summary of Marilyn Moon’s proposal in Citro and Michael, p. 236.

¹¹ Citro and Michael, 1995, pp. 223-237.

subtracted from income, it assumes that all out-of-pocket health-care spending is discretionary. That is, that money spent for prescription medicines, for health insurance premiums, co-payments for visits to doctors or dental visits, are not considered to be ‘necessary’ expenses. If one considers expenses for health care to be ‘necessary’ in some basic sense, then this measure does not achieve consistency between the resource and threshold measures. While this analysis is informative and relevant to our understanding of the elements in a poverty measure, it should not be considered to be a technically sound indicator of who is poor.

Nevertheless, this measure is calculated and presented here for illustrative purposes, primarily to show the effect of medical care costs in an experimental poverty measure. This is done by showing similar measures with and without the subtraction of MOOP from income. Specifically, the measure used to illustrate the effect of medical care expenses could be referred to as, DES-DCM2-NGA+MOOP, but instead it is more simply referred to as the NOMOOP measure, to indicate that no medical out-of-pocket expenses are subtracted from income. When calculated, this measure shows that the percent of persons with NOMOOP incomes below the poverty threshold for 1998 is 11.4 percent. This indicates that, not surprisingly, poverty rates are lower when medical expenses are not subtracted from family’s incomes. If the thresholds were increased to account for expenditures on necessary medical care, the poverty rate would be higher.

Experimental Poverty Rates among Demographic Subgroups

Using the poverty measures described above, this section more closely examines the differential incidence of poverty for various socioeconomic and demographic subgroups. First, poverty rates for many of the subgroups listed in the Census Bureau

report are estimated, but updated for 1998. Then, more detailed crosstabulations are analyzed; these include age groups by race and ethnicity and family types by race and ethnicity. These are among the subgroups which tend to show more variation across categories when using various experimental poverty measures versus the official measure, as will be shown shortly.

It should be noted that these 1998 experimental poverty estimates are based on an experimental threshold that is derived from CE data for 1997, but has been updated to 1998 using the CPI-U. Poverty rates based on thresholds for 1998 derived from CE data can be found elsewhere.¹²

Table 2 shows poverty rates under various experimental poverty measures for various demographic groups. The effect of every single element in the experimental measures, such as food stamps and the new thresholds-- are not discussed here; the interested reader should refer to Short, et al. (1999) for more details on all these elements. Rather, the focus here is on: 1) the collective impact of expenses and non-cash transfers when we contrast the experimental measures with the official measure, and 2) the effect of four specific elements -- MOOP, geographic adjustments to thresholds, equivalence scales, and, to a lesser extent, child care expenses -- on experimental poverty measures. These are elements that have yet to achieve broader consensus on their measurement and implementation, and they are highlighted in each of the experimental measures shown in the table.

The report on *Experimental Poverty Measures* presented poverty rates that were standardized. Standardized measures are measures that are benchmarked to the official poverty rate for all persons. To do this, the thresholds are adjusted by a factor in order to

match the poverty rate for the total population. This calculation essentially holds the level of poverty constant to more easily see the differential incidence of poverty on various subgroups. In this paper, poverty rates are shown without standardization, though, it should be noted that the level of poverty is not as important in our estimation as the relative incidence of poverty among different groups.

Among different age groups, results indicate that moving to the NAS experimental poverty measure from the official measure would increase poverty rates more for the elderly than for others. Child poverty rates remain stable at nearly 19 percent. The adult poverty rate increases modestly from 10.5 with the official measure to 12.1 under the NAS measure. In contrast, the poverty rate for people 65-74 years rises from 9.1 to 13.4 percent, and among people 75+ it rises from 12.2 all the way to 19.1 percent—a rate similar to that found among children. As Iceland et al. (1999) discuss in more detail, some of these differences result from the additional in-kind benefits that families with children tend to receive and which are accounted for in the experimental measures. Yet the more important reason for the rise in poverty among the elderly when using the NAS measure becomes quite apparent when one looks at the NOMOOP measure, which basically highlights the impact of medical care expenses on poverty. When medical care expenses are *not* subtracted from income, poverty rates fall by about half among both elderly age groups. The impact of this subtraction from income on poverty among children and working age adults, while significant, is not nearly so large.

Average family amounts added and subtracted from income to move from the official to the experimental measures are shown in **Table 3** for some subgroups. In that

¹² Short, Iceland, and Garner, 1999.

table one sees the higher average benefits received, including tax credits, and the lower MOOP amounts for children relative to the elderly.

Another important element that affects the interpretation of the incidence of poverty is the way that differences in family size and composition are adjusted, as shown by comparing the DES-DCM2 measure to the DCM2 measure. The differences reflect the choice of equivalence scales. The two-parameter scale used in the NAS and DCM2 measures tends to produce slightly lower poverty thresholds for single persons than either the official or the three-parameter scale, while it yields slightly higher poverty thresholds for two-adult families. On the other hand, the three-parameter scale yields higher thresholds for two-person families that consist of one adult and one child. Therefore, the three-parameter scale contained in the DES-DCM2 measure tends to increase poverty mostly for single-person families, and to a lesser extent three-person families, while it actually tends to decrease poverty rates for 6 and 7+ person families.¹³

Experimental poverty rates also differ by race and ethnicity. NAS poverty rates are higher than official poverty rates for Non-Hispanic Whites, Hispanics, and persons of 'other' races, though lower for African Americans. The rates tend to be lower for African Americans due to a combination of factors, including higher receipt of some near-cash transfers and slightly lower work-related expenses and taxes paid. Mean amounts of MOOP spending are also somewhat lower for Blacks due to their higher participation in Medicaid than other groups. Differences in average amounts of these elements are shown in **Table 3** by race and Hispanic origin.

Accounting for non-cash transfers also affects the incidence of poverty by family type. When poverty rates by family type are examined, one sees increases moving from

the official to the NAS measure among persons in married-couple and male-householder (unmarried) families, and little change among female-householder families and unrelated individuals. Married-couple and male-headed families tend to receive less near-cash transfer income and have higher work-related expenses than the other family types (see **Table 3** for average amounts). Also of note, using a three-parameter scale tends to increase poverty rates among the single-parent family types and unrelated individuals, while having little impact on married-couple families, largely because the latter type of families tend to be bigger. And as discussed above, the three-parameter equivalence scale tends to increase poverty rates for smaller (especially one- and three-person) families.

As expected, geographic adjustments affect poverty rates by region and by metropolitan/non-metropolitan status. As highlighted by the change in the poverty rates between the DES-DCM2 and DES-DCM2-NGA measures, *including* geographic adjustments (as represented in the former measure) tends to increase poverty estimates in the Northeast in West, and decrease poverty rates in the Midwest and South. Likewise, geographic adjustments increase geographically-adjusted poverty rates in central cities, and to a less extent in the suburbs, while decreasing such poverty rates in nonmetropolitan areas.

Table 2 also shows that moving from the official poverty measure to the NAS measure tends to decrease poverty rates among the disabled, largely because of their lower work-related expenses. When poverty rates by citizenship status are examined, one finds that moving from the official measure to the NAS measure tends to raise poverty rates for naturalized citizens and non-citizens more so than among the native-born. This is due to a combination of factors including lower likelihood of receipt of some near-cash

¹³ Johnson, Shipp, and Garner, 1997.

transfers, and higher work-related expenses for non-citizens, and to a lesser extent naturalized citizens.

Table 4 more closely examines the interaction between race and age on estimated poverty rates. If one compares the NAS rates to the official ones across the age groups, one of the most prominent findings is that overall African American NAS poverty rates tend to be lower (as discussed in **Table 2**) mostly because such rates are lower among *children*. For example, the NAS poverty rate for African American children is 32.9 percent, lower than the 36.4 percent figure for this group according to the official measure. In contrast, the NAS poverty rate for 18-64 year olds is 20.5 percent, close in magnitude to the 20.2 percent figure for this group according to the official measure. The NAS poverty rates for elderly African Americans are considerably higher than official rates, mostly due to high medical care expenses incurred by the elderly of all racial/ethnic groups listed in the table.

Basically, the lower African American NAS poverty rates are due to higher receipt of near-cash transfers such as Food Stamps and subsidized school lunches and tax breaks —programs targeted to help low-income children. Benefits from these programs are taken into account in the NAS measure, but not in the official poverty measure.

African Americans are more likely to qualify for such programs because of lower overall income. Experimental poverty rates for Hispanic children are not as affected by these different measures due to somewhat lower benefits received on average (see **Table 3**).

Latino families, though their earnings are often low, also tend to have high work-related

expenses and pay more taxes on average than Blacks. They also have higher MOOP expenses due to their greater probability of being uninsured.¹⁴

Another interesting pattern in **Table 4** that was not as evident in **Table 2** is the particularly high impact of medical care expenses on the white elderly poverty rates. This effect is highlighted when the NOMOOP poverty rates in the final column are compared to the DES-DCM2-NGA poverty rates. For example, poverty rates among whites aged 65-74 more than doubles from 5.4 percent to 11.5 percent when MOOP expenses are taken into account. Likewise, poverty rates go from 8.5 percent to 18.5 percent among whites 75+ years old. The increases in poverty rates among other groups are also large when MOOP is taken into account, sometimes larger in absolute percentage points than the change in the white elderly poverty rate; yet the percent increase is persistently higher among the white elderly than others. This pattern is due to medical spending patterns among the elderly reported in the NMESurvey, which are used to model MOOP expenses using CPS data. Taking account of MOOP expenses in experimental poverty measures is still an area that requires further research.

Table 5 shows poverty rates by family type and race/ethnicity. Like the last table, the results here show that the lack of increase in poverty among African Americans when moving from the official to the NAS measure is concentrated in subgroups of the population. In particular, the poverty rate among African American single-parent families and individuals declines when using the NAS measure. This again is indicative that among these family types receipt of near-cash transfers outweighs work-related and other expenses incurred—transfers and expenses not taken into account in the official poverty measure. Yet this pattern is not prevalent for most single-parent families and individuals

¹⁴ Campbell, 1999.

of other racial/ethnic groups, whose poverty rates are equal to or higher when using the NAS measure versus the official measure.

The different racial/ethnic patterns among single-parent families and individuals is partly due to the combination of higher receipt of non-cash transfers and lower work-related expenses among African Americans, but also due in part to the geographic adjustments to thresholds. When comparing DES-DCM2-NGA (no geographic adjustment) poverty rates to the DES-DCM2, which contain the adjustments, poverty rates among African American families tend to be higher (i.e., without the adjustments), mainly because many African Americans live in lower-cost areas in the South and Midwest. The racial/ethnic differences across family types tend to narrow *without* the geographic adjustments.

Among African Americans in married-couple families, the increase in poverty when using the experimental versus the official measure more closely parallels the experience of other racial/ethnic groups in married-couple families. These types of families, regardless of race/ethnicity, are more likely to have higher work-related expenses and are less likely to receive near-cash transfers. In sum, findings here, in support of those in **Table 4**, indicate that, not unexpectedly, African American experimental poverty rates are lower than their official poverty rates mainly due to lower experimental poverty rates among young, single-parent families and their children, with other factors also playing small roles.

Table 6 shows poverty rates by age and family type. Among children, NAS poverty rates tend to be less than or equal to official poverty rates for the different family types except those in married-couple families, whose poverty rates are higher under the

NAS measure. This is because, as mentioned earlier, married-couple families tend to receive fewer near-cash transfers and have more work-related expenses and more taxes than other family types.

Among adults 18-64, those in married-couple and male-headed families tend to have large percent increases in poverty when moving from the official to the NAS measure, again largely because such families tend to have high work-related expenses and taxes and less receipt of near-cash transfers.

Among the elderly, most family types tend to have large increases in poverty when using the NAS measure versus the official measure, largely due to high MOOP expenses (as shown in the NOMOOP measure). The table also shows that the choice of equivalence scale affects experimental poverty rates. Specifically, elderly unrelated individuals experience increases in their estimated poverty when using the three-parameter (DES-DCM2 measure) versus the two-parameter scale (DCM2 measure). As discussed earlier, the three-parameter scale tends to increase poverty thresholds for one-person families relative to two-person families. Elderly unrelated individuals are more likely to be women, resulting in larger estimated DES-DCM2 poverty rates for such women.

Poverty Gaps

The previous section reports the prevalence of poverty under different poverty measures. The poverty rate is also referred to as a head-count ratio. While the head-count ratio tells us the proportion of a population that is poor, it does not give us information about the depth of poverty in that population. Calculating the mean income deficit, or

average poverty gap, tells us about the shortfall of income relative to the poverty threshold, and thus the depth of poverty for various people.

Table 7 lists mean income deficits, or poverty gaps, under the official measure and under the experimental measures. These income deficits are calculated by determining who is poor under the given measure, and for those individuals, subtracting their family income from their relevant poverty threshold. When incomes are negative, the deficit is set equal to the poverty threshold, suggesting that no deficit exceeds the measure of need for the basic bundle of goods.

In official Census Bureau publications, income deficits are calculated separately for families and for unrelated individuals. The first two lines show these calculations for these two groups under the three measures. The third line combines family heads and individuals for simplicity, and the remaining averages for subgroups are based on this combined group, by characteristic of the family head or the unrelated individual.

This table indicates that, while the prevalence of poverty may be higher under the experimental measures relative to the official measure, the poverty gaps are lower than the official measure for all experimental measures. This result holds for all groups shown here, except two (discussed below). While the differences between the income deficits are larger or smaller for different groups, in general, the family incomes of poor individuals are closer to the poverty line under the experimental measures than under the official measure. Thus, subtracting taxes and other necessary expenses from income does move people across the poverty line and into poverty, though, on average, they are not being moved too far below that line.

There are two exceptions: the elderly and those living in the Northeast region of the country. As shown, the elderly demonstrate higher mean income deficits under all experimental measures relative to the official measure. While the large MOOP expenses attributed to the elderly in the NAS measure contribute greatly to these higher figures, there is an additional factor in the NOMOOP measure that increases, though very slightly, the distance between elderly thresholds and their incomes. Recall that the official poverty thresholds are specified to be lower for the elderly than the non-elderly. The experimental thresholds are slightly lower than the official threshold for elderly unrelated individuals but higher for two elderly adults. It is evident that, along with the subtraction of taxes and non-MOOP necessary expenses, equivalence scale adjustments contribute somewhat to larger mean income deficits among the elderly using the experimental measure than the official measure.

The small increase in average income deficit for those residing in the Northeast region is attributable to the geographic adjustments for housing costs in the NAS, DCM2, DES-DCM2 measures but not in the official, DES-DCM2-NGA, or the NOMOOP measures.

Income-to-Poverty Thresholds Ratios

Another gauge of the relative distance of the poor from the poverty level is the proportion below specified fractions of their respective poverty thresholds. This paper examines income-to-poverty threshold ratios under the various measures and does so across the entire income distribution. This exercise illustrates not only the difference in distribution below the poverty line, but across all income levels as well as the definition of family resources changes.

Table 8 shows estimates of income-to-poverty threshold ratios under the official and experimental measures. It can be seen that accounting for taxes and transfers in the income measure results in greater percentages of individuals in the middle-income ranges. This is mainly the result of the redistributive effect of taxes and transfers which are included in the experimental measures.

Comparing first the official versus the NAS measure shows that a slightly higher percentage of all people – 5.4 versus 5.1 percent – are in extreme poverty (below one-half of the relevant poverty threshold) using the experimental measure compared to the official measure. However, while that NAS measure yields a higher percentage of people below the poverty line than the official measure yields, more of those individuals are above one-half the relevant poverty threshold than are found using the official measure -- 63 percent using NAS versus 60 percent using the official measure. This is as expected from the calculation of poverty gaps and results from the addition of in-kind transfers to family incomes in the experimental measures.

The table also shows that for some groups, the percent of people in extreme poverty is considerably lower using the experimental measures than is found under the official measure. **Table 8** shows that children, Blacks, and Hispanics are less likely to be classified as below 50 percent of the poverty line using the experimental measures than would be calculated using the official measure. The percent of children in extreme poverty as reported in the official poverty report for 1998 was 8.1 percent. Under the NAS measure that falls to 6.1 percent.

For other groups, of course, there is a higher percentage classified in extreme poverty under the experimental measure. Most notable are the elderly, 2.3 percent of

whom are in this category under the official measure. Under the NAS measure this rises to 7.0 percent. This is due to the subtraction of MOOP expenses, as the proportion of the elderly who are extremely poor under the NOMOOP measure does not differ from the proportion under the official measure.

Experimental Poverty Rates from 1990 to 1998

Having examined differences in the distribution of poverty populations and the depth of poverty under different measures in a given year, 1998, trends in poverty over a 9-year period using different measures are now examined. For these estimates, only experimental measures for which the poverty thresholds have been adjusted from 1997 using the CPI-U are used. Estimates that are based on thresholds from three-year moving averages of median expenditures from the CE are not presented in this paper, but relative differences in trends have been noted in other work.¹⁵

Table 9 shows that all poverty estimates follow a somewhat similar trend over this period between 1990 and 1998, rising from 1990 to 1993 and declining thereafter. The official estimates rose from 13.5 percent poor in 1990 to 15.1 percent in 1993, and then fell to 12.7 percent in 1998. While all measures follow a similar trend for all persons, the experimental measures show a slightly steeper fall from 1993 to 1998. This slightly greater decline for the experimental measures appears to be primarily due to taking account of the expanded Earned Income Tax Credit (EITC) program over that period. The NAS measure, while considerably higher than the official measure at the peak in 1993, is slowly converging toward the official measure in the subsequent years. The NOMOOP measure, while very close to the official measure before 1993, falls quite a bit below it after 1993 and remains below through 1998.

The table also shows trends in poverty estimates for children over time using the experimental measures. For this group there is an even more pronounced decline as a result of the EITC, which targets working families with children. Also note, as in **Table 2**, that the official and the NAS measures are virtually the same by 1998 for children, about 19 percent. The NOMOOP measure is lower everywhere than the official measure, falling further after 1993.

Table 9 also examines trends in poverty rates for non-elderly adults (individuals aged 19 to 64). This group represents a large portion of the poor population, about 51 percent under the official measure. As shown, the official poverty rate is very close to the NOMOOP measure across the period, with the latter measure falling a little more after 1993 to 1995 than the official one. The other experimental measures are considerably higher than the official measure, representing the out-of-pocket medical spending by this group.

Poverty rates for the group for whom MOOP spending is most important, the elderly, follow different trends over the period. The official poverty rate among the elderly is somewhat stable across the 9-year period, with only a slight decline from 1992 to 1995. The NOMOOP measure follows the official rate over the period. The NAS measure, which is very much higher than the official measure, rises from 1990 to 1993 and then falls slowly to 1998.

Finally, we examine trends in poverty estimates by race and ethnicity. Among Blacks, the official poverty measure and the NAS measure are very similar across the entire period. These poverty rates are virtually identical except for the estimate in 1993, where the experimental rate is slightly above the official rate. The NOMOOP measure

¹⁵ Short, Iceland, Garner, 1999.

shows that the impact of MOOP spending for Blacks on poverty is considerable and somewhat constant across the period, as measured by the difference between the NAS and the NOMOOP trend lines.

Among Hispanics, a somewhat different picture emerges across the different measures. The official rates for Hispanics do not peak in 1993, and are in fact quite high from 1993 to 1995. The experimental measures behave somewhat more like those for the population as a whole, showing declines after 1993. Before that year, the official measure and the NOMOOP measure are very similar. The experimental measures reflect the large differences in spending on MOOP by the Hispanic population.

Summary and conclusions

This paper describes and compares the poverty population under several different experimental measures of poverty by showing the prevalence of poverty using different measures and focusing on demographic and socioeconomic differentials across subgroups of the population. Results indicate that, while many groups are somewhat more likely to be classified as poor under the experimental measures, the depth of their poverty is less than is generally found under the official measure. Further, income-to-poverty threshold ratios reveal that for several groups, such as children, African Americans, and Hispanics, the percent in extreme poverty is lower under the experimental measures than the official measure.

A few elements in the experimental measures have a particularly important role in changing our perception of who is poor. For one, accounting for health care costs considerably increases the numbers of people who appear to be struggling to get by.

Particularly, it increases the numbers of elderly who are perceived to be poor, while only slightly affecting the number of poor children and African Americans.

MOOP expenses tend to shift poverty rates up while not affecting, in most cases, the trend of poverty over time. However, over a longer period of time, important changes in health care costs, if accounted for accurately, could significantly affect our estimates of who is poor.

Equivalence scales matter for some groups. Where subgroups differ by family composition, equivalence scales can change our perception of the differential incidence of poverty. Geographic adjustments also matter, but need additional work to be properly constructed and applied.

Most important, however, we see that the current official measure of poverty is ‘improvable’. As has been shown by examining the different measures presented here, there is much to be learned from a poverty measure that is carefully and explicitly constructed. It allows us to understand more precisely the economic situation of families and individuals. Including government benefits aimed at the most needy in our measures also helps gauge the effectiveness of these programs in improving the lives of low-income families and individuals and more carefully ascertain the situation of particular population subgroups that are often specifically targeted for aid. The new measures also capture the effects of tax policies, particularly beneficial programs such as the EITC. Finally, the new measures allow us to more thoroughly understand the costs and economic hardship that individuals and families face and to examine where and how difficulties arise.

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**Table 1: Poverty Estimates for All People Using Official
and Experimental Poverty Measures
1998**

	Number	Percent
Official Measure	34,476	12.7
NAS	38,935	14.4
DCM2	39,292	14.5
DES-DCM2	41,061	15.2
DES-DCM2-NGA	41,754	15.4
NOMOOP	30,833	11.4

Source: March 1999 Current Population Survey

Table 2. Poverty Rates by Selected Characteristics, 1998

	Official measure	NAS	DCM2	DES-DCM2	DES-DCM2-NGA	NOMOOP
All Persons	12.7	14.4	14.5	15.2	15.4	11.4
Age						
Children (<18)	18.9	19.0	19.3	19.8	20.1	15.9
Adults, 18-64	10.5	12.1	12.2	12.8	13.0	10.0
Elderly, 65-74	9.1	13.4	13.4	14.3	14.6	7.7
Elderly, 75+	12.2	19.1	19.1	20.1	20.8	10.0
Sex						
Male	11.1	12.9	13.0	13.5	13.8	10.2
Female	14.3	15.8	15.9	16.7	17.0	12.5
# persons in the family						
1	19.9	19.8	19.8	22.3	22.6	17.1
2	8.5	12.4	12.5	12.4	12.8	8.3
3	9.9	11.9	11.9	13.2	13.5	10.3
4	9.9	11.0	11.1	11.4	11.7	8.1
5	14.3	15.0	15.2	15.3	15.6	12.3
6	19.8	21.0	21.4	20.8	21.3	16.8
7+	26.7	27.0	28.0	26.9	26.0	22.4
Race/Ethnicity						
Non-Hispanic White	8.2	9.7	9.8	10.3	11.0	7.5
Non-Hispanic Black	25.9	25.5	25.9	26.8	27.4	22.0
Hispanic	25.6	29.8	30.2	31.2	29.0	23.1
Other	14.1	16.6	16.7	17.6	16.8	13.0
Family Type						
Married-couple	6.2	8.6	8.7	8.6	8.9	5.8
Male-headed (unmarried)	13.5	15.8	16.3	17.8	17.7	13.1
Female-headed (unmarried)	33.6	33.6	34.0	35.7	35.7	29.5
Unrelated Individual	19.9	19.8	19.8	22.3	22.6	17.1
Number of workers						
No workers	35.3	36.4	36.4	38.0	38.4	30.3
One or more workers	9.1	10.8	11.0	11.5	11.7	8.4
Region						
Northeast	12.3	15.1	15.3	16.1	13.8	10.2
Midwest	10.3	11.0	11.1	11.6	12.9	9.1
South	13.7	14.2	14.3	15.0	17.2	12.8
West	14.0	17.3	17.6	18.3	16.5	12.5
Metropolitan Area						
Central city	18.5	20.3	20.4	21.3	20.6	16.0
In metro, not central city	8.7	11.2	11.3	11.9	11.2	8.0
Nonmetropolitan area	14.4	13.6	13.7	14.4	18.6	13.2
Education of family head						
Less than high school	30.6	33.3	33.5	34.5	35.0	26.7
High school	13.8	15.3	15.4	16.3	16.8	12.4
Some College	8.9	10.4	10.5	11.2	11.3	8.1
College graduate +	3.0	4.2	4.3	4.4	4.4	2.9
Disability Status						
Not disabled	9.0	10.9	11.0	11.6	11.7	8.8
Disabled	24.8	22.4	22.4	23.8	24.8	19.9
Severe disability	27.9	24.1	24.2	25.8	27.2	21.9
Citizenship status:						
Native	12.1	13.3	13.5	14.1	14.7	10.8
Naturalized citizen	11.0	15.2	15.3	15.9	14.2	10.1
Not a citizen	22.2	29.1	29.3	30.5	27.3	21.4
Source: March 1999 Current Population Survey						

Table 3: Mean Family Amounts across Individuals, 1998 (dollars)

	Official										
	All	Poor	Near Poor	Children	Adults	Elderly	White	Black	Hispanic	No Workers	1+ Workers
Foodstamps	153	902	311	334	99	34	102	461	310	341	123
Housing	91	531	202	156	66	79	58	304	177	272	62
School Lunch	110	338	268	243	72	10	91	225	247	96	112
Heating	5	22	14	8	3	5	4	11	5	13	3
Federal Income Tax	-7,684	-16	-86	-7,130	-8,597	-4,192	-8,276	-3,397	-3,705	-1,271	-8,712
FICA Tax	-3,152	-402	-897	-3,374	-3,512	-801	-3,300	-2,050	-2,438	0	-3,657
EITC	324	1,095	1,231	624	252	40	279	608	784	0	376
Work Expenses	-1,164	-434	-711	-1,212	-1,304	-334	-1,177	-1,031	-1,234	0	-1,351
Child Care	-378	-289	-302	-740	-294	-17	-366	-443	-451	0	-439
MOOP	-2,724	-1,716	-2,086	-2,736	-2,547	-3,615	-2,819	-2,127	-2,412	-2,689	-2,730

	Married	Female	Central						
	Couple	Householder	Northeast	Midwest	South	West	City	Suburbs	Nonmetro.
Foodstamps	73	421	163	131	158	158	263	90	149
Housing	26	284	158	63	81	79	170	52	71
School Lunch	100	174	96	95	116	127	142	86	125
Heating	2	13	7	6	3	3	6	3	7
Federal Income Tax	-10,155	-2,197	-8,841	-8,063	-6,830	-7,637	-6,591	-9,562	-4,396
FICA Tax	-3,962	-1,363	-3,383	-3,307	-2,886	-3,207	-2,693	-3,630	-2,595
EITC	240	634	280	262	358	374	420	252	368
Work Expenses	-1,387	-715	-1,186	-1,191	-1,134	-1,165	-1,068	-1,240	-1,111
Child Care	-427	-347	-306	-387	-390	-413	-368	-400	-340
MOOP	-3,072	-2,148	-2,747	-2,816	-2,708	-2,635	-2,498	-2,848	-2,746

Source: March 1999 Current Population Survey

Table 4. Poverty Rates by Age and Race/Ethnicity, 1998						
	Official measure	NAS	DCM2	DES-DCM2	DES-DCM2-NGA	NOMOOP
Total	12.7	14.4	14.5	15.2	15.4	11.4
Children, <18	18.9	19.0	19.3	19.8	20.1	15.9
White	10.6	11.0	11.1	11.5	12.4	9.2
Black	36.4	32.9	33.8	34.2	35.0	29.6
Hispanic	34.4	37.0	37.7	38.2	35.9	29.5
Other	20.9	21.3	21.4	22.1	21.8	17.6
Adults, 18-64	10.5	12.1	12.2	12.8	13.0	10.0
White	7.3	8.4	8.5	9.0	9.6	7.0
Black	20.2	20.5	20.6	21.6	22.0	17.9
Hispanic	20.8	25.6	25.8	27.0	24.8	19.8
Other	11.1	14.4	14.5	15.5	14.6	11.2
Elderly, 65-74	9.1	13.4	13.4	14.3	14.6	7.7
White	6.3	10.3	10.3	11.1	11.5	5.4
Black	25.4	30.9	30.9	32.2	33.2	21.5
Hispanic	20.5	29.7	29.7	31.4	28.9	17.4
Other	11.7	14.0	14.0	14.8	14.8	8.8
75+ years old	12.2	19.1	19.1	20.1	20.8	10.0
White	10.3	17.0	17.0	17.9	18.5	8.5
Black	27.1	37.1	37.0	39.6	43.5	22.1
Hispanic	21.9	30.2	30.2	30.8	28.8	16.8
Other	14.0	20.5	20.5	20.5	19.3	11.3
Source: March 1999 Current Population Survey						

Table 5. Poverty Rates by Family Type and Race/Ethnicity, 1998						
	Official measure	NAS	DCM2	DES-DCM2	DES-DCM2-NGA	NOMOOP
Total	12.7	14.4	14.5	15.2	15.4	11.4
Married couple	6.2	8.6	8.7	8.6	8.9	5.8
White	4.1	5.9	5.9	5.8	6.5	3.9
Black	8.6	11.8	12.1	11.2	12.4	8.1
Hispanic	17.9	23.4	23.6	23.7	21.9	15.7
Other	8.9	12.0	12.0	12.5	11.7	8.2
Male-headed (unmarried)	13.5	15.8	16.3	17.8	17.7	13.1
White	8.9	10.8	11.1	12.3	13.2	8.5
Black	21.4	19.2	20.2	21.4	22.7	18.5
Hispanic	21.1	27.3	28.3	30.5	26.8	22.3
Other	15.8	22.3	22.3	24.6	22.6	18.5
Female-headed (unmarried)	33.6	33.6	34.0	35.7	35.7	29.5
White	22.8	23.9	24.2	25.6	26.5	20.2
Black	42.4	40.5	40.8	42.8	42.9	36.2
Hispanic	47.4	48.9	49.8	51.7	48.7	43.6
Other	36.4	35.0	35.8	36.7	37.3	31.4
Unrelated Individual	19.9	19.8	19.8	22.3	22.6	17.1
White	16.4	16.9	16.9	19.3	19.9	14.4
Black	32.5	27.4	27.4	30.4	30.5	25.0
Hispanic	34.1	34.7	34.7	38.4	36.1	30.0
Other	21.4	23.0	23.0	25.1	23.8	20.5
Source: March 1999 Current Population Survey						

Table 6. Poverty Rates by Age and Family Type, 1998						
	Official measure	NAS	DCM2	DES-DCM2	DES-DCM2-NGA	NOMOOP
Total	12.7	14.4	14.5	15.2	15.4	11.4
Children, <18	18.9	19.0	19.3	19.8	20.1	15.9
Married-couple	9.1	10.7	10.9	10.7	11.0	7.8
Male-headed (unmarried)	20.4	20.3	21.4	23.5	23.7	18.0
Female-headed (unmarried)	46.3	42.2	42.8	44.7	44.9	38.6
Unrelated individual	94.5	92.2	92.2	93.0	92.7	92.2
Adults, 18-64	10.5	12.1	12.2	12.8	13.0	10.0
Married-couple	5.1	7.1	7.2	7.2	7.5	5.0
Male-headed (unmarried)	10.7	13.9	14.1	15.4	15.3	11.2
Female-headed (unmarried)	25.2	27.6	27.9	29.4	29.4	23.5
Unrelated individual	19.3	18.5	18.5	20.5	20.8	17.7
Elderly, 65-74	9.1	13.4	13.4	14.3	14.6	7.7
Married-couple	4.4	10.1	10.1	9.5	10.1	4.5
Male-headed (unmarried)	8.0	16.5	16.5	16.5	16.1	9.2
Female-headed (unmarried)	14.1	23.6	23.6	24.6	24.0	15.3
Unrelated individual	19.9	19.1	19.1	23.7	23.4	13.6
75+ years old	12.2	19.1	19.1	20.1	20.8	10.0
Married-couple	5.5	14.6	14.6	13.5	14.3	6.0
Male-headed (unmarried)	8.2	9.7	9.7	9.7	10.8	7.9
Female-headed (unmarried)	9.8	22.2	22.2	21.3	22.2	12.3
Unrelated individual	20.7	24.5	24.5	28.5	29.0	14.3
Source: March 1999 Current Population Survey						

Table 7: Mean Income Deficits: 1998 (dollars)

	Official	NAS	DCM2	DES DCM2	DES DCM2 NGA	NOMOOP
Primary Families	6,620	5,874	5,881	5,923	5,792	5,266
Unrelated Individuals	4,120	3,951	3,952	4,099	4,044	3,844
Families and UI's	5,267	4,941	4,949	4,997	4,910	4,522
Age of head						
18 to 64	5,795	5,098	5,107	5,186	5,077	4,740
65+	2,810	4,335	4,336	4,263	4,262	3,231
White	5,086	4,913	4,912	4,945	4,885	4,491
Black	5,549	4,735	4,780	4,888	4,765	4,389
Other	6,628	6,265	6,253	6,284	6,000	5,580
Hispanic origin/2	5,921	5,443	5,442	5,523	5,339	4,825
No workers	5,335	5,191	5,191	5,231	5,130	4,913
One or more workers	5,195	4,728	4,745	4,799	4,726	4,177
In family of type:						
Married couple	6,229	5,825	5,835	5,809	5,654	5,236
Male householder	4,743	4,405	4,396	4,551	4,525	4,302
Female Householder	5,187	4,745	4,760	4,843	4,747	4,365
Geographic regions:						
Northeast	5,191	5,295	5,289	5,318	4,916	4,480
Midwest	4,995	4,423	4,464	4,504	4,588	4,252
South	5,258	4,707	4,727	4,762	4,924	4,489
West	5,569	5,346	5,325	5,410	5,164	4,826
Metropolitan Area:						
Central city	5,331	4,961	4,971	5,070	4,815	4,436
Not central city	5,443	5,177	5,167	5,210	5,145	4,767
Nonmetropolitan Area	4,861	4,386	4,425	4,375	4,700	4,288

Source: March 1999 Current Population Survey

Table 8: Percent of People by Income-to-Poverty Threshold Ratios, 1998

All persons	Official	NAS	DCM2	DES DCM2	DES DCM2 NGA	NOMOOP
less than 0.5	5.1	5.4	5.5	5.6	5.6	3.5
0.5 to 0.99	7.6	9.0	9.0	9.6	9.8	7.8
1.0 to 1.99	18.0	25.8	25.8	26.3	26.7	25.7
2.0 to 3.99	32.5	37.2	37.1	37.0	36.6	39.1
4 or more	36.7	22.6	22.6	21.6	21.3	23.9
Children						
less than 0.5	8.1	6.1	6.3	6.4	6.4	4.2
0.5 to 0.99	10.8	13.0	13.1	13.4	13.6	11.8
1.0 to 1.99	21.3	30.7	30.6	30.8	31.3	30.6
2.0 to 3.99	33.2	35.7	35.5	35.3	34.7	37.7
4 or more	26.6	14.7	14.6	14.2	14.0	15.8
Nonelderly Adults						
less than 0.5	4.4	4.8	4.8	4.9	5.0	3.5
0.5 to 0.99	6.1	7.3	7.4	7.9	8.1	6.5
1.0 to 1.99	15.0	22.6	22.6	23.4	23.8	22.4
2.0 to 3.99	31.6	38.5	38.4	38.4	38.1	39.8
4 or more	42.8	26.9	26.9	25.4	25.1	27.9
Elderly						
less than 0.5	2.3	7.0	7.0	7.1	7.2	2.3
0.5 to 0.99	8.1	8.9	8.9	9.8	10.2	6.4
1.0 to 1.99	26.8	31.7	31.8	31.4	32.0	31.9
2.0 to 3.99	35.3	33.9	33.9	33.4	32.9	38.7
4 or more	27.5	18.4	18.4	18.3	17.8	20.8
White						
less than 0.5	4.0	4.8	4.9	4.97	5.0	3.0
0.5 to 0.99	6.5	7.6	7.7	8.16	8.4	6.5
1.0 to 1.99	17.0	24.3	24.3	24.75	25.4	24.1
2.0 to 3.99	33.1	38.6	38.5	38.45	38.1	40.5
4 or more	39.4	24.7	24.6	23.67	23.1	25.9
Black						
less than 0.5	11.2	8.4	8.7	8.9	8.9	6.3
0.5 to 0.99	14.9	17.3	17.4	18.1	18.6	15.9
1.0 to 1.99	24.7	34.4	34.2	34.9	34.7	35.6
2.0 to 3.99	28.7	28.7	28.6	28.3	27.2	30.5
4 or more	20.5	11.1	11.1	9.8	10.5	11.7
Hispanic						
less than 0.5	9.8	9.4	9.5	9.8	9.3	5.9
0.5 to 0.99	15.8	20.4	20.2	21.3	19.6	17.2
1.0 to 1.99	30.0	38.7	38.4	38.7	39.1	41.1
2.0 to 3.99	29.4	24.2	24.3	23.5	24.9	28.0
4 or more	15.1	7.2	7.2	6.6	7.0	7.8

No workers

less than 0.5	18.4	18.91	18.9	19.1	19.1	13.1
0.5 to 0.99	16.9	17.49	17.5	18.9	19.3	17.1
1.0 to 1.99	27.8	32.75	32.8	31.5	32.0	33.8
2.0 to 3.99	25.0	21.85	21.9	21.6	21.0	25.7
4 or more	11.9	9.01	9.0	9.0	5.6	10.2

One or more workers

less than 0.5	3.0	3.2	3.3	3.4	3.5	2.0
0.5 to 0.99	6.1	7.6	7.7	8.1	8.2	6.4
1.0 to 1.99	16.5	24.7	24.7	25.5	25.9	24.4
2.0 to 3.99	33.7	39.6	39.5	39.4	39.1	41.2
4 or more	40.7	24.8	24.8	23.6	23.4	26.0

Married Couple Family

less than 0.5	1.9	2.5	2.6	2.5	2.6	1.4
0.5 to 0.99	4.3	6.1	6.1	6.1	6.3	4.5
1.0 to 1.99	14.7	22.9	23.0	23.4	24.1	22.1
2.0 to 3.99	34.1	41.6	41.5	41.7	41.2	43.3
4 or more	45.0	26.8	26.8	26.3	25.8	28.8

Female Householder NSP

less than 0.5	13.3	12.1	12.2	12.7	12.8	8.3
0.5 to 0.99	16.3	17.6	17.6	19.4	19.5	17.4
1.0 to 1.99	26.6	34.0	33.8	34.0	34.2	35.8
2.0 to 3.99	27.9	26.0	26.0	25.0	24.6	28.9
4 or more	15.8	10.4	10.3	8.9	8.9	10.3

Northeast

less than 0.5	5.0	5.5	5.5	5.6	5.1	3.2
0.5 to 0.99	7.3	9.7	9.8	10.5	8.7	7.0
1.0 to 1.99	16.3	26.7	26.7	27.2	25.4	24.0
2.0 to 3.99	30.9	36.7	36.6	36.2	36.8	39.1
4 or more	40.5	21.5	21.4	20.5	24.1	26.7

Midwest

less than 0.5	4.0	3.9	4.0	4.1	4.5	2.6
0.5 to 0.99	6.3	7.1	7.1	7.5	8.5	6.5
1.0 to 1.99	15.9	22.4	22.4	22.9	25.4	23.2
2.0 to 3.99	35.2	41.6	41.6	41.3	40.3	43.7
4 or more	38.6	25.0	25.0	24.1	21.4	24.0

South

less than 0.5	5.6	5.7	5.8	5.9	6.5	4.0
0.5 to 0.99	8.1	8.6	8.6	9.0	10.7	8.8
1.0 to 1.99	19.7	26.4	26.4	26.9	28.3	27.6
2.0 to 3.99	32.6	36.2	36.1	36.1	34.7	37.4
4 or more	33.9	23.2	23.2	22.0	19.8	22.2

West

less than 0.5	5.7	6.3	6.4	6.5	6.1	4.0
0.5 to 0.99	8.4	11.0	11.2	11.8	10.4	8.5
1.0 to 1.99	19.1	27.8	27.6	28.0	26.8	26.8
2.0 to 3.99	30.9	34.6	34.5	34.5	35.4	36.9
4 or more	36.0	20.4	20.3	19.3	21.3	23.8

Source: March 1999 Current Population Survey

Table 9: Poverty Rates 1990-1998

	Year	Official Measure	NAS	DCM2	DES			Year	Official Measure	NAS	DCM2	DES			
					DCM2	DCM2	NGA					DCM2	DCM2	NGA	NOMOOP
All Persons	1990	13.5	16.1	16.1	16.8	17.3	13.2	Elderly	1990	12.2	17.1	17.1	18.1	19.0	10.2
	1991	14.2	16.9	17.0	17.7	18.1	13.7		1991	12.4	17.9	17.9	18.9	19.5	10.7
	1992	14.8	17.6	17.7	18.4	18.9	14.3		1992	12.9	19.4	19.4	20.3	21.0	11.5
	1993	15.1	18.3	18.4	19.1	19.4	14.6		1993	12.2	19.7	19.7	20.7	21.1	10.9
	1994	14.6	17.0	17.1	17.6	18.1	13.4		1994	11.7	18.5	18.5	19.4	20.1	10.0
	1995	13.8	16.3	16.4	17.0	17.2	12.4		1995	10.5	17.7	17.7	18.5	19.1	9.3
	1996	13.7	16.0	16.1	16.8	17.1	12.5		1996	10.8	18.3	18.3	19.0	19.6	9.8
	1997	13.3	15.4	15.4	16.1	16.5	12.1		1997	10.5	17.4	17.4	18.4	18.9	9.2
	1998	12.7	14.4	14.5	15.2	15.4	11.4		1998	10.5	16.0	16.0	16.9	17.4	8.7
Children	1990	20.7	22.5	22.6	23.0	23.6	19.3	Black	1990	31.9	31.5	31.8	32.8	34.0	28.7
	1991	21.8	23.8	23.9	24.3	24.9	20.0		1991	32.7	33.1	33.2	34.2	34.5	29.4
	1992	22.4	24.3	24.4	24.9	25.6	20.6		1992	33.4	34.0	34.0	35.5	36.5	31.2
	1993	22.7	24.8	25.0	25.6	25.9	21.2		1993	33.1	34.5	34.6	35.8	36.2	30.9
	1994	21.8	22.8	23.1	23.3	24.0	19.1		1994	30.6	30.1	30.3	31.0	31.9	26.5
	1995	20.8	21.7	22.0	22.3	22.5	17.5		1995	29.3	29.4	29.6	30.8	30.3	25.3
	1996	20.5	21.1	21.4	21.9	22.3	17.4		1996	28.4	28.4	28.7	30.1	30.7	25.5
	1997	19.9	20.3	20.5	20.8	21.5	17.1		1997	26.5	26.8	26.8	28.1	28.9	23.9
	1998	18.9	19.0	19.3	19.8	20.1	15.9		1998	26.1	25.8	26.1	27.0	27.6	22.2
Non Elderly Adults	1990	10.8	13.1	13.2	13.9	14.3	11.2	Hispanic	1990	28.1	35.7	35.9	36.4	33.6	28.0
	1991	11.4	13.8	13.9	14.6	14.9	11.6		1991	28.7	37.2	37.2	37.8	34.9	28.5
	1992	11.9	14.4	14.4	15.2	15.6	12.1		1992	29.6	37.2	37.2	38.3	35.0	28.7
	1993	12.4	15.2	15.2	16.0	16.2	12.5		1993	30.6	37.9	37.9	39.2	35.8	29.6
	1994	11.9	14.1	14.2	14.8	15.2	11.6		1994	30.7	36.1	36.0	37.0	34.4	28.2
	1995	11.4	13.6	13.7	14.3	14.5	10.9		1995	30.3	35.4	35.6	36.3	34.2	26.9
	1996	11.4	13.4	13.4	14.2	14.4	10.9		1996	29.4	34.2	34.4	35.1	32.9	25.6
	1997	10.9	12.8	12.9	13.6	13.9	10.6		1997	27.1	31.6	31.7	32.6	30.6	24.6
	1998	10.5	12.1	12.2	12.8	13.0	10.0		1998	25.6	29.8	30.2	31.2	29.0	23.1

Source: March Current Population Survey various years.