Summary

The Food Stamp and School Lunch Programs both give a special status to the population with incomes below 130 percent of the official poverty guideline. The Food Stamp Program uses gross income below this level as one of several criteria for determining eligibility for program benefits. It is, therefore, of particular interest to measure the welfare status of the American population with incomes below this level, and to track changes in this welfare status over time. For example, measuring changes in welfare status allows us to examine the success of the Food Stamp Program in lessening the dispersion of income among all poor households.

A methodological approach well-suited for this purpose has been developed by Amartya Sen (1992). Using a particular poverty cutoff—such as 130 percent of the official poverty guideline—Sen's social welfare index combines three other measures of welfare: (1) the number of people who are poor by this standard, (2) the depth of their poverty, and (3) the degree of inequality in the distribution of income within this group. Sen's index is particularly appropriate for social welfare measurement when the analyst wants to give a special status to the welfare of people with the lowest incomes.

In the first main empirical section of this paper, we report estimates for Sen's social welfare index and its three component parts for 1981 through 1995. In general, we find that welfare measures of households with income no greater than 130 percent of the poverty line improved slightly between 1981 and 1995. We also find, using these measures, that income inequality was less over this period for households participating in the Food Stamp Program than for non-participating households. This indicates success in encouraging the needi-est families to participate in the Food Stamp Program versus those families at or near 130 percent of the poverty line, even though all eligible households are encouraged to participate.

In the second main empirical section of this report we investigate the statistical effect of a particular household demographic characteristic on the social welfare status of low-income Americans, as measured using the above methods. The demographic variables we control for are region, race, age, family size, one-person households, head of household with and without a high school diploma, and the number of earners in a household. For this purpose, we estimate a regression model of the demographic determinants of income, where income is measured as a proportion of 130 percent of the official poverty guideline. This regression model provides estimates of the effect of each explanatory characteristic on income status, while holding constant all other household demographic characteristics.

We then conduct a series of six hypothetical illustrations, called counterfactual analysis, of how social welfare would be affected if we could redress the income disadvantage accounted for by each of the six demographic characteristics. For example, our regression model indicates that the demographic characteristic "household headed by a person with a high school education or less" is associated with a measurable disadvantage in terms of household income. Suppose it were not the case that this demographic characteristic was associated with this income disadvantage. What, then, would be the prevalence of poverty, the degree of inequality, and the level of social welfare as measured by Sen's index? We find the number of poor households declines by almost 43 percent in the counterfactual case where "head of household without a high school education" provides no income disadvantage.