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Paper No. 13**

**RECOUNTING WINNERS AND LOSERS IN THE  
1980s: A CRITIQUE OF INCOME DISTRIBUTION  
MEASUREMENT METHODOLOGY**

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## **Abstract**

The 1980s have been characterized as a time when the “rich got richer and the poor got poorer.” Using a cross-over point methodology used in several recent studies, we show how sensitive the measurement of winners and losers can be to seemingly small differences in methodological practice. Specifically, we show sensitivity to the years compared, the income sharing unit chosen, and the inflation index used. Our results show that these and other studies of economic well-being exaggerate losses by mixing cyclical with cross-cycle effects.

## **Introduction**

Danziger and Gottschalk (1995), Burtless (1996), and Karoly (1996) characterize the 1980s as a decade in which the “rich got richer and the poor got poorer.” This inference is based on their findings that a large share of the population had lower real income in the early 1990s than at the end of the 1970s. These studies use the Current Population Survey (CPS) to compare persons living in families in 1979 with persons living in families in 1992 or 1993.<sup>1</sup> They each feature a diagram showing changes in real income by percentile and highlight the percentile at which real income is the same in both years—the “cross-over point.”<sup>2</sup> Persons below the cross-over point are losers and persons above are winners. Curve A in Figure 1 is an example of the type of cross-over point relationship found using this methodology. One must go to the 55 percentile before family size-adjusted income in 1992 exceeds the family size-adjusted income for an equivalent percentile person in 1979.<sup>3</sup> The lower 55 percent of the population are economic losers in 1992. Danziger and Gottschalk (1995), using this evidence, imply that during the 1980s “modest growth did not trickle down to the poor and middle class.” In the criticism that follows, we show how sensitive income distribution analyses are to the years compared, the income sharing unit chosen, and the inflation adjustment employed. The cross-over point methodology provides a simple knife-edge categorization from which the effects of these methodological differences can be easily seen.

## **Business Cycles**

While there are no formal rules for choosing comparison years for measuring changes in economic well-being, it is important to distinguish between changes due to a movement up or down in a business cycle from the longer term changes that occur between two similar points in consecutive business cycles. This is especially true with respect to the 1980s.

The 1980s were the best of times and the worst of times. The decade was marked by the worst recession since the Great Depression. As can be found in the *Economic Report of the President* (1996), real median family income fell from a 1979 business cycle peak of \$39,227 to a 1982 business cycle trough of \$36,326. In addition, unemployment soared from 5.8 percent in 1979 to 9.7 percent in 1982. But seven years of uninterrupted economic growth followed so that by the next peak in the business cycle, real median family income had increased to \$40,890 and unemployment had fallen to 5.3 percent. The business cycle of the 1990s has not fully played out, but in terms of unemployment it appears 1992 is the trough year with unemployment rising to 7.4 percent and real median income falling to \$38,635. In 1993 real median income fell to \$37,905 but unemployment decreased to 6.8 percent.

One reason the Curve A cross-over point cuts so high in the income distribution is that 1979 is a peak year and 1992 is a trough year of a different business cycle. But these are inappropriate years to show the long-term consequences of growth on economic well-being. It is more appropriate to compare two similar points in consecutive business cycles. In Curve B in Figure 1 we use the same methodology but compare business cycle peak years 1979 and 1989. Using these years, the cross-over point falls to the 36th percentile. Hence, for almost two-thirds of the population, family size-adjusted real income increased between the two business cycle peaks of the 1980s, a more favorable economic outcome than is implied by the peak-trough comparison of Curve A.

## **Family versus Household Sharing Unit**

Although we are measuring the economic status of individuals, most people share resources with other coresident individuals and have access to income that does not flow directly

to them. For this reason a broader unit, such as the family or household, is used to collect information on real income. But while most researchers agree that the individual is not the appropriate income sharing unit, there is less agreement about who should be included in a broader definition.

The family-based blood or marital relationship definition is often used in the literature on the United States income distribution (e.g., Karoly 1996; Danziger and Gottschalk 1995). But in Curve C in Figure 1 we use the household-based common residence definition that is used in most cross-national studies because we believe it more accurately reflects living and economic arrangements than does the family-based definition. For instance, the narrower definition in the CPS treats nonmarried cohabitating adults as separate single-person “families” and is likely to understate the degree of income sharing that actually occurs between them. More generally, Atkinson, Rainwater, and Smeeding (1995) argue that using the blood or marital relationship definition, rather than the less restrictive common residence definition, produces a bleaker picture of income distribution because it treats a larger number of individuals as single-person sharing units even when they reside and share the benefits of living with others.

When a household rather than a family sharing unit is used to compare 1979 and 1989, the cross-over point falls from the 36th to the 26th percentile. Three-quarters of all persons gained from economic growth between the two peak years of the 1980s.

## **Cost-of-Living Index**

Increasingly it is argued that the CPI-UX1 cost-of-living index overstates inflation. Differences in cost-of-living indices have no effect on measures of income inequality since that is a relative concept, but as Curve D in Figure 1 shows, they can have profound effects on measured

changes in real income. Boskin (1996) offers the most systematic criticism of the CPI-UX1 index and proposes alternative indices for the 1980s that are between 1 and 1.5 percentage points below the CPI-UX1 index. In Curve D we use an index based on yearly measured price changes that are 1 percent below those reported by the CPI-UX1 between 1979 and 1989. Using this CPI-Boskin (1 percent) index the cross-over point goes to zero. All individuals gained from economic growth between the two peak years of the 1980s.

### **Trough to Trough Comparisons (1982-1992)**

Figure 2 repeats the above analysis but compares trough to trough years. Once again the results dramatically differ from those obtained using peak-trough years 1979 and 1992. The cross-over point falls from the 55th to the 11th percentile for family size adjusted income and the cross-over point is at the 6th percentile when household size-adjusted income is used. The cross-over point is again at zero when the CPI-Boskin (1 percent) index is used, but the gains are larger in the through-trough comparison than in the peak-peak case.

There is reason to believe, however, that the CPS data understate gains in real purchasing power. First, the CPS does not capture in-kind government transfers, and such programs increased in the 1980s. In addition, the value of fringe benefits also increased over this period. Finally, the CPS measures income unadjusted for taxes. While social security taxes increased over the 1980s, average federal income tax rates fell. Adjusting for these factors implies larger gains in purchasing power across the income distribution.

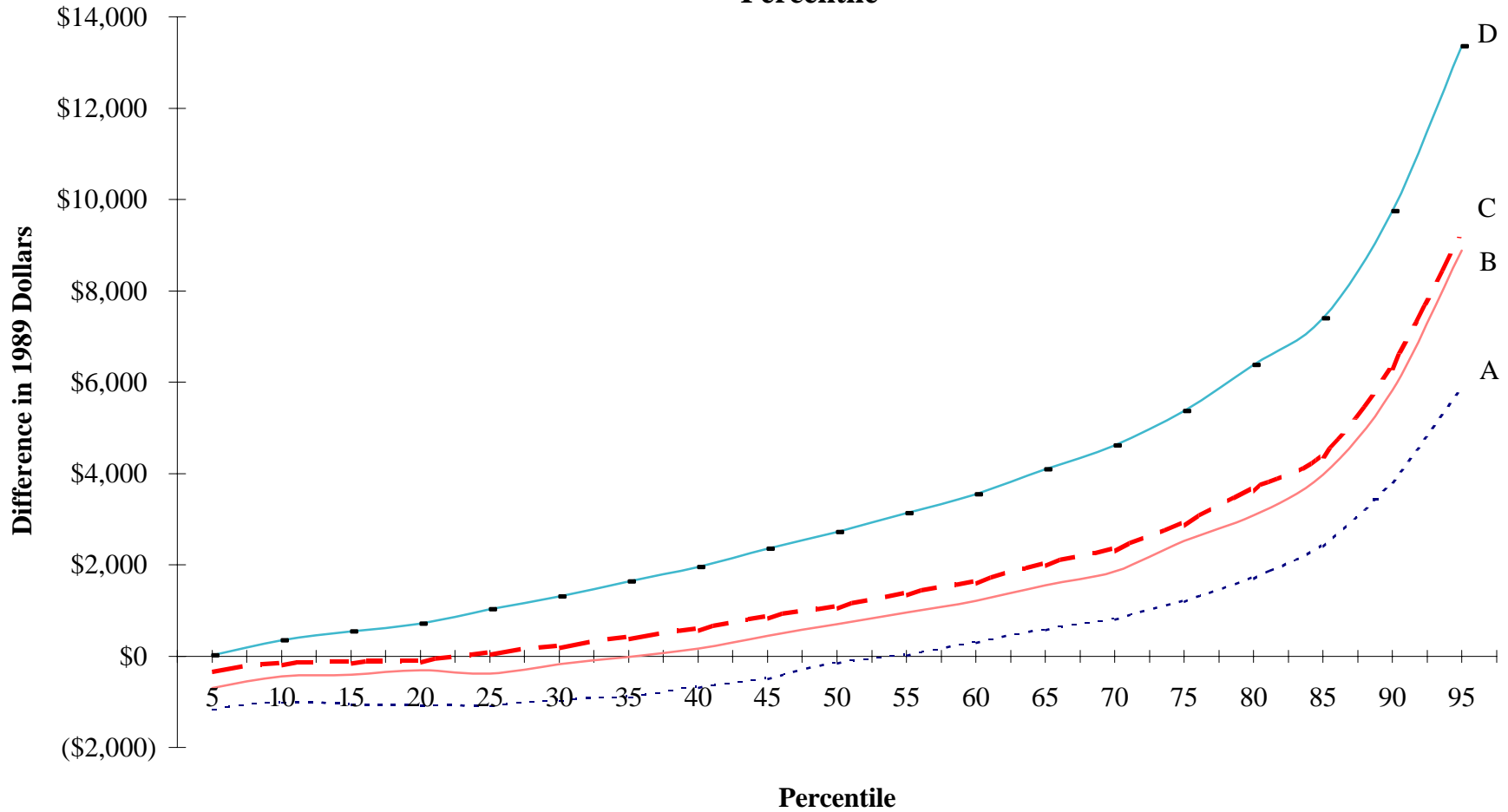
## Conclusions

Figures 1 and 2 illustrate the sensitivity of knife-edge categorizations to the years compared, the income sharing unit chosen, and the inflation index used. The importance of these seemingly small changes in methodology is seen by looking at the shape of Curve A near the cross-over point. Curve A is relatively flat, so small changes in measured income greatly affect the share of winners and losers emphasized in much of the income distribution literature.

Our results suggest previous studies using peak to trough years of comparisons, a narrow definition of income sharing unit, and an upwardly biased cost-of-living index have exaggerated the number of people who lost ground during the 1980s. As demonstrated, when other reasonable measures are used, the 1980s is similar to previous decades in which economic growth lifted most, if not all, boats. While income inequality increased over this period (see Karoly and Burtless 1995; Danziger and Gottschalk 1995; and Burkhauser, Crews, Daly, and Jenkins 1996), the increase was not primarily because “the rich got richer and the poor got poorer” but because the relative gains from economic growth went disproportionately to higher income groups.

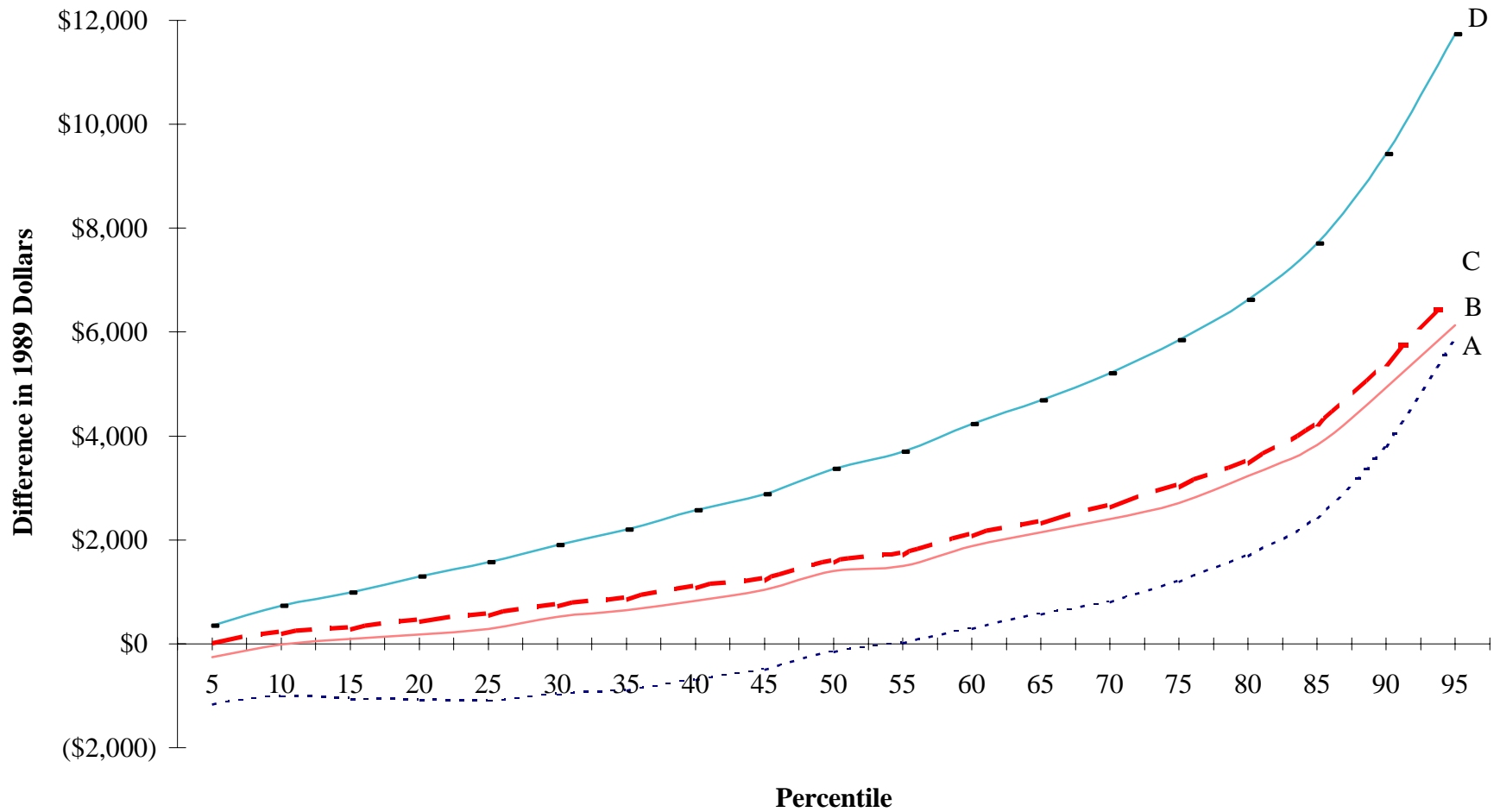


**Figure 1. Peak-Peak Comparison of Sharing Unit Adjusted Real Income Differences by Percentile**



- - - - A: 1979-1992 Difference for Families Using CPI-UX1 Index  
 ——— B: 1979-1989 Difference for Families Using CPI-UX1 Index  
 - - - C: 1979-1989 Difference for Households Using CPI-UX1 Index  
 —■— D: 1979-1989 Difference for Households Using CPI-Boskin Index

**Figure 2. Trough-Trough Comparison of Sharing Unit Adjusted Real Income Differences by Percentile**



- - - - A: 1979-1992 Difference for Families Using CPI-UX1 Index  
 — B: 1982-1992 Difference for Families Using CPI-UX1 Index  
 - - - C: 1982-1992 Difference for Households Using CPI-UX1 Index  
 —■ D: 1982-1992 Difference for Households Using CPI-Boskin Index

## Endnotes

1. They use a CPS family definition of a sharing unit and assign total gross-of-tax family income to individuals assuming equal sharing within the family and an equivalence scale adjustment. They exclude fringe benefits and in-kind government transfers. The elasticity implicit in the official United States Bureau of the Census poverty scale is 0.56. While most poverty studies of the United States use this scale, it has been severely criticized (see, for instance, Citro and Michael 1995). Like us, Karoly and Burtless (1995) and Karoly (1996) use a 0.5 elasticity equivalence scale and assign negative incomes a value of zero.
2. Danziger and Gottschalk (1995) present this information in Table 3.3 rather than in a diagram.
3. Typically, these diagrams report the percentage change in real income on the vertical axis. Here we use the difference in real income on the vertical axis.

## References

- Atkinson, A.B., L. Rainwater, and T.M. Smeeding. 1995. *Income Distribution in OECD Countries: The Evidence from the Luxembourg Income Study (LIS)*, Social Policy Studies No. 18. Paris: OECD, October.
- Boskin, M. 1996. "Toward a More Accurate Measure of the Cost of Living." Interim Report to the Senate Finance Committee from the Advisory Commission to Study the Consumer Price Index, September 15, 1995.
- Burkhauser, Richard V., Amy D. Crews, Mary C. Daly, and Stephen P. Jenkins. 1996. "Where in the World is the Middle Class? A Cross-National Comparison of the Shrinking Middle Class Using Kernel Density Estimates." Cross-National Studies in Aging Program Project Paper No. 26 [revised], Center for Policy Research, The Maxwell School. Syracuse, NY: Syracuse University.
- Burtless, Gary. 1996. "Widening U.S. Income Inequality and the Growth in World Trade." Paper presented at Mannheim Labor Conference, May 1996.
- Citro, Connie F. and Robert T. Michael. 1995. *Measuring Poverty: A New Approach*. Washington, DC: National Academy Press.
- Danziger, Sheldon and Peter Gottschalk. 1995. *American Unequal*. Cambridge, MA: Harvard University Press.
- Executive Office of the President. 1996. *Economic Report of the President*. Washington, DC: United States Government Printing Office.
- Karoly, Lynn. 1996. "Anatomy of the U.S. Income Distribution: Two Decades of Change," *Oxford Review of Economic Policy*, 12(1) (Spring): 76-95.
- Karoly, Lynn and Gary Burtless. 1995. "Demographic Change, Rising Earnings Inequality, and the Distribution of Personal Well-Being, 1959-1989." *Demography*, Vol. 32, No. 3 (August): 379-406.

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