

Work effort, savings, and income distribution: What are the effects of income transfers?

In recent years, federal government spending for income transfers—social insurance and public assistance—has increased, both in absolute amounts and relative to other public programs. As a result, income transfers have accounted for a growing proportion of total personal income. Poverty has as a consequence declined greatly, income inequality only slightly. Simultaneously, labor force participation rates for men have decreased, and the rate of saving out of disposable income has declined. Some believe that the simultaneous occurrence of these developments is not accidental but causal. They argue that because of the incentives in income support programs, and the taxes required to finance them, work effort is discouraged and savings reduced. In this view, the growth of the income support system has played a significant role in explaining the sluggish performance of the economy, and further expansion would have increasingly negative effects.

Institute researchers Sheldon Danziger, Robert Haveman, and Robert Plotnick have reviewed the existing literature in three particular areas where the nature and magnitude of the effects of income transfer programs are being heavily debated. In their article (see box) they address three main questions: How great are the work disincentives of transfer programs, and how much do they discourage work? To what extent do transfers discourage private saving? What is the magnitude of their effects on poverty and income inequality? The authors begin with labor supply, the area where the impact of transfers has been most fully explored.

Labor supply

Study of the transfer-induced reduction in labor supplied to the marketplace has focused upon the effect of Social Security, because of its universality and its incentives for early withdrawal from the labor force. Other programs, however, have come in for their share of criticism. The four programs discussed in detail by the authors are Old Age and Survivors Insurance, Disability Insurance, Unemployment Insurance, and Aid to Families with Dependent Children. There has been no systematic analysis of the labor supply effects of other transfer programs. Table 1 offers estimates of how much higher total labor supply during the later 1970s would have been if all income transfer benefits were eliminated.

Program	Reduction of Work Hours by Transfer Recipients as a Percentage of Total Work Hours of All Workers
<i>Social Insurance</i>	
Old Age and Survivors Insurance	1.2%
Disability Insurance	1.2
Unemployment Insurance	0.3
Workers' Compensation and Black Lung	0.7
Railroad Retirement	*
Veterans' Disability Compensation	0.4
Medicare	*
<i>Public Assistance</i>	
AFDC	0.6
Supplemental Security Income and Veterans' Pensions	0.1
Food Stamps and Housing Assistance	0.3
Medicaid	*
Total	4.8

*Under .05%.

Old Age and Survivors Insurance

OASI may induce workers to work less during their prime years, in view of the expected stream of net benefits when they retire; that very availability of benefits, of course, has led to a substantial withdrawal from the labor force among men over 65. The earnings test, which (at least in 1981) reduces benefits for recipients under 72 by 50 percent of earnings in excess of \$5000, also might discourage work effort in retirement years. This loss of labor may be offset by the tendency of younger men to work more to offset the earnings test that Social Security will impose upon them when they are older.

Of the dozen empirical studies analyzed by Danziger, Haveman, and Plotnick, all agreed that labor supply was reduced and retirement decisions increased by Social Se-

curity, but no two came up with wholly comparable estimates. Different data sets, different and in some cases faulty methodologies, and a different selection of variables help explain this consequence. Only one study, for instance, considered the joint labor supply decisions of husband and wife, and none explored the advantages of panel data for this kind of research. Despite these weaknesses, it is clear from Table 1 that Social Security is one of the two biggest sources of the estimated reduction in labor supply that can be traced to government transfer programs, accounting for about one-quarter of the total.

Disability Insurance

Another large contributor to the decline in labor supply is DI. Relaxed eligibility determination and higher benefit levels have countered the effects of DI's stringent definition of disablement to expand outlays rapidly. The probability that men aged from about 45-50 to 60 will participate in the labor force has been found to fall significantly as the ratio of potential DI benefits to the wage increases. The dynamics of this process involve more than the provision of benefits to "clearly disabled" individuals, but the size of the labor supply effect cannot be altogether reliably established without better measures of "true disability," expected labor market income, and transfers from other sources.

Unemployment Insurance

Compared to Social Security and DI, this third nationally available social insurance program has a small effect upon labor supply. True, the incidence of unemployment will increase if workers who desire to quit can arrange to collect UI, or if workers more often enter temporary or seasonal work because UI benefits will be available. And the duration of unemployment is also likely to be affected when lost wages are replaced by income from UI. But to offset these effects, some people may enter the work force to qualify for future benefits, or work more hours to raise the benefits to which they are entitled.

The most robust effects of UI that have been found have to do with the duration of unemployment. The best available estimates, the authors believe, establish a one-week loss of employment hours for each ten-percentage-point increase in the replacement rate for lost wages, and for each ten-week extra extension of benefits.

Aid to Families with Dependent Children

The three programs just considered, including the two that have by far the largest estimated impact on labor supply, are all social insurance programs, in some sense "earned" by recipients through earlier contributions and current inability to work. AFDC, in contrast, is a welfare program that has been the focus of particular controversy. In some states, AFDC, augmented by Food Stamps and Medicaid, may provide a larger net income for

women with several children than full-time work at the minimum wage—a work disincentive which is compounded by the program's high benefit reduction rate in relation to earned income. The labor supply of women who are heads of households is well known to be much more elastic than that of prime-aged men; it is a rational decision on the part of some mothers to reduce labor supply when confronted with such strong work constraints. Best estimates are that AFDC reduces the labor market effort of the average female family head by roughly 180 hours a year, for a total reduction in labor supplied by all workers of about 0.6 percent.

Estimates of overall reduction

The rest of the figures in Table 1 are based upon evidence from the programs discussed above with some other considerations, and are thus more speculative. The decline in work effort, as a percentage of total hours supplied to the economy, is placed at 4.8 percent.

What is to be concluded from these estimates? First, they are based upon research studies with rather disparate results; hence they must be interpreted cautiously. Second, they exclude any labor supply effects arising from the taxes used to finance these transfers—taxes that may well induce changes in the labor supplied by those not receiving transfers. Third, they are based on a comparison with a situation in which no public transfers exist, but other factors remain the same. This condition does not make allowance for private employer or household transfers that, in the absence of public transfers, might well induce some of the same drop in labor supply. For this reason the figures in the table may overstate the net impact of the transfer system. Bearing in mind that transfer recipients come primarily from the ranks of the less skilled or unskilled, whose wages when they work are low, the total loss in earnings to the economy is probably in the range of 3.5-4.0 percent.

Private saving

Because private saving is, in part, undertaken to smooth out income flows across one's lifetime, and because the Social Security retirement program provides the largest amount of transfers, most analysis has focused upon the effect of OASI upon private saving. There are several mechanisms by which this effect may exert itself, and their influence is not all in the same direction. First, pay-as-you-go Social Security benefits may substitute for, and hence decrease, private saving. The benefits, however, tend to induce early retirement, which may increase the need for savings. Second, because the program shifts income from children (taxpayers) to parents (beneficiaries), parents may increase their savings to maintain a target level of bequests and to offset the taxes their children pay. Finally, if it is true that the more money people

have, the greater the fraction they save during their lives, the equalizing effects of Social Security within generations may reduce private savings. The total effect on private savings is the sum of these effects.

The size of Social Security's impact upon saving has been subject to much recent controversy. In a 1974 time-series study, Martin Feldstein argued that Social Security could have reduced private savings and investment by about 38 percent, with a corresponding drop in GNP of about 15 percent. These results have been heavily criticized, both for the assumptions and for faulty estimating procedures. Reestimations correcting for errors have found small or insignificant effects. Part of the general difficulty with the subject, the authors comment, arises from the weaknesses of time-series models for deriving the estimates of the savings effects of Social Security. But microdata and other cross-sectional studies have also failed to confirm that Social Security has any significant negative influence on private savings, although it probably depresses the level of saving somewhat.

It is clearly premature to draw firm conclusions for Social Security's effects on savings. There are serious uncertainties about the appropriate model to use, and about the appropriate measure of Social Security wealth. Effects on bequests have received little consideration, and there are data problems in distinguishing real savings, as opposed to financial flows. Nor can it be expected that other transfer programs would have an influence even as large as Social Security's, for none is on a pay-as-you-go basis or is tightly tied to the life cycle. In sum, and given the wide variation in scholarly estimates, the authors conclude that the true effect of Social Security on saving must lie "somewhere in the range 0-20%." They are inclined to accept the lower end of the range as most probable.

Redistributive effects

The redistributive studies discussed by the authors utilize three summary indicators to measure the redistributive impact of transfers: the incidence of income poverty, the share of aggregate income going to the poorest fifth of households, and the Gini coefficient. These studies employ a substantially different methodology from those analyzing labor supply or saving responses. The latter rely on the application of multiple regression techniques to cross-sectional or time-series data to estimate behavioral responses to policy-induced price, income, or wealth changes. Redistributive studies, in contrast, rely on more straightforward calculations from aggregate data or microdata, and the range of estimated effects is substantially narrower than the labor supply and saving effects.

Measuring redistributive effects accurately nevertheless presents formidable problems. First, there are the deficiencies and discrepancies in the major data sets available

for this work—the Current Population Survey microdata tapes and the Panel Study of Income Dynamics. Second is the issue of what economists call the "counterfactual"—what would the income distribution be if there were no transfer programs?

Most studies duck this last issue, measuring redistribution as the simple difference between a household's income after transfers and its income before any transfers are taken into account. But to the extent that transfer-induced declines in labor supply are concentrated among these with low incomes, this approach underestimates the market (pretransfer) incomes of those at the bottom of the income distribution.

Furthermore, since transfers encourage some low-income households to split into small units—older people or young people choosing to live alone instead of with relatives, for instance—there will be more such low-income households than there would have been without transfers. These factors, among others, can readily lead researchers to the conclusion that "measured" market income is more unequally distributed than "true" market income. These problems are compounded when efforts are made to measure trends over time.

Nevertheless, the studies that are examined are in basic agreement over effects, despite substantial variation—indeed, controversy—over the income unit, income definition, income accounting period, valuation of in-kind benefits, and other aspects. Best estimates indicate that cash and in-kind transfers reduced the percentage of persons living in households with incomes below the poverty line by 53 percent in 1968 and by 78 percent in 1980. They have increased the income share of the poorest fifth in recent years by about 4.6 to 5.9 percentage points, and have reduced the Gini coefficient by about 19 percent. Table 2 summarizes the authors' general conclusions about the multiple effects of income transfers.

Table 2
Labor Supply, Savings, and Redistributive
Effects of Income Transfer Programs:
A Summary

	Effect of Major Income Transfer Programs	Effect of Marginal Expansion of Major Programs
Labor supply	Reduction of 4.8%	Negative
Private savings	Reduction of 0-20%	Neutral or slightly negative
Income poverty	Reduction of 75%	Not large, as most easy gains have been made
Income inequality (Gini coefficient)	Reduction of 19%	Not large, as most easy gains have been made

A critical fact, only now emerging clearly, is that the impact of government transfers on poverty, though very great, has not increased as quickly as the costs of the programs. Thus it is fair to ask whether an expansion of existing programs along present lines would produce returns in the form of diminished poverty that are commensurate with their cost. In the final section of the paper the authors conclude that if current benefits were expanded, they would not produce sizable additional reductions in poverty, as officially measured, or in inequality—most of the additional payments would go to recipients who have already been raised above the poverty line by transfers. Meanwhile, labor supply and savings costs would not diminish: the aggregate loss in earnings and savings per dollar of additional transfers may well increase.

From their review Danziger, Haveman, and Plotnick venture two suggestions:

- Reform, not continued proportional expansion of current programs, is the route to take. Reforms can be designed to reduce disincentives for work and saving without sacrificing the distributional effects that have been achieved. (For some proposals, see "Work and Welfare: New Directions for Reform," *Focus*, 4:1, 1979.)
- Reductions in or elimination of current programs will undoubtedly increase income poverty, and will achieve only small increases in work effort and savings.

At bottom, the authors emphasize, "the research findings are too varied, too uncertain, themselves too colored with judgment to serve as more than a rough guide to policy choices. Perhaps future methodological developments and improvements in data . . . and estimation techniques . . . can decrease the domain over which value judgments now reign." ■

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Sheldon Danziger, Robert H. Haveman, and Robert Plotnick, "How Income Transfer Programs Affect Work, Savings, and the Income Distribution: A Critical Review." *Journal of Economic Literature*, 19 (Sept. 1981), 975-1014. Institute for Research on Poverty Reprint no. 429.

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Robert Lampman, "Labor Supply and Social Welfare Benefits in the United States." Institute for Research on Poverty Reprint no. 412.

Paul Menchik and Martin David, "The Effect of Income Distribution and Redistribution on Lifetime Savings and Bequests." Institute for Research on Poverty Discussion Paper no. 582-79.

Joseph Quinn, "Microeconomic Determinants of Early Retirement: A Cross-Sectional View of White Married Men." Institute for Research on Poverty Reprint no. 256.

Institute monographs

Glen G. Cain and Harold W. Watts, eds., *Income Maintenance and Labor Supply: Econometric Studies*. Chicago: Rand McNally, 1973.

Robert H. Haveman and Kevin Hollenbeck, eds., *Microeconomic Simulation Models for Public Policy Analysis*. Volumes 1 and 2. New York: Academic Press, 1980.

Stanley Masters and Irwin Garfinkel, *Estimating the Labor Supply Effects of Income-Maintenance Alternatives*. New York: Academic Press, 1977.

Morgan Reynolds and Eugene Smolensky, *Public Expenditures, Taxes, and the Distribution of Income: The United States 1950, 1961, 1970*. New York: Academic Press, 1977.
