

Lessons Learned From the Negative Income Tax

In light of President Obama's desire to redistribute a portion of wealth and income from rich to lower income households, it would be useful to revisit the lessons learned from the past attempt to implement comprehensive welfare reform referred to as the negative income tax. The concept of the negative income tax (NIT) received considerable attention during the 1960s as the nation clamored for reform in a welfare system overwhelmed by bureaucracy and filled with perverse incentives. Ironically, the NIT was a pet idea of two economists of opposite political persuasions: Milton Freeman, the conservative libertarian; and Walter Heller, one of the top liberal economists of his time.

Rather than maintain the plethora of existing welfare programs, the NIT would have simply given households below a certain income level a direct subsidy payment (a negative tax), while those above that level would pay taxes (a positive tax). If a welfare recipient worked and earned income, he would not necessarily lose his entire subsidy. Instead, he would face a marginal tax rate similar to the rest of nation, where for each dollar earned, a portion of the subsidy would be reduced (taxed).

A hypothetical NIT might provide for a minimum guaranteed income \$15,000 for those with no earned income and a marginal tax rate of 25%. Thus, a welfare recipient working part time earning \$10,000 per year would receive \$12,500 in the form of a direct government payment ($\$15,000 - .25 \cdot \$10,000$). The welfare subsidy would be reduced by only \$2,500, an "effective tax" on the welfare payments. Because the welfare recipient finds himself better off by working with a total net income after taxes (subsidy) of \$22,500, he would have ample incentives to do so because he would not be putting at risk the total amount of the government subsidy he was receiving.¹

Associated with any particular plan were three critical parameters, the guaranteed minimum, the marginal tax rate, and the break-even point. The latter is the level of income in which a household switches from being a recipient of a subsidy to a contributor of taxes [See graph 1]. The dilemma can easily be seen in this graph where the break-even point is not reached until household incomes are \$60,000 (subsidy = $\$15,000 - .25 \cdot \$60,000 = 0$). Today, that would mean that more than 50% of all Americans would be on welfare.

The high break-even point could be lowered to \$30,000 by either reducing the guaranteed minimum or raising the marginal tax rate [See graph 2].² Lowering the guaranteed minimum hardly solves the plight of the poor since a family of four certainly could not live on \$15,000 a

¹ There have been many other pros and cons of the NIT expressed over the years. Additional arguments for such a system include the reduced the administrative costs of welfare programs, while opponents of such a system insist that the "poor" can not govern themselves prudently with cash and should be only given in-kind type welfare, such as food stamps or rent supplements.

² \$30,000 is roughly consistent with the current welfare system in which some programs have threshold incomes of about that level.

year, let alone \$7,500. The NIT would replace all programs such as Medicaid, TANF, rent supplements, food stamps and child care support, whose current costs of supporting zero income families already exceeds \$15,000. Any less than about \$22,000 would represent a cut from the current dollar value of welfare to the nation's poorest.

Alternatively, instead of lowering the minimum, the marginal tax rate could be increased to 50%. The break-even point would again be \$30,000, but faced with a 50% tax on earned income, would the poor have sufficient incentive to work. Most of the rest of the nation gets up in arms over marginal tax rates above 30%.

These basic accounting difficulties associated with the NIT explain why the bill sent to Congress by the Nixon administration in the late 60s became stalled in a quagmire of debate over the hard trade-offs. However, the basic proposal of Friedman and Heller did leave an important legacy. Gradually, throughout the 70s modifications in existing programs became more "means tested" and "means modified". In other words, the amount of program subsidies provided became more of a function of one's earnings without automatically resulting in a full loss in governmental aid.

Still, we often find that in many programs that the effective marginal tax rate faced by the poor is greater than 100%. For example, many welfare recipients choose unemployment over employment out of fear of losing Medicaid benefits for their children. All programs of this nature create disincentives to work and tend to make the non-workers actually better off than many workers, violating not only principles of economic efficiency (incentives to work) but important principles of equity or fairness.

As we struggle to formulate better programs for the poor, it is important to note that whether government transfer payments are for specific in-kind consumption (health care, housing, food) or whether they are simply cash transfers (TANF), if they are means tested, then the impact upon families can be described in terms of simple NIT mathematics. One can sum all of the benefits accruing to individual families from all forms of government welfare type programs and then relate it to earned income as in graphs 1 and 2. Thus, it becomes evident that welfare programs collectively face the same dilemma in balancing minimum guaranteed support, the "effective" marginal tax rate on benefits, and the break-even point where members of society become a net contributor to the government coffers, a realization that is rather discouraging.

The political advantage of having hordes of different welfare programs is that these difficult trade-offs are effectively hidden. Thus, the public seldom understands what the effective tax rate on welfare benefits is or even whether working actually makes the poor worse off. Nonetheless, there is ample anecdotal evidence suggesting that the working poor are getting the short-end of the stick and that before we consider doing more, we ought to consider the challenges inherent in tax and transfer systems. A non-working mother of 3 children might gain Medicaid coverage for her children, while a family of four with both spouses working cannot provide their children minimally adequate health care. The latter earns too much to get help, but earns too little to afford private insurance. To make tax and transfer programs work an overriding principle must be that those who work harder or earn more should end up better off than those that don't. Yet, to achieve this basic principle, society is brought right back to the old dilemma

made so clear by the NIT algorithms.

One might ask a basic question, “Just how much can society redistribute wealth and income through tax and redistribution policies?” Of course, there is no simple answer to this question. Each person will have his subjective view of what are reasonable levels of those 3 key NIT parameters. As one experiments with variations, the alternative outcomes can be measured by another graph, called the Lorenz Curve.

The Lorenz Curve plots the actual distribution of income as measured by the percent of national income received by progressively larger portions of the population. For example the blue line in graph 3 shows that in the U.S. the lowest 20% of the population receives about 3% of pre-tax national income; the lowest 30% about 6%; the lowest 40% about 10%, etc. The lowest 90% receives approximately 60% of the income; thus implying that the highest 10% receives about 40% of all national income. The plot of this relationship is referred to as the Lorenz Curve and is contrasted with a 45° line which coincides with a perfectly egalitarian distribution of income. Inward movement in the Lorenz curve can provide a reasonable good measure of the extent to which any welfare program achieves social redistribution objectives whose benefits then can be weighed against the inefficiency and unfairness costs associated with high marginal tax rates revealed from NIT analysis.

The red line in graph 3 shows the change in net of tax/subsidy income distribution after accounting for both taxes and the accumulative value of all current welfare transfers provided the “poor”.³ Table 1 provides two important aspects of the redistribution consequences of the current welfare system, the implicit marginal rate of taxation on different income groups and the post tax/subsidy income accruing to each group. As can be seen in both graph 3 and table 1, the current system does alter the national income distribution somewhat. To achieve this, however, the “marginal tax” is high and rising for the poor, drops down to a starting point of 31.5% for the working class, and then gradually rises again with a progressive income tax schedule. Of particular interest is that individuals whose earned income is \$35,000 per year are only \$4,000 better off than those who earn \$15,000. Under this scheme it turns out that approximately 4.7% of total national income is redistributed to about 39% of the population, though those earning between \$25,000 and \$35,000 get only modest aid. To balance the budget, the highest marginal income tax rate has to exceed 39%. The minimum guaranteed income is \$25,000, the average tax on the first \$35,000 of earned income is 68.6%, the break-even point is roughly \$32,000, and the maximum marginal tax rate on the rich is 39.3%. Everyone earning more than \$75,000 per year is made worse off by this current distributional scheme.

³This line is roughly representative of the current status in America, but it is hypothetical in that it approximates the outcome of the current set of welfare programs were the federal budget balanced. For consistency, all alternatives are also based upon a balanced budget assumption. Since for the most part Social Security and Medicare payments for retirees are not means tested, they are included as “earned” income even though these two together represent the largest chunk of government transfer payments to members of society. As a result, Social Security and Medicare taxes are included as a part of the overall non-welfare federal government budget which in these examples is taken as 17% of national income.

But, what if we raised the minimum to \$32,000? The results are shown in the next set of columns in table 1. In order to keep the pool of welfare recipients from increasing beyond 39%, the marginal tax rates imposed on the poor would have to be raised substantially, resulting in an increase in the average tax on the first \$35,000 to 83.6%. To balance the budget, the rest of society would have to face a much more progressive tax, pushing the marginal tax rate up to 60.8% for the highest income group. The green line in graph 3 shows that very little is gained by such a major change in the tax and subsidy structure where high marginal tax rates at both ends of the economic spectrum might create such significant economic inefficiencies that all would be made worse off.

Suppose that instead of trying to expand aid to the lowest income households, one attempts to provide “relief” to the so-called middle class. Leaving the minimum income at \$23,500 and the average tax on the first \$35,000 at 39.3%, the initial marginal tax rate (including social security taxes) to the working class is reduced to 20%. Of course, this could only occur by increasing more progressively the marginal tax rate as incomes rise. This would provide a reduction of taxes for a family earning \$55,000 from \$6,700 to \$4,500, producing a 4% increase in after tax income, but as the light blue Lorenz curve shows, it would do little to alter the overall distribution in income. In addition, it would require a 65.5% marginal tax rate on the highest income groups and all families earning more than \$100,000 would be worse off than with the current welfare system and substantially worse off from the system that raises the minimum guaranteed income to \$32,000.

So what can be done? The reader might wish to play with the numbers at their leisure by [downloading a simple Excel spreadsheet](#) from our website and attempt to find a solution that they feel is equitable and minimizes economic inefficiencies of very high marginal tax rates on either the poor or the rich. In doing so, you’ll discover that government is greatly restricted in its ability to redistribute income with tax and transfer programs. What really must be done is to alter the fundamental earned income distribution (the dark blue line). This means transforming people and families rather than transferring income and wealth. The former requires greatly enhancing the human capital of all lower income people to greatly enhance their earning power in the market place. That will entail a host of challenges worthy of another newsletter. As he struggles with welfare and tax reform, we can only hope that President Obama will come to understand this and direct his energies towards truly helping the poor help themselves and with their own earnings achieve the American dream.