Alleviation from the Welfare State:
Use Your Own Freedom With
A Reconsideration of the Negative Income Tax

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Using data from the Consumer Population Survey (CPS) for March 2013, this study examines the potential effects of a negative income tax on federal government welfare expenditure, household income, and certain variable parameters. The negative income tax is defined as money credited as allowances to a taxed income, and paid as a benefit when it exceeds debited tax. This study concludes that a negative income tax makes welfare more expensive to citizens, but should better society. These results shed some light on a non-conventional approach to addressing income distribution and achieving some socially desirable outcomes.

INTRODUCTION

"I am for doing good to the poor, but...I think the best way of doing good to the poor, is not making them easy in poverty, but leading or driving them out of it. I observed...that the more public provisions were made for the poor, the less they provided for themselves, and of course became poorer. And, on the contrary, the less was done for them, the more they did for themselves, and became richer."
- Benjamin Franklin

46 million Americans are poor today and Desiree Metcalf, a 24-year-old single mother of three children - ages 6, 4, and 2 - all with different fathers, is in that group. Metcalf complains that her hands are sometimes tied behind her back with state and federal welfare laws. This complaint is heard often from welfare recipients and administrators alike. An example of this constrictive law is that work requirements can be met by going to school for welfare recipients up to one year, but not over one year. "One year is great. It's better than what it used to be, but you can't get an associate's degree in one year," says Muller, the commissioner of social services for Steuben County, where Metcalf lives. Muller also admits that in her opinion, a lack of education is a major reason people can't get hired. Muller sees some limits on government aid are there to prevent people from abusing the system, but at the same time there is a misperception about the poor. "It's not a chosen lifestyle. Certainly, there is abuse out there. There's abuse no matter what it is. But it's not a chosen lifestyle," she says. Metcalf agrees with Muller, and hopes that soon it won't be a struggle to receive aid. Through this aid college is still in Metcalf's sights. "I haven't given up my dream yet. I just keep putting it on the back burner until it ain't raining so hard, I guess" (Fessler, 2015).

How much would the implantation of a negative income tax system change the expenditure on these welfare policies? I suggest that a negative income tax policy would decrease government expenditure

while increasing personal financial liberty. This would allow citizens to use their own freedom when deciding where to spend their welfare income.

Some would say more welfare would help Metcalf out of the poverty cycle. But, I argue, without the proper tools needed to have a secure financial life she will never learn how to properly budget her money. Also, with this welfare money Metcalf is only allowed to spend it on what the government designates as vital. Vital might be different to her than what a governmental agency deems. Therefore, she is not allowed to use her personal freedom of choice in the United States.

I propose that instead of dividing welfare into categories that restrict individual decision making, each family on welfare be provided a baseline of money for a full fiscal year. They can decide how to spend the welfare income and hopefully they want to spend it on smarter financial and lifestyle options to pull them out of the poverty cycle. This is what a negative income tax policy can accomplish. A person doesn't have to work to receive benefits. But, the disincentive of not working is having an extremely low level of guaranteed income. If a person can learn how to use a minimal amount of money properly, then they can easily move out of minimal living standards and become productive members of society.

The definition of a tax in economic terms, according to Dr. Cannonier, an economist at Belmont University, is "revenue collected by the government from the citizens and businesses based on income, profits, and other revenue generating sources, which turns into the government's main source of income." Taxes are often the cause of disincentives which impact savings, investments, and consumption. While I exam one type of tax structure, "it depends" on which kind of tax preforms the best. The best type of tax depends on an array of variables that are income burdens, foreign business pressures, national development, or even the presence of a black market (Cannonier, 2015).

I focused on the fiscal tax policy enacted by the United States federal government. As of now, the revenue for fiscal matters is based on a progressive tax system. This means that the first few thousand dollars are not taxed and each other set of incomes are taxed proportionality more as income rises. I examine the negative income tax. The idea of a negative income tax was first proposed by Milton Friedman, a leading free market economist, saying, "the idea of a Negative Income Tax is that, when your income is below the break-even point, you would get a fraction of it as a payment "from" the government. You would receive the funds instead of paying them." This tax policy is defined as a system of income subsidy through which persons having less than a certain annual income receive money from the government rather than pay taxes to it (NIT, 2015).

Welfare is defined as, "the state of doing well especially in respect to good fortune, happiness, well-being, or prosperity" (Welfare, 2015). I referenced Benjamin Franklin to elaborate on the history of welfare in the United States. At the conception of this nation the idea of welfare was disdained by the Founding Fathers. This was also a time when most citizens of the new states found themselves running away from too much governmental control. Welfare was not in place until FDR and the Great Depression, but has become a "standard" of current American life.

DATA AND MODEL

I retrieved the data for this empirical study from the Integrated Public Use Microdata Series-Current Population Survey collected by the University of Minnesota (King, 2010). From the data series, I collected 200 thousand observations out of one million from the month of March in the year 2013. The dependent variables I selected are negative income tax income and household income. I used family income, food-stamp recipient, number of people in unit, amount of Medicare income, amount of Medicaid income, education, Social Security income, welfare income, unemployment income, and, finally, federal income tax as the independent variables. These certain variables have a large descriptive power towards welfare policy programs (Regression Analysis of Household Expenditure and Income 2009, Wan 2004).

METHODOLGY

After reviewing a study by Tolbin on the negative income tax, I had to create a formula to use for the multilinear regression process. The formula I created is

$$NIT\ INCOME = \big((24{,}000 - I) * 0.5\big) + I \tag{1}$$

where "I" is family household income. I used $24,000 as the cut off income tax rate since a family of four earning below that is considered living in poverty according to the 2014 Poverty Guidelines. Both Tolbin and Friedman find that the success of this model is easily applicable to the U.S. tax system (Friedman, 1962). However, the true application of this model I created is difficult, because it would undo all the current tax legislation which is known as a dense tangled web of political jargon. Tolbin is a proponent of a more liberal tax cut off above $24,000, and Friedman proposes a more restrictive cut off tax rate. Finally, I had the first regression hold household income as the dependent variable, while the second regression held negative income tax income as the dependent variable.

RESULTS

It was important to run a linear regression of the data set, not only to check for statistical significance, but also the overall behavior of the data when a negative income tax was implemented. Overall, the dataset provided statistically significant results signaling that the use of the variables used for predicting the change a negative income tax would produce yielded results at the one percent significant level (Table 1 and Table 2). In both models the Durbin-Watson statistic is low showing an ambiguous correlation between errors implying that the Ordinary Least Square model does not meet all the assumptions. However, the rest of the model has a strong R-squared explaining that the model fits the data, low variance inflation factors resulting in minimal multicollinearity, and significance at the one percent level. I noted two important changes between the regressions, which are education and the negative pull of welfare programs. The other parameter estimates did not change much, providing interesting conclusions about the negative income tax.

TABLE 1
HOUSEHOLD INCOME AS DEPENDENT VARIABLE

Variables	Parameter Estimates	Adj. R-Sq.
Intercept	-6703*** (426.26)	0.91
Family income	0.93*** (0.001)	
Food stamp	-3953*** (234.32)	**DW Statistic**
People in unit	7720*** (67.42)	1.70
Medicare value	-0.45*** (0.015)	
Medicaid value	-0.40*** (0.02)	
Education	111*** (0.02)	
Social Security income	0.13*** (0.01)	
Welfare income	0.48*** (0.17)	
UE Income	0.11*** (0.03)	
Federal Income Tax	0.29*** (0.005)	

TABLE 2
NEGATIVE INCOME TAX INCOME AS DEPENDENT VARIABLE

Variables	Parameter Estimates	Adj. R-Sq.
Intercept	42296*** (1061)	0.41
Food stamp	-38237*** (574)	
People in unit	12830*** (166)	**DW Statistic**
Medicare value	0.55*** (0.04)	1.00
Medicaid value	0.50*** (0.05)	
Education	519*** (7.19)	
Social Security income	-0.99*** (0.03)	
Welfare income	-0.81** (0.44)	
UE Income	-0.45*** (0.09)	
Federal Income Tax	3.24*** (0.01)	

CONCLUSION

Based on the linear regression results, I found several conclusions: The United States federal government does save money with the negative income tax; the negative income tax makes welfare programs costlier to citizens; the change in the parameter coefficient for education indicates that the attainment of more education becomes important; based on the intercept coefficients the negative income tax would achieve socially desirable outcomes.

Upon completing the auto sum procedures, I found that implementing a negative income tax at a $24,000 threshold keeps the payout to impoverished families below $86 billion, which is the amount the government spends on welfare at the moment. This makes the NIT policy sustainable as a welfare program. I provided one of many ways to formulate a negative income tax structure, so specific policy measures are easily flexible. This flexibility becomes especially important when the entire United States population must be considered for the program. Therefore, while the expenditure on the negative income tax by the federal government is important, it is not vital due to the easily changing nature of the mathematical procedures.

A slight change occurs in the parameter coefficients for most of the welfare programs when a negative income tax policy is implemented. I insinuate that the model is stating that receiving welfare benefits becomes costlier to citizens, because most of the welfare programs go from slightly positive to slightly negative. Therefore, with a negative income tax, the more welfare money someone receives from the federal government coincides with an overall decrease in negative tax income. As a person's outside income increases, i.e. receiving more benefits from welfare, the income from the negative income tax will decrease.

The regressions state that education becomes much more important when factoring for household income. I conclude that when the base line income in a society is increased, education becomes much more attainable which leads to higher levels of income in the future (Education Pays, 2010). Therefore, the regression indicates that education becomes more valuable when a negative income tax is in place. This is logical, because the negative income tax can possibly act as a scholarship for education that low-income families can use to break out of poverty. One of the key elements of economics is that people are rational, so a rational person will usually try to attain more education to better themselves for the labor market (Mankiw, 1998). This gives the person a large incentive, by the order of a 127% change, to attain education to break the poverty threshold. Once this person has enough education to break that poverty threshold, a certain amount of education has been acquired that could eventually lift them well above and beyond poverty (Tormey, 2007). This person can now make enough money to survive, not solely relying on the bare essentials of living, which means more education could take place and the person can become an active member of the economy by purchasing luxury goods.

The change in the intercept coefficient carries an interesting insight on a negative income tax policy. The model implies that the average amount of income for society, when all independent variables are zero, increases by a large amount. For this specific model, the slope coefficient does make sense, because the negative income tax is basically a guaranteed income from the federal government. In the first regression, say when a certain person has zero educational attainment, it makes sense that this person will have a negative income. However, in the second regression, when that certain person still has zero educational attainment, they would still receive some form of a base salary. Therefore, the slope coefficient shows an increase in base line income and a socially desirable outcome.

DISCUSSION

I found that zero modern economies have a negative income tax in place, and only a few nations have the policy remotely in their sights for the future. It is important to note that the United States has an earned income tax credit in place, which is basically the same philosophy as the negative income tax. The only difference between the two is that the earned income tax credit is only received if that person is working, as where the negative income tax is for anyone below the poverty line (Salam, 2011). The argument could be made that a negative income tax would destroy the work incentive that capitalism fosters. Other's would argue that the policy would lift people out of the poverty cycle and create a stronger economy. Which leads to the fundamental question: would a negative income tax be better than the current earned income tax credit, allowing anyone below the poverty line a minimal living salary? Since an academic discussion of this topic is nominal, coming to a halt in the mid 1980's, an increase in discussion and research of a negative income tax is not only something I recommend, but encourage.

If negative income tax policy ideas were implemented the Metcalf family, living in poverty, would have a lump sum of governmental aid. The mother could decide to finish her degree without carrying on anymore debt. This would allow her to make a better future not only for herself but for her three children. She wouldn't have to spend that money in the medical welfare system, in the food stamp system, or to the doomed social security system. The family is completely free to decide how to use that money. So, is this the right policy to pursue? Do people need a governmental agency and bureaucrats sitting over them telling them the right moves to make? Better yet, is it their right to intrude? Or, do people have basic instinct to make the best choices for their individual needs?

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