
SOCIAL INSURANCE AND PUBLIC GOOD MOTIVE: IS THERE A GENDER DIFFERENCE IN THE DEMAND FOR WELFARE PROGRAMS?

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ABSTRACT

The objective of this paper is to determine the personal characteristics that influence the support for an increase in spending for welfare programs across various income groups. Subjective perceptions of income mobility and upward mobility on the preferences for income redistribution and regional variations for welfare demand are examined. We use data from the General Social Survey (2002) and perform an ordered probit regression analysis. The results reveal that men have a social insurance motive and women have a public good (altruistic) motive when considering welfare spending.

JEL Classification: H53

INTRODUCTION AND BACKGROUND

This paper examines factors that influence preferences in demand for welfare programs. In this paper, instead of investigating a specific type of welfare benefit, we develop a general model to examine the role of income, along with that of other socioeconomic variables, on demand for income redistribution through welfare programs. More specifically, we test hypotheses concerning the social insurance and the public good aspects of demand for welfare programs. We also investigate the relationship between subjective perception variables and support for, or opposition to, welfare. We use data¹ from the 2002 General Social Survey (GSS) for this analysis. The GSS 2002 contains micro-level information on preferences for spending on welfare programs, demographics, and subjective measures of income mobility and upward mobility. The survey questions on altruism, quality of working life, and adult transitions in the 2002 Topical Modules were appropriate for the analyses in our paper.

The 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) brought some fundamental changes in public assistance programs in the United States. The passage of Temporary Assistance for Needy Families

(TANF) in 1996 changed the nature of welfare programs in the U.S. (“ending welfare as we know it”). For example, under TANF, the responsibility for welfare shifts to the states (from a shared federal/state program), program benefits are short-term, and eligibility requires some work activity. Since the data set we use in this study dates from the post-PRWORA period, an obvious contribution of our paper is to study how the introduction of the stringent changes to welfare programs exemplified in TANF might have affected both the social insurance and the altruistic motives in the demand for welfare programs. Hofferth et al (2002) find evidence that welfare policies implemented in the mid-1990s influenced recipients’ behavior by increasing welfare exits and more participation in the labor market.

The literature on motivation for income redistribution or welfare programs distinguishes two possible motivations for public support on spending for such programs: social insurance and altruism. Varian (1980) identifies the “social insurance” motivation, the motivation where voters with uncertain future incomes support redistribution out of concern for their own future well-being. Government supported unemployment compensation (e.g. Stafford, 1977) and AFDC benefits (e.g. Husted, 1989, 1990) are examples of social insurance programs. Another motivation for redistribution of income from the non-poor to the poor is concern for others (altruism), besides self-interest. In models beginning with Pauley (1973) and Orr (1976), voters derive utility from their own income and from the income of the others. Several researchers estimate variants of these public good models.

We model an individual’s demand for welfare programs by incorporating both the social insurance and public good motive. Our empirical results suggest that at low incomes, the social insurance motive is dominant. Perhaps the stringent welfare eligibility requirements under PRWORA cause people to demand fewer welfare benefits. At higher income levels, the public good motive appears important. One explanation of this public good motive in this post-AFDC era could be that former welfare recipients with current higher incomes might have concern for people with low incomes. By making welfare policy more stringent, it can be argued that the ‘deserving poor’ are better targeted post-reform, and therefore, the public will support more generous benefits.

We also look at subjective perception factors of “upward mobility” (the belief that hard work is the most important factor in getting ahead) and the “income mobility” (the belief that one’s children will have a higher/lower standard of living than their parents). We find that the upward mobility factor is an important indicator of the demand for welfare programs for the male subpopulation. However, for women, both the upward mobility factor and the income mobility factor, have a significant influence on their preferences for welfare spending.

Given that welfare policies vary across states, it would have been interesting to look at the state fixed effects. Unfortunately, our data-set does not provide information on state residencies of respondents. Therefore, we are unable to consider the state fixed effects in our analysis. We create regional dummy variables to examine the differences in demand for welfare across various regions. It seems quite a different matter if someone in a high-benefit state thinks spending is about right than if someone in a low-benefit state does. We partly address this issue through the regional controls.

In the following section we briefly review the economics literature pertaining to: 1) the determinants of demand for state and local expenditures; 2) the effects of the substantial welfare reforms during the 1990s; and 3) the impact of subjective perception variables. Following a brief theoretical discussion, we describe the data

and the empirical model. We then analyze the results and draw our conclusion.

LITERATURE REVIEW

Determinants of demand for public expenditure:

For over thirty years, researchers have conducted empirical work about the determinants of demand for government spending. Early work by Bergstrom and Goodman (1973), Gramlich and Galper (1973), and Inman (1978) use aggregate data and commonly find that income is a strong (and usually positive) predictor of demand for government spending.² Another group of researchers use micro-based survey data (Fisher, 1985; Citrin, 1979). In contrast to the findings from the aggregate-based studies, income often is insignificant in determining the demand for government spending.³

One possible explanation given by the researchers for the insignificance of income in the micro-based studies is that demand may not be a linear function of income. Indeed, Brown and Saks (1983) find a U-shaped relationship between school spending and income. John Beck (1984) also finds evidence that the demand for municipal services is non-monotonic in income. Husted (1989, 1990) argues that the U-shaped (non-monotonic) relationship between income and public aid is due to two effects: a social insurance demand for welfare benefits that falls as income rises and a demand for income redistribution as a public good that increases with income. Temple and Porter-Hudak (1995) also find a strong non-monotonic effect of income on the willingness to pay additional taxes for state expenditures on education and public aid (inverted U-shaped for education and U-shaped for public aid). Consequently, they argue that researchers should not assume that willingness to pay is a monotonic function of income.

Impact of welfare reform of 1996:

The 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) gave individual states much greater authority to handle their own public assistance programs and removed almost all federal eligibility and payment rules (Blank, 2002). The more stringent PRWORA provisions mandated that individual state public assistance programs have strict work requirements and, in addition, enforce credible sanctions for noncompliance. These welfare reforms took place in the midst of a U.S. booming economy during the late 1990s. The downward trend in caseloads during the post-AFDC period might have been, to an extent, due to the strong economy. But a significant number of researchers⁴ point out that most of the caseload trend moves post-AFDC were due to the changing nature of the welfare reform policies under PRWORA.

Blank (2002) points out that post-AFDC, labor-force participation rates among single mothers with children increased by five percentage points. Blank (2002) noted further that as caseloads for single mothers began to drop, work effort increased substantially. This work effort had a trickle down effect. Increased work efforts increased labor earnings and added to family income. Furthermore, labor-force participation experience led to higher earnings over time. These facts were also documented by Gladden and Taber (2000) and Fang and Keane (2004). Our paper suggests that the current working population made up of former welfare recipients might favor more government welfare spending out of altruistic motive towards the people who are now at the low end of the income spectrum.

Subjective perception variables:

Researchers have explored the connection between the subjective perceptions of mobility and the demand for income redistribution. Benabou and Ok (2001), while examining the role of social mobility, model the ‘prospect of future upward mobility’ theory. These researchers indicate that many people with current low income, but with the prospect of higher future income, will oppose income redistribution. Piketty (1995) draws a link between social mobility and beliefs about whether effort or luck determines income and predicts individual preferences for redistribution.⁵

Alesina and La Ferrara (2005) find that people who believe that the American society offers equal opportunity to all are less willing to support redistribution in the face of upward mobility. In addition to examining subjective perceptions, Alesina and La Ferrara (2005) also construct ‘objective’ measures of expected future gains and losses from redistribution. These authors find that such objective measures have considerably more explanatory power than the ‘general mobility’ measures. Fong (2001) points out individuals may prefer more income equity if they feel that poor people are poor because of circumstances rather than lack of effort. Keely and Tan (2004) suggest that preferences for redistribution vary along the lines of race, gender, and socio-economic standing.

Relevant to the discussion of our paper, Fang and Silverman (2009) focus on welfare participation of never-married women with children. Using the National Longitudinal Surveys (NLSY) 1979, these researchers find evidence that for those with low levels of education and living in high welfare benefit states, the study group participates slightly more in welfare programs. On the other hand, for those living in low benefits states and with higher levels of skills and education, there is an increase in employment participation. Hoynes and Schanzenbach (2012) using panel data from PSID (Panel Study of Income Dynamics) find social welfare programs (e.g. food stamps) lead to reduction in work effort and hours of work. This result is particularly observed among families where single women are head of the household.

THEORETICAL DISCUSSION

Ever since Bergstrom and Goodman’s 1973 paper on ‘Private Demand for Public Goods,’ researchers have assumed that the median voter has the median income. Bergstrom and Goodman’s theory holds as long as demand for government expenditures remains monotonic in income. However, studies have suggested that demand equations may be quadratic in income. Significant number of empirical research on welfare generosity (in particular, AFDC/TANF benefits) has relied on a median voter model for public expenditures. The following utility function of the median voter in state i can be written: $U_i = U(y_i, x_i, Z_i)$ where y_i represents the consumption of private goods, x_i represents the consumption of welfare benefits. The Z_i composite variable represents the socio-demographic characteristics, perception factors, and the regional variables. Influences that affect the preferences of voter i are conditioned on Z_i .

The optimal amount of y_i and x_i depends on the budget constraint, $I_i = p_i y_i + t_i x_i$, where I_i is the voter’s pretax income, p_i is the price of respective private goods, and t_i is the tax share for providing welfare benefits. The following implicit demand function can be written for each individual voter: $X_i = x(I_i, t_i, Z_i)$ where X_i represents the optimal level of benefit. In our empirical analysis, we look at the influences of income and socio-demographic factors and the perception and regional variables to examine the factors that determine the demand for welfare programs. The General

Social Survey (2002) data do not contain information on tax share. Hence, we are unable to look at the influence of tax share on the demand for welfare benefits.⁶

DATA AND EMPIRICAL ANALYSIS

This study is based on a 2002 nationwide survey of 2,765 non-institutionalized individuals as part of the General Social Survey data. The GSS is an almost annual personal interview survey of U.S. households conducted by the National Opinion Research Center at the University of Chicago. The first survey took place in 1972 and, since then, more than 25,000 respondents have answered approximately 1,500 different questions. Unfortunately, we don't have access to the GSS cumulative data file. In this study, we use only the GSS (2002) cross-sectional data.

The GSS 2002 has good information about welfare demand, perceptions, and related issues. Although it might seem better to use more recent data, on a time-line basis, the GSS 2002 data is closer to the 1996 Welfare Policy reform period and reveals the impact of welfare policy reform. In light of the policy implications of our 2002 study for the government welfare services currently provided and of budgetary battles at the state and federal levels for all sorts of benefit programs for the disadvantaged, it seems important that we get our results from the GSS 2002 out in the open.

In our empirical analysis, we describe some of the questions from the GSS 2002 relevant to our analysis. We focus on a survey module where respondents were asked about various government spending programs. In particular, our analysis focuses on this survey item: "Welfare: Are we spending too little, about the right amount, or too much on welfare?" By looking at the three responses: too little, about right, and too much, we employ an ordered probit analysis.⁷ In our empirical analysis, the unobservable continuous dependent variable (demand for welfare programs: *ordwelf*) is represented by a categorical variable that takes a value of 0 if the respondents prefer an increase in spending on welfare programs ("too little" response), a value of 1 if the respondents prefer present level of spending ("about right" response), and a value of 2 if the respondents prefer a decrease in spending ("too much" response). The respondents who answered "Don't know" and gave no answer are discarded.

The appropriate statistical technique in our analysis is of the following type:

$$\begin{aligned}
 y_i^* &= \beta'x_i + \varepsilon_i \\
 \varepsilon_i &\sim N[0, 1] \\
 y_i &= 0 \text{ if } y_i^* \leq \mu_0 \\
 &= 1 \text{ if } \mu_0 < y_i^* \leq \mu_1 \\
 &= 2 \text{ if } \mu_1 < y_i^* \leq \mu_2
 \end{aligned} \tag{1}$$

where y_i^* is the unobserved continuous dependent variable represented by a categorical observed variable y_i , which takes the three values 0, 1, and 2. The vector x represents the independent variables, which include income, income squared, gender, age, education, race, marital status, political affiliation. Also included are some of the relevant subjective perception variables and the regional dummy variables.

Table 1 shows the descriptive statistics of the variables we use in our model. About 58% of the respondents do not favor increased spending for welfare programs. The first independent variable is pre-tax household income (*Income*). As is common in surveys, the respondents indicated their household income according to various categories. We use the midpoint formula to calculate the average income

value. Explanatory variables reflecting tastes for government expenditures include the respondent's sex (Gender), the respondent's race (White), a measure of the respondent's level of education (Education), and the respondent's age (Age). Other variables like marital status (MS) and political party affiliation (PartyAffil) are included to find proxy measures for any omitted socioeconomic characteristics.

We create three income mobility measures: whether the respondents expect their children to be better off than themselves in terms of standard of living (Kbetter), whether the respondents expect their children to be about the same (Ksame), or whether the respondents expect their children to be worse off (Kworse). In the analysis, Ksame variable is the omitted category. To examine upward mobility, we create the Hardwork variable to show whether the respondent thinks hard work is the most important reason that people get ahead in life. We include this variable in our model in order to examine the influence of this perception regarding hard work on the demand for income redistribution. Further, we create the Jobloss variable to investigate how the concern of job loss over the next year would impact the preference for welfare programs. We further create nine regional dummy variables, representing where the survey respondents live: New England, Middle Atlantic, East North Central, West North Central, South Atlantic, East South Central, West South Central, Mountain, and Pacific. The Mountain region is the omitted category.

In Table 2, we report the estimated marginal effects of the independent variables on preferences for welfare spending. While reporting the marginal effects, we only show the marginal effects on Prob[Y=01] at means. For many of the variables, the marginal effects on Prob[Y=02] are not significantly different from zero. Essentially, there is so much noise in the Y=2 category estimate that one cannot say with much accuracy what the marginal effect is. The marginal effects on Prob[Y=00] are just 1 minus the other two (that is, Prob[Y=01] and Prob[Y=02]). Thus, reporting the marginal effects on Prob[Y=00] is redundant. Ordered probit coefficients have been transformed into marginal effects using the partial derivative of the probabilities.

RESULTS AND DISCUSSION

In discussing our empirical findings, we shall proceed progressively. First, we discuss the impact of income on the demand for welfare programs. Next, we examine the effects of the perception variables on the preferences for welfare programs. Finally, we consider the regional variables.

According to the ordered probit 2 estimate in Table 2, the income variable shows a positive marginal effect, suggesting as income increases demand for welfare decreases. The income-squared term shows a negative marginal effect suggesting that for higher levels of income, demand for welfare increases as income increases. Both the income and income-squared terms are statistically significant. Therefore, the GSS 2002 data shows evidence of a U-shaped relationship between income and the demand for welfare programs. From the ordered probit 2 estimate in Table 2, we can determine the minimum point for the 'U-shaped' income curve. By using the quadratic equation $D = c + bx + ax^2$, from the ordered probit 2 estimate, we have $D = -0.34 + 0.005x - 0.0003x^2$. The turning point occurs where $\partial D / \partial x = 0$ or where x equals 8.3. Because the actual income value is in units of \$10,000, the turning point occurs at approximately \$83,333. Given that the midpoint of the lowest income category is

about \$500 and the midpoint of the highest income category is about \$140,000, the occurrence of the turning point of the income curve at about \$83,333 offers compelling support for a social insurance motive. The statistically significant income-squared term's negative marginal effect also justifies the existence of a public good motive.

Most of the socio-demographic factors have the predicted marginal effects. The highly significant positive marginal effect of the White variable indicates that whites favor less welfare spending. The negative marginal effect of Education variable suggests people with less education want more welfare spending. The Marital Status

TABLE 1
DESCRIPTIVE STATISTICS
DEFINITION OF VARIABLES

Variable	Means (Standard dev.)
Welfare	0.58
Equal to 1 if the person does not want more welfare spending, 0 otherwise	(0.80)
Income	5.39
Household income using midpoint of income categories (in units of \$10,000)	(3.95)
Gender	0.53
Equal to 1 if respondent is female, 0 otherwise	(0.50)
White	0.80
Equal to 1 for whites, 0 otherwise	(0.40)
Education	0.44
Equal to 1 if respondent has high school or less education, 0 otherwise	(0.50)
Age	44.54
Age in years	(16.64)
Marital Status (MS)	0.55
Equal to 1 if respondent is married, 0 otherwise	(0.50)
PartyAffil	0.33
Equal to 1 if respondent is democrat, 0 otherwise	(0.47)
Kbetter	0.87
Equal to 1 if respondent expects kids to be more well off, 0 otherwise	(0.33)
Ksame	0.05
Equal to 1 if respondent expects kids to remain same, 0 otherwise	(0.23)
Kworse	0.03
Equal to 1 if respondent expects kids to be worse off, 0 otherwise	(0.16)
Hardwork	0.88
Equal to 1 if respondent feels hard work most important to ahead, 0 otherwise	(0.32)
Jobloss	0.81
Equal to 1 if respondent expects to loose job within the next 1 year, 0 otherwise	(0.39)
Neweland	0.06
Equal to 1 if the respondent lives in New England region, 0 otherwise	(0.24)
Midatlan	0.14
Equal to 1 if the respondent lives in Middle Atlantic region, 0 otherwise	(0.35)
Enorcent	0.17
Equal to 1 if the respondent lives in East North Central region, 0 otherwise	(0.37)
Wnorcent	0.07
Equal to 1 if the respondent lives in West North Central region, 0 otherwise	(0.26)
Satlantic	0.17
Equal to 1 if the respondent lives in South Atlantic region, 0 otherwise	(0.37)
Esoucent	0.06
Equal to 1 if the respondent lives in East South Central region, 0 otherwise	(0.24)
Wsoucent	0.10
Equal to 1 if the respondent lives in West South Central region, 0 otherwise	(0.31)
Mountain	0.06
Equal to 1 if the respondent lives in Mountain region, 0 otherwise	(0.24)
Pacific	0.14
Equal to 1 if the respondent lives in Pacific region, 0 otherwise	(0.35)

*Means are calculated using weighted observations of 2414 survey respondents.

TABLE 2
ORDERED PROBIT ESTIMATES OF DEMAND FOR WELFARE PROGRAMS
MARGINAL EFFECTS ON PROB[Y=01] AT MEANS; P VALUES IN PARENTHESES

Variable name	Ordered Probit 1 Estimate	Ordered Probit 2 Estimate
CONSTANT	-0.24 (0.15)	-0.34 (0.05)
INCOME	0.0009 (0.23)	0.005 (0.03)*
INCOMESQ	-	-0.0003 (0.07)*
GENDER	0.002 (0.45)	0.002 (0.46)
WHITE	0.03 (0.00001)*	0.03 (0.00001)*
EDUCATION	-0.003 (0.20)	-0.002 (0.32)
AGE	-0.0004 (0.01)*	-0.0003 (0.02)*
MARITAL STATUS	0.003 (0.27)	0.0007 (0.78)
PARTY AFFIL	-0.008 (0.0001)*	-0.009 (0.00001)*
KBETTER	-0.007 (0.002)*	-0.007 (0.001)*
KWORSE	0.0001 (0.96)	0.0004 (0.87)
HARDWORK	0.008 (0.02)*	0.008 (0.02)*
JOBLOSS	-0.007 (0.001)*	-0.006 (0.004)*
NEWELAN	-0.02 (0.00001)*	-0.02 (0.00001)*
MIDATLA	-0.006 (0.008)*	-0.006 (0.01)*
ENORCEN	-0.01 (0.00001)*	-0.01 (0.00001)*
WNORCEN	-0.009 (0.00001)*	-0.009 (0.00001)*
SATLANT	0.004 (0.19)	0.003 (0.24)
ESOUCEN	0.007 (0.02)*	0.008 (0.02)*
WSOUCEN	0.001 (0.64)	0.0008 (0.77)
PACIFIC	-0.01 (0.00001)*	-0.01 (0.00001)*

No of Observations

2414

2414

Log Likelihood

-2253.59

-2251.95

* Denotes significance at the 10% level or less

variable has a positive marginal effect. However, both Education and Marital Status variables are statistically insignificant. Democrats want more spending for welfare (the Party Affil variable being negative and statistically significant). The Age variable shows a statistically significant negative marginal effect, meaning that as people get older they support more welfare spending. The Gender variable indicates that females want less spending for welfare, which is unexpected. However, this result is not statistically significant.

Of the two income mobility variables, Kbetter is statistically significant while Kworser is not. The Kbetter variable exhibits a negative marginal effect, suggesting that respondents who feel their children will be financially better off than themselves will support higher spending for welfare programs. The positive and statistically significant marginal effect of the Hardwork variable confirms that people who feel hard work is the most important factor for getting ahead in life do not support increased spending for welfare programs. The negative marginal effect of the Jobloss variable is statistically significant. Thus, people who fear losing their jobs over the next year want more spending for welfare programs.

We note that most of the socio-economic and perception variables have the expected marginal effects on the demand for welfare spending. Exogenous variables like Kbetter, Kworser, and Jobloss might be understood to directly represent the social insurance demand for welfare programs. The results of ordered probit 1 and 2 estimates reveal that two of the three variables (Kbetter and Jobloss) are statistically significant—once again justifying the existence of a social insurance motive.

As to the regional variables, five regional dummies representing New England, Middle Atlantic, East North Central, West North Central, and the Pacific regions have negative marginal effects and are statistically significant. This result indicates that people living in these five regions favor increased spending for welfare programs. The other regional dummy representing East South Central has a positive marginal effect and is statistically significant. The impact of the regional dummy variables indicates that the demand for welfare programs clearly varies across regions and that there are significant unobserved underlying regional effects. One explanation of the unobserved regional effects could be the unobserved aspects of local economic conditions. Alternatively, there could be cultural regional differences that impact voters' attitudes. The exploration of regional differences offers a direction for further research.

Discussion of Endogeneity in the Welfare Equation:

There is the possibility that the 'subjective perception' variables may be endogenous. For example, the model includes perceptions/attitudes of 'hard work' as an explanatory variable of perceptions/attitudes about 'welfare'. The endogeneity problem can be an obvious reversal of cause and effect. Put simply, does a belief in 'hard work' affect one's attitude towards 'welfare', or does one's attitude about 'welfare' determine one's belief about the value of 'hard work'? Thus the Hardwork variable may be endogenous in the welfare equation. The other source of endogeneity concerns the Kbetter and Kworser variables, parents' perceptions of whether or not children will enjoy a better or worse standard of living than they did. We can explain the endogeneity issue by using the following utility function: $U_{nj} = V(y_{nj}, x_{nj}, \beta_n) + \varepsilon_{nj}$ where y_{nj} is the endogenous variable, x_{nj} is a vector of exogenous variables that affect utility from choice j , β_n are parameters that represent the tastes of consumer n , and ε_{nj} is the unobserved utility. In our model, the endogenous variable might

be Hardwork, Kbetter, or Kworse. These three variables as defined in our model are discrete/categorical. In this discrete choice context, the approach posits that y_{nj} can be written as a function of all exogenous variables entering utility of any of the choices, denoted as x_n ; the variables z_n that do not enter utility directly but affect y_{nj} (typically the instruments); and a vector of J unobserved terms μ_n : $y_{nj} = W(x_n, z_n, \mu_n)$. This functional approach maintains the assumption that μ_n and ε_{nj} are independent of y_{nj} .

The chi-squared values for the Hausman-Wu tests for all the above mentioned discrete endogenous variables (Harwork, Kbetter, and Kworse) reveal that the null hypothesis (these variables are exogenous) cannot be rejected. The small chi-square values of 0.0152, 0.1166, and 0.0959 for the Hardwork, Kbetter, and Kworse variables, respectively, reveal that these variables are not endogenous in the welfare equation.

FURTHER ANALYSIS TO EXPLORE GENDER DIFFERENCES

To investigate whether there is any variation between genders with regard to the influences for demand for welfare programs, we disaggregate the data along the gender line. We show the results for the male and female sub-populations in Table 3. The ordered probit 1 estimate shows that men reveal a social insurance motive for the demand for welfare programs. The positive marginal effect and the statistical significance of the income variable in ordered probit 1 estimate indicates that as men's income rises, they tend to demand less welfare programs. The results of the ordered probit 4 estimate indicate that women at high levels of

TABLE 3
ORDERED PROBIT ESTIMATES OF DEMAND FOR WELFARE PROGRAMS FOR MEN & WOMEN
MARGINAL EFFECTS ON PROB[Y=01] AT MEANS; (P VALUES IN PARENTHESES)

Variable name	Ordered Probit 1 Estimate (Men)	Ordered Probit 2 Estimate (Men)	Ordered Probit 3 Estimate (Women)	Ordered Probit 4 Estimate (Women)
CONSTANT	-0.34 (0.17)	-0.42 (0.12)	-0.05 (0.81)	-0.17 (0.47)
INCOME	0.002 (0.04)*	0.005 (0.18)	-0.0003 (0.78)	0.005 (0.10)
INCOMESQ	-	-0.0002 (0.42)	-	-0.0004 (0.07)*
WHITE	0.02 (0.0002)*	0.03 (0.0002)*	0.03 (0.00001)*	0.03 (0.00001)*
EDUCATION	-0.006 (0.05)*	-0.006 (0.06)*	0.0006 (0.88)	0.002 (0.61)
AGE	-0.0001 (0.53)	-0.0001 (0.58)	-0.0006 (0.01)*	-0.0005 (0.01)*
MARITAL STATUS	-0.006 (0.06)*	0.008 (0.01)*	0.01 (0.01)*	0.009 (0.05)*
PARTY AFFIL	-0.01 (0.0005)*	-0.01 (0.0005)*	-0.008 (0.01)*	-0.008 (0.005)*
KBETTER	-0.0004 (0.92)	-0.0007 (0.86)	-0.01 (0.00001)*	-0.01 (0.00001)*
KWORSE	0.004 (0.34)	0.004 (0.32)	-0.009 (0.004)*	-0.008 (0.005)*
HARDWORK	0.03 (0.0001)*	0.03 (0.0001)*	-0.01 (0.0001)*	-0.009 (0.0002)*
JOBLOSS	-0.008 (0.006)*	-0.008 (0.01)*	-0.006 (0.03)*	-0.006 (0.06)*
NEWELAN	-0.03 (0.00001)*	-0.03 (0.00001)*	-0.02 (0.00001)*	-0.02 (0.00001)*
MIDATLA	-0.03 (0.00001)*	-0.03 (0.00001)*	0.007 (0.11)	0.007 (0.09)*
ENORCEN	-0.03 (0.00001)*	-0.03 (0.00001)*	-0.003 (0.38)	-0.005 (0.14)
WNORCEN	-0.02 (0.00001)*	-0.02 (0.00001)*	-0.005 (0.13)	-0.006 (0.06)*
SATLANT	-0.01 (0.0001)*	-0.01 (0.0001)*	0.01 (0.03)*	0.009 (0.05)*
ESOUCCN	-0.006 (0.10)	-0.005 (0.20)	0.01 (0.003)*	0.01 (0.003)*
WSOUCCN	-0.02 (0.00001)*	-0.02 (0.00001)*	0.009 (0.04)*	0.008 (0.05)*
PACIFIC	-0.04 (0.00001)*	-0.05 (0.00001)*	0.008 (0.07)*	0.007 (0.09)*
No of Observations	1097	1097	1317	1317
Log Likelihood	-1017.15	-1016.83	-1228.78	-1227.12

*Denotes significance at the 10% level or less

income tend to support increased spending for welfare programs. The *Incomesq* term in ordered probit 4 estimate has a negative marginal effect and is statistically significant at $\alpha=.10$. Thus, the disaggregated data reveals that men exhibit a social insurance motive while women have a public good (or altruistic) motive.

The high statistical significance of the *Hardwork* variable in the male sub-group, with a positive marginal effect, reveals that the male respondents want decreased spending for welfare programs. On the other hand, the negative marginal effect and the statistical significance of the *Hardwork* variable in ordered probit estimates 3 and 4 indicates that many women feel that government spending for public assistance programs should not be reduced. Another result in the female sub-population is that the *Kworse* variable has a negative marginal effect and is statistically significant, indicating women who feel that their children will be financially worse off than themselves support increased spending for welfare programs. This obviously shows women have a stronger altruistic motive.

As to the regional variables, Table 3 reveals that all of the regional dummies have negative marginal effects, and with, the exception of one, all the regional dummies are statistically significant. That is, men in all regions favor increased spending for welfare programs. When examining across income levels, social insurance motive for the male population remains a valid result. Table 3 reveals that across various regions, women have differences among themselves about welfare spending. In some regions women support increased spending, while in other regions, women are opposed to increased spending. As observed in the pooled data, the demand for welfare programs varies across regions and there are significant unobserved regional effects.

CONCLUSION AND REMARKS

Some important caveats should be made regarding the findings from this study. There appears to be some scope for omitted variable bias in our paper. An issue is that GSS asks a relative question (should the welfare spending be more, the same, or less) but does not give the spending level. Because of this, the spending level becomes an omitted variable, but theoretically it could be tied to preferences.

The GSS 2002 data fails to include a tax price variable. The omission of the tax price is also a potential source of bias, mainly to the extent that it depends on the size of the caseload (which is likely to depend on characteristics of the at-risk population in the state). Some indirect empirical evidence for the importance of the biases from omitted variables comes from the sensitivity of other researchers' (e.g. Ribar and Wilhelm, 1999) results to the inclusion of state fixed effects. The results in our paper indicate that regional controls are important. Hence, the inclusion of the regional controls is likely to reduce the bias.

Notwithstanding these biases, the General Social Survey 2002 data reveals some important results. First, it confirms the findings of Husted (1989, 1990) that there are both social insurance and public good motives for the demand for welfare programs. The disaggregated data reveal that men have a social insurance motive, while women have a public good (altruistic) motive. Second, the disaggregated data reveals men who feel that hard work is the most important factor in getting ahead in life oppose increased welfare spending. On the other hand, women who feel that hard work is the most important factor for getting ahead in life support increased spending. Both the pooled and the disaggregated data reveal that there are significant unobserved

regional effects. Future research needs to investigate whether the unobserved aspects of local economic conditions and regional cultural differences might be at work.

The stated objective of this research is to examine the role of income on the demand for public assistance programs. Substantial welfare reforms could be associated with the two motivations in this paper—social insurance and altruism. The strong U.S. economy of 1996-2000 and the expansion of the earned income tax credit, coupled with stringent welfare reform policies, have had a major impact on the decline in welfare caseloads.

The results in this paper corroborate the findings of researchers, like Hofferth et al (2002), that the stringent welfare reform of the 1990's might have influenced recipients' behavior. As men left the welfare rolls, that population favored a social insurance motive for redistribution. For many single mothers, welfare participation dropped dramatically in the post-welfare reform period. It can be argued that as single mothers increasingly participate in the labor force and acquire more income through additional work experience, and, so becoming more upwardly mobile, they might support increased spending for welfare programs out of an altruism motive.

ENDNOTES

¹The GSS has been asking the 'more/same/less welfare spending' question for over thirty years. Use of the full data series (or at least a bit more of it) could perhaps lead to more reliable and interesting findings. Unfortunately, we have access only to the GSS (2002) data.

²The work of Bergstrom and Goodman (1973) focuses on various types of municipal spending, such as policing, parks and recreation, and other municipal expenditures. Studies of Gramlich and Galper (1973) and Inman (1978) primarily focus on expenditures for education and other services such as public safety, social services, urban support, and general government.

³In reviewing public opinion surveys, Fisher (1985) finds no significant relationship between economic factors such as income and willingness to pay for government services. Citrin (1979) analyzed the 1978 California poll question: "Do you think the amount of tax money should be increased, held the same, or cut back (for police, schools, health, and welfare)?" With the exception of the welfare category, income does not have a statistically significant predictive power in explaining the responses of those who answered the poll question.

⁴See discussion in Council of Economic Advisors (1999), Wallace and Blank (1999), Schoeni and Blank (2000), O'Neill and Hill (2001). Ziliak et al (2003), Greenberg (2001), and Blank (2002). Carrie and Grogger (2001) use post-1996 data and indicate that TANF decreased the food stamp caseloads.

⁵Piketty points out that voters with similar incomes but different social origins have different preferences for income redistribution. The main variation among voters is not that they have different interests in government redistributive policies, but that, over the course of the voters' social life, they have been exposed to different

information and ideas about government redistributive policies.

⁶By examining the panel data (1982 through 1988) of 51 states, Shroder (1995) failed to find any substantial tax price elasticity of the demand for welfare.

⁷As an alternative, we also did the probit model, where we distinguished between the answer as not desiring an increase in welfare spending and desiring an increase. The answers “Too much” and “About right” are assigned a value of one and is interpreted as the respondent not desiring an increase in the spending for welfare programs. The answer “Too little” is assigned a value of zero and is interpreted as desiring an increase in the spending for welfare programs. Given that three types of responses are recorded: too little, about right, and too much—we feel ordered probit model is more appropriate for our analysis.

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