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Understanding the Public's Attitudes towards Redistribution through Taxation

Rebecca Reed-Arthurs

Department of Economics
University of California, Davis
Davis, CA 95616
rmreedarthurs@ucdavis.edu

Steven M. Sheffrin

Murphy Institute
Department of Economics
Tulane University
New Orleans, LA 70118
smsheffrin@tulane.edu

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Abstract

This paper explores the public's expressed attitudes towards redistribution, then addresses three important gaps in the literature on redistribution. First, studies of support for redistribution have used data focused on desires for transfers from the rich to the poor or to the poor in general, but redistributive policies may also benefit the middle class. Second, experimental research has shown that general views about redistribution may differ from concrete judgments about specific situations—yet much of the existing research uses responses to abstract questions. Finally, there is fundamental uncertainty as to what the public actually means when it suggests preferred distributions of the tax burden—are they expressing pure, ideal preferences, or combining these with their own views of the disincentive effects of higher tax rates? We use data from two nationally representative surveys on taxation and fairness as well as an experiment to address these issues. We find that Americans have some interest in redistribution to both the middle class and the poor. While demand for redistribution to the poor is influenced by many factors (including measures of altruism, political ideology and values) demand for redistribution to the middle class appears to be driven by self-interest and knowledge of the tax system. We find the determinants of demand to be similar under both abstract and concrete question forms. Finally, the experimental results suggest that not only does the public not include incentive effects into their expressions for desired progressivity; but that they do not believe they should be included—in other words, the public separates judgments of progressivity from judgments of economic efficiency.

Keywords: survey data, incentives, redistribution
JEL: H24, H20

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Rebecca Reed-Arthurs

Steven M. Sheffrin

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Rebecca Reed-Arthurs*
Department of Economics
University of California – Davis
One Shields Avenue
Davis, CA 95616
rmreedarthurs@ucdavis.edu
408-460-7558

Steven M. Sheffrin
Murphy Institute and
Department of Economics
Tulane University
New Orleans, LA 70118
smsheffrin@tulane.edu
504-862-8610

*Corresponding Author

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Extended Abstract

This paper explores the public's expressed attitudes towards redistribution, then addresses three important gaps in the literature on redistribution. First, studies of support for redistribution have used data focused on desires for transfers from the rich to the poor or to the poor in general, but redistributive policies may also benefit the middle class. Second, experimental research has shown that general views about redistribution may differ from concrete judgments about specific situations - yet much of the existing research uses responses to abstract questions. Finally, there is fundamental uncertainty as to what the public actually means when it suggests preferred distributions of the tax burden—are they expressing pure, ideal preferences, or combining these with their own views of the disincentive effects of higher tax rates? We use data from two nationally representative surveys on taxation and fairness as well as an experiment to address these issues. We find that Americans have some interest in redistribution to both the middle class and the poor. While demand for redistribution to the poor is influenced by many factors (including measures of altruism, political ideology and values) demand for redistribution to the middle class appears to be driven by self-interest and knowledge of the tax system. We find the determinants of demand to be similar under both abstract and concrete question forms. Finally, the experimental results suggest that not only does the public not include incentive effects into their expressions for desired progressivity; but that they do not believe they should be included—in other words, the public separates judgments of progressivity from judgments of economic efficiency.

Keywords: Survey Data, Incentives, Redistribution

1. Introduction

Preferences for redistribution through taxation are central to modern public finance. Standard economic models balance efficiency and equity of taxation, and equity is, in part, achieved through the tax structure. At the simplest level, politicians and policy makers vigorously debate whether a tax is progressive or regressive and rally their constituents appropriately. At the most sophisticated level, public finance economists use varying social welfare functions that weight individual utilities to determine optimal tax structures, thereby making explicit the tradeoff between equity and efficiency.

Although economists are comfortable with the “welfarist” position that only appropriately weighted individual utilities matter, they are silent in their professional roles as to the preferred social welfare function or desired degree of redistribution. Accordingly, analysts will present a spectrum of “optimal tax” structures which vary according to social welfare. Simulations typically show that the results are sensitive to the precise social welfare function (SWF). For example, Gruber and Saez (2000) find that top marginal income tax rates vary sharply depending on distributional preferences. While social welfare models are useful tools, they differ markedly, in both process and result, from the way individuals form preferences for redistribution. Since policies towards redistribution are formed through a legislative process that is influenced by public opinion, an understanding of individual preference formation is necessary to predict the scope of redistributive policies.

A recent literature has evolved to study the origins of *abstract* support for redistribution. Such papers make use of survey responses to questions like “[Should] the government reduce income differences between the rich and the poor” to examine the demand for redistribution and propose theoretical models of preference formation. Basic economic tenets suppose actors form preferences for redistribution to maximize their own utility or well being as measured by total cash transfers – those who receive money support redistribution, while those who lose money will oppose it. However, true preference formation is more complex. Fong (2001) shows that beliefs regarding determinants of wealth accumulation (i.e. whether income is determined by luck or hard-work) are correlated with support for redistribution, after controlling for self-interest. Corneo and Gruner (2002) look at the roles played by social rivalry and public values, while Alesina and Ferrara (2005) show that future income prospects and measures of social

mobility affect current support for redistribution. Alesina and Gouliano (2009 working paper) summarize these and other findings.

A separate literature attempts to quantify the degree of redistribution desired by the public. This survey and experimental research has uncovered a desire on the part of respondents or subjects for some progressivity in taxation. Hite and Roberts (1991) find support for moderate levels of progressivity as measured explicitly by tax schedules chosen by survey participants. However, results exhibit a large degree of heterogeneity in preferences. More recently, Baron and McCaffrey (2004) look at how explicit support for progressivity is affected by non-substantive factors like question framing and Bernasconi (2006) examines general support for existing levels of taxation in 22 democratic countries.

While prior research has been revealing, there remain some important gaps in the literature. First, recent studies of abstract support for redistribution have used data focused on desires for transfers from the rich to the poor or to the poor in general.¹ However redistributive policies may also transfer resources from the rich to the middle class and preferences for this form of redistribution may differ. Second, as Roberts, et al. (1994) discuss, general views about redistribution may differ from concrete judgments about specific situations. Individuals express more support for redistribution in abstract settings. It is unknown whether these differences uniformly affect levels of support, or if question framing differentially impacts the preferences of individuals with certain characteristics. Finally, there is fundamental uncertainty as to what the public actually means when it suggests preferred distributions of the tax burden. In particular, there is the question originally posed by Slemrod and Bakija (2008): When individuals think about desired tax structures are they expressing pure, ideal preferences, or combining these with their own views of the disincentive effects of higher tax rates?

To address these issues, we look directly at the public's expressed attitudes towards redistribution using two well constructed, nationally representative surveys on taxation and fairness as well as an experiment to untangle beliefs about incentives and pure preferences for redistribution. The first data source is an unusually broad survey, conducted in 2003 by National Public Radio, the Kaiser Foundation, and the Kennedy School (NPR survey). This survey asked participants whether the government should reduce income inequality between the rich and the poor and between the rich and the middle class. It allows us to examine the relationship between

¹ These include Fong (2001), Alesina and Ferrara (2005), and Alesina and Giuliano (2009).

the support for both forms of income redistribution and respondents' demographic characteristics, self-interest, altruism, political and ideological beliefs, and misperceptions about the current tax system. The second survey, conducted by Reader's Digest in 1995, contains quantitative measurements of respondents' desired income tax rates, but only has basic demographic information. We explore perceived and desired levels of taxation then compare the impact of demographic variables on the desire for redistribution in both data sets to determine whether abstract or concrete framing affects the determinants of demand for redistribution.

In our experiment, we explore the interactions between expressed beliefs about tax progressivity and the incentive effects of taxation. Our experimental design is chosen to minimize the cognitive biases that have been found in Sheffrin (1993, 1994) and Baron and McCaffery (2004), such as the differences in stated preferences when taxes are expressed in dollar terms rather than as a percent of income, or when desired tax rates are not subject to an explicit budget constraint. We develop a treatment model to isolate the effects of incentives on preferences for redistribution.

In all three analyses our sample consists exclusively of U.S. residents. While this restricts applicability to domestic populations, it reduces the concern that cultural differences in preferences are driving results. Congdon et al (2009) recently suggested that lessons from the field of behavioral economics (including those about non-standard preferences and imperfect rationality) are useful in tailoring tax policy to achieve optimal results. Before such tailoring can occur a fundamental understanding of the determinants of preferences for redistribution in the United States must be developed.

2. Abstract Demand for Redistribution

2.1 Data

This paper's first data source is a nationwide telephone survey designed by representatives from National Public Radio, the Kaiser Family Foundation, and the Kennedy School of Government (hereafter the "NPR" survey). The survey, conducted between February 5 and March 17, 2003, interviewed a random representative sample of 1,339 adults. It asked detailed questions about the structure of the current tax system, the perceived fairness of the current system and other possible systems, abstract questions about the government's role in income

redistribution, and basic demographic information. Table 1 presents summary statistics of the variables used in this paper.²

[Table 1]

Of particular interest to our analysis of support for income redistribution are the following two questions, each asked to one half of the sample:

- “Do you agree or disagree with the following? It is the responsibility of government to reduce the differences in income between people with high incomes and *people with low incomes*”
- “Do you agree or disagree with the following? It is the responsibility of government to reduce the differences in income between high-income people and *middle income people*”

To our knowledge, this is the only survey that asks general questions about redistribution to different groups. Respondents rated their reaction as strongly agree, somewhat agree, don’t know, somewhat disagree or strongly disagree. To create our primary dependent variable (an ordinal measure of the desire for redistribution) these responses were coded from 1 for strongly disagree, to 5 for strongly agree, with the answer of “I don’t know” receiving a score of 3. One respondent refused to answer the second question and was dropped from the analysis. We also created a binary measure of support for redistribution, where responses of somewhat or strongly agree were assigned a value of 1, somewhat or strongly disagree were assigned a value of 0, and the 46 respondents who “don’t know” were dropped.

Table 1 indicates that, on average, respondents are largely neutral to redistribution, with the average respondent feeling slightly more positive to redistribution from high to middle income people (3.26) as compared to 2.99 for redistribution from high to low income people.³ Overall 50.7% of respondents agree with redistribution to low income people and 58.0% agree with redistribution to middle income people. Table 2 gives the precise distribution of responses to each question. These preliminary results are rather striking. First, contrary to what would typically be implied by a utilitarian or optimal tax approach, individuals on aggregate prefer

² The survey over-sampled high income individuals so sample weights were applied to all analyses to adjust the distribution of demographic characteristics of the respondents to match the general population. After weighting, 52% of the sample is female, 28% are minorities, and 53% have at least some college education.

³ This result is not surprising if respondents’ opinions are tied to their own self-interest as we discuss below. The majority of the sample has incomes between \$20,000 and 75,000 and might be considered middle income.

more redistribution to middle income rather than low income earners despite the presumption in utilitarian terms that the marginal utility of income is higher for lower income individuals. Second, on average, there are rather weak preferences expressed for overall redistribution but with considerable heterogeneity. Sixty-one percent of respondents take a position at an extreme, either strongly in support or strongly opposed to redistribution. Although the questions do not specifically refer to taxes, the survey instrument itself was focused on taxation. We therefore interpret the responses on redistribution to be primarily focused on redistribution through the tax system and now turn to an analysis of individual responses to the questions.

[Table 2]

2.2 Empirical Strategy

This paper uses two approaches to measure the relationship between support for income redistribution and respondents' attributes and opinions. The ordered probit model is our preferred method of measuring the significance of variables since it allows a more nuanced analysis of preferences. However, since a coefficient from an ordered probit model has no explicit interpretation beyond an increase or decrease in the latent variable, marginal effects from a probit model are used when interpreting results

2.3 Results and Discussion

The first four columns of Table 3 display the results of an ordered probit model on the desire for income redistribution as measured by the ordinal version of the dependent variable, while the next four give marginal effects calculated via a probit model once responses have been reduced to a binary variable indicating agreement or disagreement. Odd numbered columns use a baseline specification with standard demographic variables, while the even numbered columns display results from a more detailed specification. Columns 1, 2, 5 and 6 consider redistribution from high income to low income individuals while columns 3, 4, 7 and 8 consider redistribution from high income to middle income individuals. Robust standard errors are reported in Table 3 and throughout this paper. Respondents who declined to answer the redistribution question or relevant demographic questions and were dropped from all analyses.

[Table 3]

Let's begin with traditional demographic measures. As seen in columns 1 and 3, women and minorities are statistically significantly more likely to support redistribution from the rich to both the middle class and the poor after controlling for income and education. To provide a sense of magnitude, columns 5 and 7 repeat the baseline demographic model using a probit regression. Under the base model women show a slightly stronger preference for redistribution to those with moderate income than low income, with coefficients of 17 and 11 percentage points respectively. Similar results are found when the full set of covariates are included. Minorities are 14 percentage points more likely to support redistribution to the poor than non-minority respondents and 4 percentage points more likely to support redistribution to those earning middle incomes under the base specification; however these effects are attenuated when additional controls are included. Older respondents and those with children are less likely to support redistribution however this effect is not statistically significant. The negative sign for those 65 years or older is unexpected since older respondents are less likely to have future increases in income and are more likely to receive government benefits in the form of Social Security payments and Medicare subsidies. The effects of gender and minority on support for redistribution to the poor are consistent with a large body of prior research and are similar in magnitude to effects on desired redistribution to the middle class.

Support for redistribution to the poor decreases significantly and steadily with education. Under the base model those with post graduate training are 39 percentage points less likely to support income redistribution to low income people and 22 percentage points less likely to support redistribution to middle income people than those with less than a high school education. Individuals with a bachelor's degree are 34 (22) percentage points less likely to support redistribution to low (middle) income individuals. The effects of having at least some college education are slightly smaller but still statistically significant at the 5% levels in the base model. The statistical significance of these results persist under the full model for redistribution to the poor but are no longer significant for redistribution to the middle class when additional controls are included. The negative correlation between education and the desire for redistribution is commonly attributed to increases in social mobility caused by education or to increased expectations of future earnings, however younger college graduates (who are most likely to have unrealized increases in future earnings) do not have lower levels of desired redistribution than older college graduates.

2.3.1 Self Interest

As standard utility maximization theory would predict, the desire to redistribute income is strongly correlated with the respondent's own self-interest. Respondents in income brackets likely to directly benefit from or be hurt by redistribution have strong opinions on that type of redistribution. The regressions in Table 3 omit the income group most likely to benefit from redistribution. Thus, those earning less than \$20,000 are omitted in regressions dealing with redistribution to the poor and those earning between \$20,000 and \$50,000 are omitted in regressions dealing with redistribution to the middle class. As evident from the negative coefficients on income in column 1 and 2, those earning less than \$20,000 show the most support for income redistribution to low income people. Columns 3 and 4 show that this same group is strongly and statistically significantly opposed to redistribution to the middle class. Not surprisingly, those who make between \$20,000 and \$75,000 are the most likely to support redistribution to the middle class. As expected, those with incomes of \$150,000 or more are significantly opposed to either type of income redistribution. The magnitude of these effects is quite large. Under the basic model in columns 5 and 7, people with incomes of over \$150,000 are 21 (respectively 19) percentage points less likely to support redistribution than those likely to receive the transfer. Clearly perceived personal costs and benefits play a significant role in the desire for income redistribution.

Respondents may also experience second order benefits from redistribution through a reduction in income inequality present in their environments. These benefits could either stem from a reduction in specific factors associated with poverty like higher crime rates or panhandling, or from a general distaste for such heterogeneity and its associated pressures (keeping up with the Jones, etc). If second order benefits are a factor in the support for income redistribution, one would expect that people living in areas with more homogeneous incomes (e.g. suburban areas) would be less likely to support income redistribution than those living in heterogeneous areas (e.g. urban areas). Further, if negative conditions associated with poverty drive preferences, one would expect larger effects on redistribution to low income groups than to middle income groups. Results in columns 1 and 3 confirm these expectations. Respondents who live in suburban areas are statistically significantly less likely to support redistribution to low income groups than those living in urban areas where high, middle and low income people mix. There is no difference in the support for redistribution from the rich to the middle class

across locations. These findings are consistent with a desire to redistribute income to low income people when they are visible to other income groups and not with a general desire to reduce in income heterogeneity in one's surroundings.

2.3.2 Wealth and Altruism

A careful student of the survey methodology will notice that no explicit definition of high, middle or low income was provided in the redistribution questions. This is a common characteristic of surveys used to examine preferences for redistribution. The abstract nature of such questions allows for considerable heterogeneity in the definition of income classes – some might consider people making \$100,000 per year to be earning a high income, while others might set the threshold at \$200,000. If a respondent's definition of "high-income people" is related to his or her own income level, estimates of the effect of income on desired redistribution will be biased relative to a question which explicitly defines income groups.

As a first stage test, we examine the relationship between the respondent's own income and the "income level [the respondent] think[s] makes someone wealthy." While wealth and high income may not be equivalent, it is likely that the respondents interpretation of "high income people" in the redistribution question is correlated with beliefs about the income level required to be considered wealthy. The value in each cell in Table 4 reflects the frequency of the response. The most common response in a particular income category (row) is shaded in dark grey; the next most common response in that row is a slightly lighter shade of grey, and so forth. Table 4 clearly shows that the definition of being "wealthy" shifts upward (to the right) with income.⁴ An OLS regression of wealth on income confirms a strong statistically significant positive correlation between the respondent's income and his or her threshold definition of wealth. A one dollar increase in income is associated with a \$0.59 increase in the definition of wealthy with a standard error of 0.055. Together, this suggests a large degree of heterogeneity beliefs about who precisely will benefit under redistributive policies.

[Table 4]

⁴ The distribution of responses of those who refused to state their income most closely matches those with incomes between \$150,000 and \$500,000. This similarity is consistent with similarities in support for income redistribution found in Table 3. It appears that high income individuals are less likely to disclose their income relative to lower income individuals.

To test whether heterogeneity in the definition “high-income” influences support for income redistribution we add two variables to the analysis in Table 3. The first variable (Wealthy) indicates whether the respondent considers herself to be wealthy (that is if her stated income is greater than her threshold for being ‘wealthy’). If considering oneself to be wealthy is equivalent to considering oneself to have a high income (and thus being on the losing end of redistribution), the correlation between wealth and redistribution should be negative. The second variable (Almost Wealthy) indicates whether the respondent considers herself to be close to being wealthy (defined as earning between 50 and 100% of the self-defined threshold income for being wealthy.)⁵ If ‘almost wealthy’ respondents consider themselves to earn a middle-income, one would expect the variable to be positively correlated with demand for redistribution to the middle income groups and have no relation to desired redistribution to low income groups.

As shown in columns 2 and 4, the results vary across definitions of “wealthy.” Respondents who consider themselves to be “Almost Wealthy” are more likely to support redistribution to the middle income groups, and have less interest in redistribution to low income groups (particularly after controlling for political affiliation). However, being “Wealthy” is associated with a very large 35 percentage point *increase* in the probability of supporting redistribution from high income to low income groups and a smaller positive effect on redistribution to middle income groups. In both cases the inclusion of these ‘wealth’ variables also increases the estimated negative effect that earning more than \$150,000 has on the desire for redistribution. These results suggest a sharp distinction between observed high incomes and perceptions of wealth. Respondents with high incomes show less desire for redistribution, but that those that consider themselves to be wealthy seem more willing to be altruistic to the poor. Such behavior may be observed in the philanthropic actions of oil and steel magnates like John Rockefeller and Andrew Carnegie and modern billionaires like Bill Gates and Warren Buffet.

2.3.3 Ideology

Respondents’ desire to redistribute wealth may be driven by a sense of fairness or by political ideology. Columns 2 and 4 also add several variables that relate to the respondents ideological or political beliefs. We find self-declared Republicans to be less likely than Democrats to

⁵ Since precise incomes and wealth thresholds were not given, this analysis assumes values equal to the midpoint of the range specified. For example, those who declared an income between \$20,000 and \$30,000 per year were assigned a value of \$25,000. Those in the top income bracket (over \$500,000) were assigned a value of \$750,000. Those who did not consider incomes of \$1,000,000 to be wealthy were assigned a threshold of \$1,500,000. This analysis necessitates dropping respondents who refused to state their income.

support income redistribution to those with low income. Those who consider themselves to be politically conservative are less likely than moderates or liberals to support income redistribution to low or middle income people, even after controlling for political affiliation. The persistence of these partisan differences, controlling for education and income, suggests that a common system of beliefs (either with regards to ideas of fairness or beliefs about the effect of taxation on one's willingness to work) influences the desire for income redistribution. The similar effect of these variables on redistribution to low and middle income individuals suggests that whatever this system is, it is not influenced by who receives the transfers.

Insight into ideological motivations for income redistribution can be drawn from responses to questions about another highly redistributive tax; the estate tax. The estate tax is a tax on the value of estates with a current exemption level of \$3.5 million in 2009. It is highly progressive and applies to relatively few taxpayers.⁶ The NPR survey asked whether respondents supported or opposed the elimination of the estate tax and why. Several of the possible reasons to support the estate tax were closely related to redistribution: specifically “it limits the power and influence of wealth,” and “wealthy people should give something back to the country when they die.” To the extent these sentiments are applicable to general income redistribution the responses may reflect the underlying ideology of the respondent. We construct an indicator variable (Limit Power of Wealth) equal to one if the respondent supported the estate tax for one or both of the above reasons. Columns 2 and 4 show this ideology variable has a statistically significant effect on the desire for income redistribution from high income to low income individuals. However, it does not appear to be related to redistribution from the high income to middle income people. Turning to column 6, we find the desire to limit the influence of wealth is associated with a 24 percentage point increase in the probability of supporting redistribution to low income individuals, even after controlling for income, political ideology and knowledge of the tax system. Support for redistribution to only those with low incomes may reflect a belief by some that everyone is entitled to some basic minimum standard of living.

2.3.4 Procedural Fairness

There is a strong tendency among economists, political philosophers, and policy makers to view redistribution as at the direct heart of the concept of justice—or to use the terminology of John Rawls, “justice as fairness.” Yet, psychologists and other social scientists who have

⁶ The Tax Policy Center in Washington DC. Estate tax page, January 2009.

examined the ideas of justice actually held by individuals find other important concepts as well. Wenzel (2003) distinguishes between three types of justice that are all important in the public finance arena. “Distributive justice” is what we have termed “redistribution” and refers to the overall allocation of resources and the burden of taxation. “Procedural justice” refers to the process that engenders a particular resource allocation. In the context of taxation, this refers to the range of interactions that taxpayers have with the government and tax authorities and whether taxpayers feel they are listened to and treated respectfully by the authorities. Finally, “restorative justice” refers to the sanction and punishments that accompany the breaking of social norms— (e.g. penalties, fines, and other sanctions) that would result from the authorities finding evidence of tax evasion.

Studies by Australian National University have examined the link between perceived procedural fairness and a willingness to comply with tax laws. Here we examine how people’s perceptions of procedural fairness influence their support for income redistribution by the federal government. Perceptions of taxpayer compliance can have complex effects on preferences for redistribution. If people feel the government is unable to enforce tax laws effectively, they may be less likely to support income redistribution through tax policy. On the other hand, if people believe that others are gaming the system, they may want to take some restorative action. In addition, if they trust the federal government to do the right thing in general, they may be more likely to support income redistribution by the federal government. Columns 2 and 4, suggest evidence in favor of the “gaming” interpretation. The belief that if a taxpayer cheats, he or she will cheat by a large amount (a similar idea to “gaming” the system) consistently increases support for income redistribution, though this effect is relatively small. Trust in the federal government has very little correlation with support for government redistribution of income. It appears as though concerns over procedural fairness, while very important in determining taxpayer compliance, have only modest affects on the desire for redistribution.

2.3.5 Knowledge and Redistribution

The prevailing consensus in taxation literature is that the average American knows little about the tax system and evaluates tax policies in irrational ways. For example, Slemrod (2006) shows that a large degree of support for a flat tax system is due to misperceptions of the progressivity of this proposal relative to the current tax system. The NPR study provides a tool to analyze the effect of respondents’ misconceptions on preferences for redistribution.

Respondents were asked a series of seven questions on current tax policies to gauge their understanding of the present tax regime.⁷ A variable (Tax System Knowledge) indicating the number of questions the respondent answered correctly is included in columns 2 and 4. The median respondent scored 3 out of 7, and only 6.2% of respondents answered all questions correctly. Each correctly answered question is associated with a statistically significant decrease in support for redistribution from high to low or middle income earners. As seen in the right half of the table, an additional correctly answered question is associated with a 5 to 6 percentage point decrease in support for redistribution at the median. Given the seven possible questions, the affect can be quite large.

There are several possible explanations for this effect. First, it is possible that as people learn about redistribution via the tax system they are less likely to support it. Respondents who are familiar with the tax code may be more cognizant that redistribution through income taxation decreases the marginal incentive to work or more aware that take-up of common redistribution schemes is uneven and may increase horizontal inequity. Alternatively, it is possible that respondents who are strongly or ideologically opposed to redistribution are more likely to study the tax system to provide support for their opinions. In this case causality runs from opinion to knowledge. Finally, it is possible that this correlation is due to some third factor. For example, those who believe wealth is determined by hard work and not luck may be more likely to seek a higher education which teaches them about the tax system and less likely to support redistribution because of these beliefs. This explanation is consistent with the results of Fong (2001) among others.

To explore this question, we look at the incremental affect of controlling for knowledge of the tax system after including controls for altruism, ideology and procedural fairness.⁸ Focusing on the marginal effects, we find that including the knowledge variable decreases the negative affect that having the top two levels of income or education has on the probability of supporting redistribution by at least one half of a standard error. This decrease is consistent with the idea that knowledge of the tax system decreases support for the redistribution *or* that the impact of an omitted variable that is correlated with income, education and knowledge of the tax system is being falsely attributed to the knowledge variable. We also see that controlling for knowledge

⁷ As many of these questions related to recent changes in the tax system, many economists may not have answered every question correctly.

⁸ These results are available upon request.

has very little incremental effect on the magnitude of the demographic and ideology coefficients. This suggests that if an omitted variable is the cause of our results it is not strongly related to the respondents underlying race, sex, family structure or political ideology.

As a whole, we can not conclusively determine whether educating people about the tax system decreases the support for redistribution or if the knowledge variable is capturing the effects of another omitted variable and believe this question deserves future study.

2.4 Concluding Thoughts

While Americans appear to favor similar levels of redistribution to the poor and the middle class, the determinants of these preferences differ slightly. We find that the self-defined "wealthy" exhibit altruistic feelings regarding transfers to the poor but not to the middle class. Results also suggest that the impact of second order environmental concerns are limited to redistribution to the poor. Finally, a desire for the wealthy to "give something back" or to "limit the power of the wealth" is correlated more strongly with demand for redistribution to the poor.

3. Concrete Demand for Redistribution

To obtain a more concrete measure of the actual level of redistribution desired, we perform a separate analysis on information collected in a 1995 poll sponsored by Readers Digest. This section then compares the determinants of abstract demand from the NPR survey with determinants of concrete demand using the Readers Digest survey.

3.1 Data

The Reader's Digest poll asked 1,015 respondents what percentage of income each of four income groups actually pays in total taxes, whether or not this amount is fair, and if not, how much the respondent thinks would be fair for each group to pay.⁹ The income groups considered are families earning \$25,000, \$50,000, \$100,000 and \$200,000. The survey also collected standard demographic information including the respondent's sex, age, race, education and income.

[Table 5]

⁹ More specifically the series of questions asked for each income level was as follows: "How about a family of 4 making, say, \$100,000 a year. What percentage of their income, do you think the family actually pays in taxes? Again we are talking about all taxes combined, and just your best guess is fine", "Do you think what they pay is too high, too low, or does it seem fair?" and "What's the highest percentage you think would be fair for a family making \$100,000 to pay when you add all their taxes together? Just your best guess is fine?"

Table 5 provides summary statistics on desired tax rates and basic demographic characteristics. The sample is similar to the NPR survey with respect to sex and marital status. The Readers Digest survey reached fewer minorities (13% as opposed to 28%) and fewer respondents had less than a high school degree (7% as opposed to 17%). The income distribution of respondents is similar to that of the NPR sample after adjustments for inflation. After converting the Reader's Digest income ranges to 2003 dollars using a 21% CPI correction factor, 12% of Readers Digest respondents had incomes of less than \$18,105 while 14% of NPR respondents had incomes less than \$20,000. Similarly, 53% of Readers Digest respondents had incomes of less than \$48,300, while 49% of NPR respondents had incomes under \$50,000.

On average, respondents believed that families earning \$200,000 or \$100,000 pay 27% of their total income in taxes. This value falls to 26% for those earning \$50,000 and 21% for those earning \$25,000. Actual federal tax burdens¹⁰ in 1995 were approximately 27.8%, 20.5%, 17.3% and 6.3% respectively.¹¹ Allowing for additional state income and sales tax burdens, the average respondent likely overestimated the tax rate paid by those earning \$25,000 and underestimated the tax burden on those earning \$200,000 per year. Table 5 also shows the rates respondents deemed fair for each income group. These rates, in descending order of income were 27%, 23%, 18% and 13%. On average, respondents felt that those earning \$200,000 were paying a fair amount in taxes, while those of lower incomes were paying between 4% and 9% too much.

3.2 Empirical Strategy

We create two measures of each individual's preference for redistribution. First, we attempt to recreate the measure of redistribution captured in the probit models of Table 3. We create a binary variable ("Redist") which takes a value of one when the respondent desires a higher tax rate on those earning \$200,000 than those earning \$25,000 (or \$50,000).¹² Redistribution to those earning \$25,000 can reasonably be interpreted as equivalent to redistribution to "low income" earners in the NPR study and \$50,000 is assumed equivalent to "middle income" earners. The second measure ("AdditionalRedist") divides the ratio of desired tax rates between two income groups by the ratio of perceived tax rates for those same income groups. This

¹⁰ This includes federal income tax, payroll taxes, excise taxes, and corporate taxes, but not state and local income and sales taxes.

¹¹ "Historical Effective Federal Tax Rates: 1979 to 2005 - Table 1a," Congressional Budget Office, December 2007.

¹² Twenty-five percent of the sample had no desire for redistribution to those earning \$25,000. Eighty-five percent of this group desired the same tax rate for those earning \$25,000 and \$200,000.

variable measures the extent to which individuals desire more or less redistribution than they perceive currently occurs. A value of one means that desired rates are in the same proportion as perceived rates, while values exceeding one mean that the individual wishes more redistribution to occur. This is a different type of measure than we analyzed in the NPR survey, as that survey focused on the desire of people for the government to engage generally in redistribution between income groups. With the second variable, we take a different focus and ask whether respondents prefer more or less redistribution than they believe currently occurs. We can conduct this analysis because we are given both desired and perceived tax rates.¹³

3.3 Results and Discussion

Table 6, columns 1 and 2 gives the marginal effects of a probit model of Redist - the simple measure of desired redistribution. Columns 3 and 4 display a weighted OLS analysis using AdditionalRedist - the measure of additional demand for redistribution beyond what the individual believes is presently occurring. Odd numbered columns look at redistribution from those earning \$200,000 to \$25,000 while even columns look at redistribution to those earning \$50,000. Coefficients are estimated with much less precision than the NPR results. Respondents lack of awareness regarding current levels of redistribution and cognitive tendencies to choose round numbers when asked open ended questions introduce noise and may bias results toward zero.

[Table 6]

The most direct comparison between the NPR and Readers Digest results is had by comparing Table 3, column 5 with Table 6, column 1 and Table 3, column 7 with Table 6, column 2. The effect of age and sex on the demand for redistribution is the most glaring difference between the two datasets. NPR data shows older respondents are significantly less likely to support redistribution while Reader's Digest data shows a more expected 9 percentage point increase in the probability of support. The significant penchant for women to favor redistribution in the NPR datasets is likely drowned out by noise in the Reader's Digest analysis. The sign of marital status, children, and minority status dummies are consistent across datasets. Income and education effects in the Readers Digest data are very close to zero. Overall, the

¹³ Regressing ratios of preferred tax rates on their determinants would conflate preferences for tax rates with perceptions of actual rates.

preferences for redistribution elicited by both concrete and abstract questions appear to be determined by similar factors, but noise prevents drawing a decisive conclusion.

Columns 3 and 4 examine the determinants of demand for additional redistribution beyond what the respondent believes currently occurs. Women and married respondents support more additional redistribution than male and single respondents. In contrast to the NPR results, minority status is associated with a decrease in support for additional redistribution in the Readers Digest dataset. As previously noted, the Readers Digest sample seemed to reach fewer, and perhaps different minority respondents than the NPR survey. The most notable result is the statistically significant effect of income on the desire to redistribute income to those earning \$25,000. The omitted group in column 3, those making less than \$15,000, supports higher levels of redistribution than all other income groups. Those earning over \$75,000 are strongly opposed to such redistribution. These two results are consistent with the results from the NPR dataset and likely reflect the respondents' self-interest. However, those that earn between \$15,000 and \$30,000 are also strongly and statistically significantly more opposed to redistribution than those earning \$15,000. On its face, this result is somewhat surprising since some fraction of these respondents would also benefit directly from such redistribution. It is possible that people are very sensitive to redistribution when it benefits people in similar circumstances but does not necessarily directly benefit them, and that our findings are being driven by this fact.¹⁴ These results are also broadly consistent with recent work by Powdthavee (2008) in finding that individuals are very sensitive to their precise ranking within a well-defined reference group.

Before turning to the issue of incentives, two other issues can bear on the limited preferences for redistribution that we highlighted in both survey results. First, "loss-aversion" theory suggests that people may be more worried about sharp decreases in income rather than gains, making them less likely to support redistribution to lower income individuals. Second, there is also a notion of "deservingness" that plays into the calculus. While this is typically not reflected in standard optimal tax models, the public typically wishes that support only go to the "deserving" poor, which can explain why work requirements for welfare are so ubiquitous.

¹⁴ Economic historian Stanley Lebergott noted a similar phenomenon with the level of welfare support and the average age in his book *Wealth and Want* (1975), Princeton University Press. A similar phenomenon is apparent in the second column of Table 6 where those earning \$75,000 and above are opposed to redistribution to those earning \$50,000.

4. Incentive Effects and Preferences for Redistribution

Previous sections have examined a number of variables that influence support for income redistribution. This section attempts to disentangle ideological support for income redistribution from beliefs about how tax progressivity affects the labor supply, declared taxable income and the total tax revenue raised. It is generally accepted that a high marginal tax rate will decrease the reward for economic effort, decrease taxable income (at least in the short run) and decrease labor supply at the intensive margin, although estimates of these effects differ. Slemrod and Bakija (2008) note that it is unknown whether “people consider the economic consequences of more or less progressive tax structures. Do their responses refer to what they think would be fair if progressivity had no cost, or do they refer to what is fair taking into account those costs?” We present the results of a survey designed to determine whether people consider the costs of progressivity when forming opinions about desired levels of redistribution. To control for biases that could occur in prior work, we take several steps. We introduce a potential control for metric effects (the fact that respondents desire different amounts of progressivity when questions are stated in dollar versus percent terms) on the stated desire for progressivity and also impose a budget constraint for tax revenue.¹⁵

4.1 Survey Design

One hundred and fifty survey participants were recruited using flyers posted at various public locations around the UC Davis campus. Volunteers were directed to a computer lab where they completed a computer-based survey and were paid a nominal fee for their participation. Fifty percent of volunteers (hereafter the treatment group) were randomly selected to answer a preparatory question on the effect of different tax rates on his or her willingness to work at a hypothetical, non-specific job. They were each prompted with the statement “Some economists

¹⁵ This survey was structured to address several problems that are commonly found in tax surveys. As shown in McCaffery and Barron (2004) subjects favor more progressiveness in tax burdens when taxes were expressed in percent than when they were expressed in dollars. Quoting a tax in dollar terms may create the illusion of progressivity where in fact there is none. We incorporate an interactive design to limit the influence of metric effect on desired levels of progressivity. It allows respondents to enter a tax rate in percentage terms then automatically displays the dollar value equivalent of that percent. Respondents are required to meet a particular dollar valued budget constraint – thereby ensuring respondents consider these dollar values while forming their opinions. Respondents are also asked to formulate their own concrete ideal distribution avoiding the tendency documented by Roberts, Hite, and Bradley (1994) to inflate desired progressivity in abstract settings. Another important aspect of question framing is whether respondents choose their desired distributions using a single tax rate for each income group, or apply an incremental tax schedule to the earnings of all families. Our survey design allow for the direct comparison of effective tax rates and progressivity under both question formats. Additional details are available in our Working Paper, Reed-Arthurs, Sheffrin (June 2009).

think that taxing income might discourage people from working” then asked “Hypothetically, if you could earn \$25 for one hour of work, but had to pay 20% of that in taxes, would you choose to work the hour? (You would earn \$20 after taxes if you chose to work).” This question was repeated with tax rates of 40%, 60% and 80%.

All volunteers were then asked how much four hypothetical families, each with two adults and one child, earning \$25,000, \$50,000, \$100,000 and \$225,000 respectively “should pay in taxes.” Volunteers entered desired tax rates as a percentage of income and the dollar value of the tax was automatically calculated and displayed on the side of the screen. Importantly, respondents were required to raise \$80,000 (or 20% of the total income available). Volunteers were prompted with an explanation of how incremental tax schedules work and asked to design an incremental tax schedule with brackets of \$0 to \$10,000, \$10,001 to \$25,000, \$25,001 to \$50,000, \$50,001 to \$75,000, \$75,001 to \$100,000, \$100,001 to \$150,000, \$150,001 to \$200,000 and \$200,001 to \$225,000. Volunteers were again required to raise \$80,000 from the four hypothetical families. The survey closed with a variety of questions about experience with the tax system and basic demographic characteristics. A complete analysis of the survey is available from the authors in a working paper version of this paper. In this paper, we present the results solely on the interactions between perceived incentive effects of taxation and desired progressivity.

Our use of a treatment and control group and an explicit prompt regarding the potential costs of high tax rates allow us to directly address the question posed by Slemrod and Bakija. There are three possible answers to the question of whether “responses refer to what [people] think would be fair if progressivity had no cost, or do they refer to what is fair taking into account those costs?” First, the average respondent could feel that the costs of progressivity have no relevance to the question of how much people *should* pay in taxes – only the fairness of the tax distribution should matter. Second, respondents could incorporate the costs of progressivity into their answers if they happen to realize that there are costs of progressivity, but otherwise do not. Third, respondents could automatically incorporate the cost of progressivity in their answers regardless of whether they are reminded or not.

Our experiment allows us to distinguish between these three possibilities. If people believe costs should be incorporated into questions of fairness but often forget that there are costs, one would expect that subjects receiving the reminder that taxing income might discourage people

from working will have a different tax distribution than control subjects. Equal levels of progressivity between the treatment and control groups either indicates that respondents feel the costs of progressivity should not be factored into answers about fairness or that all respondents factor such costs into their answers regardless of whether they are reminded of such costs.

Here is how we distinguish the two remaining cases. Each respondent's perceived cost of progressivity is a function of the rate at which she feels is sufficient to deter earnings or the declaration of taxable income. Assume that there is some level of heterogeneity in perceived costs and that the tax rate which will deter the respondent is correlated to the rate that the respondent feels will deter others. Then if respondents are factoring in the cost of progressivity when determining tax schedules, the maximum tax rate they assign should be correlated with the maximum rate at which they are willing to work. If people feel costs have no place in a question about fairness then the distribution of tax burdens of the treatment and control group should be equal and top end tax rates and the respondents willingness to work will be uncorrelated.

Full details of our sample and its characteristics are available from the authors.¹⁶ In terms of knowledge about taxes, about half of all respondents have filed a tax return at some point. The mean respondent considered herself to have an average level of knowledge about the tax system (a 2.4 on a scale of 1 to 5.) However only 34% were aware that federal income taxes were calculated using incremental brackets as opposed to a single rate per family.

4.2 Results

4.2.1 Desired Levels of Redistribution

While our focus in this section is on the relationship between preferences for redistribution and beliefs about incentives, we begin with a discussion of the expressed redistribution preferences. Figure 1 plots the mean of the desired rates for each income group as given under the single rate question and plots the equivalent rates calculated under the incremental schedule question. The average desired rates for the highest and lowest income groups are similar across question type (8.0 compared to 8.8 and 24.1 compared to 24.7) however desired rates seem to rise almost linearly with income when subjects are asked to create an incremental schedule, while there is a kink at \$100,000 when the question is framed as a

¹⁶ See our Working Paper, Reed-Arthurs, Sheffrin (June 2009) for a complete analysis of the data and results from this experiment.

single rate per income group. The difference in answers based on the framing of this question is striking and is discussed in more depth later in this section.

Figure 1 also plots the actual effective federal tax rate that each income group faced in 2006 according to the Congressional Budget Office¹⁷. Desired tax rates under both question types are flatter than actual effective federal tax rates. Figure 1 also plots the mean tax rates desired by respondents in the similarly structured 1995 Reader's Digest poll. The Readers Digest poll asked subjects to assign a single tax rate to each of four income groups. The path of desired tax rates are quite similar to those found in our survey, though perhaps because of the imposed budget constraint we find that desired tax rates in our survey are about 5% lower than those found by the Reader's Digest poll.

[Figure 1]

Most surveys on tax preferences solicit opinions in terms of average tax rates however the actual tax system is a complex system of graduated tax brackets, deductions and credits. This system means that individuals face changing marginal tax rates depending on how much they have already earned. Figure 2 graphs the mean desired marginal tax rates from the incremental schedule question of the survey as well as approximate marginal rates implied by the federal income tax schedule and the federal income tax schedule correcting for the Earned Income Credit, Social Security and Medicare (FICA) taxes and California state income tax rates.¹⁸ The change in desired marginal rates from the survey increases steadily for about 3.5% in the first step to 5.3% in the final step. Desired marginal rates are much higher than actual federal rates for income below \$10,000. After this point, unadjusted federal rates and desired survey rates trend within about 5% of one another. Marginal rates inclusive of California state taxes, the EITC and FICA taxes are considerably more complex than either survey results or base federal income tax rates.

[Figure 2]

While Figures 1 and 2 are useful in displaying raw tax rates there are more refined ways to represent the progressivity of a tax. One widely used measure is the Suits Index and the

¹⁷ Congressional Budget Office, Historical Effective Federal Tax Rates: 1976 to 2006. Available at <http://www.cbo.gov/doc.cfm?index=10068>.

¹⁸ Marginal rates are estimated using the 2006 federal and California state tax code for a married couple with one child, who filing jointly and take the standard deduction with no income adjustments. The effects of the EITC and the phase-out of payroll taxes are also included. The alternative minimum tax is not considered here.

associated Lorenz curve. The Lorenz curve is found by ranking families according to income, then graphing the cumulative tax burden born by these families on the y-axis and the cumulative income earned on the x-axis. The Suits Index value is calculated by taking one minus the ratio of the area under the Lorenz curve to the area under a 45 degree line which represents a proportional tax.¹⁹ If a tax is progressive then the cumulative tax burden falls below the 45 degree line when graphed against cumulative income and the Suits Index will be a number between 0 and 1. If a graph of the tax burden falls above the diagonal line the tax schedule is regressive and the Suits Index has a value between 0 and -1.

Figure 3 graphs the Lorenz curve for responses to the single rate and incremental schedule questions as well as that of the Readers Digest survey and the actual effective federal tax rates in 2006. All four lines fall below the 45 degree line and are thus progressive. The desired levels of progressivity found in both of our survey questions are bounded on the high end by the progressivity of actual effective tax rates and on the low end by that found in the Reader's Digest survey.

[Figure 3]

4.2.2 Incentive Effects

Now we return to the question posed by Slemrod and Bakija. Figure 4 breaks out the Lorenz curves for the treatment and control groups of both the single and incremental rate questions. We see that the Lorenz curves for the treatment and control group under the single rate question are virtually identical. There is a slightly larger difference when answers are given using incremental tax rates, however when compared with the overall variance of Suites Index values for the entire sample, this difference is negligible. A two group difference-in-means test on the Suits Index shows no statistically significant difference between the treatment and control groups for either question form.²⁰

[Figure 4]

Recall that under the hypothesis, equal levels of progressivity between the treatment and control groups indicates either that respondents feel the costs of progressivity should not be

¹⁹ See Suits (1977).

²⁰ T statistics of -0.32 and -0.86 respectively.

factored into answers about fairness or that all respondents factor such costs into their answers regardless of whether they are reminded of such costs. If respondents are factoring in the cost of progressivity when determining tax schedules, the maximum tax rate they assign should be correlated with the maximum rate at which they are willing to work. In fact, the correlation between the maximum assigned rate and the maximum rate the subject is willing to work is a negligible 0.007 with a t-statistic of 0.09. Further, one might expect that if respondents are factoring in the cost of progressivity, they may avoid assigning tax rates above which they are willing to work. In fact, at least 13 of 75 respondents did just that – assigning a tax rate to incremental income so high that they themselves would choose not to work.²¹ There is convincing evidence that the average survey respondent does not consider the cost of progressivity when determining desired tax rates – nor does she think it is relevant.

5. Conclusions

Our series of econometric investigations of public opinion, both through surveys and experimental methods, revealed little thirst at the median for additional redistribution of income through the tax system from the American public over the status quo. Individuals are interested in how changes in taxes affect them, thus explaining why there was more aggregate support for redistribution to flow from the wealthy towards the middle-class, rather than for the poor. There was also evidence that individuals are concerned that those with similar incomes should not receive any benefits that they also do not receive. While demand for redistribution to the middle class is driven by self-interest, preference formation for redistribution to the poor is more complex. Those that deemed themselves “wealthy” supported more redistribution. After controlling for measures of self-interest, political ideology and values also played a significant role in determining desired redistribution. Under both types of redistribution, those individuals who are objectively more knowledgeable about the tax system, preferred less redistribution. The determinants of demand are similar under concrete and abstract specifications.

Our experimental study was conducted primarily to determine whether the public’s preferences for progressivity did or did not incorporate judgments about the disincentive effects

²¹ Thirty-seven respondents assigned rates above the last level at which they said they were willing to work; Thirteen respondents assigned rates higher than the level at which they were not willing to work. Given the discrete nature of the data, the percentage assigning rates higher than levels at which they would stop working would fall between these two numbers.

of taxation. Our experimental results suggest that not only does the public not include these incentive effects into their expressions for desired progressivity; but that they do not believe they should be included. In other words, the public separates judgments of progressivity from judgments of economic efficiency. Policymakers, however, cannot enjoy the luxury of such a separation. To the extent they believe that the disincentive effects of taxation are important and they also wish to respect public opinion, they may wish to make the tradeoffs explicit and implement less redistributionist policies.

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Figure 1: Desired vs. Actual Effective Average Tax Rates

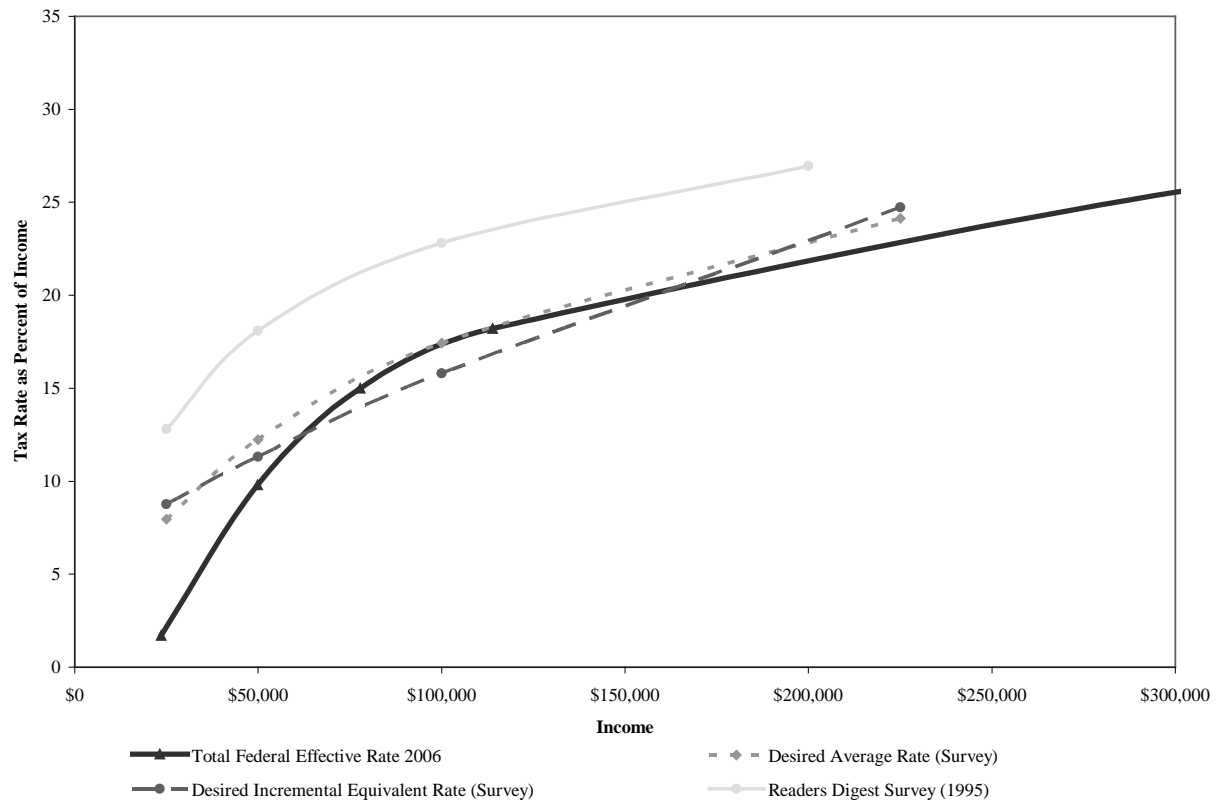


Figure 2: Marginal Tax Rate Schedule

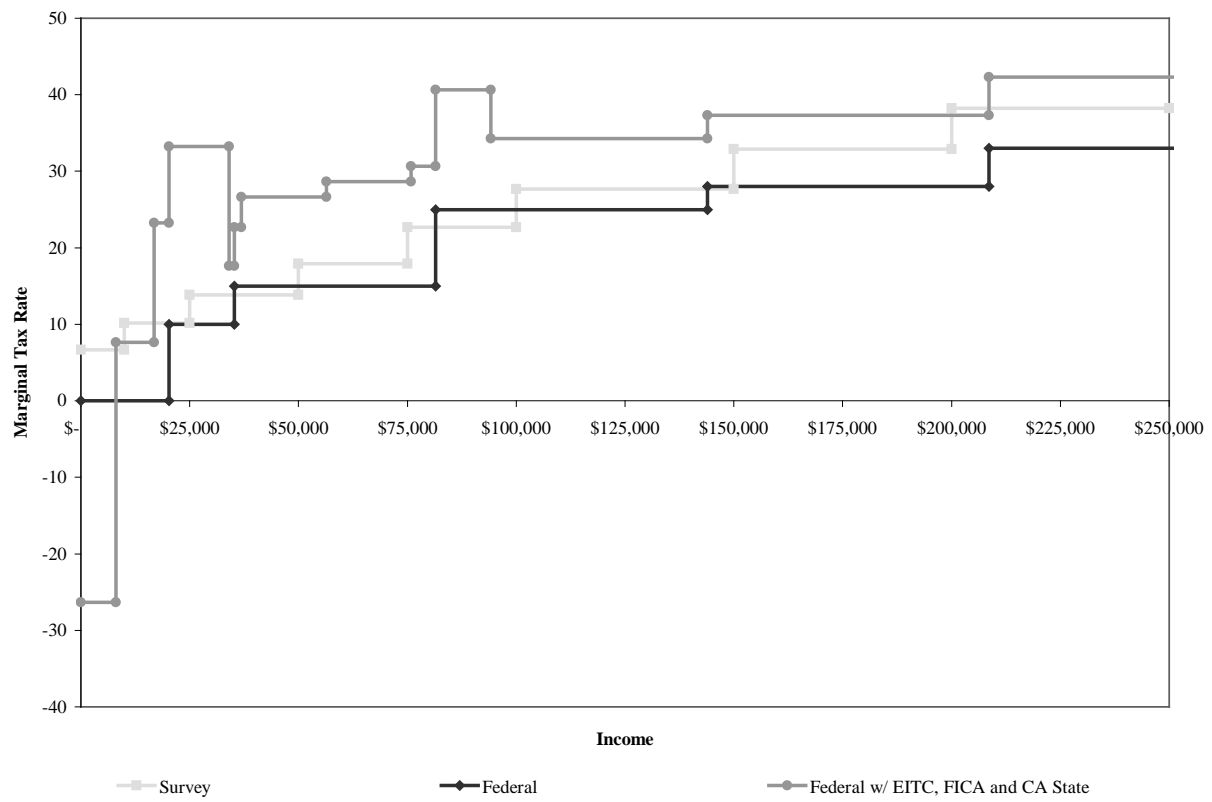


Figure 3: Suits Index and Progressivity

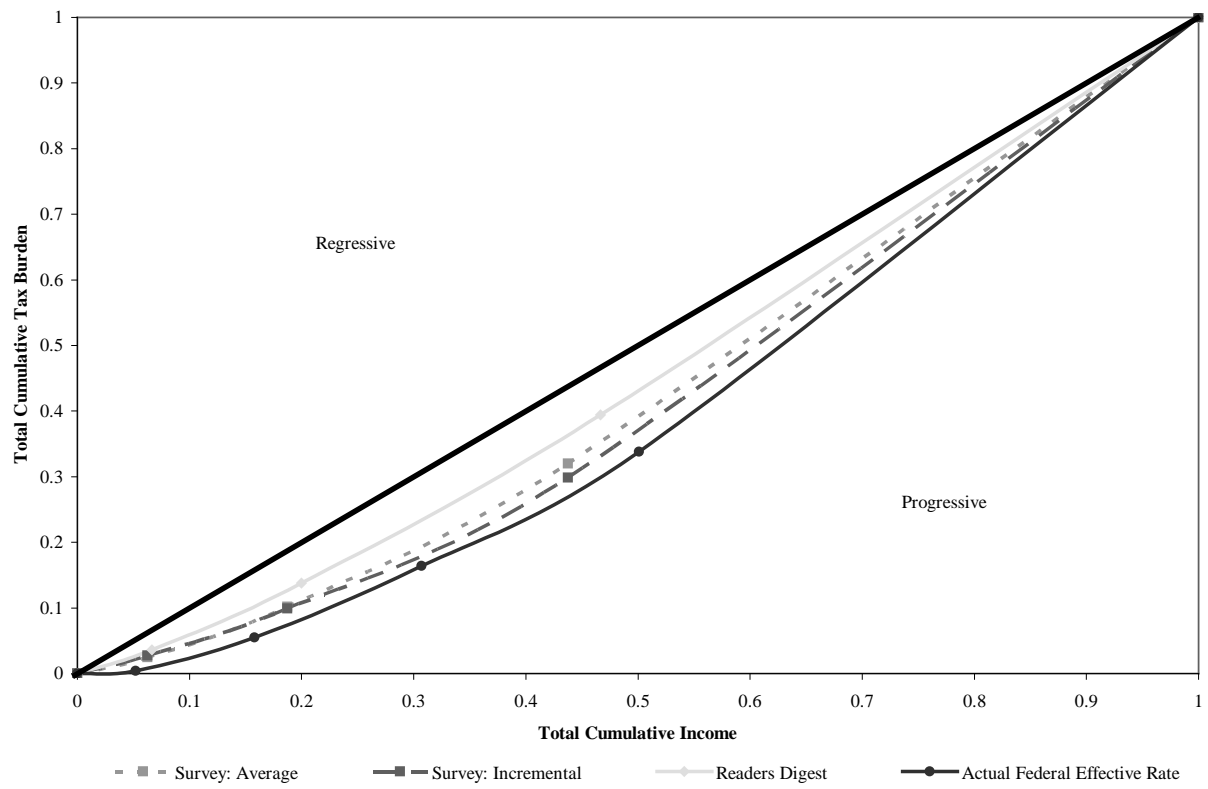


Figure 4: Comparison of Progressivity of Treatment and Control Group Distributions

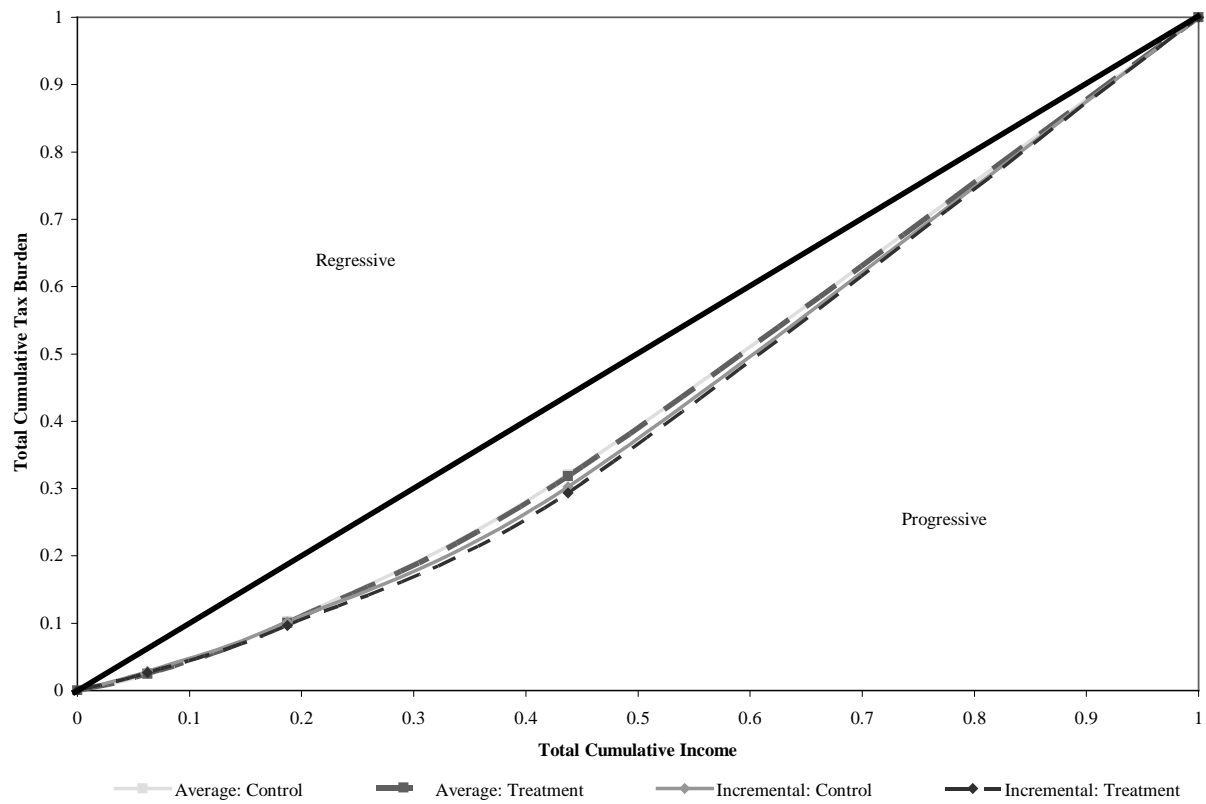


Table 1
Summary Statistics - NPR Survey Data

	Obs	Mean	Std. Dev.	Min	Max
Redistrib. From High To Mid - Ordinal	660	3.258	1.630	1	5
Redistrib. From High To Low - Ordinal	678	2.995	1.621	1	5
Redistrib. From High To Mid - Binary	655	0.580	0.494	0	1
Redistrib. From High To Low - Binary	637	0.507	0.500	0	1
Age 18 To 29	1,319	0.218	0.413	0	1
Age 30 To 49	1,319	0.409	0.492	0	1
Age 50 To 64	1,319	0.212	0.409	0	1
Age 65 Or Over	1,319	0.161	0.368	0	1
Female	1,339	0.519	0.500	0	1
Married	1,333	0.555	0.497	0	1
Children	1,336	0.379	0.485	0	1
Minority	1,322	0.280	0.449	0	1
Less Than High School Degree	1,335	0.170	0.375	0	1
High School or Equivalent	1,335	0.296	0.456	0	1
Some College	1,335	0.292	0.455	0	1
College Or More	1,335	0.243	0.429	0	1
Income: Under \$20K	1,339	0.145	0.352	0	1
Income: \$20K - \$30K	1,339	0.151	0.358	0	1
Income: \$30K - \$50K	1,339	0.191	0.393	0	1
Income: \$50K - \$75K	1,339	0.181	0.386	0	1
Income: \$75K - \$100K	1,339	0.108	0.311	0	1
Income: \$100K - \$150K	1,339	0.059	0.236	0	1
Income: Over \$150K	1,339	0.044	0.205	0	1
Income: Not Stated	1,339	0.121	0.326	0	1
Urban	1,339	0.504	0.500	0	1
Suburban	1,339	0.275	0.447	0	1
Rural	1,339	0.221	0.415	0	1
Democrat	1,308	0.452	0.498	0	1
Republican	1,308	0.361	0.480	0	1
No Party Affiliation	1,308	0.187	0.390	0	1
Political Liberal	1,328	0.164	0.371	0	1
Political Moderate	1,328	0.267	0.442	0	1
Political Conservative	1,328	0.247	0.432	0	1
Limit Power of Wealth	1,339	0.101	0.301	0	1
Believe Many Taxpayers Cheat	1,287	0.697	0.460	0	1
Believe Cheaters Cheat A Lot	1,186	0.438	0.496	0	1
Trusts Federal Gov't	1,320	0.650	0.477	0	1
Tax System Knowledge	1,339	2.984	1.759	0	7

Table 2
Government Should Reduce Differences in Income Between:

	<u>High and Low Income People</u>	<u>High and Middle Income People</u>
	[1]	[2]
Strongly Disagree	246	203
Somewhat Disagree	123	106
Don't Know	23	23
Somewhat Agree	126	124
Strongly Agree	160	204
Refused	<u>0</u>	<u>1</u>
Total	678	661
Weighted Mean	2.99	3.26

Table 3
Determinants of Support for Income Redistribution - NPR Survey Data

	Ordered Probit				Probit - Marginal Effects			
	High to Low		High to Mid		High to Low		High to Mid	
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Age 30 to 49	-0.07 (0.173)	0.03 (0.181)	-0.18 (0.191)	-0.13 (0.195)	-0.14 (0.097)	-0.12 (0.098)	-0.06 (0.089)	-0.03 (0.093)
Age 50 to 64	-0.06 (0.195)	0.06 (0.201)	-0.05 (0.206)	0.06 (0.210)	-0.13 (0.102)	-0.10 (0.105)	-0.05 (0.097)	0.00 (0.101)
65 or Over	-0.13 (0.221)	-0.04 (0.231)	-0.16 (0.243)	-0.02 (0.244)	-0.17 (0.107)	-0.15 (0.112)	-0.07 (0.119)	0.01 (0.120)
Female	0.21* (0.110)	0.16 (0.116)	0.47*** (0.115)	0.39*** (0.115)	0.11** (0.052)	0.11** (0.054)	0.17*** (0.052)	0.14** (0.054)
Married	0.21* (0.124)	0.28** (0.127)	-0.13 (0.128)	-0.10 (0.135)	0.12** (0.060)	0.15** (0.061)	-0.08 (0.061)	-0.06 (0.064)
Children	-0.07 (0.132)	-0.11 (0.135)	-0.12 (0.130)	-0.10 (0.131)	-0.03 (0.067)	-0.04 (0.069)	-0.03 (0.061)	-0.02 (0.062)
Minority	0.41*** (0.132)	0.29** (0.142)	0.33** (0.140)	0.23 (0.146)	0.14** (0.064)	0.10 (0.069)	0.04 (0.064)	-0.01 (0.068)
High School or Equivalent	-0.04 (0.195)	0.10 (0.202)	-0.13 (0.197)	-0.01 (0.203)	-0.13 (0.106)	-0.09 (0.108)	-0.08 (0.101)	-0.04 (0.104)
Some College	-0.39** (0.195)	-0.13 (0.208)	-0.38* (0.200)	-0.18 (0.210)	-0.26** (0.101)	-0.18* (0.110)	-0.22** (0.099)	-0.14 (0.105)
College	-0.56*** (0.217)	-0.34 (0.231)	-0.42* (0.220)	-0.20 (0.227)	-0.34*** (0.097)	-0.27** (0.109)	-0.22** (0.106)	-0.13 (0.114)
Graduate School	-0.74*** (0.244)	-0.47* (0.268)	-0.47** (0.234)	-0.24 (0.245)	-0.39*** (0.086)	-0.33*** (0.107)	-0.22** (0.111)	-0.12 (0.125)
Age < 30 * College or Higher	0.19 (0.281)	0.23 (0.280)	0.04 (0.298)	-0.01 (0.311)	-0.05 (0.142)	-0.04 (0.144)	0.05 (0.145)	0.03 (0.154)
Income: \$20k or Less			-0.39** (0.176)	-0.37** (0.179)			-0.12 (0.091)	-0.10 (0.093)
Income: \$20k - \$50k	-0.20 (0.171)	-0.12 (0.181)			-0.07 (0.088)	-0.01 (0.092)		
Income: \$50k - \$75k	-0.18 (0.214)	-0.14 (0.219)	0.13 (0.158)	0.13 (0.162)	-0.09 (0.105)	-0.06 (0.108)	0.07 (0.071)	0.08 (0.073)
Income: \$75k - \$100k	-0.45** (0.207)	-0.47* (0.241)	-0.23 (0.219)	-0.18 (0.237)	-0.13 (0.111)	-0.07 (0.125)	-0.06 (0.087)	-0.05 (0.096)
Income: \$100k - \$150k	-0.42 (0.257)	-0.36 (0.284)	-0.48** (0.208)	-0.44* (0.229)	-0.16 (0.119)	-0.09 (0.132)	-0.25** (0.106)	-0.26** (0.113)
Income: Over \$150k	-0.72*** (0.215)	-0.83*** (0.289)	-0.57*** (0.207)	-0.52* (0.268)	-0.21** (0.099)	-0.30*** (0.114)	-0.19** (0.088)	-0.23** (0.114)
Suburban	-0.29** (0.130)	-0.28** (0.131)	-0.03 (0.132)	-0.01 (0.137)	-0.13** (0.061)	-0.13** (0.063)	-0.06 (0.060)	-0.05 (0.062)
Rural	-0.11 (0.137)	-0.13 (0.144)	-0.07 (0.146)	-0.04 (0.147)	-0.04 (0.071)	-0.05 (0.075)	-0.07 (0.073)	-0.07 (0.073)
Almost Wealthy		-0.01 (0.168)		0.07 (0.170)		-0.08 (0.077)		0.06 (0.074)
Wealthy		0.51* (0.285)		0.15 (0.246)		0.35*** (0.070)		0.16 (0.104)
Republican		-0.23* (0.134)		-0.13 (0.140)		-0.08 (0.067)		-0.02 (0.065)
Political Conservative		-0.17 (0.136)		-0.16 (0.147)		-0.04 (0.068)		-0.03 (0.065)
Limit Power of Wealth		0.51*** (0.185)		-0.18 (0.201)		0.24*** (0.073)		-0.11 (0.089)
Believe Many Taxpayers Cheat		-0.08 (0.121)		0.21 (0.133)		-0.02 (0.062)		0.13** (0.059)
Believe Cheaters Cheat A Lot		0.18 (0.115)		0.04 (0.118)		0.10* (0.054)		0.03 (0.055)
Trusts Federal Government		0.05 (0.118)		-0.10 (0.125)		-0.01 (0.058)		-0.01 (0.057)
Tax System Knowledge		-0.10** (0.041)		-0.12*** (0.040)		-0.05*** (0.018)		-0.06*** (0.019)
Pseudo R2	0.05	0.07	0.05	0.06	0.1	0.15	0.08	0.11
Observations	524	524	500	500	511	511	490	490

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Omitted Groups: age 18 to 29, education < high school diploma, urban, self-perceived far from wealthy, democrats, political liberals, moderates and unidentified, those who believe few taxpayers cheat and trust the government.

Table 4
Definition of "Wealthy" Given Own Income

Income	Wealthy if annual income greater than...							Total
	\$50k	\$75k	\$150k	\$350k	\$500k	\$1000k	>\$1000k	
<\$20,000	46	30	39	14	6	3	0	138
\$20,000 - \$30,000	32	29	65	22	5	1	0	154
\$30,000 - \$40,000	20	22	48	24	3	1	0	118
\$40,000 - \$50,000	8	8	64	19	3	1	1	104
<\$50,000 - Unspecified	2	4	13	6	3	0	0	28
\$50,000 - \$60,000	3	12	57	30	3	3	0	108
\$60,000 - \$75,000	1	9	63	42	7	4	2	128
\$75,000 - \$100,000	2	2	72	63	8	3	0	150
\$100,000 - \$150,000	1	4	33	38	7	4	1	88
\$50,000 - \$150,000 - Unspec	3	5	10	17	6	1	0	42
\$150,000 - \$300,000	4	2	47	71	18	9	4	155
\$300,000 - \$500,000	0	1	6	16	4	6	0	33
>\$500,000	0	0	3	4	4	1	2	14
>\$150,000 Unspec	0	0	1	4	1	0	0	6
Refused	0	4	13	20	9	6	2	54
Total Respondents	122	132	533	386	86	43	12	1,339

Table 5
Summary Statistics - Reader's Digest Data

	Obs	Mean	Std. Dev.	Min	Max
Age	1,013	44.60	17.48	17	89
Female	1,006	0.52	0.50	0	1
Married	1,011	0.53	0.50	0	1
Children	1,015	0.40	0.49	0	1
Minority	1,009	0.13	0.34	0	1
Less Than H.S. Ed	1,015	0.07	0.26	0	1
High School Degree	1,015	0.35	0.48	0	1
Some College	1,015	0.26	0.44	0	1
College	1,015	0.20	0.40	0	1
Graduate School	1,015	0.11	0.31	0	1
Income: Under \$15K	1,015	0.12	0.33	0	1
Income: \$15k - \$30k	1,015	0.24	0.43	0	1
Income: \$30k - \$40k	1,014	0.17	0.37	0	1
Income: \$40k - \$50k	1,015	0.11	0.31	0	1
Income: \$50k - \$75k	1,015	0.16	0.37	0	1
Income: \$75k - \$100k	1,015	0.07	0.26	0	1
Income: Over \$100k	1,015	0.05	0.21	0	1
Income: Not Stated	1,015	0.08	0.27	0	1
Perceived Tax Rate of \$200k	878	27.56	15.02	0	95
Perceived Tax Rate of \$100k	901	27.37	12.63	0	75
Perceived Tax Rate of \$50k	911	25.52	11.66	0	80
Perceived Tax Rate of \$25k	904	20.79	12.39	0	99
Fair Tax Rate for \$200k	890	26.95	13.44	0	85
Fair Tax Rate for \$100k	917	22.81	11.16	0	75
Fair Tax Rate for \$50k	926	18.10	9.41	0	65
Fair Tax Rate for \$25k	924	12.81	9.12	0	99
Redist: \$200k to \$25k	802	0.75	0.43	0	1
Redist: \$200k to \$50k	858	0.65	0.48	0	1
AdditionalRedist: \$200k to \$25k	743	2.77	8.01	0	165
AdditionalRedist: \$200k to \$50k	802	2.58	15.75	0	500

Table 6
Determinants of Support for Income Redistribution - Readers Digest Data

	Probit: Redist ^a		OLS: Additional Redist ^b	
	\$200k to \$25k	\$200k to \$50k	\$200k to \$25k	\$200k to \$50k
	[1]	[2]	[3]	[4]
Age 30 to 49	0.00 (0.05)	-0.12** (0.06)	0.41 (0.49)	1.40 (1.11)
Age 50 to 64	0.03 (0.06)	-0.09 (0.07)	0.86 (1.48)	0.61 (0.71)
65 or Over	0.09 (0.06)	0.04 (0.07)	-1.07* (0.61)	-0.27 (0.39)
Female	-0.01 (0.03)	-0.01 (0.04)	0.57 (0.54)	0.92 (0.96)
Married	0.03 (0.04)	0.01 (0.04)	1.02*** (0.33)	1.25 (0.89)
Children	-0.02 (0.04)	-0.01 (0.04)	0.70 (0.66)	0.92* (0.55)
Minority	0.10* (0.05)	0.14** (0.06)	-0.38 (0.60)	-1.05 (0.96)
High School or Equiv.	-0.05 (0.08)	-0.00 (0.09)	0.69 (0.67)	1.09 (1.35)
Some College	-0.03 (0.09)	0.02 (0.09)	0.87 (0.96)	0.14 (0.63)
College	-0.02 (0.09)	-0.01 (0.10)	1.27 (1.03)	0.45 (0.75)
Graduate School	0.03 (0.09)	0.02 (0.10)	1.33 (1.14)	0.42 (0.66)
Age < 30 * College or Higher	0.07 (0.07)	-0.01 (0.10)	-1.13 (0.94)	0.59 (1.17)
Income \$15k or Less		-0.07 (0.09)		1.41* (0.81)
Income: \$15k - \$30k	-0.03 (0.07)	-0.09 (0.07)	-1.60** (0.77)	0.38 (0.35)
Income: \$30k - \$40k	0.04 (0.07)	-0.00 (0.07)	-0.26 (1.02)	3.62 (2.97)
Income: \$40k - \$50k	0.00 (0.08)		-2.13** (0.94)	
Income: \$50k - \$75k	-0.07 (0.08)	-0.06 (0.07)	-1.04 (1.33)	0.30 (0.50)
Income: \$75k - \$100k	-0.02 (0.09)	0.02 (0.08)	-3.18*** (1.11)	-0.42 (0.38)
Income: Over \$100k	-0.02 (0.10)	-0.01 (0.09)	-3.13** (1.27)	-1.20** (0.47)
Income: Not Stated	-0.03 (0.09)	-0.06 (0.09)	-2.03** (0.98)	0.46 (0.58)
Observations	786	840	729	784
R-squared (Pseudo R-squared)	0.02	0.02	0.03	0.01

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

^a Marginal effects reported. Omitted categories: age < 30, male, single, white, educ. less than high school degree, income < \$15,000.

^b Dependent variable calculated as (Fair Rate: \$200,000 / Perceived Rate: \$200,000) / (Fair Rate: \$25,000 / Perceived Rate: \$25,000)
Omitted categories: age < 30, male, single, white, educ. less than high school degree, \$40,000 < income < \$50,000.