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Measuring Preferences for Income Equality and Income Mobility

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Abstract

This paper quantifies preferences for income equality and mobility by generating statistics that are uncorrelated with beliefs and can be interpreted as marginal rates of substitution (MRS). All else constant, U.S. residents are willing to reduce average income by $2,744 to reduce the 90/10 income inequality ratio one unit and $1,228 to increase income mobility from the bottom quintile one percentage point. Democrats and Independents have similar preferences for both social variables, while Republicans have an MRS that is about two-thirds of Democrats and Independents for both income inequality and mobility.

JEL: D31, D63, J62.

Keywords: Income inequality, income mobility, social preferences.

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1 Introduction

How much income (and whose) are U.S. residents willing to exchange for improvements in equality or mobility? How much inequality (or lack of income mobility) will U.S. residents tolerate if the society has greater mobility (or more equality)? To what extent do preferences for these social goods overlap among income and political groups, if at all?

Answers to these questions are needed if public policies are to enact people's preferences. Yet, stated preferences for these social goods are confounded by individuals' beliefs (whether they are accurate or not) about the correlations between income levels, income equality, and income mobility (Corak, 2013; Becker et al., 2018; Alesina et al., 2020), undermining our understanding of public opinions for these social goods.

To address this need, the main contributions of this paper are to (i) provide an empirical approach that gives an economic interpretation to aggregate and individual preferences for income equality and mobility; and (ii) identify patterns in the distribution of social preferences within and across groups, paying particular attention to the level of agreement and disagreement among respondents' preferences.

Our empirical approach is to present individuals with a sequence of discrete choice experiments (DCEs) in which income inequality, income mobility, and income levels are randomly assigned, thereby eliminating confoundedness. In practice, we implement DCEs where individuals have to choose between societies with different income levels along the income distribution, different levels of income inequality (measured as the 90/10 income inequality ratio (IIR)), and different levels of income mobility (measured as percentage of children born into the bottom 20% of household income who move to the top 80% of income as adults).

These DCE experiments generate coefficients that can be converted into marginal rates of substitution (MRS) and used for willingness-to-pay (WTP) calculations, in terms of social income, for improvements of income equality/mobility. These estimated MRS and WTP statistics have an economic interpretation that allows us to compare preferences for mobility and equality despite these statistics having a different cardinal metric. We also describe

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heterogeneity by estimating the MRS and WTP from different sub-samples of the population and using an adaptive survey design that helps us to understand the social preferences of individuals. Understanding the heterogeneity in preferences for equality and mobility is useful insofar as it provides an understanding of the conflicts, agreements, and values across different groups of residents, which is particularly important when we consider that social preferences are a significant predictor of political action (Fisman et al., 2017).

We find that the average respondent is willing to exchange $2,744 of average social income to reduce the 90/10 income ratio by one unit and $1,228 to increase bottom-up mobility by one percentage point. In distributional terms, the average respondent has a WTP of $3,076 to reduce income inequality 10 percentiles of the income inequality distribution among metropolitan areas and $2,523 to increase income mobility 10 percentiles of the income mobility distribution among commuting zones. Most respondents tend to have prioritarian preferences, meaning that income inequality aversion is explained by a desire to increase bottom incomes as opposed to reducing top incomes, and the average respondent is willing to trade $4,414 of middle income to increase bottom income by $1,000 but is only willing to trade $56 of middle income to increase top income by $1,000.

We find very little evidence that self-interest explains respondents' willingness to exchange average income for income equality. When respondents are randomly asked to consider a society they would occupy versus a society they will never occupy, preferences are the same. Moreover, respondents' own income hardly moderates distributional preferences. For example, middle income respondents are willing to exchange $4,415 of middle income (i.e., their own theoretical income) to increase bottom incomes by $1,000, and top income respondents are unwilling to exchange middle income to increase top incomes (i.e., their own theoretical income).

Differences by party affiliation are substantial, however. Democrats are willing to trade $1,220 more than Republicans to reduce income inequality one unit ($1,367 for 10 percentiles) and $575 more to increase income mobility 1 percentage point ($1,182 for 10 percentiles).

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Between Democrats and Republicans, income inequality preferences diverge primarily via their preferences for incomes at the top quintile. Democrats and Independents are unwilling to substitute middle incomes for top incomes, whereas Republicans are willing to trade $197 of middle income to increase the top income by $1,000 ($1,920 for 10 percentiles).

Despite these differences, a plurality of respondents, including Republicans, are willing to exchange meaningful amounts of middle income to benefit bottom incomes, reduce income inequality, and increase income mobility. Republicans, for example, are willing to exchange $2,029 of average incomes to reduce income inequality one unit ($2,275 for 10 percentiles), $940 to increase income mobility one percentage point ($1,931 for 10 percentiles), and exchange $3,862 of middle incomes to increase bottom incomes $1,000 ($5,672 for 10 percentiles). Leveraging an adaptive survey that classifies individuals into eight bins indicating their willingness to trade social income for greater income equality and mobility, we find that more than half of respondents are willing to trade at least $2,320 to reduce the income inequality ratio one unit and $1,932 to increase mobility one percentage point.

We further decompose preferences within party groups by testing whether individual-level characteristics predict variation in preferences for equality/mobility. Among Democrats, preferences for income mobility are mostly homogeneous, as age, income, experience with and beliefs about mobility do not moderate preferences for mobility. For Republicans, preferences for mobility are more heterogeneous, as income and experience with mobility moderate preferences for mobility. For income inequality, however, there is more heterogeneity within Democrats than Republicans. Among Democrats, Hispanics, those who experienced mobility, and those who believe that mobility is possible have a lower MRS for income equality. In contrast, among Republicans, only Hispanics have a lower MRS for income equality.

An important limitation of the study is that preferences for a distribution of goods do not entail preferences for a redistribution of goods. It may be that some respondents desire an arrangement of capital, labor, and markets that would permit their preferred distribution of goods but do not countenance disruptions via government intervention to that initial

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arrangement (as has been argued by Hayek (1973, ch. 2), for example). Alternatively, informational asymmetries in people's understanding of the level of inequality and mobility or the effects of government intervention may be prevalent and correlated with party affiliation and political action (e.g., Alesina & La Ferrara, 2005; Kuziemko et al., 2015; Fisman et al., 2017), resulting in low support for policies that would promote desired distributions of goods. These frictions that disrupt the translation of people's preferences to desired end-states are critical for study, but establishing baseline preferences for the distributions of these social goods is a necessary first step, as this maps out the goals governmental policy could potentially pursue. Establishing these baseline preferences is what our paper aims to do.

The remainder of this paper is organized as follows. Section 2 reviews the existing literature. Sections 3, 4 and 5 explain the survey design, data, and methods, respectively. The results are in section 6, and the conclusion is in section 7.

2 Background Literature

The goal of this paper is to generate statistics that describe individuals' preferences for different types of societies as they relate to income levels, income inequality, and income mobility. We focus on income because it is a staple for improving social well-being and, for some welfarists, it is the only attribute needed to describe social well-being (e.g., Harsanyi, 1975). Yet, the distribution of income has been a subject of study since at least Ricardo (1821) and has functioned as a metric of characterizing social well-being since at least Atkinson et al. (1970). Indeed, multiple experimental studies have demonstrated that inequality aversion is an important component of individuals' welfare criteria (e.g., Tricomi et al., 2010). Meanwhile, equality of opportunity has been consistently regarded as a core "American" social value[1] and, in the last decade, intergenerational income mobility has gained popularity as a key social variable (Chetty et al., 2014; Alesina et al., 2018). Indeed, for some political

[1]For example, nearly 90% of Pew survey respondents across time have agreed that "our society should do what is necessary to make sure that everyone has an equal opportunity to

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theorists (e.g., Rawls, 2009), equal opportunity has lexicographic priority over equality of income.

A great deal of research has examined people's preferences for these three social goods, with different methodologies and objectives. Our review of the literature suggests the following incomplete but hopefully helpful taxon that distinguishes these areas of study along the following three dimensions: (i.a) measurement of individuals' preferences (e.g., inequality aversion, or willingness-to-pay) versus (i.b) explanations for the preference; (ii.a) describing preferences for income equality or income mobility separately, versus (ii.b) describing them jointly; (iii.a) mapping individuals' preferences to salient characteristics of the person, such as party affiliation, versus (iii.b) providing homogeneous or average descriptions. In this paper, we (i.a) quantify individuals' preferences for (ii.b) equality and income mobility jointly and (iii.a) map these preferences to respondent characteristics to describe how much overlap there is in a nationally representative sample.

Many studies use survey or observational data to provide a quantitative description of individual preferences for income equality (but not mobility) that go beyond simple statements about the desirability of income equality. This literature is useful because traditional survey research (e.g., from the General Social Survey or Pew) has not separated the desirability for a given distribution of income or opportunity set from beliefs about the costs of these characteristics. For example, Fisman et al. (2021) find that individuals do not value income at the top, positively value income at the bottom, and prefer to reduce the incomes of those whose incomes are just above their own. Similarly, Corneo & Fong (2008) estimate that households have a willingness-to-pay of about one-fifth of their disposable income to implement a preferred income distribution, and educated white respondents have greater willingness-to-pay than less educated non-white respondents.

In related research but with less attention to heterogeneity, Johansson-Stenman et al. (2002) provide individuals with hypothetical societies for their future grandchildren and

succeed," (Pew, 2011).

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randomly set a uniform distribution of income. They find high levels of inequality aversion in their sample. Similarly, Amiel & Cowell (1999) and Pirttilä & Uusitalo (2010) use a leaky bucket experiment, which imposes a social cost to redistribute income, and find a wide range of inequality aversion. In general, these papers focus on income inequality and not mobility.

Another set of studies provide explanations of individuals' preferences for equality or mobility using survey or observational data. This literature is useful, in part, because understanding what motivates social preferences can help identify policies that would engender particular distributive goals. For example, if people have different beliefs about levels of inequality, then providing correct information may cause preferences for redistribution to change (e.g., Kuziemko et al., 2015). One common approach in this area identifies empirical correlations between a society's level of income inequality and its members' observed level of well-being. Then, contextual factors—such as credit constraints (Benabou, 2000), social mobility (Piketty, 1995; Alesina & La Ferrara, 2005)—are used to explain preferences for the resulting distributions of income. In general, this line of research points to a competing relationship between income mobility and income equality as social goods: individuals' positive experiences with and beliefs about mobility tend to decrease the support for redistribution.

Survey experiments are also used to test whether preferences for equality or mobility can be explained by informational asymmetry or differences in beliefs. Kuziemko et al. (2015) and Alesina et al. (2018), for example, find that conservatives underestimate inequality and overestimate mobility but are mostly unresponsive to exogenously provided information correcting those beliefs. Meanwhile, Almås et al. (2020) design a survey-based experiment to test whether differences in fairness views or preferences for efficiency explain observed policy differences between U.S.and Scandinavian societies. The authors introduce different sources of inequality—luck or productivity—and variation in the cost of redistribution to identify the prevalence of respondents who have luck egalitarian, meritocratic, or efficiency views. The authors conclude that differences in fairness views, instead of differences in preferences for efficiency, explain policy heterogeneity.

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Our work fills two gaps in the literature. First, research in this area has not described preferences for income mobility, nor has it disambiguated preferences for mobility from preferences for equality. Second, mapping preferences to individual characteristics has been fairly limited in this area, especially as it relates to party affiliation. We emphasize the importance of party affiliation because the political science literature has shown that party attachment is a more stable identifier of political attitudes, has a clearer meaning to people compared to ideological labels, and is more predictive of voting behavior (e.g., Campbell et al., 1980; Converse, 2006). Indeed, when party affiliation is manipulated exogenously, individuals' attitudes and voting behavior change to align with party positions (Gerber et al., 2010).

3 Experimental Design

In a simple opinion survey, a respondent's stated preference for a more equal or mobile society will, generally, be confounded by two unobserved beliefs. The first is the respondent's belief about the costs of improving income equality/mobility. For example, respondents may think income equality is desirable, all else constant, but their stated preference for income equality will be attenuated (exaggerated) because they also think a more equal society is necessarily poorer (richer). The second is the respondent's belief about the relationship between income inequality and income mobility. A person may not care about income inequality *per se*, but their stated preference will be exaggerated (attenuated) because they believe that equality is a precondition (obstacle) of mobility. To resolve this problem, the individual's stated preference for these social characteristics must be free of unobserved correlations related to her beliefs.

Our solution is to implement a discrete choice experiment (DCE) that randomly assigns average income, income inequality, and income mobility statistics to two alternative societies. By imposing orthogonality on each of these social characteristics, random assignment solves the omitted variable bias problem that emerges from unobserved beliefs. In the DCE,

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respondents are asked to choose between two hypothetical future societies using only the randomly assigned information consisting of income levels (i.e., average income, bottom income, middle income, and top income), income mobility, and income inequality. Adjudicating two societies with six attributes is easily tolerated by respondents (see Bansak et al., 2018), and stated preferences in the form of "paired conjoint" designs, such as this DCE, better align with observational data relative to experiments in which respondents see only one society (i.e., "single conjoints") (Hainmueller et al., 2015).

We fielded a survey from May to July, 2021, that presented respondents with information about a society's bottom 20% average income, middle 60% average income, top 20% average income, and income upward mobility. To avoid confusion, we also included the total average income (i.e., the weighted mean of the incomes presented to respondents) and 90/10 income ratio (i.e., the ratio of the top and bottom incomes presented to respondents). Data shown to respondents were generated from true variation among metropolitan statistical areas (MSAs) or commuting zones (CZs). The household income percentiles among MSAs were taken from the 2018 Current Population Survey (CPS). Variation for the middle 60% average income (median household income) was taken at the 10th, 20th,. . . , 80th, and 90th percentiles among MSAs. For the bottom 20% and top 20% average income, we chose the randomization values in two steps to avoid unrealistic levels of inequality. First, we generated income inequality for each MSA as the ratio of the 90th to 10th income percentile. Second, we calculated the predicted 10th and 90th percentile incomes at the 10th, 20th,. . . , 80th, 90th income percentiles of the 90/10 income ratio. In short, we separately drew the bottom 20% average income and the top 20% average income from the predicted incomes in MSAs based on true variation of income inequality. Including incomes for the bottom 20%, middle 60%, and top 20% also allows us to test whether respondents attach the same marginal welfare value to income gains for the bottom, middle, and top.

Finally, we quantified income mobility as the percentage of children from families in the bottom 20% of the income distribution that, as adults, exited the bottom 20% income group

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(i.e., moved up to the top 80%). This variable was obtained through the Chetty et al. (2014) data, available at https://opportunityinsights.org. Variation in this variable is based on the 10th, 20th,..., 80th, 90th percentiles of the distribution of the statistic across CZs. Table 1 presents the values of all variables used in the randomization, which have been rounded to facilitate respondent comprehension.

[Insert Table 1 here]

Next, we describe the three sections of the survey experiment: a training intended to be value-neutral, the discrete choice experiment, and the adaptive questionnaire. The survey can be viewed here https://bit.ly/3lP6Rh4.

3.1 Training Protocol

Our goal in the training portion is to ensure that all individuals understand the social variables presented to them in the DCE, with the additional constraint that respondents are not manipulated to feel more or less favorable to a specific social variable. Regarding understanding, we worry that individuals will confuse income mobility with economic growth (e.g., that upward income mobility will be interpreted as poverty reduction). To reduce this risk, we take two steps. First, our training tool clarifies that upward mobility necessarily implies some downward mobility, i.e., that upward mobility is a change of rank. Second, instead of randomly assigning income inequality directly, we randomly assign incomes at the 10th and 90th percentiles; this way, when respondents are comparing a society that has greater income mobility, the income levels of its poorest and richest members will be orthogonal. Detailed description of the training protocol can be found in Appendix: Survey Training Protocol. To test whether people understood the content, we asked four diagnostic questions (one after each training portion), with correct response rates ranging from 63% to 79%. Respondents that answered more questions correctly or took more time to complete

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the survey have a higher MRS for income equality but not mobility.[2]

Additional details are provided in Appendix: Diagnostics. To avoid biasing respondents, we provide equivalently detailed information for income levels, income equality, and income mobility and avoid normative language when describing the variables (e.g., we never describe equality or mobility as a good).

3.2 Discrete Choice Experiment

In the second section, respondents are presented with hypothetical societies and given information about bottom 20% income levels, middle 60% income levels, top 20% income levels, and income mobility (where each statistic is based on contemporary U.S. values) as well as the resulting average income and the 90/10 income ratio. Respondents are then asked to choose between two hypothetical societies, A and B, in which values for each of the four variables are randomly assigned for each society. For example, Societies A and B may both be assigned the same level of middle income, but Society A has higher levels of income inequality while Society B has lower income mobility. Respondents choose which bundle of randomly assigned values they prefer.

We highlight three additional features of the DCE. First, because asking respondents multiple questions is more cost effective than repeatedly introducing the survey to new respondents, we give them four rounds of the choice experiment, in which the social values are randomly assigned each new round. Standard errors are therefore clustered at the respondent level. Second, as suggested by Hainmueller et al. (2014), to minimize primacy and recency effects, each respondent is randomly assigned an ordering of the variables in which either mobility or the 10th and 90th incomes are shown first. We do not randomize within respondents due to the confusion it would cause. Third, we introduce randomization in the language of the survey to test whether preferences vary if the society is likely to be inhabited by the respondent (i.e., a "society that you or someone you know might live in") or not (i.e.,

[2]Tables A.2 and A.3.

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a "society you will never participate in"). This prompt is reinforced throughout the DCE, as each choice task includes the header "distant society" or "nearby society." The distant society condition is presented to 80% of respondents, and the nearby society condition is presented to 20% of respondents, which represents our desire to primarily investigate "veiled" preferences while also allowing us to test whether veiled preferences differ from non-veiled preferences. Screenshots of different components of the DCE are shown in Appendix: Discrete Choice Experiment.

3.3 Adaptive Questionnaire

One of our primary research goals is to map individual preferences onto person-level characteristics. Though the DCE described above can be used to estimate preferences for subsamples of individuals, this approach has three limitations. First, there is likely heterogeneity in preferences within sub-samples that would be overlooked. Second, sub-sampling the data in this way requires strong priors about which subgroups to identify, and we may miss important variation among untested subgroups. Third, we would like to subset the data based on the value of the MRS itself, which is not possible with the DCE. In short, to describe the empirical distribution of preferences for these social variables, it would be useful to have information about each respondent's MRS, but the DCE is unable to provide individual information unless the DCE questions are repeated multiple times to each respondent at a high cost.

Our solution is to implement an adaptive questionnaire that provides choices in an order that allows us to bound an individual's average MRS for income equality and mobility. In particular, if we assume rational preferences and that our social variables are desirable in the range that we test, we can use the comparison across different societies to bound the individual's MRS.

To exemplify the logic behind this survey, Figure 1 shows the first step of our adaptive survey, which is a choice between Society A (status quo; example: avg. income $57,427,

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90/10 ratio 13.4) and Society B (more equal; example: avg. income \$51,778, 90/10 ratio 10.7). The values of Society B are structured such that they imply sacrificing some average income to improve another social variable (income equality or mobility). Given rationality, the preference of the individual for A can be represented by isoutility curve u_a. Because of the values set for Society B, the choice of the respondent will provide us with information about her preference and the MRS. For example, Sub-figure 1(a) shows the case where the individual has a "high MRS", since a small improvement in a social variable is enough for the person to trade a significant amount of income. In that case, the individual would choose Society B. If we draw a straight line that is the set of societies that result in trades for similar total amounts, which we call the line of alternative societies (LAS), the choice of B informs us that the isoutility curve u_a cuts the LAS below Society B and, therefore, we have some bounds on the average MRS. This approach is depicted in 1(b). The opposite case, where a small improvement in a social variable is not enough for a person to trade a significant amount of income, is presented in Sub-figures 1(c) and 1(d), which shows that we now have bounded the average MRS in the opposite direction.

[Insert Figure 1 here]

The process of bounding the set containing the average MRS is iterative and adaptive. In a second step, we again offer the status quo Society A, but now the alternative is Society C whose characteristics are set by the choice in step 1. The choice again allows us to further bound the set where the isoutility cuts the LAS and, therefore, also allows us to bound the average MRS. For example, the third row of Figure 1 shows the new choice after the individual chose Society B (more equal) in the first choice. Due to the first choice in this example, we show as an alternative Society C (example: average income \$49,437, 90/10 ratio 11.96) with a higher cost of improving the social variable. The choice of the first two steps results in a smaller set through which the isoutility curve would cross the LAS.

In practice, we implement the procedure in 3 steps, which allow us to classify individuals into eight groups. We implement the LAS as the straight line that connects a society that,

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compared to the status quo, has the same value of the social variable but 1 SD less of average income (one option that would be acceptable for those individuals willing to trade infinite quantities of income), and another one in which the social variable is improved by 1 SD with no decrease in income (the only option acceptable for an individual unwilling to trade any income). Those extreme groupings represent societies that would be chosen only by approximately lexicographic preferences; therefore, the LAS is the set of societies between those extremes. Decision trees describing the resulting bounds of the MRS to increase income mobility and equality are shown in Figures A.6 and A.7, respectively.

4 Data

Data for the survey were collected using Amazon's Mechanical Turk (MTurk) interface for persons living in the United States and aged 18+. Primary data collection began May 17, 2021 and ended July 30, 2021. MTurk is an established online platform that can be used to carry out social and survey experiments, among other things (Kuziemko et al., 2015; Levay et al., 2016). Chandler et al. (2014) raise three concerns with the use of MTurk data, though these can be easily addressed with appropriate design. The authors note that respondents may participate multiple times on the same survey, respondent performance on diagnostic items may be exaggerated due to conceptually related experiments, and researchers may employ post hoc data cleaning. To screen multiple respondents, we used JavaScript to pre-screen and exit respondents if their unique WorkerID appeared in the second wave. To ensure fidelity, the diagnostic items we use are task-specific to the survey instrument. Finally, no *post hoc* data cleaning was conducted and all respondents that completed the survey are analyzed.

Nevertheless, an important problem of MTurk data is the lack of representation. To address this problem, we implement a two-stage quota sampling design to build a sample of 1,249 respondents. First, we fielded a short demographics survey, with a payment

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of $0.20 per respondent, collecting information about the device being used, gender, race (White non-Hispanic, White Hispanic, Black, others), political party identification (Democrat, Independent, Republican), household income, and age.[3] Second, we published the social preferences survey under the title "Preferences for society, invited survey" and selected respondents to complete the survey based on the demographics provided to us in the initial screener.[4] Further details about the data construction can be found in Appendix: Data Construction.

To build a sample more representative of the U.S. population, we additionally generate weights so that the weighted data are exactly representative of the variables used in the quota design (i.e., income, gender, age, race/ethnicity, and party affiliation). To generate the weights, we use the raking method described by Deville et al. (1993) and implemented in Kolenikov (2017). Table 2 shows descriptive statistics for survey participants with and without raked weights. Because the quotas were effectively implemented given our targets, the weights have little effect except for increasing the average age.

[Table 2 here]

5 Econometric Methods

So far, we have defined and motivated interest in three variables: income levels, income mobility, and income equality. We now describe our econometric models for estimating how much respondents are willing to trade for these social variables. We employ the traditional choice model of McFadden to estimate relevant utility parameters, quantify the corresponding trade-offs, and depict indifference (or iso-welfare) curves (Train & McFadden, 1978; Train, 2003; McFadden, 1980). We begin by translating the social preferences of an individual i for

[3]Survey available at https://bit.ly/3lP6Rh4.
[4]Survey available at https://bit.ly/3n3Mls6.

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society A into a Cobb-Douglas utility function of the form:

$$U_i(A) = \beta_0 + \beta_Y \log(Y_A) + \beta_{IR} \log(Ineq_A) + \beta_M \log(Mobility_A) + \varepsilon_{iA} \tag{1}$$

Where β_Y is the Cobb-Douglas parameter for levels of income, and β_{IR} and β_M represent Cobb-Douglas parameters for income inequality and income mobility, respectively. We also include a constant α_0 and an error term ε_{iA}, which represents the individual heterogeneity in preferences for societies. Alternatively, we can include the income levels (bottom 20%, middle 60%, top 20%) instead of the average income and the IIR. The Cobb-Douglas model imposes additional functional form assumptions on the data; however, the raw estimates from OLS models indicate that the assumptions are reasonable (e.g., see Figure A.8).

As the survey asks individuals to choose between two societies, A and B, for society A to be chosen, it is generally the case that $U(A) - U(B) > 0$. Given the functional assumption, this amounts to the following equation:

$$\beta_Y \log\left(\frac{Y_A}{Y_B}\right) + \beta_{IR} \log\left(\frac{Ineq_A}{Ineq_B}\right) + \beta_M \log\left(\frac{Mobility_A}{Mobility_B}\right) + \eta_i^{AB} > 0 \tag{2}$$

Where the error term $\eta_i^{AB} = \varepsilon_{iA} - \varepsilon_{iB}$. The same logic applies to the econometric model with income levels. There are three features of equation (2) to highlight. First, if we assume that each error $\varepsilon_{i\cdot}$ follows a normal distribution, then η_i^{AB} would also be normally distributed and, therefore, the parameters can be estimated by a Probit model. Second, given that each pair of societies are randomly assigned across individuals, the estimates are unconfounded by beliefs about costs and entanglement between income equality and mobility. Third, because each society has the same set of features, there is not a constant in the model and, consequently, we do not include one in our estimation.

In addition, the Cobb-Douglas assumption allows us to generate a summary statistic of the trade-offs that individuals are willing to make between social values. Marginal rates of

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substitution (MRS) statistics can be easily recovered from the Cobb-Douglas utility, as:

$$\text{MRS}_{x,y} = \frac{\text{Coefficient } x}{\text{Coefficient } y} \cdot \frac{y}{x} \tag{3}$$

We calculate the MRS for income mobility and income equality, and later extrapolate the numbers to estimate potential trades between social variables.

Of course, the MRS identifies the trade-off for a one-unit change in the social good. However, the MRS is less appropriate if a one-unit change accounts for more variation of one variable over another. To facilitate these types of comparisons, we also convert the MRS into a willingness-to-pay (WTP), which is constructed to represent the dollar amount a respondent would trade for an improvement equivalent to a movement of 10 percentiles in the distribution of the statistic among MSAs/CZs. For example, a WTP of $2,523 for income mobility represents the dollar amount respondents would trade for a 10 percentile increase in mobility. We calculate the value of a percentile increase with a regression of the values of the social variable (e.g., mobility) against its percentile using the values we presented to respondents, which were in turn drawn from real variation among CZs or MSAs.[5].

Meanwhile, we use the adaptive survey to provide detailed description of variation in the MRS across individuals. As we explained, the adaptive survey allows us identify a set containing the MRS value, but not the exact point value. Therefore, we use an ordered probability model to identify predictors of the MRS. In particular, if we call y_i^* the latent value of the MRS of individual i and α_j the different cutoffs of the intervals, then we can follow Ruud et al. (2000) and focus on the probability of the observed choice corresponding to the j interval ($\Pr\{\alpha_j \leq y_i^* \leq \alpha_{j+1}\}$). With the assumption of a linear model $y_i^* = \mathbf{x_i}\beta_0 + \epsilon_i$, then the probability of falling in interval j is:

$$\Pr\{\alpha_j \leq y_i^* \leq \alpha_{j+1}\} = \Pr\{\alpha_j - \mathbf{x}_i\beta_0 \leq \epsilon_i \leq \alpha_{j+1} - \mathbf{x}_i\beta_0\} \tag{4}$$

[5]Conversions of the WTP are shown in Appendix Table A.4.

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which, if we normalize by the standard deviation of the error (σ_0), results in the likelihood:

$$\Pr\{\alpha_j \leq y_i^* \leq \alpha_{j+1}\} = F\left(\frac{\alpha_{j+1} - \mathbf{x}_i\beta_0}{\sigma_0}\right) - F\left(\frac{\alpha_j - \mathbf{x}_i\beta_0}{\sigma_0}\right) \tag{5}$$

The parameters of this model (β_0, σ_0) can easily be estimated using the maximum likelihood estimator; we use a normal distribution. Though coefficients from this model do not have a causal interpretation, they will indicate which respondent-level characteristics explain variation in the MRS for equality and mobility.

6 Results

We present results as follows. We first show the full sample estimates of the average marginal rates of substitution (MRS) and the coinciding willingness to pay (WTP), along with the estimated iso-utility curves. Second, we document the effects of the randomized veil condition. Third and fourth, using the same methodology, we describe heterogeneity by political party identification and respondent income, respectively. Lastly, we characterize the distribution of preferences using our adaptive survey, which bins individual respondents into one of eight MRS categories.

6.1 Full sample

Table 3 shows the MRS from equation (3) (Panel A) and the WTP for an increase of 10 percentiles in the distribution of the social variable (Panel B).[6] As expected, respondents value income and income mobility and dislike income inequality. We calculate an MRS of \$2,744 of average income for a marginal decrease (1-unit) of the IIR, and an MRS of \$1,228 of average income for a marginal increase (1-percentage point) of upward mobility. The WTP to decrease the IIR 1.12 (10 percentiles in the distribution) is \$3,076 of average income,

[6]Table A.5 shows the marginal effects from equation (2).

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and the WTP to increase bottom up mobility 2.05 percentage points (10 percentiles in the distribution) is \$2,523 of average income. Both statistics are significant at 1% and indicate that the average respondent is willing to trade meaningful amounts of average income to improve income equality and mobility, but respondents are willing to exchange more average income to reduce income inequality (both in marginal and percentile terms) than to increase income mobility.

Preferences for equality are mostly explained by a preference to increase bottom incomes and indifference to top incomes. This result can be shown empirically because we randomize the levels of income. The second column of Table 3 shows that individuals are willing to decrease middle income by \$4,414 to increase bottom income by \$1,000, and only \$56 to increase top income by \$1,000 (Panel A). In percentile terms (Panel B), individuals will spend \$6,482 of middle income to increase bottom income by \$1,469 (10 percentiles) and \$550 to increase top income by \$9,770 (10 percentiles).

[Insert Table 3 here]

Our results can easily be translated to iso-utility curves, whose slopes are equal to the estimated MRS. As shown in Subfigures 2(a) and 2(b), which are scaled according to the variation of the social variables across MSAs/CZs, the slope for income inequality is slightly steeper than it is for mobility, indicating that the average respondent is willing to trade more income to reduce income inequality than to increase income mobility. Respondents' desire to increase bottom incomes are also demonstrated in Subfigures 2(c), which show that the isoutility curve of middle-to-bottom income is quite steep, while the one for middle-to-top income (Subfigure 2(d)) is nearly flat. This latter result suggests that the average respondent has nearly lexicographic preferences when it comes to exchanging middle income for top income.

[Insert Figure 2 here]

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6.2 Veil Condition

To identify whether the preferences estimated above are due to respondents' self-interest (i.e., that their stated preference reflects where they would fall in a specified distribution) or their normative judgments (i.e., that their stated preference reflects the type of society they think is preferable independently of their placement in it), we conduct two tests. First, we randomized the language of the DCE to indicate whether the societies are likely to be inhabited by the respondent (self-interest) or not (veiled). The results of this test are shown in Table 4, which shows the the MRS (Panel A) and the WTP (Panel B) for the veil and no-veil conditions.[7]

Distant versus nearby societies are nearly equally preferred by respondents. In the veiled condition (column 1), respondents have an MRS of 2.75 for income inequality and 1.24 for income mobility; in the non-veiled condition (column 2), respondents have an MRS of 2.7 and 1.17 for inequality and mobility, respectively ($p \geq 0.777$ for both social goods; Table A.6 Panel B). Likewise, the MRS for bottom and top incomes are similar between the conditions (columns 3 and 4) and cannot be rejected. We take these results as preliminary evidence that when respondents provide their stated preference they are not thinking about their own placement in the income distribution.

[Insert Table 4 here]

6.3 Income Differences

For the second test, we evaluate preferences based on a respondent's own income. We classify respondents according to whether they belong to household incomes in the bottom 20%, middle 60%, or top 20% within our sample. Assuming perfectly self-interested responses, we would expect respondents to be willing to exchange other income groups' income to

[7]Table A.6 shows the marginal effects from Equation 2 (Panel A) and a Wald test of equality of the MRS between veil-conditions (Panel B).

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benefit their own income, be unwilling to exchange their own income to help other income groups, and be indifferent to income exchanges that have no effect on them (e.g., a result suggested by Fisman et al., 2021). Specifically, we would expect a high MRS of bottom income respondents to improve bottom incomes and a high MRS of top income respondents to improve top incomes. For middle income respondents, their expected self-interested MRS in all cases will be zero, as they would not exchange their own income to improve bottom or top incomes. Finally, respondents with top and bottom incomes should have no self-interest when middle income is exchanged for incomes outside their own interests (i.e., top income respondents with respect to improvements to bottom incomes and vice-versa). These predicted self-interested descriptions of the MRS are presented in Panel A of Table 5. In sum, we will interpret stated preferences that are either contrary to a respondent's own self-interest or partial when the respondent should be indifferent as evidence that the stated preference is normative.

[Insert Table 5 here]

We test these predictions by estimating the MRS for these income groups in the data. Our tests (shown in Table 5, Panel B) do not align with a purely self-interested explanation. Though bottom income respondents have a greater MRS to improve bottom incomes (Panel C; $p = 0.113$ and $p = 0.018$, when comparing bottom-income respondent preferences against middle- and top-income respondent preferences, respectively), the preferences of respondents who have middle and top incomes do not align with pure self-interest. Indeed, middle-income respondents are willing to exchange \$4,415 of their own income to improve bottom incomes \$1,000, and top-income respondents are not willing to exchange middle income to increase their own income.[8]

[8]Table A.7 shows full model results for the household income condition, including marginal effects from Equation 2 (Panel A), the MRS (Panel B), the WTP (Panel C), and Wald-tests of equality of the MRS (Panel D).

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Taken together, our results suggest that respondents are providing preferences closer to their normative judgments rather than their self-interest.

6.4 Party Differences

To understand differences by party affiliation, we asked respondents in the initial survey screener whether they think of themselves as "strong or moderate Democrats", "strong or moderate Republicans", or "Independent or other party". We split the data into these three groups to test for heterogeneity; results are shown in Table 6.

Republicans are willing to exchange less average income to reduce income inequality compared to Democrats and Independents. As we are comparing within statistic between groups and not across statistic, we focus on the MRS. From Panel A, Democrats have an MRS to improve income inequality that is 1.6 times that of Republicans ($3,249 versus $2,029; $p = 0.013$), and Independents have an MRS that is 1.46 times that of Republicans ($2,970 versus $2,029; $p = 0.008$). These differences between the parties in their MRS to reduce income inequality are primarily driven by preferences for top incomes. Republicans are willing to exchange $197 of middle income to increase top incomes $1,000, whereas Democrats and Independents are unwilling to decrease middle income to increase top incomes. Indeed, Democrats are willing to sacrifice middle incomes to decrease top incomes, though this result is not statistically significant. In contrast, party groups do not differ in their preference for bottom incomes. Lastly, Democrats are willing to sacrifice 1.6 times more average income to improve income mobility relative to Republicans ($1,515 versus $940 for a 1-percentage point increase in mobility), and Independents are nearly equidistant between the two groups and not statistically distinguishable ($p = 0.113$).[9]

[Insert Table 6 here]

[9]Figure A.9 shows the iso-utility curves for income mobility, income inequality, bottom incomes, and top incomes for each party. Table A.8 shows the marginal effects from Equation 2 (Panel A) and WTP statistics (Panel B).

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Though we identify differences between parties, it is also worth emphasizing that the WTP (Table A.8, Panel C) to reduce income inequality, increase income mobility, and increase bottom incomes is appreciable for all party groups. Republicans, who have the lowest WTP for all of these social goods, are willing to pay $2,275 of average income to reduce income inequality 1.12 points (10 percentiles), $1,931 of average income to increase income mobility 2.05 percentage points (10 percentiles), and $5,672 of middle 60% income to increase bottom income by $1,469 (10 percentiles). These results suggest more partisan support for equality and mobility than have been documented previously and that some of the partisan differences from stated preferences in opinion surveys are the result of differences in the confounded beliefs about the real-world links between income levels, income inequality, and income mobility.

We further test for heterogeneity among the parties to see if, within party, income moderates preferences. In general, party preferences are very stable regardless of respondent income. For Democrats and Republicans, respondent preferences are not statistically different among income groups (bottom 20%, middle 60%, and top 20% of our sample) for any of the variables included in the DCE (Tables A.10 and A.11, Panel D). For Independents, bottom incomes have an MRS that is about 1.75 times greater than top incomes (Table A.12, Panel B). Finally, we calculate the MRS between income inequality and income mobility directly (Table A.13, Panel B). On average, respondents will exchange 0.8 percentiles of income inequality for a 1-percentile increase in mobility, with estimates that are nearly identical across the political groups. This homogeneity among political groups occurs because the MRS of income inequality and income mobility decline by nearly proportional amounts across political groups (i.e., from Table 6, the MRS for both the IIR and income mobility fall by about one-third for each party group).

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6.5 Heterogeneity Preferences - Adaptive Questionnaire

So far, we have estimated social preferences for the population and across income and political groups. However, we have not characterized the distribution of social preferences or identified other variables that explain variation in preferences. To better understand such variation in preferences, we use the data from the adaptive survey that binned individuals into one of eight MRS categories for both income equality and income mobility. We first present descriptive information illustrating the percentage of respondents falling into each MRS category, for the entire sample and the three political groups. Then, we use interval regression (equation 5) to identify predictors of the MRS.

We first focus on respondents that express lexicographic preferences—i.e., have an MRS that reaches either zero dollars or the maximum dollar presented from the adaptive survey—for income inequality or income mobility. These types of respondents are evident in Figure 3, which shows the percentage of respondents that fall into each MRS category (Sub-figures 3(a) and 3(c)) and the cumulative probability for the MRS (Sub-figures 3(b) and 3(d)), for both the entire sample and the three political groups.[10] About 25% of the sample have an MRS of at least \$9,343 to reduce the income inequality ratio by one unit, while another 25% have an MRS of \$0 to reduce the income inequality ratio in one unit. For income mobility, about 40% of the sample express a lexicographic preference, with 25% providing an MRS of \$7,781 to increase income mobility one percentage point and 16% with an MRS of \$0. Notably, among all party groups, there are more respondents with extreme values for income equality than income mobility, and there are fewer respondents with an MRS of \$0 for mobility as compared to equality.

It is difficult to know for sure whether lexicographic preferences are genuine or not; however, we have some evidence that these responses are genuine. First, as shown in Table A.14,

[10]To build the table with the univariate distributions, we consolidate the middle six MRS binned intervals by combining the second and third bins, the fourth and fifth bins, and the sixth and seventh bins.

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those with lexicographic preferences do not perform systematically worse on our diagnostic questions, suggesting at least their responses are not driven by misunderstanding of the data or indifference to the survey.[11] Second, as shown in Table A.15, Democrats, Independents, and bottom-income respondents are more likely to have maximizing preferences, which aligns with results from the DCE. Lastly, as shown in Tables A.16 and A.17, original results from the DCE for the full population and across party groups are nearly identical when respondents with lexicographic preferences are excluded from the estimation, which suggests that respondents with a lexicographic preference in the adaptive survey are providing consistent information in the DCE.

[Insert Figure 3 here]

Aside from the prevalence of extreme preferences, it is clear that Democrats and Independents are more similar to each other, while Republicans have a distinctively lower MRS for both income equality and mobility. About 55% of Democrats and Independents have an MRS of at least \$2,320 to reduce the income inequality ratio one unit, which is almost exactly the MRS for the entire population. Republicans stand alone: the majority of Republicans have an MRS of just \$1,006 to reduce the income inequality ratio one unit. For income mobility, again Democrats and Independents are more similar to each other compared to Republicans, but the differences between the three groups are smaller. A majority of Democrats, Independents, and Republicans have an MRS larger than \$1,932 to increase mobility one percentage point, though a near majority of Independents and a majority of Democrats have an MRS larger than of \$3,027.

[11] In our diagnostic questionnaire, compared to respondents with non-lexicographic preferences, those with globally maximizing lexicographic preferences (i.e., reach the maximum MRS for both the IIR and mobility) performed better, those with globally minimizing preferences performed worse, and those with either singular lexicographic preferences or opposing lexicographic preferences performed variably well.

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In general, a higher MRS for income equality corresponds with a higher MRS for mobility. This correlation can be observed directly in Figure 4, which shows the joint distribution for mobility and income equality, for the full sample and by party. For the full population (Sub-figure 4(a)), the mass of data along the main diagonal of the matrix is evidence that there is a positive correlation between the willingness to trade income for equality and the willingness to trade income for mobility. Nevertheless, there is a greater mass of data in the top-right section and directly below the diagonal, showing that among respondents that have a high willingness to trade average income, income equality holds a higher value than income mobility (a result presented earlier using the DCE, shown in Table A.13).

At the same time, some respondents that do not value income equality (i.e., those represented in the left of the matrix) do value income mobility. This feature of respondents' preferences is evident by the mass of data in the upper left off-diagonal of the matrix. For example, about two-thirds of respondents with an MRS of \$0 for the IIR have an MRS greater than zero for income mobility. This pattern is replicated for all party groups. In contrast, there are many fewer respondents that do not value income mobility but still value income equality. Only about 40% of respondents that have an MRS close to zero for income mobility have an MRS greater than zero for the IIR. This pattern is also replicated among party groups.

Combining the results of the adaptive survey and the DCE reveals novel insight into the relative importance of mobility. In marginal and distributional terms, respondents on average are willing to trade more income to reduce income inequality than they are to increase income mobility (this is true even when we exclude those with lexicographic preferences; see Table A.16). At the same time, income equality is more polarizing. First, for both the full population and within party groups, a greater percentage of respondents have an MRS of zero dollars for income equality relative to income mobility. Second, Republicans are much closer to the population MRS for mobility compared to income equality. Lastly, for both the full population and within party groups, a greater percentage of respondents are willing to

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exchange social income to increase mobility but not equality.

[Insert Figure 4 here]

These data from the adaptive survey also allow us to evaluate non-party predictors of the MRS for mobility and equality and to test for heterogeneity within party. Results of the interval regression for mobility and income equality are shown in Table 7. For the full population, party membership and gender (male) are the only statistically significant predictors of the MRS for mobility (column 1), which demonstrates and justifies the importance of party affiliation in research and public discourse. Net of controls, Democrats and Independents have an MRS that is about $1,000 greater than Republicans, and males have an MRS that is nearly $850 lower than females. For income inequality, among the full population (column 5), educational attainment, party, and beliefs about mobility explain heterogeneity in the MRS. Net of controls, the educated, Republicans, and those who believe upper mobility is common have an MRS for the IIR that is between $1,000–$1,600 lower than reference groups. Taken together, these results provide additional evidence that preferences for income equality are more heterogeneous and sensitive to contextual factors (e.g., beliefs about the prevalence of income mobility) as compared to preferences for income mobility.

[Insert Table 7 here]

Looking at mobility, there is little predictable heterogeneity among Democrats or Independents (columns 2-3) and more among Republicans (column 4). For instance, gender and age predict variation in the MRS for Independents: males have a lower MRS than females, and older respondents have a greater MRS than younger. No variables explain heterogeneity among Democrats. For Republicans, greater household income reduces the MRS for mobility, and Republicans that have experienced mobility have a greater MRS than those who have not. This latter result suggests that higher income Republicans do not support mobility unless their higher income is due to their own income mobility experience.

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For income inequality, there is little heterogeneity for Republicans (column 8) as they are very consistent in their preferences (only ethnicity explains heterogeneity for Republicans). Meanwhile, there is more heterogeneity for Democrats and Independents (columns 6-7). Among them, household income, experienced mobility, and beliefs about the possibility of mobility all reduce support for income equality, by substantial amounts. These results are in line with Piketty (1995) and others who have argued that the occurrence of mobility in society weakens support for policies targeting income equality.

7 Conclusions

In this paper, we have introduced an empirical approach to estimate preferences for income equality and mobility that are free of confounds due to beliefs about the correlations between these social variables and levels of income. We establish baseline preferences in the population, showing that respondents are willing to exchange meaningful amounts of average income to increase income equality and income mobility. Although we identify cleavages in the population, the amount of overlap between partisans and socioeconomic groups that we identify is both surprising and new.

We also gain additional nuance about the preferences for income equality and mobility. First, we find that whether we measure the preference in marginal or distributional terms, the average individual is willing to exchange more income to increase equality than to increase mobility, mainly driven by a desire to increase bottom incomes. Yet, preferences for income equality are more divided and heterogeneous. Preferences for income equality are more divergent among partisans and by household income compared to preferences for mobility. Further, a plurality of respondents that are unwilling to exchange income to improve equality are willing to exchange income to improve mobility, while the reverse is not true. Lastly, positive experiences with mobility reduce support for income equality among Democrats and Independents, but positive experiences with mobility increase support for income mobility

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among Republicans.

What do these results mean for public policy? Our results do not depict a straightforward path but do provide some insights. First, a complicating factor is that the preferences we obtain are not indicative of the preference for a specific public policy that would yield the same desired outcome. For example, the 50% of Republicans that are willing to exchange $1,000 to reduce income inequality may shrink (perhaps to zero) when presented with specific policy choices that include, for example, government intervention.

Second, given this complicating factor, our central point is that, even if Republican voters reject available public policy offerings, we should not also conclude that they reject equality as a normative ideal. The results of this study show that both equality (especially in the form of poverty reduction) and social mobility are desirable features of a society for nearly all respondents, with varying degrees of attachment, and appear to be driven by normative judgments and not self-interest.

Third, though we do not identify specific policies that a plurality of constituents will support, identifying the specific set of policies that will have sufficient support remains an urgent problem to solve. Our results suggest that policymakers need to navigate the high but polarized demand for income equality, on the one hand, and the more modest but relatively unified demand for mobility, on the other.

Taken together, we provide comprehensive evidence that U.S. residents are more aligned with respect to their willingness to pay for mobility and more far apart in their willingness to pay to reduce income inequality. Nevertheless, further research about the mechanisms behind social preferences, especially as it relates to public policies required to enact those preferences, is required. We hope this empirical approach for estimating social preferences (in a form that provides information about individuals' willingness to exchange income for other social goods) can be used to answer other questions in which confounding variables are present in opinion surveys.

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References

Alesina, A. & La Ferrara, E. (2005). Preferences for redistribution in the land of opportunities. Journal of Public Economics, 89(5), 897–931.

Alesina, A., Miano, A., & Stantcheva, S. (2020). The polarization of reality. In AEA Papers and Proceedings, volume 110 (pp. 324–28).

Alesina, A., Stantcheva, S., & Teso, E. (2018). Intergenerational mobility and preferences for redistribution. The American Economic Review, 108(2), 521–54.

Almås, I., Cappelen, A. W., & Tungodden, B. (2020). Cutthroat capitalism versus cuddly socialism: Are americans more meritocratic and efficiency-seeking than scandinavians? Journal of Political Economy, 128(5), 1753–1788.

Amiel, Y. & Cowell, F. (1999). Thinking about inequality: Personal judgment and income distributions. Cambridge University Press.

Atkinson, A. B. et al. (1970). On the measurement of inequality. Journal of Economic Theory, 2(3), 244–263.

Bansak, K., Hainmueller, J., Hopkins, D. J., & Yamamoto, T. (2018). The number of choice tasks and survey satisficing in conjoint experiments. Political Analysis, 26(1), 112–119.

Becker, G. S., Kominers, S. D., Murphy, K. M., & Spenkuch, J. L. (2018). A theory of intergenerational mobility. Journal of Political Economy, 126(S1), S7–S25.

Review of Economics and Statistics Just Accepted MS.
https://doi.org/10.1162/rest_a_01240

Benabou, R. (2000). Unequal societies: Income distribution and the social contract. The American Economic Review, (pp. 96–129).

Campbell, A., Converse, P. E., Miller, W. E., & Stokes, D. E. (1980). The American Voter. University of Chicago Press.

Chandler, J., Mueller, P., & Paolacci, G. (2014). Nonnaïveté among Amazon Mechanical Turk workers: Consequences and solutions for behavioral researchers. Behavior Research Methods, 46(1), 112–130.

Chetty, R., Hendren, N., Kline, P., Saez, E., & Turner, N. (2014). Is the United States still a land of opportunity? Recent trends in intergenerational mobility. The American Economic Review, 104(5), 141–147.

Converse, P. E. (2006). The nature of belief systems in mass publics (1964). Critical Review, 18(1-3), 1–74.

Corak, M. (2013). Income inequality, equality of opportunity, and intergenerational mobility. Journal of Economic Perspectives, 27(3), 79–102.

Corneo, G. & Fong, C. M. (2008). What's the monetary value of distributive justice? Journal of Public Economics, 92(1-2), 289–308.

Deville, J.-C., Särndal, C.-E., & Sautory, O. (1993). Generalized raking procedures in survey sampling. Journal of the American Statistical Association, 88(423), 1013–1020.

Fisman, R., Jakiela, P., & Kariv, S. (2017). Distributional preferences and political behavior. Journal of Public Economics, 155, 1–10.

Fisman, R., Kuziemko, I., & Vannutelli, S. (2021). Distributional preferences in larger groups: Keeping up with the joneses and keeping track of the tails. Journal of the European Economic Association, 19(2), 1407–1438.

Review of Economics and Statistics Just Accepted MS.
https://doi.org/10.1162/rest_a_01240

Gerber, A. S., Huber, G. A., & Washington, E. (2010). Party affiliation, partisanship, and political beliefs: A field experiment. American Political Science Review, 104(4), 720–744.

Hainmueller, J., Hangartner, D., & Yamamoto, T. (2015). Validating vignette and conjoint survey experiments against real-world behavior. Proceedings of the National Academy of Sciences, 112(8), 2395–2400.

Hainmueller, J., Hopkins, D. J., & Yamamoto, T. (2014). Causal inference in conjoint analysis: Understanding multidimensional choices via stated preference experiments. Political Analysis, 22(1), 1–30.

Harsanyi, J. C. (1975). Can the maximin principle serve as a basis for morality? A critique of John Rawls's theory. American Political Science Review, 69(2), 594–606.

Hayek, F. A. (1973). Law, legislation and liberty, volume 1: Rules and order, volume 1. University of Chicago Press.

Johansson-Stenman, O., Carlsson, F., & Daruvala, D. (2002). Measuring future grandparents' preferences for equality and relative standing. Economic Journal, (pp. 362–383).

Kolenikov, S. (2017). Ipfraking: Stata module to perform iterative proportional fitting, aka raking.

Kuziemko, I., Norton, M. I., Saez, E., & Stantcheva, S. (2015). How elastic are preferences for redistribution? Evidence from randomized survey experiments. The American Economic Review, 105(4), 1478–1508.

Levay, K. E., Freese, J., & Druckman, J. N. (2016). The demographic and political composition of mechanical turk samples. Sage Open, 6(1), 2158244016636433.

McFadden, D. (1980). Econometric models for probabilistic choice among products. Journal of Business, (pp. S13–S29).

Review of Economics and Statistics Just Accepted MS.
https://doi.org/10.1162/rest_a_01240

Pew (2011). The elusive 90% solution. Pew Research Center, Washington, D.C.

Piketty, T. (1995). Social mobility and redistributive politics. The Quarterly Journal of Economics, 110(3), 551–584.

Pirttilä, J. & Uusitalo, R. (2010). A 'leaky bucket'in the real world: estimating inequality aversion using survey data. Economica, 77(305), 60–76.

Rawls, J. (2009). A Theory of Justice. Harvard University Press.

Ricardo, D. (1821). On the Principles of Political Economy and Taxation. McMaster University Archive for the History of Economic Thought, 3 edition.

Ruud, P. A. et al. (2000). An introduction to classical econometric theory. OUP Catalogue.

Train, K. (2003). Discrete choice methods with simulation. Cambridge University Press.

Train, K. & McFadden, D. (1978). The goods/leisure tradeoff and disaggregated work trip mode choice models. Transportation Research, 12(5), 349–353.

Tricomi, E., Rangel, A., Camerer, C. F., & O'Doherty, J. P. (2010). Neural evidence for inequality-averse social preferences. Nature, 463(7284), 1089.

Review of Economics and Statistics Just Accepted MS.
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Tables

Table 1: Randomization values used

Percentile	Bottom 20% income	Middle 60% income	Top 20% income	Income Mobility
p10	$10,000	$41,000	$126,000	62%
p20	$11,000	$48,000	$138,000	64%
p30	$13,000	$52,000	$148,000	65%
p40	$14,000	$56,000	$156,000	67%
p50	$15,000	$59,000	$163,000	68%
p60	$16,000	$62,000	$170,000	70%
p70	$17,000	$66,000	$182,000	72%
p80	$19,000	$70,000	$196,000	75%
p90	$23,000	$76,000	$209,000	80%

[a] This table shows the values presented randomly to respondents in the DCE. Percentiles are based on true variation among metropolitan areas or commuting zones. Incomes for the bottom and top 20% are predicted values based on true variation in the 90/10 income ratio. See Appendix: Construction in Randomization Variables used in DCE for details.

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Table 2: Mean and standard deviation (between parentheses) of selected variables

	Not-weighted Mean & (SD)	Weighted Mean & (SD)
Household income	81,557.2	81,715.9
	(55,045.84)	(55,033.04)
Democrat	0.332	0.311
	(0.471)	(0.463)
Republican	0.233	0.240
	(0.423)	(0.427)
White non-Hispanic	0.663	0.644
	(0.473)	(0.479)
White Hispanic	0.131	0.135
	(0.337)	(0.342)
Black	0.119	0.130
	(0.324)	(0.336)
Age	42.858	45.306
	(12.948)	(13.029)
Female	0.501	0.512
	(0.500)	(0.500)
Associate's degree	0.098	0.100
	(0.297)	(0.300)
Bachelor's degree or greater	0.685	0.685
	(0.465)	(0.465)
Observations	1249	1249

[a] This table shows the unweighted and weighted means and standard deviations of respondent characteristics. Weights are based on population values for income, gender, age, race/ethnicity, and party affiliation.

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Table 3: Marginal Rates of Substitution, and Willingness-to-Pay

	Average income	Middle 60% income
	(1)	(2)
Panel A: Marginal Rates of Substitution		
Income Inequality Ratio	2.744***	
	(0.169)	
Income Mobility	1.228***	2.253***
	(0.098)	(0.204)
Bottom 20% Income		4.414***
		(0.343)
Top 20% Income		0.056*
		(0.029)
Panel B: Willingness-to-Pay		
Income Inequality Ratio	3075.687***	
	(189.717)	
Income Mobility	2522.654***	4628.117***
	(200.629)	(418.037)
Bottom 20% Income		6482.145***
		(504.192)
Top 20% Income		550.052*
		(286.821)
Observations	4996	4996

[a] Respondent-level clustered standard errors are shown in parentheses. Panel A displays the MRS from Equation 3, and Panel B displays the WTP from conversions of marginal change among the social variables to percentile change. *** p<0.01, ** p<0.05, * p>0.1.

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Table 4: Marginal Rates of Substitution, and Willingness-to-Pay across veil conditions.

	Average income		Middle 60% income	
	Veil	No Veil	Veil	No Veil
	(1)	(2)	(3)	(4)
Panel A: Marginal Rates of Substitution				
Income Inequality Ratio	2.752***	2.704***		
	(0.189)	(0.381)		
Income Mobility	1.241***	1.172***	2.303***	2.065***
	(0.109)	(0.216)	(0.232)	(0.422)
Bottom 20% income			4.483***	4.160***
			(0.390)	(0.724)
Top 20% income			0.059*	0.050
			(0.033)	(0.063)
Panel B: Willingness-to-Pay				
Income Inequality Ratio	3084.988***	3030.420***		
	(211.614)	(426.934)		
Income Mobility	2549.033***	2408.105***	4729.666***	4241.517***
	(224.686)	(443.714)	(476.461)	(867.312)
Bottom 20% income			6582.936***	6109.163***
			(572.545)	(1063.605)
Top 20% income			574.708*	484.803
			(323.523)	(619.169)
Observations	3996	1000	3996	1000

[a] Respondent-level clustered standard errors are shown in parentheses. Panel A displays the MRS from Equation 3, and Panel B displays the WTP from conversions of marginal change among the social variables to percentile change. *** p<0.01, ** p<0.05, * p>0.1.

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Table 5: Theoretical Self-Interested and Empirical Marginal Rates of Substitution

	Respondent Income Groups		
	Bottom 20%	Middle 60%	Top 20%
	(1)	(2)	(3)
Panel A: Theoretical Self-Interested MRS			
MRS for Bottom 20% Income	$+\infty$	0	Indiff.
MRS for Top 20% Income	Indiff.	0	$+\infty$
Panel B: Empirical MRS			
MRS for Bottom 20% Income	6.905***	4.415***	3.142***
	(1.513)	(0.439)	(0.491)
MRS for Top 20% Income	0.007	0.077**	0.024
	(0.093)	(0.037)	(0.054)
Panel C: Test Statistics p-values	Bot=Mid	Bot=Top	Top=Mid
Bottom 20% Income	0.113	0.018	0.053
Top 20% Income	0.483	0.879	0.414
Observations	884	3176	936

[a] Panel A shows theoretical MRS based on purely self-interested responses (Indiff. represents indifference). Panel B displays the MRS from Equation 3, and Panel C displays Wald test statistics comparing the estimated MRS between income groups. Respondent-level clustered standard errors are shown in parentheses. Full table results are shown in Appendix A.7. *** p<0.01, ** p<0.05, * p>0.1

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Table 6: Marginal Rates of Substitution by Party, and Test Statistics

	Average income			Middle 60% income		
	Democrats	Independents	Republicans	Democrats	Independents	Republicans
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Marginal Rates of Substitution						
Income Inequality Ratio	3.249***	2.970***	2.029***			
	(0.430)	(0.265)	(0.234)			
Income Mobility	1.515***	1.270***	0.940***	2.649***	2.266***	1.913***
	(0.240)	(0.148)	(0.147)	(0.477)	(0.295)	(0.340)
Bottom 20% income				4.769***	4.603***	3.862***
				(0.819)	(0.496)	(0.548)
Top 20% income				−0.033	0.022	0.197***
				(0.065)	(0.043)	(0.053)
Panel B: Test Statistics p-value	Dem=Rep	Dem=Ind	Rep=Ind	Dem=Rep	Dem=Ind	Rep=Ind
Income Inequality	0.013	0.580	0.008			
Income Mobility	0.040	0.383	0.113	0.209	0.494	0.433
Bottom 20% income				0.358	0.863	0.316
Top 20% income				0.006	0.483	0.010
Observations	1660	2172	1164	1660	2172	1164

[a] Respondent-level clustered standard errors are shown in parentheses. Panel A displays the MRS from Equation 3, and Panel B displays Wald test statistics comparing the estimated MRS between party groups. *** p<0.01, ** p<0.05, * p>0.1.

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Table 7: Predictors of MRS: Income Mobility and Income Inequality

	Income mobility MRS				Income inequality MRS			
	All	Dem	Indep	Rep	All	Dem	Indep	Rep
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Some college	-2.328	-473.448	320.810	-791.668	-681.302	1426.428	-1358.749	-1372.142
	(484.947)	(1059.815)	(633.732)	(1038.133)	(628.192)	(1111.350)	(905.605)	(1298.126)
Bachelor or above	-387.197	-533.490	-158.937	-1244.412	-1079.108*	1311.460	-1716.170**	-1919.257
	(454.217)	(981.040)	(598.267)	(982.320)	(587.042)	(1000.422)	(864.052)	(1206.429)
Democrat	1170.403***				1524.168***			
	(316.857)				(478.725)			
Independent	880.586***				1105.806***			
	(292.000)				(361.724)			
Ln household income	-172.607	160.398	-167.217	-673.793**	-226.177	203.018	-643.527**	-408.235
	(151.007)	(281.190)	(236.148)	(264.917)	(183.063)	(313.078)	(294.622)	(326.901)
Age	18.008**	19.611	29.063**	-2.127	-2.526	-13.529	-4.781	10.334
	(9.073)	(17.131)	(13.847)	(16.856)	(10.633)	(17.870)	(16.775)	(20.536)
Male	-851.996***	37.694	-1688.686***	-174.773	-420.331	256.584	-1490.827***	581.865
	(235.420)	(453.438)	(356.147)	(419.622)	(286.691)	(509.338)	(448.924)	(515.321)

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Table 7 – continued from previous page

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	245.852	-103.148	760.411	-1166.436	-71.453	-974.926	635.760	1936.172
	(389.530)	(593.457)	(613.225)	(784.671)	(479.889)	(671.998)	(780.983)	(1644.137)
Hispanic	278.917	-386.329	554.813	769.584	-853.270**	-1759.376***	-250.190	-1052.385*
	(351.618)	(605.688)	(518.668)	(734.498)	(387.119)	(657.267)	(620.305)	(615.736)
Other race	846.308*	521.653	804.250	1859.599*	1093.854*	781.642	587.799	3110.850**
	(450.602)	(905.445)	(564.540)	(1035.694)	(593.101)	(1078.965)	(749.531)	(1537.399)
Greater inc. than parents	229.047	206.764	-259.059	1286.073***	-110.840	-1089.112**	339.525	475.086
	(242.491)	(455.750)	(381.053)	(408.801)	(297.263)	(528.257)	(470.931)	(528.836)
Mobility is common	-381.819	114.807	-542.949	-380.353	-1601.277***	-2128.427***	-1760.568***	-704.910
	(244.279)	(476.304)	(379.370)	(417.829)	(292.736)	(532.450)	(453.005)	(526.949)
Constant	4749.246***	2085.576	5491.698**	10991.400***	8120.499***	3831.761	14893.920***	8356.769**
	(1772.834)	(3353.961)	(2549.498)	(3376.816)	(2146.579)	(3587.716)	(3255.517)	(4139.892)
ln(σ) Constant	8.234***	8.326***	8.212***	8.087***	8.442***	8.463***	8.456***	8.298***
	(0.025)	(0.041)	(0.037)	(0.059)	(0.026)	(0.043)	(0.039)	(0.062)
Observations	1249	415	543	291	1249	415	543	291

[a] Robust standard errors are shown in parentheses. Table displays coefficients from Equation 5. *** p<0.01, ** p<0.05, * p>0.1.

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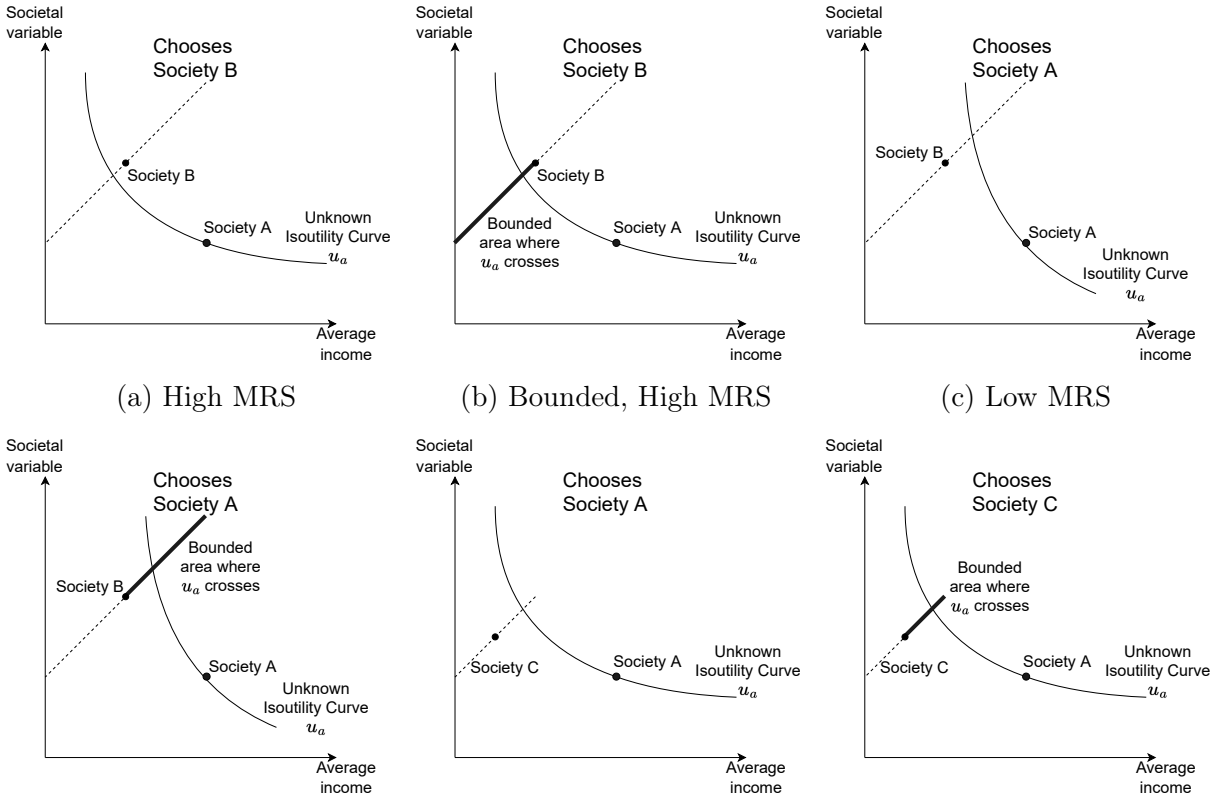
Figures

Figure 1: Decisions in the adaptive survey results according to different preferences.



(a) High MRS (b) Bounded, High MRS (c) Low MRS

(d) Bounded, low MRS (e) Case with high MRS (f) Bounded, high MRS

Note: Each panel represents a set of hypothetical decisions made by respondents given different preferences, depicted by isoutility curves, in the adaptive survey. The figures display how the adaptive survey, via iteration, allows us to bound the preference of each respondent. See section 3.3 for details.

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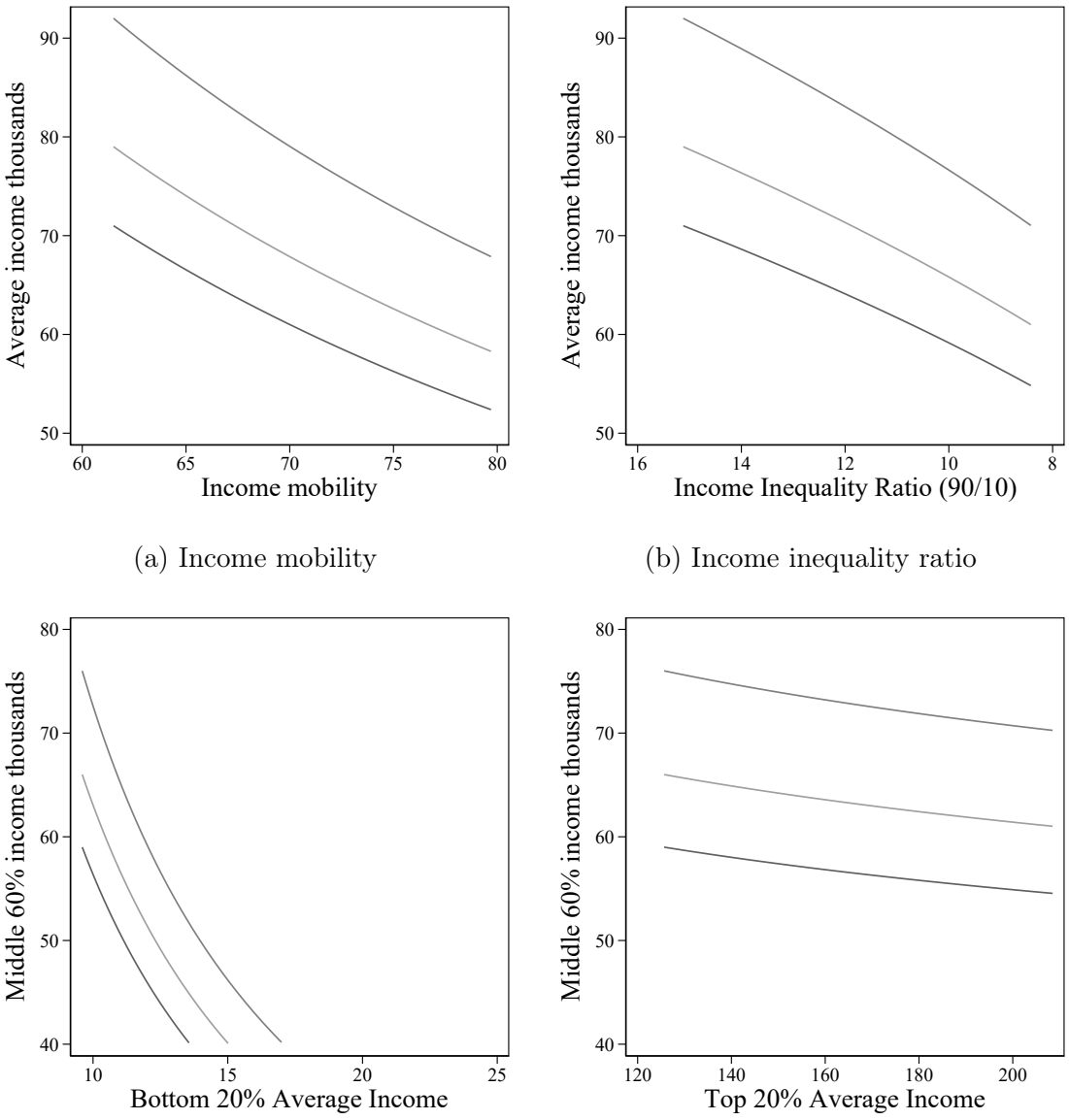
Figure 2: Isoutility curves for social variables.



(a) Income mobility

(b) Income inequality ratio

(c) Income bottom 20%

(d) Income top 20%

Note: Iso-utilities depicted for (a) income mobility, (b) income inequality, (c) bottom 20% income, and (d) top 20% income. Figures are derived from estimates from equations 1 and 3, as depicted in Table 3.

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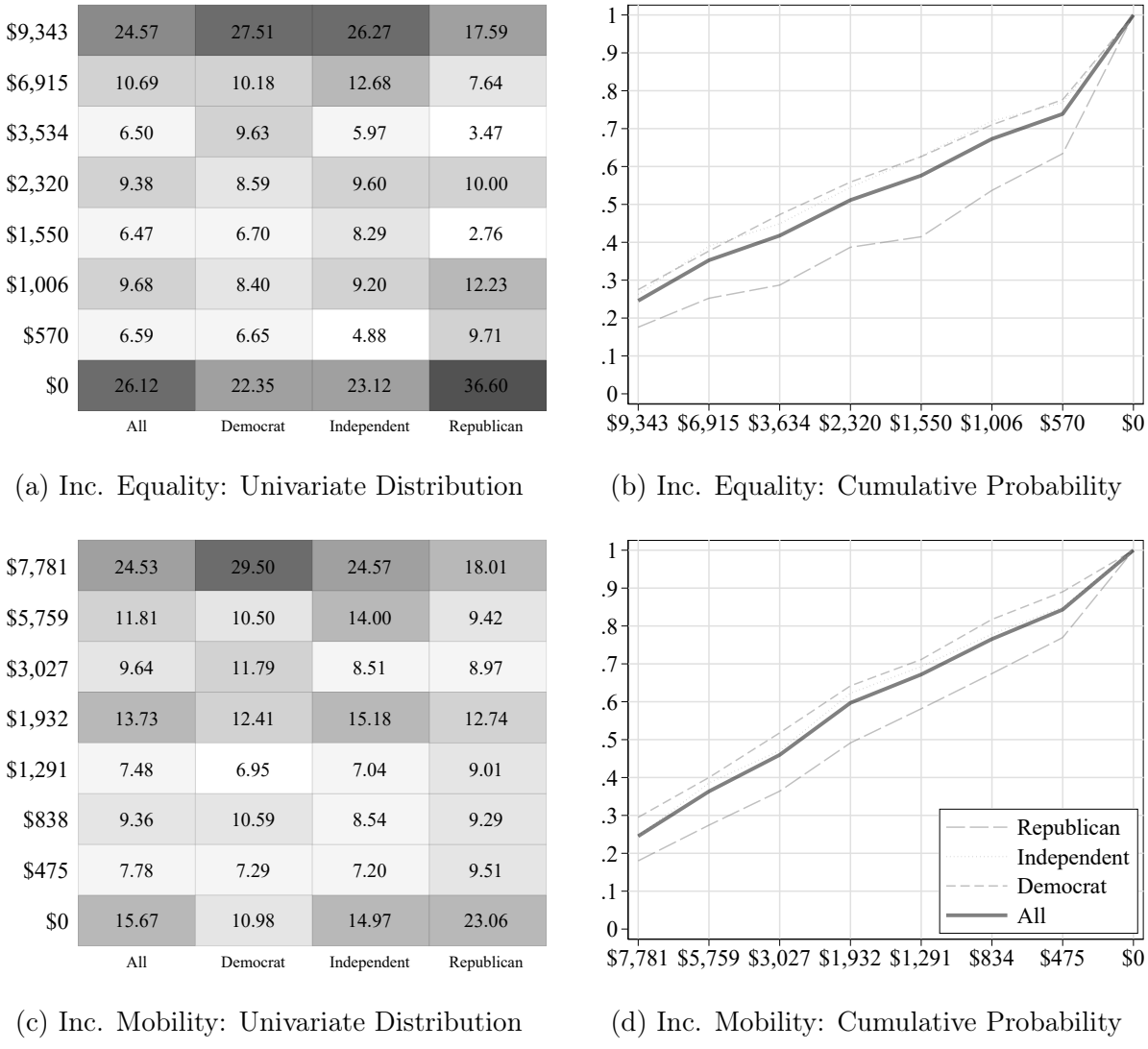
Figure 3: Distribution of the MRS, by Party



(a) Inc. Equality: Univariate Distribution

(b) Inc. Equality: Cumulative Probability

(c) Inc. Mobility: Univariate Distribution

(d) Inc. Mobility: Cumulative Probability

Note: Single and cumulative probabilities of respondents' MRS for income equality (panels a and b, respectively) and income mobility (panels c and d, respectively), for all respondents and disaggregated by party affiliation. Estimated MRS are derived from the adaptive survey described in Section 3.3 and Figures 1 and A.6.

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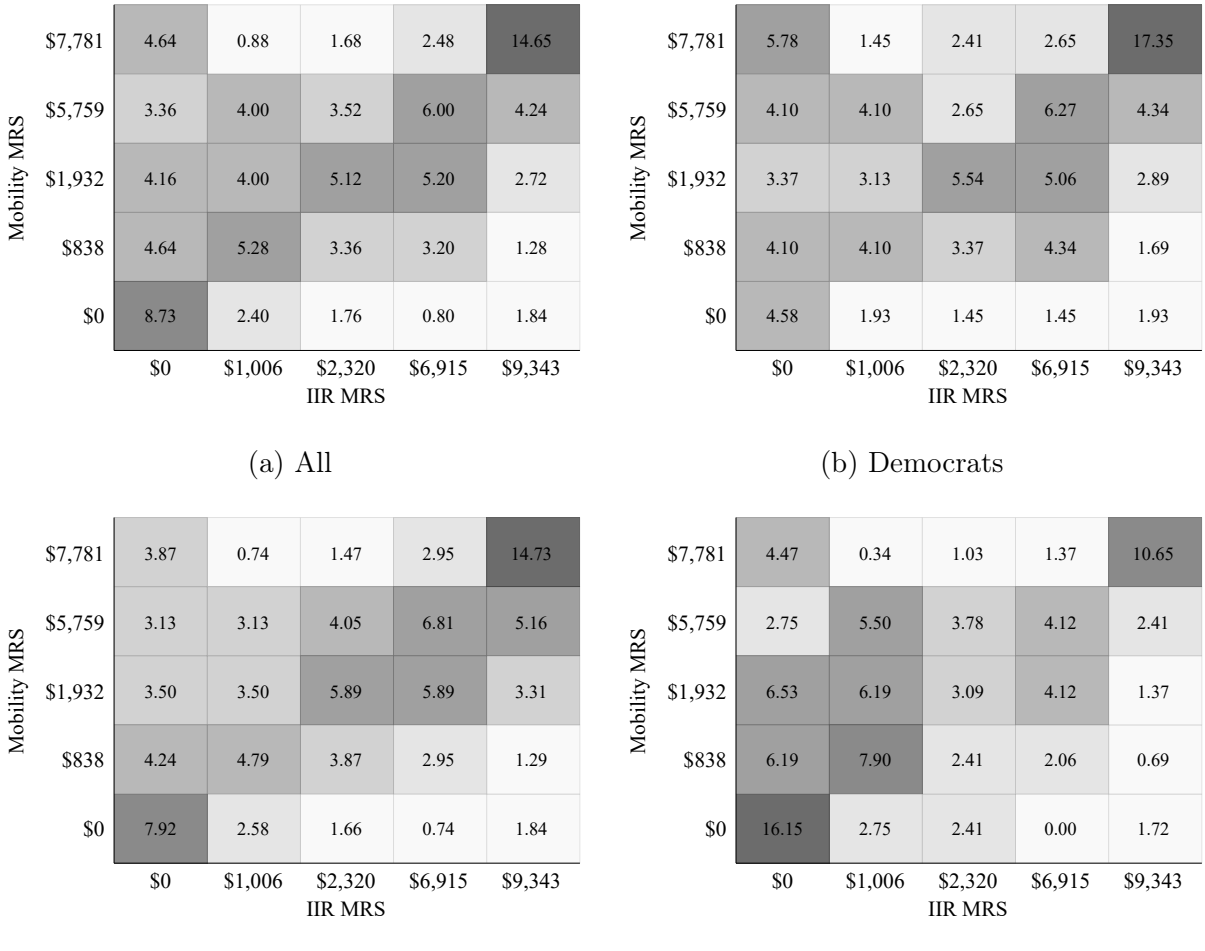
Figure 4: Joint Distribution of Income Inequality Ratio (IIR) and Income Mobility MRSs



(a) All

(b) Democrats

(c) Independents

(d) Republicans

Note: Joint distribution of the MRS for income mobility and income equality, for all respondents (panel a) and disaggregated by party affiliation (panels c–d). Estimated MRS are derived from the adaptive survey described in Section 3.3 and Figures 1 and A.6.