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Más allá del ingreso: comprendiendo las preferencias por la redistribución del 1% de mayores ingresos

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# Más allá del ingreso: comprendiendo las preferencias por la redistribución del 1% de mayores ingresos

Matías Strehl (\*), Marcelo Bérgolo (\*\*) y Martín Leites (\*\*\*)

# Resumen

¿Tienen las personas de altos ingresos preferencias por la redistribución diferentes al resto de la sociedad? Si es así, ¿qué explica estas diferencias? En este estudio, abordamos ambas preguntas utilizando un conjunto de datos innovador que combina registros administrativos de la autoridad fiscal con información de una encuesta sobre preferencias sociales y económicas de los trabajadores en Uruguay. Documentamos una marcada disminución en el apoyo a las políticas redistributivas entre las personas ubicadas en el 1% superior de la distribución de ingresos. Al comparar este grupo con un grupo de personas ubicadas en el 50-2% superior, encontramos que las diferencias en el apoyo a la redistribución no se explican únicamente por el nivel de ingresos o por diferencias en la composición demográfica. Una porción significativa de la brecha en las preferencias por la redistribución entre ambos grupos se atribuye a diferencias en creencias, percepciones y visiones, entre las que se destacan la ideología política, las creencias meritocráticas y las opiniones sobre el gobierno. También utilizamos juegos con incentivos económicos para elicitar parámetros de comportamiento y preferencias sociales, como el altruismo y la aversión al riesgo, aunque estas variables contribuyen a explicar solo una pequeña porción de la mencionada brecha. Finalmente, las diferencias en el apoyo a la redistribución persisten al comparar al 1% superior con otros grupos de altos ingresos. En conjunto, estos hallazgos sugieren que el 1% superior constituye un grupo relativamente homogéneo con preferencias por la redistribución distintas no solo del resto de la sociedad, sino también de otros grupos de altos ingresos.

Palabras clave: Individuos de altos ingresos, preferencias por la redistribución, parámetros comportamentales, creencias, percepciones.

Código JEL: D31, D63, D91, H20, H30.

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## **Beyond Income: Understanding Preferences for Redistribution**

Among the Top  $1\%^*$ 

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#### Abstract

Do top-income individuals support different levels of redistribution compared to the rest of society? If so, what drives these differences? We address these questions using a novel dataset combining administrative tax records with unique survey data on the social and economic preferences of workers in Uruguay. We document a marked decline in support for redistribution among the Top 1% of the income distribution. By comparing this group to the Top 50-2%, we show that differences in redistribution support are not solely explained by income or demographics. A set of beliefs, perceptions, and views, including political ideology, meritocratic beliefs, and views on government, account for much of the observed differences. Instead, a set of behavioral traits and social preferences, such as altruism and risk aversion, measured through incentivized online games, contribute little to explaining the gap. Finally, the differences in support for redistribution persist even when comparing the Top 1% with other high-income groups. Together, these findings suggest that the Top 1% is a distinct group with preferences for redistribution that differ from the rest of society, even from other high-income groups.

**JEL Classification:** D31, D63, D91, H20, H30.

**Keywords:** top-income individuals, preferences for redistribution, behavioral traits, social preferences, beliefs, perceptions.

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# 1 Introduction

Do top-income individuals show different preferences for redistribution compared to the rest of society? If so, how large is this gap, and what factors drive these differences? Does the gap persist once we account for these driving forces? In this study, we address these questions using a novel dataset that combines survey data and administrative tax records in Uruguay. The tax records contain detailed information on incomes, which we use to construct the income distribution and identify reference groups, specifically the top 1% of income earners. The survey data includes question-based and lab-based measures on preferences, beliefs, perceptions, and views, allowing us to measure individual preferences for redistribution and explore a wide range of possible determinants according to the literature. By linking these two datasets at the individual level, we can precisely identify the survey participants within the income distribution.

There are at least three reasons why it is important to study the preferences for redistribution among top-income individuals, their main drivers, and how these preferences differ from those of the rest of the population. First, from a redistributive policy-making and social welfare perspective, understanding the distinct attitudes and behaviors of topincome individuals is crucial. One strand of the literature suggests that the preferences of the wealthiest have a disproportionately significant influence on policy outcomes compared to the preferences of the general population, as politicians tend to favor more to the interests of the affluent (Gilens, 2012; Page et al., 2013). Top-income individuals are more politically active (Schlozman et al., 2012; Kalla and Broockman, 2016), exert greater influence on public opinion (Bullock, 2011), and hold more power in influencing the political process (Page and Gilens, 2017; Teso, 2022).<sup>1</sup> If we ask for increased government redistribution to address economic inequality and fund public policies –as scholars (e.g., Saez and Zucman 2019) and

<sup>&</sup>lt;sup>1</sup>Recent evidence, however, challenges this prevailing view regarding the political influence of upper socioeconomic groups. In particular, Marechal et al. (2024), based on a cross-country analysis, finds that the preferences of the lower socioeconomic group, rather than those of the median or upper segments, are most predictive of the actual extent of government redistribution.

politicians (see, e.g., CNBC, Mar. 25, 2024) often do –, a natural concern arises regarding the extent to which economic elites might block proposals that do not align with their preferences. From a broader policy-making perspective, the preferences of the top-income group and their influence on the political system may impact the efficiency of economic and political institutions, potentially leading to long-term losses in aggregate societal welfare (Acemoglu, 2006; Besley and Persson, 2009). Therefore, understanding the attitudes of top-income individuals toward redistribution and how their preferences compare to those of other citizens is of critical importance.

The second reason, closely related to the first, is that so far very little is known about the attitudes toward redistribution of the truly top-income individuals, such as the top 1% income earners. This is surprising given the significant academic and public debate on inequality and taxation issues that often focuses on the top 1%. Evidence suggests that this group has more conservative views than the general population regarding policies related to taxation or social welfare programs (see e.g., Page et al. 2013 for the case of the US), which raises the question of whether their preferences for redistribution also differ from those of other citizens. If so, it becomes important to unravel the drivers of these potential differences. Our study aims to fill this gap in the literature.

Finally, this study is significant for its empirical implications regarding conceptual discussions. One such discussion revolves around the factors that shape preferences for redistribution. Two dominant perspectives offer distinct explanations. The first perspective argues that individuals' preferences for redistribution are driven by economic self-interest and primarily depend on the expected costs and benefits of government intervention (Meltzer and Richard, 1981; Benabou and Ok, 2001). The second perspective emphasizes that differences in individual preferences may stem from relatively stable characteristics related to personal historical experiences, beliefs, perceptions, fairness views, social norms, and intrinsic preferences (Piketty, 1995; Luttmer and Singhal, 2011; Costa-Font and Cowell, 2015). This debate raises the question of whether top-income individuals hold distinct attitudes toward redistribution solely due to the expected costs and benefits of redistributive policies or because they share common preferences, beliefs, and views that, among other factors, may reflect group loyalty. By evaluating a broad range of factors influencing preferences for redistribution and examining potential drivers of attitudinal differences between income groups, as we do in our empirical analysis, this study provides evidence that contributes to this discussion.

Conducting research on the preferences for redistribution among top-income individuals presents significant challenges due to limitations in sample size and information availability in typical survey data. These constraints likely contribute to the scarcity of empirical studies on this important topic. Firstly, identifying individuals with very high incomes or wealth is complicated by self-reporting biases and "top coding" issues prevalent in many surveys. These issues often hinder researchers' ability to accurately place individuals within the income distribution, particularly at the very top. Secondly, obtaining a large and representative sample of top-income individuals in standard surveys is inherently difficult.<sup>2</sup> Thirdly, to explore the role of different drivers in explaining preferences for redistribution and the potential gap between the top incomes and the general population, we need a set of measures that capture a wide range of factors that may shape these preferences. Among other reasons, these limitations in the data have led previous studies on high-income individuals to work with either small sample sizes (e.g., Page et al. 2013, collected a sample of 83 US wealth-holders located close to the top 1%), self-reported income, or a broader definition of the top-income category (e.g., Gilens 2009; Gilens and Page 2014; Cohn et al. 2023; Page and Hennessy 2010, use population samples including the top 20%, top 10%, top 5%, and top 4% of income earners, respectively).

We address these data issues using a different approach to surveying top-income individuals. In collaboration with Uruguay's national tax agency, we targeted individuals who filed a tax return. By starting with the universe of taxpayers, we were able to survey a large

 $<sup>^2</sup>$  For example, in a typical representative survey such as the World Values Survey, the sample size for the US is approximately 2,500 observations. Consequently, only about 25 of these respondents would belong to the top 1% of the income distribution.

and comprehensive sample of the Uruguayan population, particularly those at the top of the income distribution. Moreover, since the tax records made available for this research include individual income based on detailed information from third-party reports and tax returns, we can construct "objective" measures of income-including both labor and capital income for several years-and precisely identify the survey respondents' positions in the income distribution. We define top-income individuals as those who belong to the top 1% (N=230) of the (registered) income distribution of workers and use individuals with income above the median and below the top 1% ("Top 50-2%") distribution (N=6,670) as a comparison group.<sup>3</sup> To measure preferences for redistribution, we use responses to a widely employed question about the role of government in reducing inequality between the rich and the poor. The survey also includes two different instruments to measure aspects that may shape individuals' preferences for redistribution according to the literature. Online adaptations of incentivized laboratory games elicit various behavioral parameters and social preferences, such as risk aversion, altruism, preferences for equality and efficiency, and trust in others. Additionally, non-incentivized survey questions, widely used in the social sciences, measure beliefs, perceptions, and views, such as the importance of merit and luck in people's economic outcomes, trust in government, the perceived level of upward mobility, and political ideology.<sup>4</sup>

One might be concerned about the external validity of using Uruguay as a laboratory to study preferences for redistribution, particularly those of top-income individuals. However, available data suggest that Uruguay is not unusual as a setting for this type of study. For example, top-income earners in Uruguay capture a share of total income similar to that of other higher-income countries, such as the US (Burdín et al., 2022). Moreover, survey

<sup>&</sup>lt;sup>3</sup> While ideally, we would want to compare samples from the top 1% to the rest of the population, the survey almost does not include individuals below the median income (see Figure A.1). Therefore, we use respondents in the Top 50-2% as a "second best" comparison group.

<sup>&</sup>lt;sup>4</sup> The survey and the experiments were previously registered in the AEA RCT Registry. Although the specific hypothesis tested in this study, that individuals in the top 1% of the income distribution exhibit weaker support for redistribution than the rest of society, was not preregistered in our pre-analysis plan, we believe the study offers a valuable contribution due to the novelty of our empirical approach and the significance of our findings. As outlined in the design reported in the registry, there is no reason to believe that our research design influenced the data collection process for the variables of interest or the results of this study.

data indicate that attitudes about the importance of redistribution in Uruguay are fairly typical. For example, according to the World Values Survey, 42.9% of Uruguayans agree on the importance of taxing the rich and subsidizing the poor for democracy, compared to 42.5%, 48.2%, and 49.1% in other Latin American countries such as Colombia, Chile, and Ecuador, respectively, and 49.2% in the US (Haerpfer et al., 2022).<sup>5</sup>

In the first part of our empirical analysis, we estimate the gap in redistribution support between individuals in the Top 1% and the Top 50-2% groups. We document that topincome individuals in Uruguay exhibit weaker support for redistribution compared to the lower-income group, on average. Unconditional analysis reveals that those in the Top 1% are 13.5 percentage points (p.p.) less likely to "totally agree" with increasing redistribution through government intervention. This gap persists even after controlling for compositional differences between groups. Although this evidence is suggestive, it does not definitively prove that the gap in attitudes toward redistribution emerges solely at the top 1%. Instead, it may mask a smooth, negative relationship between income and support for redistribution or discontinuities in other parts of the income distribution. Leveraging the granular features of our data, we present a nonparametric view of support for redistribution across the income distribution. We find an almost flat pattern across most of the income distribution, with a discontinuous decline in preferences for redistribution at the top 1%. This graphical representation provides evidence that the gap in attitudes toward redistribution between top-income and non-top-income individuals may be driven by a discontinuous fall at the top 1%

The second part of the study explores the factors that could explain why the Top 1% and the Top 50-2% groups support different levels of redistribution. We take advantage of the richness of our administrative and survey data, considering a wide range of explanatory factors that account for the dominant views on what shapes individual's preferences for redis-

<sup>&</sup>lt;sup>5</sup> The question statement is "Please tell me for each of the following things how essential you think it is as a characteristic of democracy. Use this scale where 1 means "not at all an essential characteristic of democracy" and 10 means it definitely is "an essential characteristic of democracy": Governments tax the rich and subsidize the poor. We consider "in favor" those who respond anything above 6 in the 1-10 scale. We downloaded the data and calculated the percent in favor for each country.

tribution: economic self-interest, and relatively permanent features associated with individual beliefs, perceptions, fairness views, social norms, and intrinsic preferences. Specifically, we grouped these factors into three categories. First, a measure of income (including labor and capital income) based on tax records. Both theoretical and empirical work suggests that the higher the income, the lower the support for redistribution (e.g., Meltzer and Richard 1981; Benabou and Ok 2001; Fong 2001; Alesina and La Ferrara 2005; Alesina and Giuliano 2011). Second, behavioral traits and social preferences, elicited from a series of well-known laboratory games implemented as incentivized survey questions, that may shape preferences for redistribution: risk-aversion (e.g., Sinn 1995), altruism (e.g., Fong 2001), efficiency-seeking (e.g., Fisman et al. 2017; Almås et al. 2020), preferences for merit (e.g., Almås et al. 2020), and interpersonal trust (e.g., Charron et al. 2021; Keefer et al. 2022). Third, a set of beliefs, perceptions, and views, based on a series of (non-incentivized) standard survey questions: perception of inequality (e.g., Stantcheva 2021), trust in government (e.g., Kuziemko et al. 2015; Alesina et al. 2018), government efficiency (e.g., Charron et al. 2021), perceived mobility (e.g., Alesina et al. 2018), meritocratic beliefs (e.g., Suhay et al. 2020; Cohn et al. 2023), perceived position in the income distribution (e.g., Cruces et al. 2013; Engelhardt and Wagener 2017), and political ideology (e.g., Alesina and Giuliano 2011).

To investigate the relevance of these groups of factors, we proceed in three steps. First, we examine the correlation between each factor and our measure of preferences for redistribution. Among our measures of beliefs, perceptions, and views, political ideology shows the strongest correlation. The correlation coefficient confirms that individuals with right-wing ideologies are less likely to support redistribution. Perceptions and views about the government also exhibit strong correlations with support for redistribution: individuals who have higher trust in the government and perceive it as efficient are more likely to favor redistribution. Our measure of meritocratic beliefs also reveals a significant and sizable negative correlation, reinforcing the idea that individuals with stronger meritocratic beliefs support lower levels of redistribution. The three remaining survey measures related to individuals' perceptions of inequality, though smaller in magnitude, show significant correlations with the expected signs. On the other hand, measures of behavioral traits and social preferences present weaker correlations with our measure of support for redistribution. Although the magnitudes are small, the direction of the correlation coefficients is the expected: individuals who are more risk-averse, more altruistic, less meritocratic, and more trusting tend to be more supportive of redistribution. Interestingly, despite income being a central variable in the literature as a determinant of preferences for redistribution, we find only a weak relationship in our setting. The correlation coefficient, while negative, is close to zero.

Second, we examine whether and how the Top 1% and the Top 50-2% groups differ across these explanatory factors. Among the set of beliefs, perceptions, and views, individuals in the Top 1% trust the government less, perceive it as less efficient, hold stronger meritocratic beliefs, and lean further to the right on the ideological spectrum compared to those in the Top 50-2%. They also view inequality as less excessive, although they do not significantly differ in their perceptions of social mobility. Regarding behavioral traits and social preferences, we find that individuals in the Top 1% exhibit lower risk aversion and a stronger preference for valuing effort. Differences in altruism, efficiency-seeking behavior, and interpersonal trust between these groups were not statistically significant.

Third, we conducted a multivariate regression analysis to examine the empirical relevance of these factors in explaining the observed differences in support for redistribution between the Top 1% and the Top 50-2% groups. We find that disparities in support for redistribution among income groups persist even after controlling for significant differences in current income. Instead, variations in other explanatory factors-particularly beliefs, perceptions, and views-—appear crucial not only in predicting attitudes toward redistribution but also in explaining a substantial portion of the gap in support for redistribution between these income groups. For instance, the estimated gap in support for redistribution between the two income groups is reduced by half and is no longer statistically significant once we account for these factors.

In the final part of the empirical analysis, we quantify how each explanatory factor-or group of factors–contributes to the gap in preferences for redistribution between the Top 1%and the Top 50-2%. To achieve this, we perform a Gelbach decomposition analysis (Gelbach, 2016), which is particularly adequate when all covariates are correlated (see, for example, Stantcheva 2021). Our findings indicate that the factors categorized as beliefs, perceptions, and views are key drivers in explaining why those in the Top 1% income group are less likely to support redistribution than those in the Top 50-2%. While these factors alone are sufficient to account for the entire observed gap (they explain 106.5%), differences in income between groups explain only about 13.2% of the gap. Specifically, individual differences in political ideology, meritocratic beliefs, perceptions of inequality, and views on government efficiency are the most significant contributors to explaining the gap among all the explanatory variables used in this analysis. This result is driven by the fact that these factors are among the strongest predictors of support for redistribution, and, at the same time, individuals in the Top 1% and Top 50-2% differ substantially in that set of beliefs, perceptions, and views. Finally, the results of this study are robust across alternative measures of preferences for redistribution, alternative definitions of the top-income group, and alternative definitions of income.

In light of our results, we confirm a significant gap in support for redistribution between the Top 1% and the Top 50-2%. We conclude that the drivers of this gap are related to the two main arguments proposed in the literature. Top-income individuals are less willing to support redistributive policies due to their economic self-interest. However, while income is an important predictor of preferences for redistribution, other factors play an even more significant role in explaining the gap between the top-income and the non-top-income group. The most novel finding is that individuals in the top income group share a set of relatively stable characteristics that differentiate them from others, which explains a substantial part of the gap in preferences for redistribution.

Related Literature. This paper contributes to three strands of the literature. First, it

contributes to the scarce but growing number of studies on the preferences and attitudes toward redistribution among top-income individuals (Page et al., 2013; Broockman et al., 2019; Suhay et al., 2020; Cohn et al., 2023). More closely related to this paper, Cohn et al. (2023) study the preferences for government redistribution of the richest 5% in the US, documenting that this wealthy group is less supportive of government redistribution than the general population. Our study replicates this finding but focuses on an even higher-income group: the top 1%.<sup>6</sup> Moreover, the quality and granularity of our income measure, based on tax administrative records, combined with a large sample size, allow us to nonparametrically observe that the gap in redistributive preferences between top-income and non-top-income groups emerges specifically at the top 1% of the income distribution. To our knowledge, this graphical representation provides the simplest and most transparent evidence to date that the gap in attitudes toward redistribution between top-income and non-top-income individuals may be driven by a discontinuous fall at the top 1%.

While Cohn et al. (2023) mainly focus on the role of fairness preferences and, to a lesser extent, the roles of meritocratic beliefs, altruism and trust in government to explain the observed gap in attitudes toward redistribution between the top 5% and the bottom 95%, we use a broader range of explanatory factors that account for two dominant views on what shapes preferences for government redistribution: economic self-interest and relatively permanent individual characteristics. Specifically, we include income as a proxy for economic self-interest, which has played a central role in the literature as a determinant of preferences for government redistribution (see, e.g., Alesina and Giuliano 2011), along with various measures of behavioral traits, social preferences, beliefs, perceptions, and views. Cohn et al. (2023) find that the primary factor explaining differences in support for redistribution between income groups is that the rich tolerate higher levels of inequality, while meritocratic beliefs, views on government, and altruism are deemed irrelevant. In contrast, we find that

<sup>&</sup>lt;sup>6</sup> In an appendix section, Cohn et al. (2023) show that the main results remain and are even larger in magnitude when they focus on the top 1% rather than the top 5%. Suhay et al. (2020) confirm this finding by using a similar sample.

the differences in support for redistribution are mainly explained by political ideology, meritocratic beliefs, perceptions of inequality levels, and views on government. Surprisingly, we do not find evidence that income plays a major role in explaining the documented gap in redistributive preferences. Finally, while existing findings on this topic rely exclusively on samples from developed countries, we contribute to the literature by presenting results from a less developed country. Our analysis shows that the tendency for top-income individuals to be less supportive of redistribution than the rest of the population persists despite differences in incomes, institutions, and cultures. The latter result is consistent with the hypothesis that top-income individuals have experienced similar personal and family trajectories which shape their preferences, beliefs and attitudes Piketty (1995). Furthermore, this result could align with the idea of group loyalty (Luttmer, 2001) and the evidence on the role of class identification in predicting voting behavior and preferences (Evans, 2000; Shayo, 2009; Klor and Shayo, 2010).

This paper also contributes to the literature on top-earners. Recent research has characterized this group, finding that they are often capital income earners, exhibit lower levels of intra- and intergenerational mobility, and are predominantly male (Keister, 2014; Lemieux and Riddell, 2015; Atkinson et al., 2018; Boschini et al., 2020; Burdín et al., 2022). Recent studies focus on their social preferences and behaviors, showing that top earners tend to be more selfish (e.g., Fisman et al. 2015<sup>7</sup>), more accepting of inequalities (e.g., Cohn et al. 2023), exhibit less pro-social behavior (e.g., Trautmann et al. 2013; Korndörfer et al. 2015; Levin et al. 2023), and are more likely to attribute economic success to individual responsability (Suhay et al., 2020) than their lower-income counterparts, although there is no consensus on whether there are differences in altruism (e.g., Smeets et al. 2015; Andreoni et al. 2017; Hoffman 2011; Cohn et al. 2023). We add to this literature by studying additional dimensions, finding that the top 1% are less risk-averse, perceive inequality as less excessive, hold

<sup>&</sup>lt;sup>7</sup> Although this study focuses on an "educational elite", a group which is likely to assume future positions of power and influence in American society, and not necessarily on the affluent, these two concepts are likely to be highly correlated.

a more negative view of the government, view effort as more important than luck in the income-generating process, and align more with right-wing ideology compared to the rest of society.

Our study also adds to the vast literature on the determinants of individual preferences for government redistribution (see e.g., Alesina and Giuliano 2011 for a review). First, while most previous studies rely on self-reported survey data on income, which may raise concerns about measurement error issues (Moore and Welniak, 2000), our individual income measure is based on detailed and longitudinal data from tax returns and third-party reports from employer statements.<sup>8</sup> Second, consistent with previous studies we find that stronger meritocratic beliefs (Fong, 2001; Suhay et al., 2020), higher perceived levels of intergenerational upward mobility (Alesina et al., 2018), and more negative views on the government (Kuziemko et al., 2015; Alesina et al., 2018; Page et al., 2013) are associated with weaker support for redistribution. Third, this paper contributes to a specific but growing literature that links attitudes toward redistribution to behavioral parameters (see e.g., Durante et al. 2014; Kuziemko et al. 2015; Buser et al. 2016; Bechtel et al. 2018; Martínez 2023), using adaptations of laboratory games implemented as incentivized survey questions. Consistent with previous evidence, we find that altruism (Cohn et al., 2023; Fisman et al., 2015, 2017), individuals' preferences for equality (Cohn et al., 2023; Fisman et al., 2015, 2017), and risk aversion (Gärtner et al., 2017; Sinn, 1995) are relevant factors in predicting support for redistribution.

**Structure of the paper.** The remainder of the paper is structured as follows. Section 2 describes the data and the survey design, and defines the main variables of this study. Section 3 presents the empirical strategy to estimate the gap in redistributive preferences between top-income and lower-income individuals and to assess how much of that gap each explanatory variable can explain. Section 4 presents the main results, while Section 5 performs robustness checks. Finally, Section 6 concludes.

<sup>&</sup>lt;sup>8</sup> It is important to highlight that recent research comparing self-reported and administrative data has found very few cases of income misreporting (Hvidberg et al., 2023).

# 2 Data, Sample, and Definitions

In this study, we aim to explore whether the top 1% of individuals have lower support for redistribution than those in the top 50-2%, and, if so, to analyze the extent to which different drivers highlighted in the literature can explain these differences. In this section, we present the data, methodological definitions, and conceptual frameworks used to measure income groups, preferences for redistribution, and the drivers of these preferences.

#### 2.1 Data: Survey Data

In collaboration with Uruguay's national tax agency and a team of coauthors from a companion paper (Bergolo et al., 2020), we conducted a survey targeting individuals who recently filed a tax return to capture their economic opinions and attitudes.<sup>9</sup> The survey was pre-registered in the Registry for Randomized Controlled Trials operated by the American Economic Association.<sup>10</sup> It was designed to target a sample of taxpayers who filed an income tax return in 2016, the most recent year available in the tax records at that time. Mainly due to the high tax exemption threshold, most individuals in Uruguay are not required to file a tax return. However, even those exempt can still choose to do so if they wish to claim itemized deductions not reported by their employer or not subject to third-party reporting (such as rent or mortgage expenses). Although only a minority of workers file a tax return each year, these individuals contribute significantly to tax return, accounting for nearly 45% of personal income tax revenues.

The initial pool of this universe consisted of 151,565 individuals registered in the tax agency's administrative database in 2016. Since invitations to participate in the survey were emailed, we excluded individuals without a valid email address registered with the tax agency, resulting in a final sample of 91,152 individuals who were invited to participate in the survey

<sup>&</sup>lt;sup>9</sup> The companion paper focuses on evasion decisions among taxpayers and how these decisions correlate with individual traits, perceived social norms, and beliefs.

study.<sup>11</sup> Data collection took place between April and June 2019.

The invitation mentioned the objective of the survey–gathering economic opinions and attitudes–but provided no specifics regarding the hypotheses being tested.<sup>12</sup> It also high-lighted a small monetary incentive for participating in the 20-minute survey: 20 raffle prizes of USD 150 each (plus additional potential rewards from incentivized games).<sup>13</sup> We also emphasized that participation in the survey was voluntary and that responses to the questionnaire would be treated confidentially and used only for academic purposes.

At the beginning of the survey, we collected background and demographic information about the respondents. The survey then included a series of online incentivized games designed to elicit different behavioral parameters that, according to the literature, shape individuals' preferences for redistribution, such as risk aversion, altruism, preferences for efficiency, and trust in others. The final section consisted of a series of questions commonly used in social science research to measure preferences, beliefs, perceptions, and views, such as the role of government in reducing inequality, the importance of merit in people's economic outcomes, perceived levels of upward mobility, and views on government.<sup>14</sup> Appendix F includes the English translation of the full survey questionnaire. Of the 91,152 invited individuals, 7,851 completed the entire survey—a response rate of 8.6%—and 7,424 successfully passed an attention check at the end of the survey.<sup>15</sup>

<sup>&</sup>lt;sup>11</sup> We excluded invalid email addresses, such as those without an "@", as well as email addresses that appeared more than once, which likely belonged to a tax preparer rather than the taxpayer, such as a family member or accountant. Potential selection issues arising from these exclusions are discussed in Section A.4.

 $<sup>^{12}</sup>$  Appendix E includes an English translation of the invitation email.

 $<sup>^{13}</sup>$  The median respondent completed the survey in 21.88 minutes.

<sup>&</sup>lt;sup>14</sup> In this section, we randomized the order of the questions to mitigate any potential bias induced by a specific order.

<sup>&</sup>lt;sup>15</sup> The attention check consisted of a final question thanking participants for paying attention to the instructions and asking them to select "none of the above" among several options indicating different feelings such as "joy", "anger", and "fear". If participants selected any of these feelings rather than "none of the above", it could indicate that they were not paying close attention to the instructions, so we excluded them from the final sample. See Appendix F for more details.

## 2.2 Data: Administrative Tax Records

We also use administrative tax records at the individual level provided by Uruguay's national tax agency. These records cover the entire universe of registered workers in Uruguay from 2009 to 2016 and allow us to track them across all possible income tax bases during this period. The data include precise and objective information on reported labor and capital income, taxes paid, characteristics of the firms where they work, and a few demographic characteristics such as gender and age.<sup>16</sup> Bergolo et al. (2020) provide detailed information on the features of Uruguay's personal income tax system and the income tax administrative records.

We use the tax data for two main purposes. First, it allows us to construct the entire distribution of workers' registered income and to precisely calculate the income cutoffs needed to define income groups, such as the top 1% of the distribution. Second, we link the survey data with the administrative tax records at the individual level to accurately determine respondents' positions in the income distribution and observe their past income trajectories, thereby using an objective measure of income rather than relying on self-reported measures.<sup>17</sup>

## 2.3 Income Groups Definition

Since the survey targeted workers who file tax returns–a relatively high-income group–the survey participants are positioned in the upper segments of the income distribution. Figure A.1 shows that most participants are above the median, with some even at the very top of the income distribution, such as the top 1%. Ideally, we would compare the preferences for redistribution of top-income individuals (e.g., the top 1%) against a sample of the rest of the population (e.g., the bottom 99%). However, in this study, we focus on the preferences for redistribution of individuals in the top 1% of the income distribution and compare them

<sup>&</sup>lt;sup>16</sup> A registered job is one for which workers pay taxes. Registered workers account for approximately 75% of the workforce in the country based on 2016 household survey data (*Encuesta Continua de Hogares*). Unregistered workers are not included in the tax records and are therefore not included in this analysis.

<sup>&</sup>lt;sup>17</sup> The dataset was anonymized after survey responses were matched to the administrative data to preserve confidentiality.

against those with income above the median but below the top 1% (referred to as the "Top 50-2%" hereafter). Based on this approach, we exclude 524 individuals below the median income, resulting in a final sample of 6,900 individuals. Survey participants in the top 1% of the taxable income distribution (N=230) among all registered workers in Uruguay constitute the Top 1% group. In contrast, the Top 50-2% group consists of participants with income above the median but below the top 1% of that distribution (N=6,670). The income variable used throughout this study is defined as the annual sum of wage income, income from self-employment, and capital income as reported in the tax records. To define these two groups, we consider the average income over the last three years available in the tax records (2014-2016). This approach is used because income sources can vary substantially from year to year. By averaging the last three years, groups are defined based on more stable criteria over time.<sup>18</sup>

Appendix A.4 presents summary statistics for our analysis sample and discusses the representativeness of our income groups based on survey participants compared to the entire population. In a nutshell, the main differences in socioeconomic and demographic characteristics between the income groups in the entire population and those in the survey are primarily driven by selection in the group invited to participate in the survey rather than by participation bias.<sup>19</sup>

## 2.4 Measuring Preferences for Redistribution

We use one survey question, commonly employed in social science, to measure preferences for redistribution. This question, henceforth referred to as *Role of Government*, asks participants whether the government should take action to reduce inequality between the rich and the poor, using a 4-point scale ranging from "totally disagree" and "partially disagree" to "partially agree" and "totally agree". While some studies use different questions to measure

<sup>&</sup>lt;sup>18</sup> When using a different definition of income, we use a different variable name, such as *Current income*.

<sup>&</sup>lt;sup>19</sup> Appendix A provides additional details about the survey design and potential representativity limitations.

preferences for redistribution<sup>20</sup>, variations of this question are among the most commonly used in empirical studies on preferences for redistribution (e.g., Choi (2019); Alesina and La Ferrara (2005)). This question captures a general attitude toward redistribution without specifying support for any particular policy or targeting any specific group in society.

#### 2.5 Drivers of the Gap in Preferences for Redistribution

When studying differences in preferences for redistribution between the top 1% and the rest of society, the key question is what factors drive these differences among income groups. The literature identifies several potential drivers, which can be broadly categorized into two groups. The first group argues that individuals' preferences for redistribution are rooted in their economic self-interest and primarily depend on the expected costs and benefits of government intervention (Meltzer and Richard, 1981; Benabou and Ok, 2001). Consequently, the hypothesis is that preferences for redistribution decrease with higher income levels or positions in the income distribution and with higher expectations of future income improvement. The second group of arguments emphasizes that differences in individual preferences may stem from relatively stable features associated with beliefs, perceptions, fairness views, social norms, and intrinsic preferences. These individual traits are linked to personal historical experiences and family background, including high or low social origins (Piketty, 1995; Bénabou and Tirole, 2006), and may be influenced by group loyalty or social identity (Luttmer, 2001; Costa-Font and Cowell, 2015). For instance, a history of misfortune can shape individuals' perceptions of fairness, making them more risk-averse and less optimistic about their beliefs and the future of society. Based on these arguments, the hypothesis is that differences between top-income and non-top-income individuals in personal traits such as altruism or risk aversion, as well as beliefs and views like perceptions of mobility or meritocratic beliefs, explain variations in support for redistribution.

<sup>&</sup>lt;sup>20</sup> For instance, by asking participants to choose their desired tax rate for different groups, their level of agreement with various redistributive policies, or how they would redistribute resources between different targeted groups in society.

We take advantage of the richness of our administrative and survey data and consider a wide range of explanatory factors when testing which group of arguments better accounts for the observed gap (if any) in support for redistribution between the Top 1% and the Top 50-2%. For clarity, we group these drivers into three categories: the first category corresponds to the first set of drivers, while the second and third categories correspond to the second group of drivers. For each category, we briefly explain the measures we use, how we construct them, the expected relationship between our main outcome and each measure, and-where possible-the expected differences in each measure between the two income groups. Appendix A provides a more detailed description of each measure.

(I) Individual income. Income is one of the most important predictors of redistribution preferences (Alesina and Giuliano, 2011; Fong, 2001; Alesina and La Ferrara, 2005). Our measure of income is based on tax records and indicates individuals' total registered (or formal) income. It includes labor and capital income. We use the income from the last year available in the data (2016) and label it as *Current income*.<sup>2122</sup> If people form their redistribution preferences based solely on the expected cost/benefit from redistribution policies, a disproportionately high cost of redistribution for top-income individuals may explain the differences in support for redistribution between the Top 1% and the Top 50-2%.

(II) Behavioral traits and social preferences. Besides the expected cost/benefit from redistributive policies, people also form their preferences for redistribution based on behavioral traits and social preferences. Therefore, differences in these aspects may help explain differences in support for redistribution between the Top 1% and the Top 50-2%. In order to investigate the importance of such factors in driving the observed gap in preferences for redistribution, we use a series of well-known laboratory games implemented as incentivized survey questions included in the survey questionnaire (see Section 2.1). These games are designed to measure specific behavioral traits and social preferences that may shape preferences

<sup>&</sup>lt;sup>21</sup> Our measure is our best approximation to actual current income, since the last available year in the data is 2016, although the survey took place in 2019.

<sup>&</sup>lt;sup>22</sup> Notice that this is not the same definition we used to define the income groups, which was the average income of the last three years (2014-2016) available in the data.

for redistribution.<sup>23</sup>

- *Risk aversion*: We measure risk aversion using the staircase procedure proposed in (Falk et al., 2018). Individuals who are more risk averse prefer a more active role of the government and support more redistributive policies (Sinn, 1995). Additionally, some studies suggest that willingness to take risks is positively correlated with income or wealth at the individual level (Barsky et al., 1997; Dohmen et al., 2011). If individuals in the Top 1% are less risk averse than those in the Top 50-2%, this could partially explain the differences in support for redistribution between these two groups.
- Altruism: We measure this parameter from a standard dictator game where respondents must decide how much to share with another participant from an initial income endowment. More altruistic individuals present stronger support for redistributive policies (Fong, 2001), although previous literature suggests that this relationship may depend on the target of altruism and associated with the relative costs (Luttmer, 2001; Alesina and Giuliano, 2011). Even though it is commonly assumed that rich individuals exhibit lower levels of altruism compared to the general population (Almås et al., 2022), the evidence on this regard is ambiguous (Hoffman, 2011; Smeets et al., 2015; Andreoni et al., 2017; Parker, 2012; Cohn et al., 2023).
- *Efficiency-seeking*: We measure this parameter from a game in which respondents choose how to allocate income for two other participants from two alternative allocations: one with perfect equality and lower total income, and one with high inequality but higher total income.<sup>24</sup> This game allows capturing an approximation to whether individuals are more equality or efficiency focused, by analyzing whether they are willing

<sup>&</sup>lt;sup>23</sup> Previous literature suggests that high-income individuals have a lower marginal utility of money compared to other earners (Cohn et al., 2023). This fact supports including individual income as a control variable to assess the link between redistribution preferences and the behavioral parameters and beliefs examined in this study.

<sup>&</sup>lt;sup>24</sup> In *Efficiency-seeking* and *Preferences for merit* games, the decision-makers receive \$1000 regardless of their decision. As a result, distributive choices cannot be attributed to self-interest motives.

to sacrifice equality to get more efficient outcomes. Prior work suggests that efficiencyseeking individuals tend to exhibit lower support for redistributive policies (Almås et al., 2020; Fisman et al., 2017). Furthermore, evidence indicates that individuals who belong to an elite are more efficiency-seeking (Fisman et al., 2017) and that rich individuals have a stronger tolerance for inequality (Cohn et al., 2023).

- Preferences for merit: This parameter measures how much individuals value effort using a game in which respondents decide the allocation of a given amount of income for two other participants: one that had to perform a short task, and another one that did not have to do anything. Respondents who give more income to the former player reflect that they support unequal allocations of income when there are differences in effort, which is in line with high appreciation of merit (Almås et al., 2020). We expect individuals with higher appreciation of merit to exhibit lower support for redistribution. Furthermore, since individuals in the Top 1% tend to believe more that "effort pays" relative to those in the Top 50-2% (Piketty, 1995), we may expect them to value effort more, although the evidence for the US has found no significant differences (Cohn et al., 2023) between the top 5% and the bottom 95%.
- Trust: We use a standard trust game in which respondents decide whether to invest an initial endowment of money in another participant (with the chance of increasing their returns if the latter decides to share) or not to invest and keep their money. Choosing to invest indicates individuals are willing to trust others. Evidence indicates that individuals with higher levels of interpersonal trust tend to prefer cooperative solutions over individual ones and more generous redistributive schemes (Bergh and Bjørnskov, 2014). We expect more trusting individuals to be more likely to support redistributive policies (Charron et al., 2021; Keefer et al., 2022). Additionally, some studies suggest that this relationship is mediated by the groups with whom individuals interact, the diversity of society, the level of inequality, and the quality of institutions (Bjørnskov and Svendsen, 2013; Borisova et al., 2014, 2018). These aspects could explain differences

in trust levels between the Top 1% and the Top 50-2%, although its sign is a priori undetermined.

(III) Beliefs, perceptions, and views. Individuals also form their preferences for redistribution based on beliefs, perceptions, and views. Therefore, differences in these aspects may help explain differences in support for redistribution between the Top 1% and the Top 50-2%. We use measures of the following dimensions based on a series of (non-incentivized) standard survey questions included in our survey questionnaire.

- Perception of inequality: We elicit respondents' perceptions on the level of inequality using the following question: "What do you think about the differences in income between the rich and the poor in Uruguay?", where the possible responses ranged from "too low" to "too high". Individuals who think more that inequality is "too large" consider that it a serious problem and thus exhibit stronger support for redistribution (Stantcheva, 2021). People may believe more that inequality is "too high" or "too low" because it suits their interests or because there are discrepancies between the perceived and the actual level of inequality (Choi, 2019; Engelhardt and Wagener, 2017). We expect that, relative to the Top 50-2%, individuals in the Top 1% tend to think more that inequality is low or adequate.
- Trust in government: We elicit trust in government using the following question: "Would you say that the government can generally be trusted to act correctly?" where the possible responses ranged from "Almost never" to "Always". Individuals who trust the government more tend to exhibit stronger support for redistribution (Page et al., 2013; Kuziemko et al., 2015; Alesina et al., 2018). Additionally, the scarce evidence indicates that affluent individuals trust the government equally (Cohn et al., 2023) although they prefer a smaller role for it than the rest of the population (Suhay et al., 2020).
- Government efficiency: Individuals may trust government but think that tax revenue

is wasted due to inefficiency. We measure this perception using the following question: "Do you think that the government is efficient in the way it manages public resources?", where the possible responses ranged from "Very inefficient" to "Very efficient". Similarly to the case of *Trust in government*, individuals who think the government is efficient tend to support more redistributive policies (Charron et al., 2021).

- *Perceived mobility*: We measure respondents' perceptions of mobility with the following statement: "Consider a child who was born into the poorest 10% of families in Uruguay. What is the probability that this child, when he/she is an adult, could belong to the 50% of the richest families?" where the possible responses ranged from "Not likely at all" to "Very likely". Individuals who perceive higher upward mobility levels have lower support for income redistribution (Alesina et al., 2018; Piketty, 1995). Based on their own experience, we expect top-income individuals to believe that the chances of upward mobility are higher compared to individuals in the top 50-2%.
- *Meritocratic beliefs*: We use a question adapted from Kuziemko et al. (2015) which asks whether luck or effort is more important to explain why some individuals are poor and some are rich –effort or circumstances beyond the individual control, like luck-.<sup>25</sup> Theory suggests that richest individuals tend to believe that "effort pays" and that differences in merit explain the origin of income inequality, leading them to support lower levels of redistribution (Piketty, 1995; Bénabou and Tirole, 2006). Evidence indicates that rich individuals have stronger meritocratic beliefs (Suhay et al., 2020), although the evidence is mixed (Cohn et al., 2023).
- *Perceived position*: We measure individuals' perception of their own position in the income distribution using the following question: "We divide Uruguayan workers into the following three personal income groups. Please indicate the one that best describes

<sup>&</sup>lt;sup>25</sup> Notice this measure captures a different aspect than *Preferences for merit*. While the latter captures how much individuals tolerate inequality when differences actually arise from merit, this measure captures the relative importance individuals attribute to effort in determining people's economic outcomes.

your income level", where the possible responses were "poorest 20%", the "Middle 60%", and the "Richest 20%". People often misperceive their position in the income distribution and such perceptions affect the expected benefits from redistributive policies, thus affecting attitudes toward redistribution (Cruces et al., 2013; Engelhardt and Wagener, 2017). Cruces et al. (2013) suggest that reference groups drive these biases and that they are likely a function of income. Individuals with "richer" reference groups are more likely to observe higher-income individuals and tend to underestimate their actual position in the income distribution (and vice-versa).

• *Political ideology*: We use the standard measure of a public opinion research question based on self-reported positions on an 11-point political spectrum scale with a middle point of 5: "In politics, we usually speak of *left* and *right*. On a scale where 0 is the left and 10 is the right, where would you be located?" Ideological self-identification is another relatively permanent individual characteristic of individuals in which those towards the right of the political spectrum support less redistribution (Alesina and Giuliano, 2011). Furthermore, top-income individuals tend to self-identify to the right of the ideological spectrum Page et al. (2013).

Finally, we use a set of individual *socioeconomic and demographic* characteristics as control variables, following previous studies (Alesina and Giuliano, 2011; Alesina et al., 2018). We consider whether individuals receive capital income – *capital income* –; individuals' past mobility history – *Past mobility* – ; an indicator of having self-employment – *Self employment* –; a gender indicator –*Female* –; *Age*; and *Educational level* (see Appendix A for a complete description of these variables).

# **3** Empirical strategy

In this section, we first describe the empirical approach used to account for differences in preferences for redistribution, followed by the method used to explore the reasons behind these differences and quantify how much each variable contributes to the gap.

#### 3.1 Gap in Preferences for Redistribution

We use an intuitive regression framework to examine the extent to which individuals in the Top 1% support lower levels of redistribution compared to those in the Top 50-2%, and to assess the role of income, a set of behavioral traits and social preferences, as well as a set of beliefs, perceptions, and views in explaining these differences.

As is commonly done in this literature (Alesina and La Ferrara, 2005), we assume that the preferences for redistribution of individual i can be characterized by a "latent variable":

$$Y_i^* = \beta Top \ 1\%_i + \mu I_i + \delta W_i + \lambda Z_i + \gamma X_i + \epsilon_i \tag{1}$$

where  $Top \ 1\%_i$  is a dummy variable indicating whether individual *i* belongs to the Top 1% of the distribution or she belongs to the Top 50-2%;  $I_i$  corresponds to current income,  $W_i$  is a vector of behavioral traits that includes risk aversion, altruism, whether the individual is equality focused, meritocratic preferences, and trust in others;  $Z_i$  is a vector of beliefs, perceptions, and views that includes perception of inequality, trust in government, perception of government efficiency, perceived mobility, meritocratic beliefs, political ideology, and perception of their position in the income distribution;  $X_i$  is a vector of economic socioeconomic and demographic characteristics that includes gender, educational level, age, past mobility, whether the individual receives capital income, and whether the individual receives self-employment income; and  $\epsilon_i$  is the error term. Finally,  $\beta, \mu, \delta, \lambda$  and  $\gamma$  are vectors of parameters.

While we cannot observe  $Y_i^*$ , we do observe  $Y_i$ , a variable taking values 1 to 4 increasing in individual support for redistribution, where 1 represents being "totally disagree" and 4 being "totally agree" with redistribution. In particular, we have

$$Y_i = j \text{ if } \mu_{j-1} < Y_i^* \le \mu_j \text{ for } j = 1, ..., 4$$
 (2)

where the  $\mu_j$ 's terms are unknown cutoff points to be estimated, with  $\mu_0 = -\infty$  and  $\mu_4 = +\infty$ .

Assuming that the error term  $\epsilon_i$  follows a standard normal distribution ( $\epsilon \sim N(0, 1)$ ), we estimate an ordered probit model. Ordered probit models are more adequate than, for instance, OLS regressions in cases where the dependent variable is categorical, ordinal, and its magnitude does not have a particular interpretation, as in this study (Cameron and Trivedi, 2005).

We present marginal effects corresponding to the ordered probit estimations to interpret the results. Marginal effects quantify the change in the probability of belonging to a specific category of support for redistribution associated with an increase in the corresponding regressor.<sup>26</sup>

The parameter of interest is  $\beta$ . In the estimation of the ordered probit model, the magnitude of  $\hat{\beta}$  does not have a practical interpretation, but its corresponding marginal effects do. The marginal effects of the *Top 1%* variable represent how much more likely individuals in the Top 1% are, on average, to belong to each specific category of support for redistribution, on average, than individuals in the Top 50-2%, leaving everything else constant.

To estimate the gap in support for redistribution between individuals in the Top 1% and those in the Top 50-2%, we first estimate the ordered probit model in Equation 1 using only *Top 1%* as the explanatory variable (the *base model*) and focus on its corresponding marginal effects. Next, to investigate what factors might explain the gap in redistribution support between these two groups, we add individual income, a set behavioral traits and social preferences, a set of beliefs, perceptions, and views, and a set of socioeconomic and demographic characteristics as controls (the *full model*), and we analyze how the marginal effects associated with the *Top 1%* variable change when accounting for these factors.

<sup>&</sup>lt;sup>26</sup> For instance, for the case of regressor  $W_k$ , its marginal effect captures the change in the probability of belonging to a specific category of support for redistribution associated with an increase in  $W_k$ , that is,  $\frac{\partial P[Y=j]}{\partial W_k}$ .

To facilitate interpretation, we also collapse the dependent variable into a binary variable, taking the value 1 if the individual "totally agrees" with increasing redistribution and 0 otherwise, and estimate Equation 1 using both a probit model and a linear probability model. In the OLS regressions,  $\beta$  is the parameter of interest and represents the average difference in the probability of "totally agreeing" with redistribution between the Top 1% and the Top 50-2% groups, holding all other factors constant.

## 3.2 The sources of the gap

Finally, to formally assess the extent to which each explanatory factor-or group of factorscontributes to the gap in preferences for redistribution between the Top 1% and the Top 50-2%, we perform a Gelbach decomposition analysis (Gelbach, 2016), as is common in this literature (e.g., Stantcheva (2021)). Since all covariates used in this study are correlated, the Gelbach decomposition provides a more appropriate approach compared to the standard practice of sequentially adding covariates to a base model. It also nests the widely used Oaxaca-Blinder decomposition (Jann, 2008).

In brief, based on the OLS estimates of the redistribution support gap, this method first estimates the *explained* portion of the gap by comparing the estimates of  $\beta$  in the *base model* without controls ( $\hat{\beta}_{base}$ ) to those in the *full model* with the complete set of controls ( $\hat{\beta}_{full}$ ). Then, using the omitted variable bias formula, it decomposes the gap and evaluates how much each covariate contributes to the gap. The two income groups may support different levels of redistribution because they differ in the covariates–e.g., altruism– and/or because these covariates impact support for redistribution differently. The Gelbach decomposition assesses how much each covariate contributes to the *explained* portion of the gap in redistribution support. See Appendix C for a detailed description of this method.

## 4 Results

The results are presented in two subsections. First, we estimate the gap in redistribution support between individuals in the Top 1% and the Top 50-2% groups. Second, we focus on the sources of such differences, where we explore the relevance of income, the set of behavioral traits and social preferences, and the set of beliefs, perceptions, and views.

#### 4.1 Estimating the gap in preferences for redistribution

Figure 1 shows the responses to the survey question on support for redistribution – *Role* of Government, our primary outcome –, by income group. First, there is a lower share of individuals in the Top 1% who totally or partially agree with a more active role of the government in reducing inequality compared to the Top 50-2% group (69.1% vs 81.9%, p-value<0.001). In particular, the greatest discrepancy between both income groups arises in the category that reflects the highest support for redistribution ("totally agree"): 30.4% for individuals in the Top 1% vs 40.8% in the Top 50-2% (p-value=0.002). Finally, a higher share of individuals in the Top 1% totally or partially disagree with the increase in redistribution compared to those in the Top 50-2% (14.4% vs. 7% (p-value<0.001) and 16.5% vs 11.1% (p-value=0.011), respectively).

Regression evidence confirms that individuals in the Top 1% have weaker support for redistribution than individuals in the Top 50-2%, on average. Table 2 presents estimation results of Equation 1 where the dependent variable is the measure of preferences for redistribution – *Role of Government* – or its corresponding dummy version that indicates whether individuals "totally agree" with redistribution or not. Panel A presents estimated coefficients for the *base model*, where only the *Top 1%* dummy variable is included as the explanatory variable. Columns (1) to (4) present ordered probit marginal effects estimates for the four categories from "totally disagree" to the "totally agree", respectively. The marginal effects are statistically significant at the 1% level. They are negative for columns (1) to (3) and positive for column (4), indicating that individuals in the Top 1% are less likely to "totally agree" with increasing redistribution and more likely to disagree with it, on average. Specifically, those in the Top 1% are 13.5 p.p less likely to "totally agree" with redistribution. In columns (5) and (6) of panel A, we use the dummy version as the dependent variable –i.e., one if "totally agree" and zero otherwise– and present estimates of the marginal effect of a probit model and the coefficient of a linear probability model, respectively. This regression version helps interpret the magnitude of the coefficients in a more straightforward way. Both estimates are very similar and show that, on average, those in the Top 1% are between 10.3 and 10.8 p.p less likely to "totally agree" with redistribution. These estimates are economically significant since they imply that Top 1% individuals are between 25.3 and 33.1% less likely to fully support redistribution than those in the Top 50-2%.

Although the gap in support for redistribution is sizable and statistically significant, it may primarily result from differences in socioeconomic and demographic characteristics between the affluent and the general population. Burdin et al. (2020) found that the chance of belonging to top income positions in Uruguay is higher for men, liberal professionals or occupations associated to health services, and capital income earners. Table A.2 confirms that, in our sample, the Top 1% and Top 50-2% groups differ significantly in dimensions such as gender, education, age, and the probability of being capital income earners. To address this concern, panel B of Table 2 presents estimates controlling for socioeconomic and demographic characteristics (gender, age, educational level, capital income earner, self-employment, and past mobility). The results show that the estimated gap in support for redistribution remains across all specifications. In fact, point estimates are, in absolute value, higher when adding controls, particularly when using the dummy version as the dependent variable where the magnitude of the coefficient of the Top 1% dummy increases by one third.<sup>27</sup>

One might also be concerned that the observed gap in support for redistribution between top-income and the lower-income individuals is driven by a smooth and negative relation-

<sup>&</sup>lt;sup>27</sup> Cohn et al. (2023) also find that once controlling for sociodemographic differences, the gap in attitudes towards government redistribution between the wealthy and the rest of the population increases.

ship between income and support for redistribution or that this gap might be driven by a discontinuity in other parts of the income distribution, such as at the top 5%, rather than just at the top 1%. However, Figure 2 shows that this is not the case in our setting. The figure presents a nonparametric view of our measures of support for redistribution across the income distribution, providing a powerful and transparent way to observe the relationship between income and support for redistribution and to identify where support for redistribution falls. Panel (a) depicts the "average" support for redistribution using the 4-point scale Role of Government variable – where 1 represents "totally disagree" and 4 represents "totally agree"- by income percentile. Since averaging a categorical variable imposes linearity across categories, panel (b) uses its dummy version, i.e., the share of individuals that "totally agree" with increasing redistribution. In this figure, each dot represents the percentage of respondents who "totally agree" with the statement at each percentile of the income distribution. Panel (a) shows an almost flat pattern in "average" support for redistribution across the income distribution up to the top 1%, where a clear discontinuous decline is observed. Panel (b), although noisier, seems to confirm that support for redistribution does not exhibit a sharp discontinuity whatsoever along the income distribution except at the Top 1%. Both panels suggest a pronounced discontinuity in the preferences of the top incomes. In other words, the documented differences between the Top 1% and the Top 50-2% groups seem to be driven by Top 1% individuals supporting significantly less redistribution than the rest. To our knowledge, this is the first nonparametric evidence supporting that the gap in attitudes toward redistribution between top-income and lower – although still high – income people is located at the top 1% (or further away).

In summary, individuals in the Top 1% have weaker support for redistribution than those in the Top 50-2%, on average. This gap in attitudes toward redistribution is driven by a discontinuous fall in support for redistribution right at the top 1% and persists even after controlling for compositional differences between groups.<sup>28</sup>

<sup>&</sup>lt;sup>28</sup> It is worth mentioning that since survey participants who belong to the income groups analyzed in this study are not random samples of those groups in the population, they might not be perfectly representative.

## 4.2 Explaining the gap in preferences for redistribution

Now, we turn to the factors that may help explain why the top 1% and the top 50-2% groups support different levels of redistribution. As described in section 2.5, we grouped those factors into three categories: income; behavioral traits and social preferences; and beliefs, perceptions, and views. We first test the correlation between each factor and our measure of preferences for redistribution and study whether individuals from the two income groups differ in these groups of variables. Next, we incorporate these groups of variables in our estimations to see whether they can help explain the observed gap in support for redistribution between the two income groups. Last, we perform a Gelbach decomposition to measure how much of the gap can be attributed to each variable – or group of variables –.

#### 4.2.1 What factors may explain the gap in preferences for redistribution?

**Correlation Analysis.** Table 1 presents a correlation analysis between the explanatory variables and our main outcome – *Role of government* –. Figure B.1 in the appendix provides a complementary descriptive analysis. In Table 1, column (1) reports pairwise correlations between support for redistribution and each variable grouped as Income; Behavioral traits and social preferences; and Beliefs, perceptions, and views. Columns (2) and (3) report the corresponding confidence intervals and p-values, while column (4) reports the corresponding q-values to account for multiple hypothesis testing (Benjamini and Yekutieli, 2001).<sup>29</sup> Most correlation coefficients from Table 1 are statistically significant, and precisely estimated.<sup>30</sup> The absolute values of the correlation coefficients range from 0 to 0.450, and the survey measures related to beliefs, perceptions, and views are more highly correlated with support

There is some selection in observables given by the nature of the survey, as discussed in Section A.4, so legitimate concerns about the external validity of the results may arise. In that sense, the main differences in preferences for redistribution between the two income groups may represent a lower bound since the survey captures the *richest* part of the Top 50-2% and the *poorest* part of the Top 1% (see Table A.2 and Figure A.1). Hence, with a perfectly representative sample, we would compare groups with higher income differences on average, implying potentially larger differences in support for redistribution.

<sup>&</sup>lt;sup>29</sup> Because we are evaluating the statistical significance of 13 different correlations, a natural concern is false positives due to multiple hypothesis testing.

<sup>&</sup>lt;sup>30</sup> Only 1 out of the 13 explanatory variables have correlations that are statistically not significant after accounting for multiple-hypothesis testing (defined as q-values below 0.1).

for redistribution than the laboratory measures on behavioral traits and the measure of current income.

As expected, current income is negatively correlated with support for redistribution. Although the point estimate is close to zero (-0.035), it is statistically significant (p-value=0.004, q-value=0.015). Overall, while income has a central role in the literature as a determinant of preferences for redistribution, this relationship is shown to be somewhat weak in our setting. This result is consistent with the flat pattern that support for redistribution shows across the income distribution (see Figure 2).<sup>31</sup> When turning to behavioral traits and social preferences measures, except for *Efficiency-seeking*, the rest of the variables show statistically significant correlation coefficients. Despite being small in magnitude, all the correlation coefficients show the expected direction: more risk-averse, more altruistic, less meritocratic, and more trusting individuals show stronger support for redistribution. The bottom panel in Table 1 shows that our measures of beliefs, perceptions, and views present strong correlations with our measure of support for redistribution Role of government, and the expected sign. The strongest correlation is the measure on political ideology, with a coefficient of -0.450 (p-value < 0.001, q-value < 0.001), which is consistent with the hypothesis that those who selfidentify as being on the right side of the political spectrum support less redistribution. The measures related to perceptions and views on government also show strong correlations with support for redistribution. Trust in government presents a positive and statistically significant correlation of 0.315 (p-value<0.001, q-value<0.001), while government efficiency shows a statistically significant correlation of 0.360 (p-value<0.001, q-value<0.001). These correlations seem to indicate that the "type" of individuals who support redistribution more have more positive views of the government. Meritocratic beliefs show the third-highest correlation in Table 1, with a correlation coefficient of -0.345 (p-value< 0.001, q-value< 0.001), which suggests that individuals having stronger meritocratic beliefs support lower levels of redistribution. The three remaining survey measures related to individuals' perceived own situation

<sup>&</sup>lt;sup>31</sup> Recall that our survey participants are all above the median income, thus we cannot say this correlation holds along the entire income distribution.

and the rest of the society on inequality-related aspects show significant correlations and the expected signs: correlations of 0.288 (p-value<0.001, q-value<0.001), -0.164 (p-value<0.001, q-value<0.001), and 0.039 (p-value=0.002, q-value=0.009) for the perception of inequality, perceived mobility, and perceived position in the income distribution, respectively. Jointly, these correlations seem to indicate that the "types" of individuals who support higher levels of government redistribution are those who perceive more that inequality is "too high" (versus "adequate" or "too low"), have more positive views of the government, perceive intergenerational upward mobility to be lower, believe that luck is more important than effort in the income-generating process, are more left-wing in the left-right political spectrum, and perceive that they are in a lower position in the income distribution.

Unconditional mean differences across groups. In the previous paragraphs, we showed that most factors potentially explaining the observed gap in support for redistribution correlate with our main outcome. Next, we analyze whether and how the Top 1% and the Top 50-2% groups differ in such factors. To this end, Figure 3 illustrates differences in factors grouped as behavioral traits and social preferences; and beliefs, perceptions, and views. For comparability purposes, each measure in the figure is standardized to have a mean of 0 and a standard deviation of 1. The figure depicts the average value by income group after standardization, along with the corresponding 95% confidence interval for the point estimate.

The measures of behavioral traits and social preferences –located in the top panel of the figure– show some interesting patterns. First, individuals in the Top 1% are less risk-averse (difference of 0.26 SD, p-value<0.001). Second, although individuals in the Top 1% exhibit a lower level of altruism, the differences are not statistically significant across groups, which is consistent with the lack of consensus in this regard in the empirical literature (Hoffman, 2011; Korndörfer et al., 2015; Piff et al., 2010; Chen et al., 2013; Andreoni et al., 2017; Cohn et al., 2023). Third, while individuals in the Top 1% are more likely to be efficiency-seeking, the differences are not statistically significant (p-value=0.179). This contrasts with previous findings that members of an educational elite in the U.S. are more efficiency-focused. (Fisman

et al., 2015). Fourth, Top 1% individuals value effort more, as they choose a more unequal allocation when observing differences in effort (difference of 0.16 SD, p-value=0.014), consistent with previous evidence (Cohn et al., 2023). Finally, there are no significant differences in their level of interpersonal trust (p-value=0.639).

Interesting patterns also emerge when analyzing the measures grouped as beliefs, perceptions, and views in the bottom panel of Figure 3. First, individuals in the Top 1% perceive the level of inequality in Uruguay as less excessive, on average, than individuals in the Top 50-2% (p-value < 0.001). This result is consistent with previous findings (Cohn et al., 2023) and predictions of theoretical models (Piketty, 1995). Second, Top 1% individuals have a more negative view of the government as they trust it less (0.17 SD, p-value=0.011) and perceive it as less efficient (0.42 SD, p-value < 0.001). This result is consistent with the study by Atria et al. (2020) but not with the study by Cohn et al. (2023), which found no differences between the top 5% and the bottom 95% in the U.S. Third, individuals in the Top 1% view effort as more relevant than luck in determining whether a person is rich or poor (0.32)SD, p-value< 0.001), consistent with the predictions of theoretical models (Piketty, 1995) and some previous evidence (Suhay et al., 2020) but inconsistent with other studies (Cohn et al., 2023). Fourth, the individuals in the Top 1% are more aligned with the right of the left-right ideological spectrum compared to the Top 50-2% (0.35 SD, p-value<0.001). Fifth, as expected, individuals in the Top 1% perceive themselves to be in higher income distribution positions than those in the Top 50-2%, although their perceptions can still be biased.<sup>32</sup> Finally, the two income groups do not show differences in their perceptions about mobility. If anything, top-income individuals seem more pessimistic about chances of upward mobility, contrary to our expectations. This result could be associated with the personal experiences of individuals within this group, who often experience persistent status in the upper tail of the income distribution across time and generations.

<sup>&</sup>lt;sup>32</sup> The survey question refers to three broad categories of income (bottom 20%, middle 60%, top 20%), so individuals could still be biased even though we find that, on average, those in the Top 1% think they are in higher positions in the income distribution than those in the Top 50-2%.
Finally, as expected, the average differences in current income are sizable between individuals in the Top 1% and those in the Top 50-2%. For example, Table A.2 (in the Appendix) shows that, on average, annual income of top-income individuals more than quadruples that of individuals in the Top 50-2% group.

The differences documented above represent potential reasons that could explain, at least in part, why Top 1% individuals support lower levels of redistribution than those in the Top 50-2%. Personal income is a natural candidate, as numerous empirical studies have found that higher income correlates with lower preferences for redistribution (Alesina and Giuliano, 2011). It is expected that, due to their position, the affluent perceive that they bear the costs of redistribution. However, the weakness of the estimated relationship between income and support for redistribution in our setting might cast doubt on the extent to which this variable is a key factor explaining the variation across income groups.

The observed differences in behavioral traits and social preferences could also play a role. For instance, the fact that individuals in the Top 1% value effort more and are less risk-averse are both factors associated with lower support for redistribution (Cohn et al., 2023; Durante et al., 2014; Sinn, 1995; Gärtner et al., 2017). However, except for preferences for merit, the rest of the measures that capture behavioral traits show a low correlation with attitudes toward redistribution.

Finally, the documented differences in the set of beliefs, perceptions, and views may also account for differences in support for redistribution between the two income groups. For instance, stronger meritocratic beliefs make the Top 1% more likely to perceive the actual income distribution as fair and, thus, demand less redistribution (Alesina and Angeletos, 2005). Additionally, since this income group perceives inequality as more "adequate" or "very low", they are less likely to support actions to reduce it (Alesina and Giuliano, 2011). Moreover, having a more negative view of the government makes Top 1% individuals less likely to support redistributive policies (Alesina et al., 2018; Kuziemko et al., 2015). The potential importance of these factors in explaining the gap is heightened, as they have been shown to be strongly correlated with preferences for redistribution.

**Regression Analysis.** As discussed above, it is possible that some of the explaining factors or even all of them jointly account for the documented differences in support for redistribution between the Top 1% and the Top 50-2%. To explore this possibility, panels C through F of Table 2 present the results from multivariate regressions as in equation (1) that sequentially add the groups of explanatory variables labeled as current income; behavioral traits and social preferences; and beliefs, perceptions, and views. All specifications include socioeconomic and demographic characteristics as in panel B. For simplicity, Table 2 only presents the estimate of the *Top 1%* variable. Tables D.1 through D.6 of Appendix D report the full set of coefficients estimated in each regression. It is important to keep in mind that these are just correlations and, as such, they should not be interpreted as causal effects.

Panel C includes current income in the regression as a control. If income explained all the previously observed differences in support for redistribution between the two income groups, then the coefficients associated with the Top 1% dummy should be close to zero. However, even though lower in magnitude, we still observe negative and statistically significant coefficients for the Top 1% dummy across specifications once current income is included. For instance, column (5) reports the marginal effect from a probit regression using an indicator for "totally agree" with redistribution as a dependent variable and shows that the Top 1% are roughly 9 p.p less likely to support government redistribution compared to the Top 50-2%, even after controlling for income. This result suggests that, while relevant, income alone does not explain all the observed differences in support for redistribution between the two income groups.

Let us now turn to the role of behavioral traits and social preferences. Panel D reports regression estimates using the same model as in Panel C but adds measures for these factors as controls. The results show that, in addition to current income, the set of behavioral traits and social preferences has some power in explaining the gap in support for redistribution. The coefficients of the Top 1% dummy for being "totally agree" with redistribution slightly decrease once these covariates are accounted for (see columns (4), (5), and (6)). However, the coefficient remains statistically and economically significant and robust across specifications. For instance, as column (5) shows, Top 1% individuals are 7.5 p.p less likely to "totally agree" with increasing redistribution compared to Top 50-2% individuals, on average.

Additionally, Panel E evaluates whether observed differences in support for redistribution may be explained by differences in beliefs, perceptions, and views, showing results from regressions that add this set of covariates as controls. Somewhat contrary to previous findings, the set of of beliefs, perceptions, and views is relevant in explaining the gap in attitudes toward redistribution between the two income groups. As panel E shows, the estimated marginal effects on the Top 1% dummy from the ordered probit are half as large as the former specifications and are barely significant at the usual statistical levels: for instance, Top 1%individuals are 4.5 p.p less likely to "totally agree" with increasing redistribution compared to Top 50-2% individuals (only statistically significant at the 10% level). Moreover, the marginal effect of the Top 1% dummy in the probit and its coefficient in the OLS regression (columns (5) and (6)), although keep the same sign, are much smaller in magnitude compared to panels B, C and D and no longer statistically different from zero. In summary, once we account for these factors, there are no significant differences in support for reditribution between the two income groups. This result reflects the fact that, as documented above, Top 1% individuals differ greatly in this set of beliefs, perceptions, and views (see Figure 3) which are strong predictors of support for redistribution (see the full set of estimates in Table D.6 in the Appendix D).

Finally, panel F of Table 2 presents the results from a regression that adds the entire set of explanatory factors as controls. The estimated marginal effects across all specifications are quite similar to those shown in panel E, slightly smaller in magnitude, and not statistically significant.

Taken together, the results from this section show that the discrepancies in support for redistribution between the two income groups persist even after accounting for the strong differences in current income. Moreover, differences in other explanatory factors, particularly a set of beliefs, perceptions, and views, appear to be important not only in determining attitudes toward redistribution but also in explaining a large part of the gap in support for redistribution between the two income groups.

#### 4.2.2 How much does each factor contribute to the gap?

We now quantify how much each variable – or group of variables – contributes to the gap in redistribution support between the Top 1% and the Top 50-2%. Since all the covariates used in this study are correlated to each other (see Figure B.1), it is instructive to perform a Gelbach decomposition (Gelbach, 2016). This method is a preferably alternative to the common practice of sequentially adding covariates to a base model, and it nests the commonly used Oaxaca-Blinder decomposition (Jann, 2008).

Shortly, based on the OLS estimates of the gap in support for redistribution between the two income groups, this method first estimates the *explained gap* by comparing the estimates of the gap in the *base model* without controls  $\hat{\beta}_{base}$  (panel A, column (6) of Table 2) with the *full model* including the complete set of controls  $\hat{\beta}_{full}$  (panel F, column (6) of Table 2). The *explained* gap is given by the difference (in absolute value) between  $\hat{\beta}_{base}$ and  $\hat{\beta}_{full} = 0.103 - 0.018 = 0.085$ . Hence, the *explained* gap – henceforth just the "gap" – accounts for 82.5% of the *observed* gap, and is the one the Gelbach decomposition assesses. Then, using the omitted variable bias formula, the Gelbach method decomposes the gap and evaluates how much each covariate contributes to it (see Appendix C for a detailed description of this method).

Figure 4 presents the results for the Gelbach decomposition. Each bar indicates the percentage of the gap that can be attributed to a specific variable or group of variables. Positive values indicate that differences in those variables are increasing the gap, and once we control for them, the gap narrows. Negative values imply that differences in those variables are closing the gap, and once we control for them, the gap increases. The sum of all contributions must equal 100%. Panel (a) shows the results by groups of explanatory variables: income; behavioral traits and social preferences; beliefs, perceptions, and views; and socioeconomic and demographic characteristics as defined in Section 2.5. Panels (b), (c), and (d) break down the results for each group by individual variables, respectively. Panel (a) shows that the groups of variables contribute to the gap in a heterogeneous manner. On one hand, the group of socioeconomic and demographic characteristics contributes negatively, meaning that the heterogeneity in these characteristics between the two income groups is closing the gap in support for redistribution, so the gap actually increases once we control for them. Specifically, controlling for these aspects increases the gap by 51.5%. This result is consistent with the regression analysis, as the gap in attitudes towards government redistribution between the two income groups increases once we add socioeconomic and demographic controls. On the other hand, income, the set of behavioral traits and social preferences, and the set of beliefs, perceptions, and views contribute positively to the gap. This means that heterogeneity in these covariates between the two income groups partially explains the gap in support for redistribution, so the gap narrows once we control for them. Interestingly, the magnitudes of the contribution vary greatly across groups of covariates. First, behavioral aspects play a minor role, accounting for only 6.4% of the gap. Second, current income plays a more important role, accounting for 16% of the gap between the two income groups. Third, the set of beliefs, perceptions, and views has the greatest contribution, accounting for 129.1%of the gap. This is consistent with our previous finding that individuals from the Top 1%and the Top 50-2% differ greatly in this set of covariates, which at the same time are strong predictors of support for redistribution.

Next, we break down the results of panel (a) by variable. Panel (b) shows that, for behavioral traits and social preferences, while they contribute little to the gap overall, most of their contribution comes from risk aversion and preferences for merit, with the rest of the covariates playing a minor role. This result is consistent with the finding that Top 1% individuals are less risk-averse and more efficiency-seeking<sup>33</sup>, both characteristics associated with lower support for redistribution. Panel (c) shows that the large contribution of the set of beliefs, perceptions, and views to explaining the gap in preferences for redistribution (129.1%) between the two income groups is mainly driven by political ideology (51.7%). meritocratic beliefs (22.2%), perception of inequality (21.5%), and views on government efficiency (21.1%), with the remaining covariates playing a relatively minor role. Furthermore, these four variables contribute the most to explaining the gap among all explanatory variables used in this analysis –except for age– together accounting for 116.5% of the gap. These results can be explained by combining two previous findings. First, these covariates are among the strongest predictors of redistribution support (see their their pairwise correlations with the main outcome in Table 1 or the results in column (6) of Table D.1). Second, Top 1%and Top 50-2% individuals differ significantly in these beliefs, perceptions, and views (see Figure 3): on average, they are more aligned to the political right, believe that merit is more important in the income-generating process, consider current inequality levels to be more "adequate", and have more negative views of the government. Finally, panel (d) breaks down the results by variable for the set of socioeconomic and demographic characteristics. Interestingly, differences in age and educational level actually narrow the gap, meaning that the gap increases once we control for such differences. This result is consistent with the fact that, in our sample, older and more educated individuals – overrepresented in the Top 1% – tend to show stronger support for redistribution (see Figure B.1).

In summary, the decomposition analysis shows that a set of beliefs, perceptions, and views are crucial drivers in explaining why those with the highest income are less likely to support redistribution than those in the lower income group, even more important than income itself. While the former explains 129.1% of the *explained* gap (and 106.5% of the *observed* gap), the latter explains 16% of the *explained* gap (and 13.2% of the *observed* gap). Additionally, some socioeconomic and demographic characteristics, along with income, also play a relevant

 $<sup>\</sup>overline{}^{33}$  although the latter is not statistically different from zero.

role. Specifically, political ideology, meritocratic beliefs, perceptions of inequality, and views on the government appear to be the key factors explaining the differences in support for redistribution between the Top 1% and the Top 50-2% in our setting (with the exception of age); age, educational level, and current income also play an important role; while the remaining factors, such as behavioral traits and social preferences appear to play a minor role.

# 5 Robustness checks

In this section, we perform several robustness checks for the results found in the last section. First, we replicate the main results using an alternative measure of preferences for redistribution. Second, we check whether the results are robust to alternative definitions of topand lower-income groups. Throughout the paper, to assign individuals to the top-income group, we consider specifically the top 1% and use the average income over the last three years available in the tax records (2014-2016). In this section, we test the robustness of the results when considering alternative definitions of the top-income group.

### 5.1 Alternative measure of preferences for redistribution

Various studies have used different measures of preferences for redistribution that either specify which sectors will bear the cost of redistribution or allow individuals to express their preferences in this regard (e.g., Alesina et al. 2018; Alesina and Giuliano 2011; Alesina and La Ferrara 2005; Cohn et al. 2023; Suhay et al. 2020). To check whether the main results are robust to an alternative measure of preferences for redistribution, we replicate the main analysis using a different dependent variable: *More Progressive Taxes*, derived from another question in the survey. This question asks participants to report to what extent they agree or disagree with the statement, "The tax system should be more progressive". As in the case of *Role of government*, there were four possible answers ranging from "totally disagree"

to "totally agree". Note that this variable also measures support for redistribution but specifies a particular policy to increase redistribution levels: making the tax system more progressive. The question also clarifies who will bear the cost of increasing redistribution: those with higher income.<sup>34</sup> Survey participants are taxpayers who declare their formal income and (most of them) pay income tax, which has progressive tax rates. It is plausible that participants make a direct association between redistribution, the progressivity of the tax, and the costs of redistribution. The hypothesis is that the results should be similar, although they may vary slightly, since support for redistribution in a general sense may differ from support for a more progressive tax scheme. In particular, given their position in the income distribution, it is expected that top(low)-income participants perceive more progressive schemes as higher(lower) costs for them and thus disagree(agree) more with such schemes.

Table 3 replicates the main estimations of Table 2 but using *More progressive taxes* as the outcome variable. The results are very similar, although the gap in redistribution support between the Top 1% and the Top 50-2% is even larger, almost doubling that of Table 2 (see columns (5) and (6) of panel A). Here, those in the Top 1% group are about 20 p.p less likely to "totally agree" with increasing the tax scheme progressivity than those in the Top 50-2%, on average. This difference is consistent with the fact that specifying *who* would bear the burden of redistribution makes higher(lower) income individuals disagree(agree) even more with increasing redistribution, thus widening the gap between these two groups. Finally, even when including the entire set of explanatory factors (panel F), the gap remains statistically significant at the 1% level and relevant in magnitude. This suggests that while the set of controls does explain a large portion of the gap, there are still other factors driving these differences that we cannot observe in this study.

<sup>&</sup>lt;sup>34</sup> This question is different than the question used for *Role of Government*, where a preference is revealed without clearly stating the costs. This could lead people to express greater support for redistribution–for example, for reasons of self-image–because they do not internalize the costs of redistribution.

### 5.2 Alternative definition of top-income individuals

Most previous works on top income address this category from an empirical perspective. Since there is no single theoretical definition of a top-income individual, most of the literature identifies them based on descriptive statistics of the income distribution. In this section, we check whether the main results are robust to alternative definitions of top-income individuals.

#### 5.2.1 Beyond the top 1%

Although the top 1% is a widely used definition of top-income or wealthy individuals, other papers have focused on different groups, such as the top 5% (Cohn et al., 2023). Here, we replicate the main analysis of the paper defining the top-income individuals as those who belong to the top 5% of the income distribution and comparing their preferences for redistribution against the top 50-6% (the group above the median and below the top 5%). Additionally, many inequality studies have found that groups such as the top 0.1 or the 0.001% are critical drivers of inequality patterns (e.g., Piketty and Saez 2003), making them interesting groups for studying their preferences. However, there are not enough survey participants in such positions of the income distribution to replicate the analysis at those levels.<sup>35</sup>

Table 4 presents estimates for the main specification, replicating Table 2 but using the Top 5% indicator as the main explanatory variable. Panel A shows that even though the results go in the same direction as when considering the Top 1%, the magnitude of the gap is much smaller. Furthermore, columns (5) and (6) show that the gap between the Top 5% and the Top 50-6% on being "totally agree" with increasing redistribution is not statistically different from zero. A potential explanation for this result is that the main differences in redistribution support between top and lower-income individuals are driven by the Top 1%

<sup>&</sup>lt;sup>35</sup> Another alternative could be to define top-income individuals as those whose income depend primarily on capital income. This definition, in addition to having a theoretical basis, builds on the idea that preferences for redistribution may be sensitive to the source of income. In Uruguay, there is a very high overlap between belonging to the Top 1% and receiving capital income. For this reason, it was preferred to incorporate this variable as a control to explain the gap.

itself and not by the rest of the Top 5%. In other words, the rest of the Top 5% may be more similar to the Top 50-6% than to the Top 1%.

The last result suggests that the Top 1% constitutes a unique group with different preferences than the rest of society, even when compared with other high – but not as high–income individuals. Figure 2 presents evidence that favors this interpretation. Individuals in the Top 1% present lower support for redistribution even when compared to individuals right below them, such as those in the Top 10% or Top 5% but below the Top 1%. Moreover, we replicate the main analysis focusing on the gap between the Top 1% and a group of highincome immediately below them – Top 5-2%. The results, presented in Table 5, are virtually identical to those obtained in the main estimates of Table 2. That is, the gap in redistribution support between the Top 1% and the Top 5-2% is very similar to that between the Top 1% and the Top 50-2%. This suggests that the high-income group with distinct attitudes toward redistribution is indeed the Top 1%, while those with high – but not as high – income are more similar to the rest of the individuals with lower income.

#### 5.2.2 Persistence at the top 1%

The definition of top-income individuals employed throughout this study uses the top 1% category and considers the average income of the last three years available in the tax records (2014-2016). An alternative definition could consider an individual as top income if they were in the top 1% of the income distribution for each of the last three years available in the tax records: 2014, 2015, and 2016. This definition would capture individuals who are persistently at the top of the income distribution over time.

To make an adequate comparison, we restrict the analysis sample to those persistently above the median in each of the three years, leaving a smaller sample since only some survey participants appear in all the last three years of the tax records and have income above the median. Then, the Top 1% group consists of individuals who belonged to the top 1% of the income distribution each of the three years, and in this case, the Top 50-2% group consists of those above the median and below the top 1% each of those three years. The final sample consists of 5,833 individuals, where 107 are persistently at the top 1%, so lack of power might be a limitation in this analysis.

Table 6 presents estimates for the main analysis of Table 2 using this alternative definition of the Top 1% group. The results are qualitatively and quantitatively similar to those that employ the main definition of Top 1%. In fact, despite having fewer observations in the Top 1% group, panel A shows that the gap in redistribution support between these two groups is statistically significant at the 1% level, and such gap is even larger than that of the main analysis. Columns (4)-(6) in panel A show that those who persistently belong to the top 1% are between 13.3 and 18.1 p.p less likely to "totally agree" with increasing redistribution, relative to those persistently in the top 50-2% of the income distribution.

he previous alternative definition of the Top 1% group focuses on individuals who are persistently in such a position over time. In the last robustness exercise, we employ a more flexible definition of the Top 1% group that allows us to capture individuals who may not persistently be in the top 1% but have achieved this status at least once during the last three available years (2014, 2015, 2016). This definition of top income is more flexible and includes everyone who at some point reached that position, regardless of whether they maintained it. To ensure an adequate comparison, we limit our analysis sample to participants who have been above the median in at least one of those three years. The final sample includes 7,163 individuals, 277 of whom have been in the top 1% for at least one year.

Table 7 presents estimates for the main analysis from Table 2 using this alternative definition of the Top 1% group. The results are qualitatively and quantitatively similar to those obtained using the primary definition of the Top 1%, although slightly smaller in magnitude. This suggests that defining the group of top income earners in a homogeneous way requires not only reaching that position but also persisting in it.

In summary, the gap in redistribution support between the two income groups is even larger when considering individuals who persistently belong to these income groups over time. This finding supports the idea that individuals who consistently remain at the top of the income distribution exhibit more pronounced differences in their support for redistribution compared to those in the lower income group. This result may be explained by the fact that individuals who persistently remain at the top of the income distribution are even more homogeneous within their group and more different from the rest of society regarding their attitudes toward redistribution than when we employ the main definition of the Top 1% group based on the average income of the last three years.

## 6 Final comments

In this study, we analyze whether and why individuals at the top of the income distribution in Uruguay have different preferences for redistribution compared to the rest of society. Exploiting unique survey data that links the individual preferences for redistribution of high-income workers to administrative tax records, we can accurately measure individuals' positions within the income distribution. Our findings indicate that individuals in the top 1% exhibit weaker support for redistribution compared to those with lower income (below the top 1% but above the median). This disparity suggests that individuals with potentially more political power and influence have different redistribution preferences compared to the rest of society.

Next, we explore the factors that could explain the gap in support for redistribution between the Top 1% and the Top 50-2% groups. Our analysis shows that these differences persist even after accounting for income and sociodemographic characteristics. This suggests that factors beyond the well-documented negative relationship between income and redistribution support, as well as sociodemographic characteristics, might explain why individuals in the top 1% support lower levels of redistribution. We focus particularly on the role of behavioral aspects and a set of beliefs, perceptions, and views that, according to the literature, shape preferences for redistribution. We first document that top-income individuals are less risk-averse and value effort more than non-top-income individuals and that the former hold more conservative beliefs, perceptions, and views: they lean more right-wing on the political spectrum, believe that merit plays a more crucial role in the income-generating process, perceive the level of inequality as more appropriate, trust the government less, and view it as a less efficient institution. While we cannot fully explain the gap in preferences for redistribution with the available covariates, we account for a large portion of it (82.5% in the preferred OLS specification). Although behavioral aspects such as altruism, risk aversion, and preferences for merit are relevant in predicting preferences for redistribution, they do not explain much of the observed differences in redistribution support between the two income groups. Instead, we find that a set of beliefs, perceptions, and view-such as political ideology, meritocratic beliefs, perceptions of inequality, and views on the government-are much more relevant in explaining why individuals in the top 1% might prefer lower levels of redistribution. Our explanation for this result is that these factors are among the strongest predictors of support for redistribution, and individuals in the Top 1% and Top 50-2% groups differ substantially in this set of beliefs, perceptions, and views.

Additionally, we find that the gap in redistribution support is even larger when considering those persistently at the top 1% of the income distribution as the top-income group. Furthermore, the gap in redistribution support is very similar when comparing the Top 1% group with a group of workers with high – but not as high – income (those in the top 5% but below the top 1%). This suggests that the Top 1% constitutes a distinct group with preferences that differ from those of the rest of society, even when compared to other high–but not as high–income groups.

Our results suggest that top-income individuals are less willing to support redistributive policies because such policies could impose relatively high costs on them. However, this is only part of the story. Top-income individuals also share a set of behavioral attitudes, beliefs, perceptions, and views that distinguish them from the rest of society and account for their lower support for redistribution. Our analysis indicates that this group, which generally retains its high-income status, is relatively small and homogeneous in its beliefs and views. The differences between these two groups, in terms of preferences for redistribution and other attributes, could be shaped by personal experiences and family history. Finally, this is consistent with the idea that variations in preferences for redistribution could arise from group loyalty and a sense of social identity or shared interests, although further research is needed to better understand this mechanism.

The evidence suggesting that high-income individuals form a small, homogeneous group with shared beliefs, attitudes, and a preference for less redistribution introduces new insights. These results align with the hypothesis that this group opposes redistributive policies due to shared group interests. Additionally, the concentration of economic resources and the potential accumulation of power and influence within the political system can affect the performance of economic and social institutions. This concentration could perpetuate income inequality and negatively impact long-term aggregate well-being if the high-income group engages in rent-seeking behavior (Acemoglu, 2006; Besley and Persson, 2009). Furthermore, such disproportionate influence in decision-making spheres could weaken the proper functioning of democracy (Robeyns, 2019). The relevance of these mechanisms may be even greater in societies with higher levels of inequality and weaker institutions, which is often the case in developing countries. Therefore, it is crucial to design institutions and rules that mitigate these types of interventions.

Finally, it is important to note that this study presents correlational evidence, which should be considered when interpreting the results. Additionally, the survey participants belonging to the income groups analyzed in this study are not random samples of those groups in the population and, therefore, are not perfectly representative. More research is needed in this area, with more representative surveys and experiments targeting highincome or wealthy individuals being crucial to fully understand how the rich think about redistribution, whether their preferences differ from those of the rest of society, and why.

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# Figures



Figure 1: Support for redistribution: Top 1% vs Top 50-2%

<u>Notes</u>: The figure presents the distribution of responses from survey participants to the *Role of Government* question used to measure support for redistribution, by income group: Top 1% and Top 50-2%. The sample size is 6,900.



Figure 2: Position in the distribution and support for redistribution by percentile

<u>Notes</u>: The figure presents average support for redistribution using the *Role of Government* question, by position in the income distribution, with corresponding 95% confidence intervals. Each bin represents an income percentile, except for the first two bins, which are grouped by decile due to the small number of observations in the lowest positions (see Figure A.1). That is, the first two bins represent the average support for redistribution of the fifth and sixth deciles, respectively. Thereafter, each bin represents a single percentile. While panel (a) refers to the average of the 4-point scale *Role of Government* variable (ranging from 1 ("totally disagree") to 4 ("totally agree")), panel (b) refers to the percent being "totally agree" with the statement. The sample size is 6,900.



Figure 3: Differences in drivers of support for redistribution

<u>Notes</u>: The figure presents the average of the main explanatory variables, by income group: Top 1% and Top 50-2%. The explanatory variables correspond to those defined in Section 2.5. Behavioral traits and social preferences are grouped in the top panel of the figure, while beliefs, perceptions, and views are grouped in the bottom panel. For the purpose of this graph, each variable was standarized so it has a mean of 0 and a standard deviation of 1 in the entire sample before taking the by-group average. The sample size is 6,900, where 6,670 belong to the Top 50-2% group and 230 to the Top 1% group. 95% confidence intervals are also included.



Figure 4: Gelbach decomposition by group and by explanatory variable

(a) By group of variables

(b) Behavioral traits and social preferences

<u>Notes</u>: The figure presents the percentage of the explained gap in support for redistribution between the Top 1% and the Top 50-2% that is explained by each variable (or group of variables), which arises from the Gelbach decompositions. The explained gap is the difference between the estimated coefficient of the *Top 1%* dummy in the base specification (no controls) vs full specification (full set of controls). Positive values indicate that those covariates help explain the gap, meaning that the gap closes when controlling for such covariates. Negative values imply that differences in those covariates reduce the gap, meaning that controlling for such covariates actually increases the gap. Panel (a) presents the decomposition by group of covariates, showing the percent of the gap that is explained by each group of covariates. Additionally, panels (b), (c), and (d), break down panel (a) decomposition within each group of covariates, by variable: behavioral traits and social preferences; beliefs, perceptions, and views; and socioeconomic and demographic characteristics, respectively. For panels (b), (c), and (d), the sum of the individual variables' contribution add up to their corresponding group contribution of panel (a). The sample size is 6,900.

# Tables

	Corr. Coeff	95% CI	p-value	q-value
	(1)	(2)	(3)	(4)
Panel A: Individual income				
Log of current income	-0.035	[-0.058, -0.011]	0.004	0.015
Panel B: Behavioral traits and social preferences				
Risk aversion	0.028	[0.005, 0.052]	0.019	0.065
Altruism	0.134	[0.111, 0.157]	< 0.001	< 0.001
Efficiency-seeking	-0.007	[-0.031, 0.016]	0.552	0.999
Preferences for merit	-0.110	[-0.134, -0.087]	< 0.001	< 0.001
Trust	0.037	[0.014, 0.061]	0.002	0.008
Panel C: Beliefs, perception, and views				
Perception of inequality	0.288	[0.266, 0.309]	< 0.001	< 0.001
Trust in government	0.315	[0.293, 0.336]	< 0.001	< 0.001
Government efficiency	0.360	[0.340, 0.381]	< 0.001	< 0.001
Perceived mobility	-0.164	[-0.187, -0.141]	< 0.001	< 0.001
Meritocratic beliefs	-0.345	[-0.366, -0.324]	< 0.001	< 0.001
Political ideology	-0.450	[-0.468, -0.431]	< 0.001	< 0.001
Perceived position	-0.039	[-0.063, -0.016]	0.001	0.005

Table 1: Support for redistribution: pairwise correlations

<u>Notes</u>: The table presents pairwise correlations between our main measure of preferences for redistribution–*Role of government*– and each explanatory variable. Explanatory variables are presented in the three groups defined in section 2.5. Panel A refers to individual income, where we use *Log of current income* as the main income measure, panel B refers to the set of behavioral traits and social preferences, and panel C refers to the set of beliefs, perceptions, and views. Column (1) presents correlation coefficients, column (2) the 95% confidence intervals, and column (3) the corresponding p-values. Finally, column (4) reports the corresponding q-values to account for multiple hypothesis testing (Benjamini and Yekutieli, 2001). The sample size is 6,900.

		Ordered p	probit MEs		Probit MEs OLS		
	$\begin{array}{c} \hline Tot. \\ disagree \\ (1) \end{array}$	Part. disagree (2)	Part. agree (3)	$\begin{array}{c} Tot.\\ agree\\ (4) \end{array}$	$\begin{array}{c} \hline Tot.\\ agree\\ (5) \end{array}$	Tot. agree (6)	
Panel A: in	dep. variabl	es - Top 1%	0	( )		( )	
Top 1%	$\begin{array}{c} 0.048^{***} \\ (0.011) \end{array}$	$\begin{array}{c} 0.045^{***} \\ (0.010) \end{array}$	$\begin{array}{c} 0.042^{***} \\ (0.009) \end{array}$	$-0.135^{***}$ (0.029)	$-0.108^{***}$ (0.034)	$-0.103^{***}$ (0.031)	
Panel B: inc	dep. variabl	es - Top 1%	6 + socioed	onomic and	demographics		
Top 1%	$\begin{array}{c} 0.060^{***} \\ (0.011) \end{array}$	$0.056^{***}$ (0.010)	$\begin{array}{c} 0.052^{***} \\ (0.010) \end{array}$	$-0.168^{***}$ (0.030)	$-0.157^{***}$ (0.035)	$-0.152^{***}$ (0.032)	
Panel C: ind	dep. variabl	es - Top 1%	6 + socioed	onomic and	demographics +	individual in	
Top 1%	$\begin{array}{c} 0.037^{***} \\ (0.012) \end{array}$	$\begin{array}{c} 0.035^{***} \\ (0.011) \end{array}$	$0.033^{***}$ (0.010)	$-0.105^{***}$ (0.033)	-0.091** (0.038)	$-0.086^{**}$ (0.035)	
Panel D: in	dep. variabl	es - Top 1%	6 + socioed	conomic and + beh	demographics + avioral traits and	individual in l social prefer	
Top $1\%$	$\begin{array}{c} 0.031^{***} \\ (0.012) \end{array}$	$\begin{array}{c} 0.029^{***} \\ (0.011) \end{array}$	$\begin{array}{c} 0.027^{***} \\ (0.010) \end{array}$	$-0.088^{***}$ (0.033)	$-0.075^{**}$ (0.037)	$-0.069^{**}$ (0.035)	
Panel E: inc	lep. variable	es - Top 1%	5 + socioed	onomic and	demographics + + beliefs, perc	individual in eptions, and	
Top 1%	$0.016^{*}$ (0.010)	$0.015^{*}$ (0.009)	$0.015^{*}$ (0.009)	$-0.046^{*}$ (0.028)	-0.020 (0.033)	-0.021 (0.030)	
Panel F: inc	lep. variable + beh	es - Top 1% avioral trai	b + socioec ts and soci	onomic and al preference	demographics + s + beliefs, perc	individual in eptions, and	
Top 1%	$0.015 \\ (0.010)$	$0.013 \\ (0.009)$	$0.014 \\ (0.009)$	-0.042 (0.028)	-0.015 (0.033)	-0.018 (0.031)	
Share "totall Observations	y agree" of	Top 50-2% 6,9	group 900		6,900	$0.407 \\ 6,900$	

Table 2: Gap in Top 1% vs Top 50-2%'s support for redistribution

which takes value 1 for those "totally agree" with redistribution. Column (6) is similar to Column (5), but using OLS instead. Panel A includes the *Top 1%* dummy as the only explanatory variable (base specification); panel B adds the set of socioeconomic and demographic presented in Section 2.5 as controls; panel C adds our measure of individual income *Current income* in logs as a control variable; panel D adds the set of behavioral traits and social preferences defined in Section 2.5, as controls; panel E adds the set of beliefs, perceptions, and views defined in Section 2.5; and panel F includes all the control variables (full specification). For simplicity, the table only presents our main & imates of interest, i.e., those corresponding to the *Top 1%* indicator. Refer to Table D.1 in Appendix D for the full set of estimates.

		Ordered p	probit MEs	Probit MEs	OLS		
		Part. disagree (2)	Part. agree (3)	$\begin{array}{c} Tot. \\ agree \\ (4) \end{array}$		$ \begin{array}{c}     Tot. \\     agree \\     (6) \end{array} $	
Panel A: inde	ep. variabl	es - Top 1%	<b>7</b> 0				
Top 1%	$0.062^{***}$ (0.009)	$0.057^{***}$ (0.008)	$0.080^{***}$ (0.012)	$-0.199^{***}$ (0.028)	$-0.201^{***}$ (0.035)	$-0.191^{***}$ (0.031)	
Panel B: inde	ep. variable	es - Top 1%	6 + socioec	onomic and	demographics		
Top 1%	$0.076^{***}$ (0.009)	$0.070^{***}$ (0.009)	$0.099^{***}$ (0.012)	$-0.245^{***}$ (0.029)	$-0.255^{***}$ (0.036)	$-0.244^{***}$ (0.031)	
Panel C: inde	ep. variabl	es - Top 1%	6 + socioec	onomic and	demographics +	- individual inco	
Top 1%	$0.048^{***}$ (0.010)	$\begin{array}{c} 0.044^{***} \\ (0.009) \end{array}$	$\begin{array}{c} 0.063^{***} \\ (0.013) \end{array}$	$-0.156^{***}$ (0.032)	$-0.156^{***}$ (0.039)	$-0.143^{***}$ (0.035)	
Panel D: inde	ep. variabl	es - Top 1%	6 + socioed	onomic and + beh	demographics + avioral traits and	- individual inco d social preferen	
Top 1%	$\begin{array}{c} 0.044^{***} \\ (0.010) \end{array}$	$0.040^{***}$ (0.009)	$\begin{array}{c} 0.057^{***} \\ (0.013) \end{array}$	$-0.141^{***}$ (0.031)	$-0.143^{***}$ (0.038)	$-0.129^{***}$ (0.035)	
Panel E: inde	ep. variable	es - Top $1\%$	5 + socioec	onomic and	demographics + + beliefs, perc	individual inco ceptions, and vie	
Top 1%	$0.029^{***}$ (0.008)	$0.026^{***}$ (0.007)	$\begin{array}{c} 0.039^{***} \\ (0.011) \end{array}$	$-0.093^{***}$ (0.026)	$-0.087^{***}$ $(0.033)$	$-0.078^{***}$ (0.030)	
Panel F: inde	ep. variable + beh	es - Top 1% avioral trai	b + socioects and socia	onomic and al preference	demographics $+$ es $+$ beliefs, perc	individual inco eptions, and vie	
Top 1%	$0.029^{***}$ (0.008)	$\begin{array}{c} 0.025^{***} \\ (0.007) \end{array}$	$\begin{array}{c} 0.038^{***} \\ (0.011) \end{array}$	$-0.092^{***}$ (0.026)	$-0.086^{***}$ (0.033)	$-0.078^{***}$ (0.030)	
01 (4 1)	agree" of '	Top 50-2%	group 000		6 900	0.483 6 900	

Table 3: Gap in Top 1% vs Top 50-2% for an alternative measure of support for redistribution

socioeconomic and demographic presented in Section 2.5 as controls; panel C adds our measure of individual income *Current income* in logs as a control variable; panel D adds the set of behavioral traits and social preferences defined in Section 2.5, as controls; panel E adds the set of beliefs, perceptions, and views defined in Section 2.5; and panel F includes all the control variables (full specification). For simplicity, the table only presented our main estimates of interest, i.e., those corresponding to the *Top 1%* indicator. Refer to Table D.1 in Appendix D for the full set of estimates.

		Ordered p	orobit ME	8	Probit MEs	OLS		
	$\overline{\begin{array}{c} Tot. \\ disagree \\ (1) \end{array}}$	Part. disagree (2)	Part. agree (3)	$\begin{array}{c} Tot. \\ agree \\ (4) \end{array}$	$ \begin{array}{c}     Tot. \\     agree \\     (5) \end{array} $	$\begin{array}{c} Tot. \\ agree \\ (6) \end{array}$		
<b>Panel A</b> : indep. variables - Top $5\%$								
Top $5\%$	$0.010^{**}$ (0.004)	$0.010^{**}$ (0.004)	$0.009^{**}$ (0.004)	$-0.029^{**}$ (0.012)	-0.011 (0.014)	-0.011 (0.014)		
Panel B: i	ndep. variabl	les - Top 5	5% + socie	peconomic	and demographi	cs + individual income		
Top 5%	$0.012^{*}$ (0.006)	$0.011^{*}$ (0.006)	$0.010^{*}$ (0.006)	$-0.032^{*}$ (0.018)	-0.021 (0.020)	-0.022 (0.020)		
<b>Panel C</b> : indep. variables - Top 5% + socioeconomic and demographics + individual income + behavioral traits and social preferences + beliefs, perceptions, and views								
Top 5%	$0.011^{**}$ (0.005)	$0.010^{**}$ (0.005)	$0.010^{**}$ (0.005)	$-0.030^{**}$ (0.015)	-0.017 (0.017)	-0.021 (0.017)		
Share of "to	otally agree"	share of T	op 50-6%	group		0.407		

6.900

6,900

Table 4: Gap between Top 5% vs Top 50-6%'s support for redistribution

<u>Notes</u>: Robust standard errors in parentheses. \*p<0.1; \*\*p<0.05; \*\*\*p<0.01. The table presents different estimations of Equation 1 but using the Top 5% as the "top income" group and the Top 50-6% as the comparison group. The dependent variable is the 4-point scale *Role of Government* variable (columns (1)-(4)) or its dummy version (columns (5)-(6)). Columns (1)-(4) present ordered probit marginal effects for each category of support for redistribution. Column (5) presents marginal effects of a probit model where the dependent variable is the dummy version of *Role of government*, which takes value 1 for those "totally agree" with redistribution. Column (6) is similar to Column (5), but using OLS instead. Panel A includes the *Top 5%* dummy as the only explanatory variable (base specification); panel B adds our measure of individual income *Current income* in logs and the set of socioeconomic and demographic characteristics presented in Section 2.5 as controls; while panel C adds the set of behavioral traits and social preferences and the set of beliefs, perceptions, and views defined in Section 2.5 as controls (full specification). For simplicity, we only present the estimates of the main explanatory variable, *Top 5%*.

6.900

Observations

		Ordered p	orobit MEs	Probit MEs	OLS	
	Tot. disagree (1)	Part. disagree (2)	Part. agree (3)	$\begin{array}{c} Tot. \\ agree \\ (4) \end{array}$		$\begin{array}{c} Tot. \\ agree \\ (6) \end{array}$
Panel A: ind	ep. variable	es - Top 1%	<b>,</b> D			
Top 1%	$\begin{array}{c} 0.052^{***} \\ (0.013) \end{array}$	$0.039^{***}$ (0.010)	$0.028^{***}$ (0.008)	$-0.119^{***}$ (0.030)	$-0.109^{***}$ (0.036)	$-0.106^{***}$ (0.034)
Panel B: ind	ep. variable	es - Top 1%	5 + socioec	onomic and	demographics +	individual income
Top 1%	$0.041^{**}$ (0.017)	$0.031^{**}$ (0.013)	$0.023^{**}$ (0.010)	$-0.096^{**}$ (0.039)	$-0.079^{*}$ (0.045)	$-0.077^{*}$ (0.043)
Panel C: ind	ep. variable + beh	es - Top 1% avioral trai	b + socioec ts and socia	onomic and al preference	demographics + es + beliefs, perc	individual income ceptions, and views
Top 1%	$0.016 \\ (0.014)$	$0.011 \\ (0.010)$	$0.008 \\ (0.007)$	-0.036 (0.030)	-0.010 (0.037)	-0.010 (0.036)
Share "totally	agree" of	Гор 5-2% g	roup		1 100	0.411
Observations		1,	426		1,426	1,426

Table 5: Gap within "top-income" individuals: Top 1% vs Top 5-2%'s support for redistribution

<u>Notes</u>: Robust standard errors in parentheses. \*p<0.1; \*\*p<0.05; \*\*\*p<0.01. The table presents different estimations of Equation 1 but within "top income" individuals, i.e., comparing the Top 1% to the Top 5-2%. The dependent variable is the 4-point scale *Role of Government* variable (columns (1)-(4)) or its dummy version (columns (5)-(6)). Columns (1)-(4) present ordered probit marginal effects for each category of support for redistribution. Column (5) presents marginal effects of a probit model where the dependent variable is the dummy version of *Role of government*, which takes value 1 for those "totally agree" with redistribution. Column (6) is similar to Column (5), but using OLS instead. Panel A includes the *Top 1%* dummy as the only explanatory variable (base specification); panel B adds our measure of individual income *Current income* in logs and the set of socioeconomic and demographic characteristics presented in Section 2.5 as controls; while panel C adds the set of behavioral traits and social preferences and the set of beliefs, perceptions, and views defined in Section 2.5 as controls (full specification). For simplicity, we only present the estimates of the main explanatory variable, *Top 1%*.

		Ordered p	probit MEs	Probit MEs	OLS			
	Tot.     disagree     (1)	Part. disagree (2)	Part. agree (3)	$\begin{array}{c} Tot.\\ agree\\ (4) \end{array}$	Tot. agree     (5)			
Panel A: indep. variables - Top 1%								
Persistent Top 1%	$\begin{array}{c} 0.062^{***} \\ (0.015) \end{array}$	$0.059^{***}$ (0.014)	$0.060^{***}$ (0.014)	$-0.181^{***}$ (0.043)	$-0.141^{***}$ (0.050)	$-0.133^{***}$ (0.044)		
Panel B: indep. va	riables - T	op $1\% + sc$	ocioeconom	ic and demo	properties + ind	ividual income		
Persistent Top $1\%$	$0.041^{**}$ (0.017)	$0.039^{**}$ (0.016)	$0.039^{**}$ (0.016)	$-0.118^{**}$ (0.048)	-0.103* (0.055)	-0.093* (0.049)		
<b>Panel C</b> : indep. variables - Top 1% + socioeconomic and demographics + individual income + behavioral traits and social preferences + beliefs, perceptions, and views								
Persistent Top $1\%$	$0.010 \\ (0.014)$	$0.009 \\ (0.013)$	$0.010 \\ (0.014)$	-0.029 (0.042)	$0.004 \\ (0.050)$	$0.003 \\ (0.045)$		
Share "totally agree Observations		5,833	$0.414 \\ 5,833$					

Table 6: Gap between persistent Top 1% vs Top 50-2%'s support for redistribution

<u>Notes</u>: Robust standard errors in parentheses. \*p<0.1; \*\*p<0.05; \*\*\*p<0.01. The table presents results for the same estimations in Table 2 but using an alternative definition of the income groups. Top 1% refers to those who are persistently in the top 1% of the income distribution in 2014, 2015, and 2016, while those in the Top 50-2% group are above the median but below the top 1% in each of these three years. The table presents different estimations of Equation 1. The dependent variable is the 4-point scale *Role of Government* variable (columns (1)-(4)) or its dummy version (columns (5)-(6)). Columns (1)-(4) present ordered probit marginal effects for each category of support for redistribution. Column (5) presents marginal effects of a probit model where the dependent variable is the dummy version of *Role of government*, which takes value 1 for those "totally agree" with redistribution. Column (6) is similar to Column (5), but using OLS instead. Panel A includes the *Top 1%* dummy as the only explanatory variable (base specification); panel B adds our measure of individual income *Current income* in logs and the set of socioeconomic and demographic characteristics presented in Section 2.5 as controls; while panel C adds the set of behavioral traits and social preferences and the set of beliefs, perceptions, and views defined in Section 2.5 as controls (full specification). For simplicity, we only present the estimates of the main explanatory variable, *Top 1%*.

		Ordered p	Probit MEs	OLS				
	Tot. disagree (1)	Part. disagree (2)	Part. agree (3)	$\begin{array}{c} Tot.\\ agree\\ (4) \end{array}$	$ \begin{array}{c}     Tot. \\     agree \\     (5) \end{array} $	$\begin{array}{c} Tot. \\ agree \\ (6) \end{array}$		
Panel A: indep. varia	bles - Top	1%						
Times as Top $1\% \ge 1$	$\begin{array}{c} 0.037^{***} \\ (0.009) \end{array}$	$\begin{array}{c} 0.035^{***} \\ (0.009) \end{array}$	$0.032^{***}$ (0.008)	$-0.104^{***}$ (0.026)	$-0.090^{***}$ (0.031)	$-0.087^{***}$ (0.029)		
Panel B: indep. varial	bles - Top I	1% + socio	economic a	nd demogra	phics + indivi	dual income		
Times as Top $1\% \ge 1$	$0.027^{**}$ (0.011)	$0.025^{**}$ (0.010)	$0.023^{**}$ (0.009)	$-0.075^{**}$ (0.030)	$-0.078^{**}$ (0.035)	$-0.074^{**}$ (0.033)		
<b>Panel C</b> : indep. variables - Top 1% + socioeconomic and demographics + individual income + behavioral traits and social preferences + beliefs, perceptions, and views								
Times as Top $1\% \ge 1$	$0.011 \\ (0.009)$	$0.010 \\ (0.008)$	$0.010 \\ (0.008)$	-0.031 (0.026)	-0.025 (0.030)	-0.027 (0.028)		
Share "totally agree" o Observations	f Top 50-29	% group 7.	163		7.163	$0.405 \\ 7.163$		

Table 7: Gap between "at least one time Top 1%" vs "at least one time Top 50-2%"'s support for redistribution

<u>Notes</u>: Robust standard errors in parentheses. \*p<0.1; \*\*p<0.05; \*\*\*p<0.01. The table presents results for the same estimations in Table 2 but using an alternative definition of the income groups. Top 1% refers to those who belong to the top 1% of the income distribution at least one year in the 2014-2016 period, while those in the Top 50-2% group are above the median but below the top 1% at least one year in the same period, and are never in the top 1%. The table presents different estimations of Equation 1. The dependent variable is the 4-point scale *Role of Government* variable (columns (1)-(4)) or its dummy version (columns (5)-(6)). Columns (1)-(4) present ordered probit marginal effects for each category of support for redistribution. Column (5) presents marginal effects of a probit model where the dependent variable is the dummy version of *Role of government*, which takes value 1 for those "totally agree" with redistribution. Column (6) is similar to Column (5), but using OLS instead. Panel A includes the *Top 1%* dummy as the only explanatory variable (base specification); panel B adds our measure of individual income *Current income* in logs and the set of socioeconomic and demographic characteristics presented in Section 2.5 as controls; while panel C adds the set of behavioral traits and social preferences and the set of beliefs, perceptions, and views defined in Section 2.5 as controls (full specification). For simplicity, we only present the estimates of the main explanatory variable, *Top* 1%.

## A Data appendix

### A.1 Survey design

This Section expands on the design of the survey and discuss its main limitations.

First, we present the distribution of survey participants in the income distribution in Figure A.1.



Figure A.1: Location of survey participants in the income distribution

<u>Notes</u>: The figure presents a histogram of the position of survey participants within the income distribution. We use the distribution of the average income of the last three years available in the administrative tax records (2014-2016).

The survey was designed to capture economic preferences and attitudes of workers in Uruguay. Since the Uruguay's national tax agency only had email addresses from individuals who file a tax return, we restricted the sample to those individuals who have positive wage and filed a tax return in the last year available in the tax records (2016). This restriction implies that we are missing any individual who does not receive any registered labor income. First, that means we are missing the share of workers who do not have a registered or formal job, since they do not appear in the tax records, who account for approximately 25% of the work force. This may not be a problem since we look at individuals that are mostly above the median (see Figure A.1) and indeed most informal workers have income below the median according to the 2016 Uruguayan Household Survey (Encuesta Continua de Hogares). Second, and perhaps more important, we do not capture individuals who only receive capital income in our survey (and none wage income). The share of individuals who only receives capital income is most likely concentrated at the top of the distribution. If we observed the complete distribution of income, including both unregistered workers and pure capitalists, most likely all the cutoffs used to define income positions would shift to the left, suggesting that survey participants might potentially belong to higher positions than what we consider in this study. In summary, throughout the study we refer to the income distribution of registered workers, since the positions of survey participants could slightly vary once we consider the entire population.

We next describe in detail all the explanatory variables used in this study, and the corresponding laboratory games or survey questions used to define such measures.

## A.2 Explanatory variables

This Section describes the list of explanatory variables mentioned in Section 2 that were not defined in the body of the paper.

Behavioral traits and social preferences:

- **Risk aversion**: we measure risk aversion using the staircase procedure proposed in (Falk et al., 2018): participants must make up to five choices that allow identifying the certainty equivalent for a risky lottery. We construct a 6-point scale variable where higher values reflect higher levels of risk aversion.
- Altruism: we measure this parameter from a standard dictator game. A respondent (player A) must decide how much of an initial endowment of 1,000 Uruguayan pesos

(\$U)<sup>36</sup> to share with another randomly chosen participant (player B), in increments of \$U250. We construct a 5-point scale variable where higher values indicate higher levels of altruism.

- Efficiency-seeking: we measure this parameter from a game in which respondent A must decide on a distribution of money for two other randomly chosen participants, B, and C, respectively. Player A can choose either an equal (but inefficient) split of \$U250 to player B and \$U250 to player C, or an unequal (but efficient) split of \$U250 to player B and \$U750 to player C.<sup>37</sup> Regardless of the decision, player A receives \$U1,000. This game allows capturing an approximation to whether individuals are more equality or efficiency focused, by analyzing whether they are willing to sacrifice efficiency for more egalitarian results. We construct an indicator variable equal to 1 when the individual chooses the more efficient (and unequal) split.
- Preferences for merit: this parameter measures the degree of meritocratic preferences where there are differences in effort from a game in which respondent A must decide how to allocate an endowment of \$U1000 between two other players, B and C, in increments of \$U250. Player A learns that player B performed a simple task on the computer for 15 minutes, while Player C did nothing. Suppose player A gives a higher share of the endowment to player B (the one who had tp work). In that case, it will reflect that player A supports an unequal allocation of income when there are differences in merit, which is in line with high appreciation of merit (Almås et al., 2020). Based on this game, we construct a 5-point scale variable where higher values reflect stronger meritocratic preferences (more money allocated to player B).
- Trust: we use a standard trust game in which the respondent (player A) decides

 $<sup>^{36}</sup>$  As a reference, by the time people participated in the survey, \$U1,000 were equivalent to approximately 29 dollars

<sup>&</sup>lt;sup>37</sup> Here, we say one allocation is relatively more equal and inefficient than the other one in the sense that the sum of the resources to distribute is smaller, but the split is more equal than in the other allocation. See Appendix A for more details.
whether to invest all or none of a \$U1,000 endowment in another random participant (player B). If player A does not invest, then both players get \$U1,000 each. If player A invests, then player B receives \$U4,000 and must choose how to split the earnings (i.e., both receive \$U2,000 or player B keeps the whole \$U4,000). Choosing to invest would indicate that the subject is willing to trust others. We construct an indicator variable equal to 1 if the participant decides to invest in player B.

#### Beliefs, perceptions, and views:

- Perception of inequality: we elicit the respondent's perceptions with the following statement: "What do you think about the differences in income between the rich and the poor in Uruguay?". we construct a 3-point scale variable indicating whether the response to the question is "too low", "adequate", or "too high".
- **Trust in government:** we elicit trust in government using the following question: "Would you say that the government can generally be trusted to act correctly?" we construct a 5-point scale variable ranging from those who "Almost never" to those who "Always" trust the government.
- Government efficiency: Individuals may trust government but think that tax revenue is wasted due to inefficiency. We measure this perception using the following question: "Do you think that the government is efficient in the way it manages public resources?". We construct a 4-point scale variable that captures the responses to this question, from "Very inefficient" to "Very efficient".
- Perceived mobility: we measure the perceptions of mobility of the respondents with the following statement: "Consider a child who was born into the poorest 10% of families in Uruguay. What is the probability that this child, when he/she is an adult, could belong to the 50% of the richest families?" we construct a 4-point scale variable with the responses to this question, ranging from "Not likely at all" to "Very likely".

- Meritocratic beliefs: we use a question adapted from Kuziemko et al. (2015) which asks whether luck or effort is more important to explain why some individuals are poor and some are rich –effort or circumstances beyond the individual control, like luck–. We construct a 3-point scale variable that takes on three values, where each value represents: "Luck-Luck" –when luck is more important for both being rich and poor– "Luck-effort" –when luck is more important for one of the two– and "Effort-Effort" –when effort is more important than luck in both cases.
- **Political ideology**: we use the standard measure of a public opinion research question based on self-reported positions on an 11-point scale with a middle point of 5: "In politics, we usually speak of *left* and *right*. On a scale where 0 is the left and 10 is the right, where would you be located?" we construct a 11-point scale variable that reflects the respondent's location on the left-right ideological spectrum.
- Position in the distribution: we measure potential biases in individuals' perception of their own position in the income distribution using the following question: "We divide Uruguayan workers into the following three personal income groups. Please indicate the one that best describes your income level". We construct a 3-point scale variable where each value indicates the response, corresponding to the "poorest 20%", the "Middle 60%", and the "Richest 20%".

 $Socioe conomic \ and \ demographic \ characteristics:$ 

- Female: an indicator that takes the value 1 when the individual is female.
- Educational level: a 6-point scale variable that represents different educational levels, where 1 means that the individual did not finish elementary school, and 6 means graduate level studies.
- Age: age of the individual

- Past mobility: individuals' decile-change in the income distribution over the period available in tax records (2009-2016). Thus, if the individual was in the 6th decile in 2009 and in the 9th decile in 2016, this variable would take a value of 3. It is worth mentioning that, mechanically, individuals at the top cannot have negative values of this variable. Past mobility is either upwards or null for them. However, by controlling for this variable, we can distinguish between people who were always at the top and people that climbed the income ladder, which is important in this context.
- Capital: an indicator that takes the value 1 when the individual received some capital income in the last three available years in tax records (2014-2016). It is worth mentioning that not every form of capital income is captured by tax records. When individuals receive dividends on their name, they must report them on their tax return. However, firms can also distribute anonymized dividends. Tax records do not capture such type of dividends. Approximately half of total dividends are distributed anonymously in Uruguay.
- Self employment: an indicator that takes the value 1 if the individual received some self-employment income during the last three available years in tax records (2014-2016).

#### A.3 Survey checks

In the companion paper (Bergolo et al., 2020), we analyzed evasion decisions and how they correlate with different behavioral traits and beliefs. There is one Section of the survey that randomizes information provision on evasion levels. Since some of the survey questions used to measure preferences for redistribution and beliefs, perceptions, and views were asked after this information provision, it is important to confirm that it did not affect participants' responses. Table A.1 presents the average of each variable we use in this paper and was measured after the information on evasion levels occurred, across treatment groups. The average is very similar across groups for all variables, and a test where the null hypothesis

is that the mean is equal across treatment groups is not rejected at conventional levels for any of the variables. Therefore, we rule out any potential contamination of this information treatment on the variables we use in this study.

	Treatment 1	Treatment 2	Treatment 3	Treatment 4
Role of Government	3.15	3.15	3.13	3.15
More Progressive Taxes	3.26	3.23	3.28	3.28
Perception of inequality	2.80	2.78	2.79	2.82
Trust in government	2.67	2.62	2.63	2.58
Government efficiency	2.11	2.11	2.13	2.11
Perceived mobility	1.80	1.79	1.78	1.79
Meritocratic beliefs	1.56	1.57	1.56	1.56
Political ideology	4.11	4.13	4.21	4.19
Perceived position	2.21	2.20	2.18	2.18
Observations	1739	1694	1731	1736

Table A.1: Average measures across information treatment group of evasion levels

<u>Notes</u>: The table presents the average of variables used in this paper that come from questions that were asked after an information treatment about evasion levels was provided for the purpose of the companion paper (Bergolo et al., 2020), by treatment group. There were four treatment groups, where each group received information on evasion levels either of workers, firms, workers and firms, or none. The average responses are very similar across treatment groups. We cannot reject the null hypothesis that the mean is equal across treatment groups at conventional levels for any of the variables.

#### A.4 Summary statistics and survey representativity

Although the defined income groups of participants are subsamples of such groups in the population, they do not constitute *random samples* of such groups. Therefore, a natural concern is to what extent survey participants in each income group represent their corresponding income groups in the population. Table A.2 presents summary statistics of income groups based on administrative tax records.<sup>38</sup> Columns (1)-(3) correspond to the Top 50-2% group, while columns (4)-(6) correspond to the Top 1% group. Additionally, within each income group, we present statistics of the income group for the entire universe of workers, for the sub-sample that was invited, and for the sub-sample that completed the survey.

<sup>&</sup>lt;sup>38</sup> The data in Table A.2 comes from tax records except in the case of the variable *Educational level*, which comes from the survey, or in the case in which both sources of information are available (column (6)), where we rely on survey data.

Columns (1) and (4) show that relative to the Top 50-2% group, the Top 1% has a lower share of females (30.3% vs 43%); are older (55.9 vs 46.6); has a higher share of capital income earners (32% vs. 7.4%); a higher percentage of self-employment individuals (32.3% vs. 7.4%); and a lower average past mobility (0.3 vs 1.4), measured as the 2009-2016 decile change. These differences are consistent with previous evidence in Uruguay and other countries as well (Burdín et al., 2022; Alvaredo et al., 2013; Hansen et al., 2021; Lemieux and Riddell, 2015; Denk, 2015). Table A.2 also shows that the individuals who participated in the survey (columns (3) and (6)) are fairly similar to their corresponding group in the entire population in some dimensions, such as age, past mobility and share that receive capital income. In contrast, they differ in others, such as gender, income, and the self-employment share. For instance, the share of females in the Top 50-2% group is substantially higher among those who participated in the survey than in the population (61.3% vs. 43%). Meanwhile, the share of self-employment in the top 1% is higher among those who participated in the survey relative to the population (49. 1% vs 32. 3%). Additionally, those in the Top 1% who participated in the survey have a lower average income relative to their respective income group in the population. In contrast, in the Top 50-2%, survey participants have a higher average income than those in the population. A similar pattern is also observed when the entire population is compared with the sample of people invited to participate in the survey.

In summary, the main differences in socioeconomic and demographic characteristics between the income groups in the entire population and the survey sub-samples are mainly driven by selection in the group invited to participate in the survey rather than a participation bias. These selection problems may threaten the results' external validity (see Appendix A for further details about the survey design and potential representativity limitations).

		Top 50-2%	6		Top 1%	
	Population (1)	Invited (2)	Participants (3)	Population (4)	Invited (5)	Participants (6)
Female $(\%)$	43.03	54.22	61.32	30.34	34.36	39.13
	(49.51)	(49.82)	(48.71)	(45.97)	(47.50)	(48.91)
Educational level (College %)			61.92		. ,	88.70
			(48.56)			(31.73)
Current income	651.85	902.05	904.58	4715.83	4077.94	3725.98
	(455.29)	(517.97)	(509.26)	(5961.91)	(3676.07)	(2242.07)
Age	46.57	43.62	41.54	55.85	54.19	51.40
-	(12.88)	(10.53)	(10.00)	(10.52)	(9.77)	(9.47)
Past mobility	1.36	1.71	1.84	0.33	0.25	0.20
~	(2.43)	(2.51)	(2.54)	(1.36)	(1.10)	(1.24)
Capital income (%)	7.39	8.69	8.26	32.03	28.03	30.87
	(26.17)	(28.16)	(27.53)	(46.66)	(44.92)	(46.30)
Self employment (%)	7.36	23.94	23.03	32.28	46.68	49.13
/ /	(26.11)	(42.67)	(42.10)	(46.76)	(49.90)	(50.10)
Observations	702,581	80,627	6,670	14,338	3,115	230

Table A.2: Summary statistics and survey representativity

<u>Notes</u>: The table presents summary statistics for the Top 50-2% (columns (1)-(3)) and the Top 1% (columns (4)-(6)) in the population, in the universe invited to participate in the survey and in the universe who actually participated in the survey. For each variable, the table presents average values with standard errors in parentheses. *Female* indicates the percentage of women; *Educational level* indicates the percentage who has at least some college education; *Current income* is the 2016 income in thousands of Uruguayan pesos; *Age* is average age; *Past mobility* is the average decile movement in the available (2009-2016) period from the tax records; *Capital income* is the percentage of individuals who received capital income in the last three-year available period (2014-2016); *Self employment* is the percentage of individuals who received self-employment income in the last three-year available period (2014-2016). Recall that the groups are defined using the income distribution of the entire population of workers, so individuals in any of the income groups in the *Invited* or in the *Participants* groups are sub samples of such income groups in the *Population*. For example, of the 14,338 individuals who belong to the Top 1% (column (4)), 3,115 were invited to participate in the survey (column (5)), and 230 actually completed it (column (6)).

# **B** Pairwise correlations

We present pairwise correlations of all the variables used in the empirical analysis in Figure B.1.



-0.00

0.05

-0.02

0.00

0.07

-0.01

-0.03

-0.03

0.02

0.01

0.06

0.32

Age

-0.48

0.14

0.03

Past mobility

-0.08

-0.01

Capital income

0.10

Self employmen

Figure B.1: Pairwise correlations

<u>Notes</u>: The figure presents pairwise correlations for the main outcome *Role of Government* (4-point scale variable) and the main explanatory variables used in this paper, by group, as defined in section 2.5. Panel (a) shows these correlations for current income, panel (b) for behavioral traits and social preferences, panel (c) for beliefs, perceptions, and views, and panel (d) for socioeconomic and demographic characteristics. Positive correlations are presented in blue, and negative correlations in red. More intense colors indicate larger correlation coefficients, and vice versa. The sample size is 6,900.

Perceived

# C Gelbach decomposition

Government efficiency

-0.03

-0.27

-0.49

-0.08

Perceived mobility

0.26

0.17

-0.09

Meritocrati beliefs

0.38

0.04

Political

0.01

0.60

-0.06

-0.22

-0.44

0.01

0.13

-0.11

-0.22

-0.19

-0.06

0.36

-0.16

-0.35

-0.45

-0.04

In this section, we describe the Gelbach decomposition (Gelbach, 2016) in detail, and provide a simple example of how it works in the case of this study. Let the model be

$$Y = X_1\beta_1 + X_2\beta_2 + \epsilon \tag{C.1}$$

In this case,  $X_1$  contains a constant and the Top 1% indicator, and  $X_2$  contains all the additional covariates defined in Section 2. The OLS estimator for the full vector  $\beta$  is given by  $\hat{\beta} \equiv (X'X)^{-1}X'Y$ . Let  $\hat{\beta}_1^{full}$  and  $\hat{\beta}_2$  be the components of  $\hat{\beta}$  that correspond to the variables  $X_1$  and  $X_2$ , respectively. Now consider the coefficient on  $X_1$  from the base specification that ignores  $X_2$ . The estimator for this coefficient is  $\hat{\beta}_1^{base} \equiv (X'_1X_1)^{-1}X'_1Y$ . From the omitted variable bias formula, we know that

$$\beta_1^{base} = \beta_1 + \Gamma \beta_2 = \beta_1 + \delta \tag{C.2}$$

where the parameter  $\Gamma$  is the matrix of coefficients from projecting the columns of  $X_2$ on the columns of  $X_1$ ,

$$X_2 = X_1 \Gamma + W \tag{C.3}$$

where W is a matrix of conformable projection residuals. Equation C.2 suggests a natural decomposition of the difference in the base- and full-specification estimated coefficients on  $X_1$ . Empirical decomposition exercises then involve breaking  $\delta$  into meaningful components and estimate them. Suppose, as a simple example, that  $X_2$  has only two columns: one for altruism and one for risk aversion. In this example, the projection relationship in (C.3) can be written in more detailed form as

$$X_2^{altruism} = \Gamma_0^{altruism} + Top\Gamma_{top}^{altruism} + W^{altruism},$$
(C.4)

$$X_2^{risk} = \Gamma_0^{risk} + Top\Gamma_{top}^{risk} + W^{risk}.$$
 (C.5)

The row of  $\Gamma_{top}^{altruism}$  corresponds to the gap in altruism between the Top 1% and the Top 50-2%. The row of  $\Gamma_{top}^{risk}$  tells us the same thing for risk aversion. To see how these elements affect the difference between  $\beta^{base}$  and  $\beta^{full}$ , we rewrite (C.2) as follows:

$$\beta_1^{base} - \beta_1 = \Gamma^{altruism} \beta_2^{altruism} + \Gamma^{risk} \beta_2^{risk}, \tag{C.6}$$

so 
$$\delta_{top} \equiv \beta_{1,top}^{base} - \beta_{1,top} = \Gamma_{top}^{altruism} \beta_{2,top}^{altruism} + \Gamma_{top}^{risk} \beta_{2,top}^{risk}$$
 (C.7)

One can see from C.6 how to decompose the explained part of  $\delta_{top}$ , the simple redistribution support gap between the Top 1% and the Top 50-2%:

Altruism component: 
$$\delta_{top}^{altruism} = \Gamma_{top}^{altruism} \beta_2^{altruism}$$
 (C.8)

Risk aversion component: 
$$\delta_{top}^{risk} = \Gamma_{top}^{risk} \beta_2^{risk}$$
 (C.9)

Given the model in C.1, the parameters in (C.8) and (C.9) provide a clear answer to the question of how much of the redistribution support gap is explained by variation in altruism and risk aversion. The  $\delta$  parameters are the mean Top 1-Top50-2% gap in altruism or risk aversion, scaled by each covariate's redistribution support-equation impact. These covariate mean differences and redistribution support-equation coefficients are population parameters that do not depend on the order in which covariates are partialed out.

Notice that if there were no mean difference in a covariate across income groups, then its  $\Gamma_{top}$  coefficient would be zero. In this case, variation in the covariate would explain none of the Top 1-Top 50-2% gap in redistribution support. The same would hold if the covariate does not affect redisribution support, so that  $\beta_2 = 0$ .

### D Full set of estimates from main results

This Section presents the full set of the main results obtained and presented in Table 2. For simplicity, and to focus on the main variable of interest –  $Top \ 1\%$  –, we did not include the full set of estimates in the body of the paper. Tables D.1-D.6 present the full set of estimates corresponding to each panel A-F of Table 2.

Overall, the estimates for the control variables have the expected sign, based on previous evidence. First, the most unexpected estimate is that of gender, showing that women present lower preferences for redistribution in this sample, contrary to well-documented previous evidence. We attribute this result to potential sample selection, since we have that women are over-represented in this survey. Second, while they present the expected sign, behavioral traits appear to be less relevant than the set of beliefs, perceptions, and views to predict attitudes toward redistribution. This result is confirmed and described in Section 4.2.2, where we implement the Gelbach decomposition.

Table D	).1:	Gap i	in Top	1% vs	Top	50-2%	support	for	redistribution:	full	panel	A of	Table	2
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		Ordered p	Probit MEs	OLS		
	Tot. disagree	Part. disagree	Part. agree	Tot. agree	Tot. agree	Tot. agree
Top 1%	$0.048^{***}$ (0.011)	$0.045^{***}$ (0.010)	$0.042^{***}$ (0.009)	$-0.135^{***}$ (0.029)	$-0.108^{***}$ (0.034)	$-0.103^{***}$ (0.031)
Constant		、 ,	· · · ·			$0.407^{***}$ (0.006)
Share "totally Observations	agree" of	Гор 50-2% 6,9	group 900		6,900	$0.407 \\ 6,900$

<u>Notes</u>: Robust standard errors in parentheses. p<0.1; p<0.05; p<0.01. The table presents the full set of estimates for the results presented in panel A of Table 2. Please refer to the *notes* in Table 2 for a complete description of these estimations.

		Ordered p	robit MEs		Probit MEs	OLS
	Tot. disagree	Part. disagree	Part. agree	Tot. agree	Tot. agree	Tot. agree
Top $1\%$	0.060***	0.056***	0.052***	-0.168***	-0.157***	-0.152***
	(0.011)	(0.010)	(0.010)	(0.030)	(0.035)	(0.032)
Female	-0.001	-0.000	-0.000	0.001	-0.011	-0.011
	(0.004)	(0.004)	(0.003)	(0.011)	(0.012)	(0.012)
Educational level	-0.010***	-0.010***	-0.009***	$0.029^{***}$	$0.035^{***}$	$0.035^{***}$
	(0.002)	(0.002)	(0.002)	(0.005)	(0.006)	(0.006)
Age	-0.002***	-0.001***	-0.001***	$0.004^{***}$	$0.005^{***}$	$0.005^{***}$
	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)
Past mobility	-0.001	-0.001	-0.001	0.004	0.003	0.003
	(0.001)	(0.001)	(0.001)	(0.002)	(0.003)	(0.003)
Capital income	$0.019^{***}$	$0.017^{***}$	$0.016^{***}$	-0.052***	-0.065***	-0.064***
	(0.006)	(0.006)	(0.006)	(0.018)	(0.021)	(0.020)
Self employment	$0.017^{***}$	$0.016^{***}$	$0.015^{***}$	-0.048***	-0.041***	-0.042***
	(0.005)	(0.004)	(0.004)	(0.013)	(0.015)	(0.015)
Constant						0.015
						(0.042)
Share "totally agr	ee" of Top 5	0-2% group				0.407
Observations		6,9	900		6,900	6,900

Table D.2: Gap in Top 1% vs Top 50-2% support for redistribution: full panel B of Table 2

Notes: Robust standard errors in parentheses. p<0.1; p<0.05; p<0.05; p<0.01. The table presents the full set of estimates for the results presented in panel B of Table 2. Please refer to the *notes* in Table 2 for a complete description of these estimations.

		Ordered p	orobit MEs		Probit MEs	OLS
	Tot. disagree	Part. disagree	Part. agree	Tot. agree	Tot. agree	Tot. agree
Top 1%	0.037***	0.035***	0.033***	-0.105***	-0.091**	-0.086**
	(0.012)	(0.011)	(0.010)	(0.033)	(0.038)	(0.035)
Female	0.003	0.003	0.002	-0.008	-0.020*	-0.020*
	(0.004)	(0.004)	(0.003)	(0.011)	(0.012)	(0.012)
Educational level	-0.012***	-0.012***	-0.011***	$0.035^{***}$	$0.042^{***}$	$0.042^{***}$
	(0.002)	(0.002)	(0.002)	(0.005)	(0.006)	(0.006)
Age	-0.002***	-0.002***	-0.002***	$0.006^{***}$	$0.006^{***}$	$0.006^{***}$
	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)
Past mobility	-0.002**	-0.002**	-0.002**	$0.005^{**}$	$0.005^{*}$	$0.005^{*}$
	(0.001)	(0.001)	(0.001)	(0.002)	(0.003)	(0.003)
Capital income	$0.016^{**}$	$0.015^{**}$	$0.014^{**}$	-0.045**	-0.058***	-0.056***
	(0.006)	(0.006)	(0.006)	(0.018)	(0.021)	(0.020)
Self employment	$0.019^{***}$	$0.018^{***}$	$0.016^{***}$	-0.053***	-0.048***	-0.048***
	(0.005)	(0.004)	(0.004)	(0.013)	(0.015)	(0.015)
Log of current income	$0.020^{***}$	$0.019^{***}$	$0.017^{***}$	-0.056***	-0.060***	-0.059***
	(0.004)	(0.004)	(0.004)	(0.012)	(0.013)	(0.013)
Constant						$0.730^{***}$
						(0.160)
Share "totally agree" o	f Top 50-2%	group				0.407
Observations		6,9	900		6,900	6,900

Table D.3: Gap in Top 1% vs Top 50-2% support for redistribution: full panel C of Table 2

Notes: Robust standard errors in parentheses. p<0.1; p<0.05; p<0.01. The table presents the full set of estimates for the results presented in panel C of Table 2. Please refer to the *notes* in Table 2 for a complete description of these estimations.

		Ordered p	orobit MEs		Probit MEs	OLS
	Tot. disagree	Part. disagree	Part. agree	Tot. agree	Tot. agree	Tot. agree
Top $1\%$	0.031***	0.029***	0.027***	-0.088***	-0.075**	-0.069**
1.	(0.012)	(0.011)	(0.010)	(0.033)	(0.037)	(0.035)
Female	0.001	0.001	0.001	-0.003	-0.017	-0.017
	(0.004)	(0.004)	(0.003)	(0.011)	(0.012)	(0.012)
Educational level	-0.012***	-0.012***	-0.011***	0.035***	0.042***	0.042***
	(0.002)	(0.002)	(0.002)	(0.005)	(0.006)	(0.006)
Age	-0.002***	-0.002***	-0.001***	0.005***	0.006***	0.006***
0	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)
Past mobility	-0.002*	-0.002*	-0.001*	$0.005^{*}$	0.004	0.004
Ŭ	(0.001)	(0.001)	(0.001)	(0.002)	(0.003)	(0.003)
Capital income	0.016**	$0.015^{**}$	0.014**	-0.044**	-0.057***	-0.056***
	(0.006)	(0.006)	(0.005)	(0.017)	(0.021)	(0.020)
Self employment	0.017***	0.016***	0.015***	-0.049***	-0.044***	-0.044***
	(0.005)	(0.004)	(0.004)	(0.013)	(0.014)	(0.014)
Log of current income	0.019***	0.018***	0.017***	-0.053***	-0.057***	-0.056***
	(0.004)	(0.004)	(0.004)	(0.012)	(0.013)	(0.013)
Risk aversion	-0.002**	-0.002**	-0.002**	$0.006^{**}$	0.006*	$0.006^{*}$
	(0.001)	(0.001)	(0.001)	(0.003)	(0.003)	(0.003)
Altruism	-0.017***	-0.016***	-0.015***	0.048***	0.043***	0.043***
	(0.002)	(0.002)	(0.002)	(0.006)	(0.006)	(0.006)
Efficiency-seeking	0.001	0.001	0.001	-0.004	-0.016	-0.017
	(0.005)	(0.005)	(0.004)	(0.014)	(0.016)	(0.016)
Preferences for merit	$0.021^{***}$	$0.019^{***}$	$0.018^{***}$	-0.058***	-0.061***	-0.061***
	(0.003)	(0.003)	(0.002)	(0.007)	(0.008)	(0.008)
Trust	-0.003	-0.003	-0.003	0.010	0.004	0.004
	(0.004)	(0.004)	(0.003)	(0.010)	(0.012)	(0.012)
Constant						$0.725^{***}$
						(0.161)
Share "totally agree" o	f Top 50-2%	group				0.407
Observations		6,9	900		6,900	6,900

Table D.4: Gap in Top 1% vs Top 50-2% support for redistribution: full panel D of Table 2

Notes: Robust standard errors in parentheses. p<0.1; p<0.05; p<0.01. The table presents the full set of estimates for the results presented in panel D of Table 2. Please refer to the *notes* in Table 2 for a complete description of these estimations.

		Ordered p	probit MEs		Probit MEs	OLS
	Tot. disagree	Part. disagree	Part. agree	Tot. agree	Tot. agree	Tot. agree
Top 1%	$0.016^{*}$	$0.015^{*}$	$0.015^{*}$	-0.046*	-0.020	-0.021
-	(0.010)	(0.009)	(0.009)	(0.028)	(0.033)	(0.030)
Female	0.011***	0.010***	0.010***	-0.031***	-0.041***	-0.041***
	(0.003)	(0.003)	(0.003)	(0.009)	(0.011)	(0.011)
Educational level	-0.006***	-0.005***	-0.005***	0.016***	0.017***	0.021***
	(0.002)	(0.001)	(0.001)	(0.004)	(0.005)	(0.005)
Age	-0.001***	-0.001***	-0.001***	$0.002^{***}$	$0.003^{***}$	$0.003^{***}$
	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)
Past mobility	-0.001	-0.001	-0.001	0.002	0.001	0.001
	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)
Capital income	0.002	0.002	0.002	-0.007	-0.021	-0.019
	(0.005)	(0.005)	(0.005)	(0.015)	(0.018)	(0.018)
Self employment	0.004	0.003	0.003	-0.010	-0.008	-0.007
	(0.004)	(0.003)	(0.004)	(0.011)	(0.013)	(0.013)
Log of current income	0.002	0.002	0.002	-0.006	-0.008	-0.010
	(0.004)	(0.003)	(0.003)	(0.010)	(0.012)	(0.011)
Perception of inequality	-0.052***	-0.048***	-0.049***	$0.149^{***}$	$0.161^{***}$	$0.127^{***}$
	(0.004)	(0.003)	(0.004)	(0.010)	(0.014)	(0.011)
Trust in government	-0.011***	-0.010***	-0.010***	$0.030^{***}$	$0.029^{***}$	$0.028^{***}$
	(0.002)	(0.002)	(0.002)	(0.006)	(0.007)	(0.007)
Government efficiency	-0.026***	-0.024***	-0.025***	$0.075^{***}$	$0.058^{***}$	$0.061^{***}$
	(0.003)	(0.003)	(0.003)	(0.008)	(0.010)	(0.010)
Perceived mobility	$0.011^{***}$	$0.010^{***}$	$0.011^{***}$	-0.032***	-0.038***	-0.040***
	(0.002)	(0.002)	(0.002)	(0.006)	(0.007)	(0.007)
Meritocratic beliefs	$0.025^{***}$	$0.023^{***}$	$0.024^{***}$	$-0.072^{***}$	-0.082***	-0.078***
	(0.002)	(0.002)	(0.002)	(0.006)	(0.008)	(0.007)
Political ideology	$0.016^{***}$	$0.015^{***}$	$0.015^{***}$	-0.045***	-0.048***	$-0.051^{***}$
	(0.001)	(0.001)	(0.001)	(0.002)	(0.003)	(0.003)
Perceived position	0.007***	0.006***	0.007**	-0.020***	-0.028***	-0.027***
	(0.003)	(0.002)	(0.003)	(0.008)	(0.009)	(0.009)
Constant						0.231
						(0.151)
Share "totally agree" of	Top 50-2% g	group				0.407
Observations		- 6,9	900		6,900	$6,\!900$

Table D.5: Gap in Top 1% vs Top 50-2% support for redistribution: full panel E of Table 2

<u>Notes</u>: Robust standard errors in parentheses. p<0.1; p<0.05; p<0.01. The table presents the full set of estimates for the results presented in panel E of Table 2. Please refer to the *notes* in Table 2 for a complete description of these estimations.

		Ordered p	orobit MEs		Probit MEs	OLS
	Tot. disagree	Part. disagree	Part. agree	Tot. agree	Tot. agree	Tot. agree
Top 1%	0.015	0.013	0.014	-0.042	-0.015	-0.018
_	(0.010)	(0.009)	(0.009)	(0.028)	(0.033)	(0.031)
Female	$0.011^{***}$	$0.010^{***}$	$0.011^{***}$	-0.033***	-0.044***	-0.044***
	(0.003)	(0.003)	(0.003)	(0.009)	(0.011)	(0.011)
Educational level	-0.006***	-0.006***	-0.006***	$0.017^{***}$	$0.018^{***}$	$0.021^{***}$
	(0.002)	(0.001)	(0.001)	(0.005)	(0.005)	(0.005)
Age	-0.001***	-0.001***	-0.001***	$0.002^{***}$	$0.003^{***}$	$0.003^{***}$
	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)
Past mobility	-0.001	-0.000	-0.000	0.001	0.001	0.001
	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)
Capital income	0.003	0.002	0.002	-0.007	-0.022	-0.020
G 16 1	(0.005)	(0.005)	(0.005)	(0.015)	(0.018)	(0.018)
Self employment	0.003	0.003	0.003	-0.010	-0.007	-0.006
T C ···	(0.004)	(0.003)	(0.004)	(0.011)	(0.013)	(0.013)
Log of current income	0.002	(0.002)	0.002	-0.006	-0.008	-0.010
D'al a succession	(0.004)	(0.003)	(0.003)	(0.010)	(0.012)	(0.011)
RISK aversion	$-0.002^{\circ}$	$-0.001^{\circ}$	$-0.001^{+}$	$(0.004^{+})$	$(0.000^{-10})$	$(0.003^{\circ})$
Altruion	(0.001)	(0.001)	(0.001)	(0.002)	(0.003)	(0.003)
Altruisin	-0.000	-0.003	-0.003	(0.017)	$(0.011^{+1})$	(0.006)
Ffficioney socking	(0.002)	(0.002)	(0.002)	(0.003)	(0.000)	(0.000) 0.025*
Enterency-seeking	(0.004)	(0.003)	(0.003)	(0.012)	(0.023)	(0.023)
Preferences for merit	(0.004)	(0.004)	(0.004)	(0.012)	(0.014)	(0.014)
i references for merit	(0.002)	(0.002)	(0.003)	(0.007)	(0.008)	(0.014)
Trust	0.002	0.002	0.002	-0.006	-0.011	-0.012
11 0.50	(0.003)	(0.003)	(0.003)	(0.009)	(0.011)	(0.011)
Perception of inequality	-0.052***	-0.047***	-0.049***	0.148***	0.159***	0.125***
	(0.004)	(0.003)	(0.004)	(0.010)	(0.014)	(0.011)
Trust in government	-0.010***	-0.009***	-0.010***	0.029***	0.028***	0.028***
0	(0.002)	(0.002)	(0.002)	(0.006)	(0.007)	(0.007)
Government efficiency	-0.025***	-0.023***	-0.024***	0.073***	0.055***	0.059***
v	(0.003)	(0.003)	(0.003)	(0.008)	(0.010)	(0.010)
Perceived mobility	0.012***	0.011***	0.011***	-0.034***	-0.039***	-0.042***
	(0.002)	(0.002)	(0.002)	(0.006)	(0.007)	(0.007)
Meritocratic beliefs	$0.025^{***}$	$0.023^{***}$	$0.023^{***}$	-0.071***	-0.080***	-0.077***
	(0.002)	(0.002)	(0.002)	(0.006)	(0.008)	(0.007)
Political ideology	$0.016^{***}$	$0.014^{***}$	$0.015^{***}$	-0.045***	-0.048***	-0.050***
	(0.001)	(0.001)	(0.001)	(0.002)	(0.003)	(0.003)
Perceived position	$0.006^{**}$	$0.006^{**}$	$0.006^{**}$	-0.018**	-0.026***	-0.024***
	(0.003)	(0.003)	(0.003)	(0.008)	(0.009)	(0.009)
Constant						0.231
						(0.153)
Share "totally agree" of	Top 50-2% s	group				0.407
Observations	1 · · · (	6,9	900		6,900	6,900
		,				

Table D.6: Gap in Top 1% vs Top 50-2% support for redistribution: full panel F of Table 2

Notes: Robust standard errors in parentheses. \*p<0.1; \*\*p<0.05; \*\*\*p<0.01. The table presents the full set of estimates for the results presented in panel F of Table 2. Please refer to the *notes* in Table 2 for a complete description of these estimations. Appendix -18

# **E** Email invitation: English translation

We invite you to participate in a survey on economic attitudes among Uruguayans. This survey is part of a research study performed in collaboration with researchers from the Universidad de la República, the Universidad de San Andrés (Argentina), and the University of California, Los Angeles (USA). The information you provide will be treated confidentially and will only be used for academic purposes by the researchers.

As a token of our appreciation for your participation, you'll be eligible for one of the raffle prizes of \$5,000. Completing the survey will take about 20 minutes, and the information collected will be treated as strictly confidential.

Please follow this link to access the survey: <u>Click here</u>

Your participation helps us improve public policies in our country!

Thank you very much,

The Research Team.

# **F** Survey questionnaire: English translation



#### Introduction to the survey

We invite you to participate in an academic research survey on economic opinions and attitudes in Uruguay.

Completing the survey takes about 20 minutes. As a token of our gratitude, 20 participants selected at random will each be awarded a gift card worth \$5,000. If you areone of the raffle winners, we will notify you and send you the prize by email.

In compliance with research confidentiality rules, the information collected in this questionnaire will be treated as strictly confidential. This research is being conducted by academics from the University of the Republic, the University of San Andrés (Argentina), and the University of California in Los Angeles (United States).

On behalf of the entire working team, we thank you for your participation, which helps us to improve public policies in our country.

- O I agree to participate in the survey.
- O I do not agree to participate in the survey.

<u>Note</u>: If you have any questions about this study, you can contact us at the following email: encuesta@iecon.ccee.edu.uy

What is your sex?
O Male
O Female
What is your age?
~

Indicate the highest level of education that you have achieved.

 $\sim$ 

We divide Uruguayan workers into the following three personal income groups. Please indicate the one that best describes your income level.

- O Low income (nominal annual income below \$100,000, represents the poorest 20%)
- Middle income (nominal annual income between \$100,000 and \$650,000, represents the "middle" 60%)
- **High income** (nominal annual income greater than \$650,000, represents the richest 20%)

In the next segment, you are asked to take part in 14 decision-making games. Keep in mind that there is a chance your decisions will have real-world consequences, so it will be in your own best interest to report honestly what you would do in each game.

We will choose 50 participants at random, and if you are one of them, the decisions you have made in one of the games will be implemented and have real-world consequences. In other words, your decision in that game will affect your payout, and in the case of games with more than one participant, your decision will also affect the payouts of the other players involved.

First we ask you to play all 14 games. On June 14, we will select 50 participants at random. If you are among the 50 selected, we will contact you by email to send your cash reward. If you are not among the 50 selected participants, all the decisions you have made in the games will remain hypothetical and will have no real-world consequences.

# Game 1 of 14

In the following game, you are designated as player A, and another randomly selected survey participant is player B. As player A, you receive \$1,000, and player B receives \$0. In this game, you have the option of either keeping the entire \$1,000 or sharing part of it with participant B.

How much of the money do you want to share?

- O Share \$0
- O Share \$250
- O Share \$500
- O Share \$750
- O Share \$1,000

## Game 2 of 14

In this game, you are given \$1,000. Your role is to decide how much of that money to keep for yourself and how much to donate to a non-governmental non-profit organization that works for the social inclusion of vulnerable children and adolescents.

How would you distribute this award?

- O Keep \$1,000 for yourself and donate \$0
- O Keep \$750 for yourself and donate \$250
- Keep \$500 for yourself and donate \$500
- O Keep \$250 for yourself and donate \$750
- Keep \$0 for yourself and donate \$1,000

## Game 3 of 14

Your role in this game is to distribute donations between two charitable programs. You will receive \$1,000 regardless of your decision.

You are asked to decide how to distribute \$1,000 worth of donations between a social program run by MIDES (Ministry of Social Development of Uruguay) and a non-governmental non-profit organization that has the same objective.

How would you distribute this award?

- \$1,000 for MIDES and \$0 for the NGO
- \$750 for MIDES and \$250 for the NGO
- \$500 for MIDES and \$500 for the NGO
- \$250 for MIDES and \$750 for the NGO
- \$0 for MIDES and \$1,000 for the NGO

#### Game 4 of 14

In this game, you are participant A and two other randomly chosen survey participants are B and C. **Your role is to decide how much to pay B and C.** You will receive \$1,000 regardless of this decision.

Which of the two distributions do you prefer?

O \$250 for B and \$250 for C

○ \$250 for B and \$750 for C

## Game 5 of 14

Two other randomly chosen survey participants are now B and C.

Again, your role is to decide how much to pay B and C. You will receive \$1,000 regardless of your decision.

To earn a chance at entering the raffle, participant B had to work at performing simple tasks on the computer for 15 minutes. Participant C did not have to do anything.

How would you allocate \$1,000 between B and C?

- \$1,000 for participant B and \$0 for participant C
- \$750 for participant B and \$250 for participant C
- \$500 for participant B and \$500 for participant C
- \$250 for participant B and \$750 for participant C
- \$0 for participant B and \$1,000 for participant C

# Game 6 of 14

Two other randomly chosen survey participants are now B and C.

**Again, your role is to decide how to allocate the payments for B and C.** You will receive \$1,000 regardless of your decision. We asked B and C if they think it is acceptable to evade taxes in Uruguay. Participant B thinks that it is not acceptable to evade taxes under any circumstances, while participant C thinks that avoiding taxes may be acceptable.

How would you allocate \$1,000 in payments between B and C?

- \$1,000 for participant B and \$0 for participant C
- \$750 for participant B and \$250 for participant C
- \$500 for participant B and \$500 for participant C
- \$250 for participant B and \$750 for participant C
- \$0 for participant B and \$1,000 for participant C

#### Game 7 of 14

Your payout in this game depends on whether the year of your birth is odd or even. If it is even, we will pay you \$500. If it is odd, we will pay you \$2500.

### Indicate whether the year of your birth is even or odd:



# Game 8 of 14

In the next game you are participant A, and another randomly chosen survey participant is B. B's role is to propose how to split \$1,000 between the two of you. Your role in thisgame is to accept or reject the proposal of participant B.

Participant B proposed to keep \$800 and offer you \$200. If you accept the offer, those would be the final payments. If you decline the offer, both of you get \$0.

Do you want to accept or decline the offer?

- O Accept the offer
- O Reject the offer

# Game 9 of 14

We ask you to roll a die once. If you don't have a die nearby, you can use the digital die at the following link <u>here</u>.

Your payout in this game will depend on the number you roll on the die: if you roll a 1, then you win \$300; if you roll a 2, then you win \$600; if you roll a 3, you win \$900; if you roll a 4, you win \$1,200; if you roll a 5, you win \$1,500; and if you roll a 6, you win \$1,800.

#### Enter the number that you rolled:

### Game 10 of 14

In the next game, you are participant A, and another randomly chosen person is participant B. You both have \$1,000. You are asked to choose whether to invest money in B given the following two options:

Option 1: Do not invest the \$1,000 in B. Your final payment would be \$1,000 and Participant B's final payment would be \$1,000.

Option 2: Invest the \$1,000 in B. In that case, the payouts will depend on what participant B does. If participant B chooses to share the earnings, you and participant B each get \$2,000. If participant B chooses not to share, then participant B takes \$4,000 and you take \$0.

Before making your decision, we want to know what you expect will happen.

If you choose to invest, how likely do you think it is that Participant B will choose to share the earnings?

- O Very likely
- O Somewhat likely
- O Not very likely
- O Not likely at all

What option do you want to choose?

- O Do not invest in B
- O Invest \$1,000 in B

# Game 11 of 14

In the following game, you are playing with 4 other randomly chosen participants. Each of the participants has received \$1,000. **The game consists of deciding how much of this \$1,000 to put in a common pot.** The money collected in this pot will be doubled, and the resulting total amount will be divided equally between you and the other 4 participants. Each player will receive a fifth of the pot, regardless of whether or not they contributed.

How much of your \$1,000 do you want to contribute to the pot?

- O Contribute \$1,000
- O Contribute \$750
- O Contribute \$500
- O Contribute \$250
- O Contribute \$0

#### Game 12 of 14

In this game, you will choose between receiving a payment on June 1, 2019, or receiving a payment 12 months later (on June 1, 2020). We ask you to choose between different pairs of options:

Scenario 1: Among the following two options, which one would you prefer?

- O Receive \$1,000 in June 2019
- O Receive \$1,200 in June 2020

<u>Note:</u> Remember that there is a chance that this decision will be implemented and may therefore have real-world consequences.

Scenario 2: Among the following two options, which one would you prefer?

- O Receive \$1,000 in June 2019
- O Receive \$1,400 in June 2020

<u>Note:</u> Remember that there is a chance that this decision will be implemented and may therefore have real-world consequences.

Scenario 3: Among the following two options, which one would you prefer?

- O Receive \$1,000 in June 2019
- Receive \$1,600 in June 2020

<u>Note:</u> Remember that there is a chance that this decision will be implemented and may therefore have real-world consequences.

Scenario 4: Among the following two options, which one would you prefer?

- O Receive \$1,000 in June 2019
- Receive \$1,800 in June 2020

Scenario 5: Among the following two options, which one would you prefer?

- O Receive \$1,000 in June 2019
- O Receive \$2,000 in June 2020

<u>Note:</u> Remember that there is a chance that this decision will be implemented and may therefore have real-world consequences.

Scenario 6: Among the following two options, which one would you prefer?

O Receive \$1,000 in June 2019

O Receive \$2,200 in June 2020

# Game 13 of 14

For this game, we have flipped a coin. You are asked to choose between receiving a guaranteed payment or a payment that depends on whether the coin came up heads or tails. Please mark your choices from the following pairs of options:

Scenario 1: Among the following two options, which one would you prefer?

- A guaranteed payment of \$1,000
- \$2,000 if the coin lands on heads and \$0 if it lands on tails

Note: Remember that there is a chance that this decision will be implemented and may therefore have real-world consequences.

Scenario 2: Among the following two options, which one would you prefer?

- A guaranteed payment of \$1,000
- \$2,500 if the coin lands on heads and \$0 if it lands on tails

Note: Remember that there is a chance that this decision will be implemented and may therefore have real-world consequences.

Scenario 3: Among the following two options, which one would you prefer?

- A guaranteed payment of \$1,000
- \$3,000 if the coin lands on heads and \$0 if it lands on tails

Note: Remember that there is a chance that this decision will be implemented and may therefore have real-world consequences.

Scenario 4: Among the following two options, which one would you prefer?

- A guaranteed payment of \$1,000
- \$3,500 if the coin lands on heads and \$0 if it lands on tails

Note: Remember that there is a chance that this decision will be implemented and may therefore have real-world consequences.

Scenario 5: Among the following two options, which one would you prefer?

- A guaranteed payment of \$1,000
- \$4,000 if the coin lands on heads and \$0 if it lands on tails

### Game 14 of 14

This game consists of guessing two figures.

To evade personal income taxes, employees can underreport their wages – that is, they can report to the authorities a lower wage than they actually receive from their employers. What do you estimate is the percentage of employees who underreport their salaries?

We are going to compare your answer with the results of a recent academic study, and if you have chosen the correct option, you could win \$1,000.

- 0-10%
- 0 10-20%
- 0 20-30%
- 0 30-40%
- 0 40-50%
- **0** 50-60%
- 0 60-70%
- **O** 70-80%
- 0 80-90%
- **O** 90-100%

To avoid taxes, companies can underreport their Value Added - that is, they can report to the authorities lower sales and higher costs than they incurred in reality. What do you estimate is the percentage of Value Added that companies underreport on average?

We are going to compare your answer with the results of a recent academic study, and if you have chosen the correct option, you could win \$1,000.

- 0-10%
- 0 10-20%
- 0 20-30%
- 0 30-40%
- 0 40-50%
- 0 50-60%
- 0 60-70%
- 0 70-80%
- 0 80-90%
- **O** 90-100%

Thank you very much for marking your decisions for all 14 games. The next and final part of the survey consists of a series of questions about your opinions and beliefs.

In your opinion, which of the following reasons best explains why a person is poor?

- O Because that person worked less than other people
- O Because of unfavorable circumstances that are beyond that person's control

In your opinion, which of the following reasons best explains why a person is rich?

- O Because that person worked harder than other people
- O Because of favorable circumstances that are beyond that person's control

Consider a child who was born in the poorest 10% of families in Uruguay. What is the probability that this child, as an adult, could belong to 50% of the richest families?

- O Very likely
- O Somewhat likely
- O Unlikely
- O Very unlikely
Based on a lottery, we will decide whether or not you will receive additional information related to tax evasion in Uruguay.

To find out whether you have been selected to receive this information, continue to the next screen.

As a result of the lottery, you were assigned the following information:

According to the most recent research, the percentage of wage earners who underreport their earnings is in the 10%-20% range.\*

\* This refers to wage earners who submitted affidavits and payroll registered by hiring companies.

We will now ask you again about underreporting by employees and companies. We do this with all respondents, regardless of what they answered in the game and whether or not they received information.

This time we are not asking you to guess, we just want your opinion.

What do you think will be the percentage of employees who will underreport their salaries in 2019?

- 0-10%
- 0 10-20%
- 0 20-30%
- 0 30-40%
- 0 40-50%
- **50-60%**
- 0 60-70%
- 0 70-80%
- 0 80-90%
- **O** 90-100%

What do you think will be the percentage of Value Added that an average company will underreport in 2019?

- 0-10%
- 0 10-20%
- 0 20-30%
- 0 30-40%
- 0 40-50%
- 0 50-60%
- 0 60-70%
- 0 70-80%
- 0 80-90%
- **O** 90-100%

To what extent do you agree or disagree with the following statement?

"Governments should take steps to reduce the income gap between rich and poor."

- O Strongly agree
- O Partially agree
- O Partially disagree
- O Strongly disagree

Generally speaking, would you say that most people can be trusted, or that one can neverbe careful enough when dealing with others?

- One can trust most people
- O One can never be careful enough when dealing with others

Do you think that the government is efficient in the way it manages public resources?

- O The government is very efficient
- O The government is efficient
- O The government is inefficient
- O The government is very inefficient

Which of the following best describes how often you believe the government can

be trusted to act correctly?

- O Always
- O Usually
- O Most of the time
- O Sometimes
- O Almost never

What do you think about income differences between the rich and the poor in Uruguay?

- O Inequality is too high
- O Inequality is moderate
- O Inequality is very low

How justifiable do you think it is to evade taxes?

- O Not at all justifiable
- O Justifiable on some occasions
- O Fully justifiable

In 2017, what percentage of their nominal personal income do you think that the following social groups actually paid in personal taxes, on average? For your reference, individuals paid 21% of their income as taxes in 2017 on average.

0 % **Low income** (nominal annual income below \$100,000, represents the poorest 20%)

0 % **Middle income** (nominal annual income between \$100,000 and \$650,000, represents the "middle" 60%)

0 % **High income** (nominal annual income greater than \$650,000, represents the richest 20%)

How much do you agree with the following statement?

"Tax rates should be more progressive (that is, higher for the rich and lower for the poor)"

- O Strongly agree
- O Somewhat agree
- O Somewhat disagree
- O Strongly disagree

Politics is generally viewed in terms of "left" and "right." On a scale where 0 leans the most to the "left" and 10 leans the most to the "right," where would you locate yourself?

- 0 (left)
  1
  2
  3
  4
  5
  6
  7
  8
  9
- O 10 (right)

Recent studies on decision-making show that decisions are affected by the context in which they are made and reflect people's feelings, prior knowledge and experience, and environment. Thank you for helping to make the survey results meaningful by following the instructions. To help us confirm that you have read these instructions, please select the "none of the above" option from the following alternatives:

- O Anger
- 🔿 Joy
- O Sadness
- 🔘 Fear
- O Surprise
- O None of the above

How well did you understand the survey questions?

- O I understood everything
- O I understood almost everything
- O I understood some questions
- O I did not understand anything

Would you like to share with us any comments or thoughts about the survey?