

# DO PEOPLE DISTINGUISH INCOME FROM WEALTH INEQUALITY? EVIDENCE FROM THE NETHERLANDS

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WORLD .....  
INEQUALITY  
..... LAB

The logo for the World Inequality Lab features the text 'WORLD', 'INEQUALITY', and 'LAB' stacked vertically. The word 'WORLD' is followed by a horizontal row of seven dots. The word 'INEQUALITY' is followed by a vertical column of seven dots. The word 'LAB' is preceded by a horizontal row of seven dots. The dots are arranged in a grid-like pattern that suggests an upward trend or growth.

# Do People Distinguish Income from Wealth Inequality? Evidence from the Netherlands.\*

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## Abstract

In most countries, wealth inequality is much higher than income inequality, spurring debates about wealth taxation. However, it is unclear if voters are aware of these differences. In a large-scale survey experiment among a representative Dutch population (N=4,501), we study voters' perceptions of income and wealth distributions, and connect their views to administrative data about their own income and wealth. Despite a primer on the definition of income and wealth, respondents underestimate the difference between the top 10% share of income and wealth by a factor of 10. Moreover, they use information about the income distribution to make predictions about the wealth distribution and vice versa, even when information about both is provided, further demonstrating confusion about the two types of inequality. An information intervention about actual inequality levels and personal ranks in the income/wealth distribution has an impact on the perceived inequality and perceived fairness of inequality, but little effect on policy preferences. We discuss implications for political debates about inequality and wealth taxation.

**JEL classification:** D31, D63, H31, P16

**Keywords:** Inequality, Beliefs, Information provision, Redistribution

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# 1 Introduction

In many Western countries, inequality plays an important role in policy debates and voter preferences. While much debate has focused on income inequality, there is a recent surge in interest for *wealth* inequality, due to improvements in wealth measurements and administrative records. Such records show that wealth inequality in Western countries is typically much larger than income inequality: Whereas the top 10% of richest people earn between 30% to 45% of all income, they possess 45% to 70% of all wealth.<sup>1</sup> These findings have led to heated discussions on whether and how to tax wealth both among academics and policy makers (Piketty, 2014; Mankiw, 2015; Saez and Zucman, 2019; Chari et al., 2020; Scheuer and Slemrod, 2021). They also raise the question how the public perceives income and wealth distributions, whether they are aware of the inequality gap between these domains, and how this affects their policy views.

In this study, we explicitly contrast the public’s perceptions of income and wealth inequality to i) document whether citizens hold accurate beliefs about wealth and income inequality (including their own relative position), and ii) causally identify the impact of information on citizens inequality acceptance and policy preferences regarding income and wealth taxation. To do so, we use a survey experiment where we give a selection of participants information about the actual levels of income and/or wealth inequality and their own position within these two distributions. We then ask them a series of questions on their perceptions of these distributions, their normative evaluations, and their preferences for a series of specific taxation policies.

We conduct our survey experiment on a representative sample of the Dutch population ( $N = 4,501$ ), using the online Longitudinal Internet studies for the Social Sciences panel (LISS). We link these survey data to registry data provided by the Dutch Statistical Agency (CBS), which yields high-quality background information on the *actual* wealth and income of participants. Combining the two data sources allows us to study how people’s perceptions align with actual levels of inequality, and their own position within the income and wealth distributions. The Netherlands is well suited for this exercise. The top 10% of the highest earners only earn 26% of the total income, a relatively low inequality within the OECD. By contrast, the OECD ranks the Netherlands as the second most unequal country in terms of wealth after the U.S., with the top 10% of the wealthiest individuals owning 62% of the total wealth, ignoring money placed in pension funds.<sup>2,3</sup>

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<sup>1</sup>See Chancel et al. (2022), Chapter 4, <https://wir2022.wid.world/chapter-4/> accessed February 26, 2024.

<sup>2</sup>See Balestra and Tonkin (2018). Whether pension funds should count as wealth is an unresolved debate in the literature. If pensions are included, the share of the top 10% drops to 48%, which is below average within the OECD, but still substantially higher than income inequality. In our survey, we give information about wealth inequality either with or without pensions, allowing us to look at the impact of wealth inequality levels.

<sup>3</sup>For long-run trends in wealth inequality in the Netherlands, see Toussaint et al. (2022).

Despite being precisely informed about the definition of income and wealth at the beginning of the survey, our participants think wealth inequality—as measured by the share of wealth owned by the richest 10%—is 3.4 percentage points larger than income inequality, at 49.8% and 46.4% respectively. While this difference is statistically significant, it underestimates the actual difference by a factor of more than 10 (26% vs. 62%), as a large majority of respondents overestimate income inequality and underestimate wealth inequality. This pattern barely budges when we saliently contrast income and wealth inequality by asking them about both. Providing information about income inequality leads to a decrease in subjectively perceived income and wealth inequality while wealth information leads to an increase in subjectively perceived inequality. Participants also rate inequality as more or less fair upon seeing income or wealth information respectively, but we do not find that this translates into meaningful effects on policy views.

We also investigate respondents' estimates of their own ranking in the two distributions, which we compare to their actual income and wealth levels in administrative data from the Dutch Bureau of Statistics (CBS). In line with previous literature on income (see e.g., Hvidberg et al., 2023), we observe a clear “center-bias” in both income and wealth perceptions, meaning that people tend to think their income and wealth is closer to the 50<sup>th</sup> percentile than it actually is. Strikingly, the average perceived rank of even the lowest income/wealth percentiles is 40. However, correcting these misperceptions has no discernible effect on their perceptions on the role of merit or their preferences for redistribution, in line with many earlier information provision experiments (Haaland et al., 2023).

Generally, our data reveal that participants do not make a sharp distinction between wealth and income distributions, despite a primer about these two concepts at the beginning of the survey. Not only do respondents underestimate the difference in inequality between the two measures, but providing information about income inequality also moves perceptions about wealth inequality and vice versa, even if information about both types of inequality is available. We find a similar effect for information about one's perceived rank in the income or wealth distribution. These findings are consistent with the idea that respondents care about a single type of economic inequality, and consider both income and wealth as informative about its level. We rule out poor data-quality or participants' lack of attention as drivers of these results (see Section 3.6).

The lack of discrimination between income and wealth goes beyond perceptions of inequality. In the last part of our survey, we elicit and contrast respondents' preferred taxation levels of labor and capital income. While respondents want to tax both income sources, the desired average tax rates do not differ more than a few percentage points. Thus, respondents do not single out income from wealth as a specific target for redistribution.

Overall, our study suggests that wealth and wealth inequality occupy no distinct place in the mind of voters. This finding is highly relevant to debates about inequality and wealth and

income taxation. While academic literature makes a prominent distinction between income and wealth taxation, such arguments are not reflected in the views of the general public, at least in the Netherlands. This matters to the policy debate on inequality: the lack of awareness of wealth inequality may help explain the declining popularity of wealth taxes over the last few decades in OECD countries (Andre, 2018; Scheuer and Slemrod, 2021). Garnering support for particular policies (e.g. taxes on inheritances or capital gains) will require politicians to better explain and highlight the differences between both types of inequality.

To the best of our knowledge, we are the first to study the distinction between income and wealth perceptions and the role of information about both types of inequality. There is a large literature on perceptions of income inequality (Cruces et al., 2013; Kuziemko et al., 2015; Karadja et al., 2017; Hvidberg et al., 2023; Fehr et al., 2022). However, wealth inequality has received scant attention, as underlined in a recent review by Mengel and Weidenholzer (2023). An exception is Stantcheva (2021), who asks a U.S. sample to estimate income and wealth going to the top 1%. Her paper focuses on perceptions of the tax system, and she does not study the role of information on income and wealth distributions, nor people’s perception of their own rank in these distributions. She finds that subjects overestimate both income and wealth inequality, whereas we find that subjects underestimate wealth inequality. Norton and Ariely (2011) study perceptions about wealth inequality and contrast those beliefs with people’s ideal wealth distribution. Fehr and Reichlin (2023) shows that perceptions of relative wealth ranking matter for risk preferences.

Other papers investigate attitudes towards estate taxation (Kuziemko et al., 2015; Sides, 2016; Alesina et al., 2018). In a representative Swedish sample linked to registry data, Bastani and Waldenström (2021) show that people underestimate the share of inherited wealth, and that providing information about it increases support for inheritance taxation. Fisman et al. (2020) use a survey-experiment to elicit preferences for income and wealth taxation in the U.S. and show that people like to tax both income and wealth at approximately linear rates. Instead, our respondents prefer to tax income from labor and wealth progressively, and at approximately the same rate. More generally, we contribute to a literature on how the general public understands and reasons about redistribution and taxation (Stantcheva, 2021).

## 2 Data

### 2.1 Survey Sample

The study combines data from a large-scale survey experiment implemented in the online Longitudinal Internet studies for the Social Sciences (LISS) panel with high-quality administrative data from the Centraal Bureau voor de Statistiek (CBS), linked at the individual level. Combining the

two data sources allows us to study how people’s *perceptions* align with *actual* levels of inequality, and their own position within the income and wealth distributions.

The survey experiment was implemented as a module in the June–July 2023 wave of the LISS panel. The panel is based on a representative (true probability) sample of Dutch households drawn from the population register of Statistics Netherlands. To achieve a high-quality representative sample, participation is invite-base only, survey completion is incentivized, and (poorer) households that could otherwise not participate are provided with computers and internet connection.

The median completion time of the survey was 13.7 minutes. Of the 6,351 individuals who were invited to participate, 4,501 responded to our survey (i.e., 70.9%). Out of the 4,501 respondents, 3.15% of the responses are incomplete.<sup>4</sup> As shown in Table A.3 there is no selective attrition by treatment conditions, as the non-response rate does not differ by treatment. Finally, 3,987 respondents accepted that their answers be linked to the CBS data, of which 3,796 and 3,926 could be successfully matched to their income and wealth records respectively. Thus, in most of the analysis we work with our full sample of 4,501 respondents (minus the few who did not answer a specific question), except when our analysis relies on the linked CBS data in which case up to 16.1% (when both income and wealth records are necessary) of respondents are excluded.

Descriptive statistics of our sample compared to the general Dutch population are provided in Table A.1 in Appendix. Our respondents are on average a little older, richer, and more educated than the average Dutch population, but we see no substantial difference between the respondents who were linked to the CBS data and the ones who were not.

## 2.2 Survey Design

Our survey experiment is divided into four main parts, meant to i) provide explicit definitions of income and wealth to respondents, ii) study their perceptions about income and wealth inequality, iii) study their perceptions about their own rank in these distributions, and iv) elicit their fairness views and policy preferences. In this section we provide the main features of our survey experiment in the order in which they appeared in the survey. The full questionnaire can be found in Appendix C, and Appendix B provides details about the exact sequence and randomization of all questions and treatments.

**Definitions.** For all participants, the survey starts with a video that includes illustrations, audio, and subtitles.<sup>5</sup> All videos begin with explicit definitions of both income and wealth. To

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<sup>4</sup>A response is defined as incomplete if at least one of the questions Q2a–Q11 is not answered.

<sup>5</sup>Respondents were not allowed to skip or speed up the video. For respondents who indicated that they could not see a test video shown at the start of the survey (3% of total sample), the script of the video and illustrations were provided.

make the distinction between the two terms as clear as possible, our text and illustrations provide conceptual definitions as well as examples of what constitutes income (e.g., income from labor, Social Security benefits) and wealth (e.g., real-estate, cars, savings). For a full description of these definitions, see Appendix C.

For income, we provide the same definition to all participants. For wealth, respondents are randomly assigned to a definition that excludes pensions (our baseline) or includes it (Pension treatment). Whether pensions should be accounted for when measuring wealth inequality is subject to debate: we leverage this fact in the survey to provide information treatments with different levels of wealth inequality and analyze the implications for fairness views and policy preferences in Section 3.2.<sup>6</sup>

**Perceived inequality.** The second part of the survey aims to document discrepancies between people’s perceptions of inequalities and the actual extent of inequality in the Netherlands. To contrast perceptions of income and wealth inequality, we randomize participants into four inequality treatments: Income, Wealth, Both income and wealth, and No information.

For participants in the No information condition, the introductory video stops after the definitions of income and wealth. For participants in the inequality treatments (Income, Wealth, Both), the video continues by introducing a measure of inequality: we ask respondents to imagine that the Netherlands is represented by 10 persons that can be ranked from the lowest to the highest income/wealth. We say that total income/wealth can be represented by a pie, and that we can measure inequality by looking at the share of the pie that goes to the richest person in terms of income/wealth. Again, we accompany the audio with subtitles and an illustration of the inequality measure alongside a slider similar to the one later used when eliciting participants’ perceptions of inequality.

In the Income treatment, we ask participants about the share of total income earned by the top 10% in the Netherlands. After they answer, we provide the correct response based on the best available estimates: 26%.<sup>7,8</sup> To make the information more salient, we complement the text with an illustration similar to the one featured in the video: displaying a pie chart indicating the portion attributed to the top 10%. We also make the information provision interactive by adapting the

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<sup>6</sup>See Appendix C for the exact definitions. While the OECD does not include pension wealth in its definition, other sources like the World Inequality Database do so (Alvaredo et al., 2024).

<sup>7</sup>Income inequality is estimated based on post-tax and transfer income reported in Bruil et al. (2022). These data closely match those from WID.world, the Dutch Bureau of Statistics (CBS) as well as our own computations from the CBS data.

<sup>8</sup>All our inequality measures are computed at the individual level. We make this clear to respondents in our definitions, and explain that “when two individuals hold an asset together, we consider that each individual is entitled to half of the value of this asset.”

text to state whether the actual level of inequality is lower/higher or as the participant perceived it to be.

Similarly, in the Wealth treatment we ask participants about the share of total wealth owned by the top 10% in the Netherlands, followed by the correct response (based on the best available estimates) in a similar fashion: 62% excluding pensions. In the Pension treatment, the corresponding number is 48%.<sup>9</sup> In the Both treatment, we successively ask about income and wealth inequality as explained above, and then provide the correct answers for both. In the control group, we neither ask questions nor provide responses about income and wealth inequality, to avoid making inequality salient as in the other groups. We then evaluate the impact of the inequality treatments by asking all groups to rate the level of income and wealth inequality in the Netherlands from 0 to 10.

**Perceived rank.** The third part of our survey experiment serves to document the accuracy of individuals' perceptions of their placement within the income and wealth distributions. Independent of the treatment condition, we ask all participants to place themselves in both distributions by stating a specific percentile. Having done so, participants in the Rank treatment are provided with feedback on what level of income and/or wealth corresponds to their answer.<sup>10</sup> Whether participants in the Rank treatment receive information on income and/or wealth depends on their Inequality treatment: participants from the Income treatment receive information about their income rank, participants from the Wealth treatment receive information about their wealth rank, and participants from the Both and No Info groups receive information about both their income and wealth rank. After this feedback, respondents in the Rank treatment are asked to re-assess their perceived rank.

**Preferences and policy attitudes.** Lastly, in the fourth part of the survey all participants answered a list of questions eliciting their beliefs about the causes of inequality, their meritocratic beliefs, their perceptions of inequality, their fiscal policy preferences, and an incentivized donation to a charity that supports the poor.

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<sup>9</sup>The levels for wealth inequality with and without pensions are based on estimates from the CBS, found here <https://www.cbs.nl/nl-nl/longread/statistische-trends/2020/pensioenvermogen-en-vermogensongelijkheid?onepage=true>, last accessed February 28, 2024.

<sup>10</sup>Information about the actual income and wealth of participants is confidential and cannot be used to condition our survey treatment. Given that we again ask about perceived rank after the treatment, the information we provide (the income/wealth that corresponds to the respondent's guess) also induces a lower demand-effect than providing the true rank directly. It also avoids giving respondents the impression that we were "spying" on their actual details.



**Treatment summary.** Taken together, our treatments lead to a  $4 \times 3$  between-subject design. The first dimension refers to the four inequality information conditions (None, Income, Wealth, Both). The second dimension includes the Pension treatment (giving an alternative definition of wealth with pensions) and the Rank treatment, or none of these two (Control condition). The sample size per treatment condition is approximately 375, but see Table A.2 in the Appendix for the precise numbers in each cell. When studying the effect of a specific treatment (e.g., Income vs. Wealth information on perceived inequality) we pool the sub-conditions, enabling us to work with larger sample sizes per treatment ( $N > 1,000$ ) throughout the paper.

### 3 Results

We start with an analysis of the perceptions of income and wealth inequality (3.1), and the information treatments on these measures (3.2). We then turn to perceptions of personal income and wealth rank (3.3), and the associated information treatments (3.4). Section 3.5 compares respondents’ preferred taxes on capital and labor, and Section 3.6 provides further evidence about the quality of our data.

#### 3.1 Perceptions of Income and Wealth Inequality

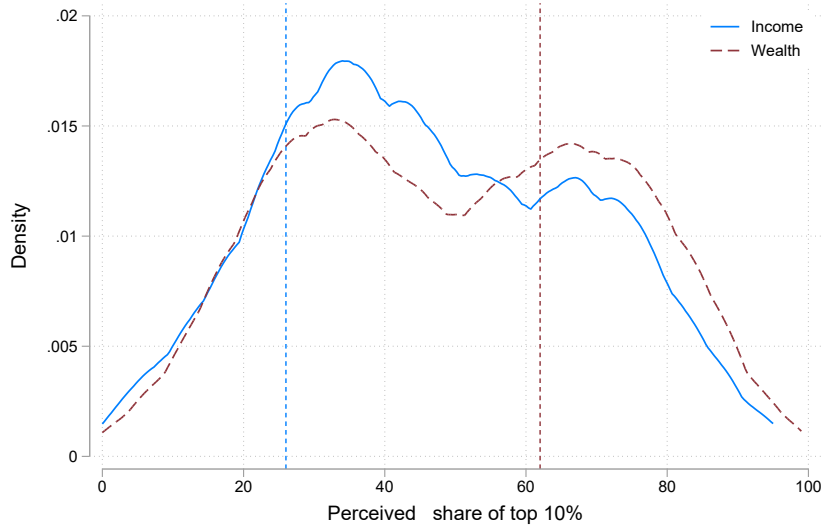
Figure I shows the distributions of perceived income and wealth inequality across conditions (except the Both treatment that we analyze separately), before any information about these distributions was communicated. Vertical dashed lines indicate the true income/wealth shares. There are two main takeaways. First, respondents correctly perceive wealth inequality to be higher than income inequality, by about 3.4 percentage points, a difference which is statistically significant ( $t = -16.68$ ,  $p < 0.001$ ). Second, respondents underestimate the difference between income and wealth inequality by a factor of 10, as the true difference is 36 percentage points (using wealth without pensions as baseline). In particular, respondents largely overestimate the level of income inequality, with an average perceived share of 46.4% instead of 26%, and underestimate the level of wealth inequality, at an average of 49.8% instead of 62%.<sup>11</sup> In addition, while 65 percent thinks (correctly) that wealth inequality is higher than income inequality, 22 percent instead thinks income inequality is higher.

In the appendix, we show a series of additional analyses. First, in Figure A.1 we investigate what happens if we make the difference between income and wealth more salient. While all respondents see definitions of both income and wealth in the beginning of the survey, respondents in the Both treatment are asked explicitly about inequality levels for both measures. As a result,

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<sup>11</sup>For a full overview of summary statistics about the perceptions of wealth and income inequality for the different inequality treatments, see Table A.4 in Appendix A.

Figure I: Perceived level of income and wealth inequality



*Note:* The figure shows perceived levels of income (blue) and wealth (red) inequality as measured by the perceived share of total income/wealth held by the top 10% highest earners/wealthiest in the Netherlands. Vertical lines in the corresponding color mark the actual share (26% for income, and 62% for wealth). The sample is restricted to participants who are either in the Income or Wealth treatments,  $N = 2,193$ .

the perceived difference increases slightly to 7.6 percentage points, a change that is fully driven by higher perceptions about wealth inequality, but remains much smaller than the actual difference. When we include pensions in the definition of wealth, we do not see any difference in perceived wealth inequality.<sup>12</sup>

### 3.2 Information about Inequality

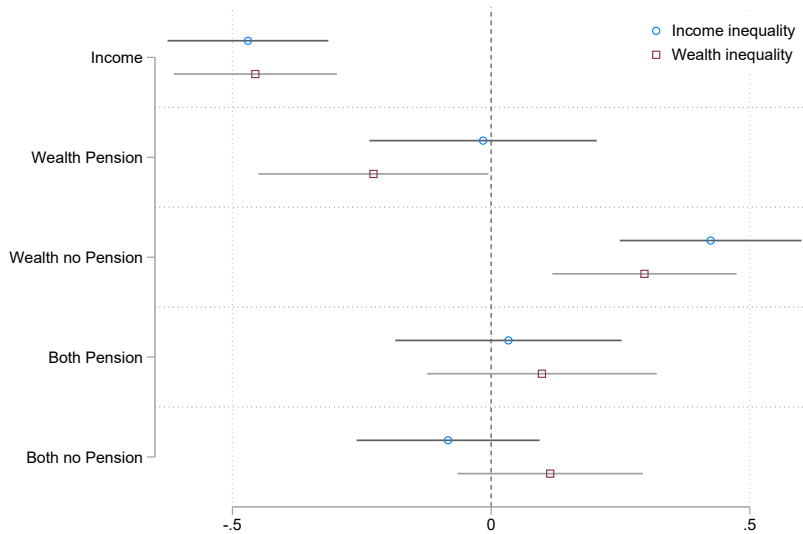
Figure II shows the impact of our various inequality information treatments on the subjectively perceived inequality of the income and wealth distributions. This manipulation check confirms that our treatments did indeed affect subjectively perceived inequality. In particular, we find that information about income reduces subjective perceptions of inequality, which makes sense given that participants, on average, overestimate income inequality. Moreover, the effect of income information on perceptions of wealth inequality are also negative and of similar size as income inequality, indicating that people treat income as a proxy for wealth. The effect of information on wealth (excluding pensions) goes in the opposite direction, reflecting the fact that participants initially underestimated wealth inequality. When we include pensions in the definition of wealth, thus decreasing the level of inequality from 62% to 48%—a value consistent with respondents'

<sup>12</sup>Figure A.2 in Appendix A shows the distributions of perceived levels of inequality are largely overlapping for participants with high and low levels of education. If anything, the highly educated think that the Netherlands is more unequal both in terms of income and wealth.

average prior—the point estimates are reduced and become zero for income inequality and even slightly negative for wealth. This shows that conditional on the type of inequality, levels of inequality indeed matter for perceptions.

Figure II also provides further evidence of respondents’ confusion between income and wealth. Respondents in the Both treatment receive the same information about income inequality as respondents in the Income treatment, but additionally receive information about wealth inequality. Despite the emphasis on the distinction between the two measures in the treatment, being informed about higher levels of wealth inequality increases both their perceptions of income and wealth inequality relative to respondents of the Income group.<sup>13</sup> Conversely, respondents in the Both group perceive both income and wealth inequality as lower than respondents in the Wealth group, despite receiving the same information about wealth inequality. As we will discuss in more detail in Section 4, this seems to indicate that people’s mental model includes a single notion of economic inequality, and that they see both types of data as informative about this.

Figure II: Impact of information on perceived inequality



*Note:* The figure shows the estimated average effects of information (y-axis) on perceived income inequality (blue) and wealth inequality (red), where the No information condition is used as base. Subjective income/wealth inequality is measured on a scale from 0 (very equal) to 10 (very unequal). Error bars mark the 95% confident intervals. In the No information condition, the average perceived level of income and wealth inequality are 6.4 and 6.8 respectively. Sample size:  $N = 4,425$ .

<sup>13</sup>Note that if respondents in the Both group initially reported the same level of inequality for income and wealth, in between the two true levels, the information treatment made it explicit that they overestimated income inequality but underestimated wealth inequality.

Table I: Estimated treatment effects of inequality information treatments

	(1)	(2)	(3)
	Meritocratic belief	Inequality unfair	Progressivity index
Income	0.048 (0.074)	-0.187* (0.098)	-0.069* (0.037)
Wealth Pension	-0.061 (0.103)	0.019 (0.131)	-0.067 (0.048)
Wealth no Pension	0.050 (0.083)	0.257** (0.107)	-0.010 (0.041)
Both Pension	0.006 (0.100)	0.198 (0.139)	-0.041 (0.050)
Both no Pension	-0.026 (0.086)	-0.059 (0.114)	-0.046 (0.041)
Constant	5.776*** (0.051)	6.172*** (0.069)	0.036 (0.026)
Observations	4394	4389	4366
$R^2$	(0.000)	(0.004)	(0.001)

*Note:* The table reports the estimated treatment effects of the inequality information treatments, with the No information condition used as base. Column (1) reports estimates for meritocratic beliefs which is measured on a scale from 0–10, where 0(10) is believing only luck (hard work) is important for economic success. Column (2) reports estimates for perceiving economic inequality in the Netherlands to be unfair, measured on a scale from 0 (completely disagree) to 10 (fully agree). Column (3) reports estimates for the progressivity index which is the sum of normalized ratios divided by the number of policies, where the ratios are calculated as the top over the bottom tax rate chosen by respondents for the income tax, the wealth tax, and the inheritance tax. Robust standard errors are reported in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Next we investigate the effect of information on perceptions of fairness and policy preferences. Table I shows OLS regressions of the information treatments on beliefs that inequality is due to merit or luck (column 1), ratings of fairness (column 2), and an index for the desired progressivity of taxes.<sup>14</sup> The treatments do not cause significant changes in perceptions about the role of

<sup>14</sup>The progressivity index measures the preferred level of progressivity across the income tax, the wealth tax, and the inheritance tax based on answers to questions Q8a–Q10c (see Appendix C). For each of these three taxes, progressivity is measured as the ratio of the top over the bottom tax rate chosen by respondents. The index is the

merit and luck or preferences for redistribution. When it comes to fairness, we do see that information about high levels of wealth inequality (Wealth excluding pensions) makes respondents judge inequality as less fair, while exposure to income information has the opposite effect. There is no significant effect when exposed to levels of inequality consistent with their prior (Wealth including pensions) or a mix of high and low levels of inequality (Both treatment).

### 3.3 Perceptions about Income and Wealth Rankings

We also study perceptions of one’s own rank in the income or wealth distribution. A sizable literature has looked at such perceptions in the case of the income distribution (Cruces et al., 2013; Karadja et al., 2017; Fehr et al., 2022; Hvidberg et al., 2023), and documented a center- or middle-class bias whereby perceptions of income ranks are much compressed relative to actual ranks. To look at this in our context, we obtain actual wealth and income levels of our survey participants from the registry data of the Dutch Bureau of Statistics (CBS).

We replicate the center-bias in our data for both income and wealth (see Figure III). Perceptions on both measures are highly compressed: an improvement of one rank leads to an average perceived increase in ranks of 0.31 for income and 0.27 for wealth (see Panel A of Table II). In the appendix, we check robustness using median answers instead of averages, as this reduces the mechanical bias towards the center induced by the boundaries of the scale (see Figure A.4 in Appendix A). We also provide more information on the distribution of perceptions by wealth/income decile. Figure A.5 in Appendix A shows that misperceptions about own income are more prevalent among low-income respondents, while misperceptions about own wealth are relatively uniformly distributed along the wealth distribution.

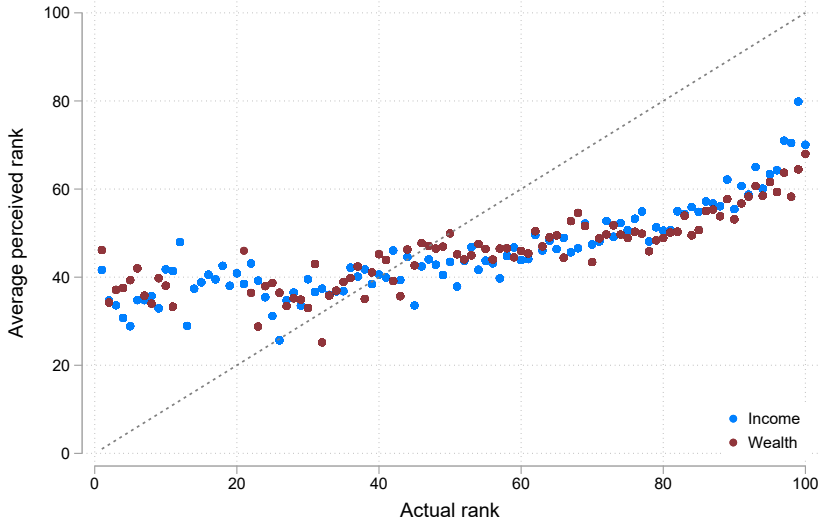
As a gauge of the strength of the compression of the distribution, we find that 34.1% of the bottom wealth decile (who have no, or negative wealth) rate themselves among the 50% richest people, while 29.4% of the top wealth decile rate themselves among the poorest 50%. The numbers for the income distribution are 28.9% and 20.6% respectively. These results highlight that people are unsure about their place in either distribution. The compression may also be indicative of “cognitive uncertainty”. Enke and Graeber (2023) show that subjective uncertainty about the underlying concepts or even one’s own preferences, will attenuate the impact of relevant contextual variables on judgments and decisions.

We also find that the confusion documented above about income and wealth *inequality* extends to people’s *personal* income and wealth. Panel A of Table II reports the associations between respondent’s perceived and actual income and/or wealth ranks. Strikingly, perceived wealth rank depends about as much on actual income than on actual wealth: when considering the joint effect

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sum of normalized ratios divided by the number of policies.

Figure III: Perceived rank as a function of actual rank, for income and wealth



*Note:* The figure shows average perceived ranks in the income (blue) and wealth (red) distributions as a function of actual ranks in these distributions. The sample is restricted to respondents consenting to linking the survey responses to CBS registry data for whom we could observe income and wealth records,  $N = 3,796$  for income,  $N = 3,926$  for wealth.

of actual income and wealth ranks, we find that an additional income rank increases perceived wealth rank by 0.169 ( $t = 13.80$ ) while an additional wealth rank increases perceived wealth rank by 0.195 ( $t = 16.03$ ). The pattern is similar although significantly less pronounced for perceived income, where the effects of actual income and wealth ranks are 0.282 ( $t = 24.14$ ) and 0.065 ( $t = 5.59$ ) respectively.

### 3.4 Information about Income and Wealth Rankings

As reported in Panel B of Table II, our rank treatment significantly affects respondents' perceived rank: when a respondent overestimates their rank by 10 percentiles, giving the rank feedback leads to an updated guess 2.5 percentiles lower for both income and wealth, with no statistically significant difference between the two. Like with inequality information, we observe that respondents who receive information on both income and wealth ranks use information about income to make inferences about wealth, despite information about wealth being directly provided. When they overestimated their income and wealth rank by 10 percentiles, they update their beliefs about wealth rank by -0.72 percentiles ( $t = -2.32$ ) and -2.18 percentiles ( $t = -7.74$ ) respectively. The pattern is again less pronounced in the other direction: respondents update their income rank by -2.36 percentiles ( $t = -9.18$ ) and -0.14 percentiles ( $t = -0.59$ ) when they overestimated their income and wealth rank by 10 percentiles. These results provide further evidence that there is a

strong overlap in people’s beliefs about income and wealth. They also suggest that income is an easier concept for people to use when thinking about distributional issues, including about their own situation.

Table II: Perceived rank as a function of actual rank and rank treatments

<b>Panel A</b>				
	Perceived Income Rank		Perceived Wealth Rank	
	(1)	(2)	(3)	(4)
Actual Income Rank	0.306*** (0.011)	0.282*** (0.012)		0.169*** (0.012)
Actual Wealth Rank		0.065*** (0.012)	0.265*** (0.011)	0.195*** (0.012)
Observations	3,724	3,705	3,851	3,704
$R^2$	(0.180)	(0.188)	(0.127)	(0.167)

<b>Panel B</b>				
	Updated Income Rank		Updated Wealth Rank	
	(1)	(2)	(3)	(4)
Income overestimation	-0.247*** (0.019)	-0.236*** (0.026)		-0.072** (0.031)
Wealth overestimation		-0.014 (0.023)	-0.245*** (0.022)	-0.218*** (0.028)
Observations	905	597	928	597
$R^2$	(0.156)	(0.145)	(0.121)	(0.130)

*Note:* The dependent variables of Panel A are respondents’ perceived rank in the income distribution (columns 1–2) and wealth distribution (columns 3–4), and for Panel B they are the updated income (columns 1–2) and wealth (columns 3–4) ranks reported for respondents in the Rank treatments post treatment, all taking values 0–100. The independent variables of Panel A are the actual income and wealth rank of the respondents, and for Panel B they are the overestimation of income and wealth ranks defined by the difference between the respective perceived and actual rank taking values from -100 to 100. Robust standard errors are reported in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Since our rank treatments lead to partial corrections of misperceptions of relative income and wealth, we investigate whether this has an effect on respondents’ policy views. Table A.5 in Appendix A shows the effect of the rank treatments on fairness views and policy preferences. We find little evidence of treatment effects, in line with previous research using information provision

in survey experiments (Haaland et al., 2023). While factual information does matter for beliefs about facts—such as the level of inequality or one’s position in the income or wealth distribution—it may not be enough to significantly change worldviews and policy preferences.

### 3.5 Preferences for Income and Wealth Taxation

To further study how people think about wealth versus income, we directly compare preferences for wealth and income taxation. In the last part of our survey, we asked respondents for their preferred (average) tax rates for total income derived from labor and capital, at three different monthly income levels—EUR 2,000, 5,000, 50,000. Table A.6 in Appendix A provides the average desired rates by income category and level. Respondents prefer to tax labor slightly less than capital income for the lowest income level (at 19.93% vs. 20.34%), but preferences reverse for the higher income levels (32.44%, and 50.38% for labor against 30.14%, and 45.15% for wealth). While all these differences are statistically significant, they are economically small with a maximal difference of just a few percentage points. Indeed, Figure A.8 in Appendix A shows that the distributions of preferred rates on labor and capital income (Panel A-C) are largely overlapping. Similarly, the preferred level of tax progressivity—as measured by the difference between the top and bottom tax rate—is similar in both cases (see Figure A.8 Panel D), albeit slightly higher for labor income at 30.45 pp versus 24.79 pp for capital income.

These results further support the idea that respondents do not make a strong distinction between income and wealth. The results are also in line with Fisman et al. (2020) who show that respondents in the U.S. want to tax both income and wealth. By comparison, Dutch respondents appear to prefer higher and more progressive taxes on average. Note that while Fisman et al. (2020) elicit preferred taxes on the stock of wealth, our approach allows us to directly compare their preferred taxes on labor and capital income flows.

### 3.6 Data Quality

The LISS panel is a well-established institution, known for their high-quality survey data, as participants are screened and paid to complete surveys. Nevertheless, one may worry that the lack of difference between income and wealth perceptions, or the small effect of the information treatments on policy preferences, are the results of participants’ inattention or lack of engagement. Here, we report several analyses to address this concern.

As first proxy for attention and engagement, we use the survey completion time and the effort in open-ended questions. To this end, we exclude respondents belonging to the: i) bottom 10% regarding time spent on survey, and/or ii) the top 10% regarding time spent (as this may indicate people engaged in distractions), and/or iii) the bottom quintile with respect to the length of



their open-ended response on the causes of economic inequality (Q5).<sup>15</sup> Together, this excludes 39.8% of the sample. Still, our main results are robust, as shown in Figure A.6 and Figure A.7 in Appendix A.

Second, to investigate whether people “click through” the survey as fast as possible, we count how many respondents give the same response to all six questions in the battery of survey questions (Q7a–Q7f, see Appendix C). Only 5.9% do so, indicating that most participants paid attention to these questions. Lastly, to validate our Progressivity Index, we correlate it with the survey question asking to what degree they agree with a statement that the rich should bear a larger share of the tax burden compared to the poor (Q7d). The two are positively correlated ( $\beta_{Pindex} = 0.83$ ,  $p < 0.001$ ). Taken together, our measures give no indication that our results are driven by a lack of attention of respondents.

Finally, note that we did not implement incentives for correct answers. This was partially to avoid people googling the answers. For the case of personal ranks, we could only match answers to confidential data ex-post. We believe the absence of incentives does not bias the results: Stantcheva (2021) reports that in a survey with related questions on a U.S. sample, answers were not affected by incentives for accuracy.

## 4 Discussion and Conclusion

We compare perceptions of income and wealth inequality in the Dutch population. While the two inequalities differ strikingly in size, respondents do not perceive much difference between them. They overestimate income inequality and underestimate wealth inequality. We also observe a strong compression for the perceived ranking in both distributions. Supplying respondents with information about inequality has an impact on perceived fairness of the distribution, but little on policy preferences. Going beyond inequality perceptions, we find that respondents prefer similar tax rates for income derived from labor and wealth.

We conclude that voters do not see wealth as a special category for policy makers. They do not treat income from wealth differently from labor income, and have little idea about the difference between income and wealth inequality. This last result can not be due to a misunderstanding of the difference between income and wealth, which was explained in a salient video. Rather, the data are consistent with the idea that respondents think in terms of a single notion of inequality, which is informed by income and (to a lesser degree) wealth inequality. We infer this from the finding that people update their views of one type of inequality less if information about the

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<sup>15</sup>More specifically, the sample restrictions exclude respondents for which i) time spent completing the survey ( $t_s$ ),  $t_s \leq 5.7$  minutes,  $t_s \geq 24.3$  hours (with the median  $t_s = 13.7$  minutes), and ii) respondents with the number of words ( $N_w$ ),  $N_w \leq 3$  (with the median  $N_w = 8$ ).

other type of inequality is also provided, resulting in an “average” assessment of both types of inequality, instead of an accurate estimate of either. This tendency is observed both for estimates of the levels of inequality as well as for the personal ranking in the distribution.

What do these conclusions imply for the political debate on wealth taxation on “the rich” that take place in many Western countries (Scheuer and Slemrod, 2020, 2021)? First, we find little evidence that information about inequalities induces a shift in policy preferences. However, this is common in survey experiments, and may be due to the somewhat minimalist nature of information interventions (Haaland et al., 2023). It will therefore be important to follow up our initial investigation with more extensive forms of information provision.

Second, we show that politicians who want to make the case for progressive wealth taxation will face several hurdles. Citizens may fail to appreciate the implications of taxing income or wealth, and may simply see income and wealth as components of a broader measure of inequality.<sup>16</sup> This is consistent with our finding that voters appear to average inequality across income and wealth distributions, as we described above. It is also in line with our finding that people want to tax income from labor and wealth at similar levels.

Another political obstacle to wealth taxation is the misperception amongst the poor that they are of average wealth. This suggests that proposals to “tax the rich”, which we see in various countries, may receive more popular support than general wealth taxation schemes. However, our own survey does not provide clear evidence for such support, as desired rates of taxation of income derived from wealth are below those of labor income for the highest income brackets.

We want to highlight the public’s perception of the wealth distribution as a rich topic for further research. While inequality research has focused on income, wealth features saliently in popular culture, which often spotlights the possessions and lifestyles of the wealthy. Depending on who is watching, such attention may trigger either admiration and attempts at emulation, or disgust and calls for redistribution. Understanding such responses in more detail may yield a better understanding of the public’s attitudes towards economic policy.

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<sup>16</sup>Such measures have been used in the academic literature to assess tax progressivity, see for example the “augmented-income” concept used in Bozio et al. (2018), defined as the sum of income and wealth divided by life expectancy.

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# Online Appendix for “Do People Distinguish Income from Wealth Inequality? Evidence from the Netherlands.”

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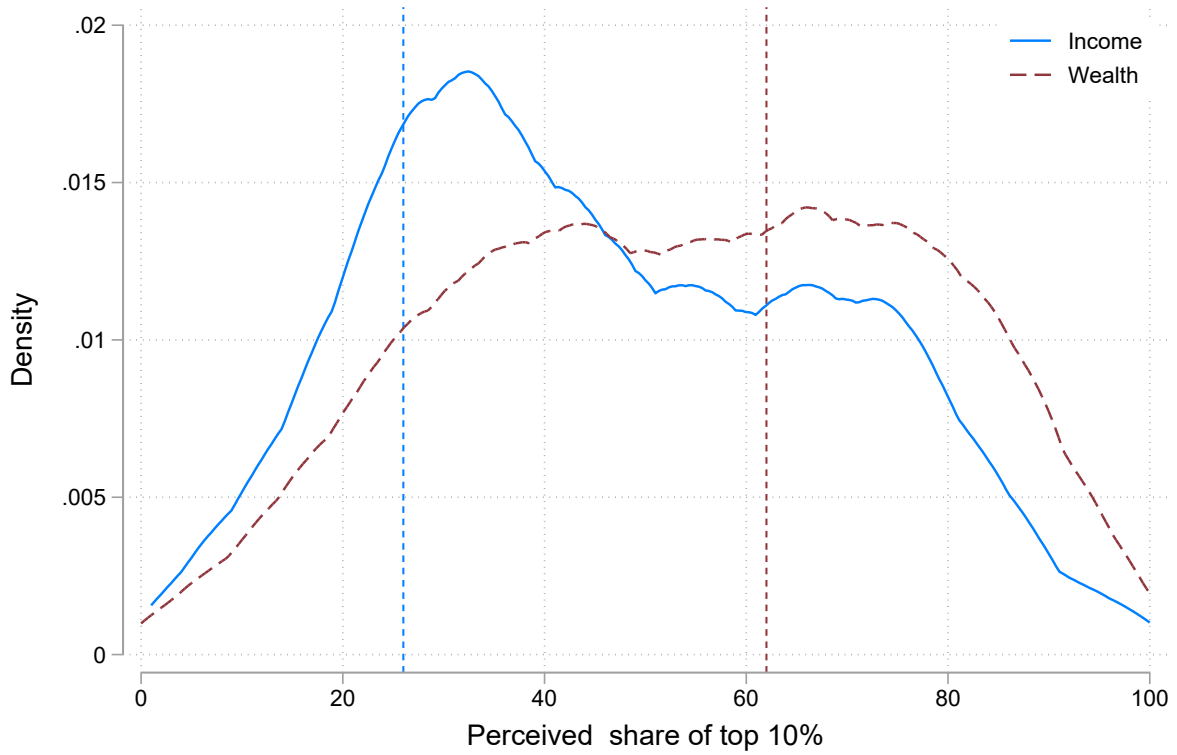
A - Additional Tables and Figures

B - Survey structure and randomization

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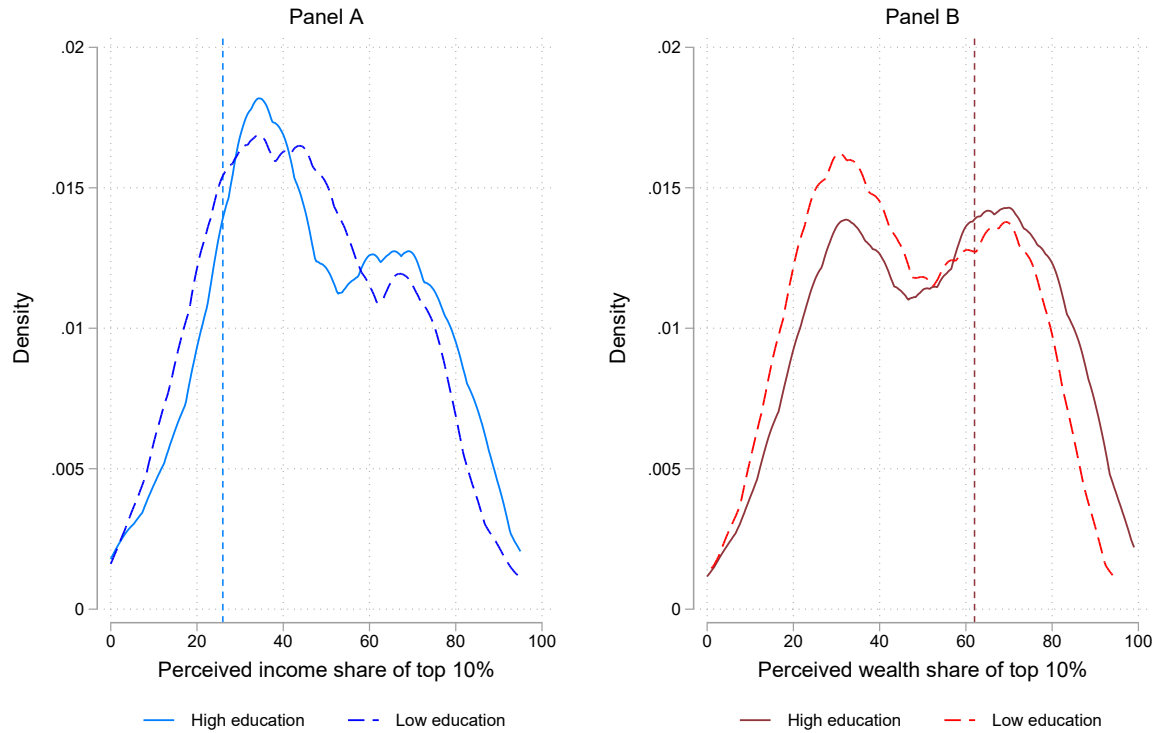
## A Additional Tables and Figures

Figure A.1: Perceived level of income and wealth inequality in the Both treatment



*Note:* The figure shows perceived levels of income (blue) and wealth (red) inequality as measured by the perceived share of total income/wealth held by the top 10% highest earners/wealthiest in the Netherlands. Vertical lines in the corresponding color mark the actual share (26% for income, and 62% for wealth). The sample is restricted to participants in the Both treatment,  $N = 1,077$ .

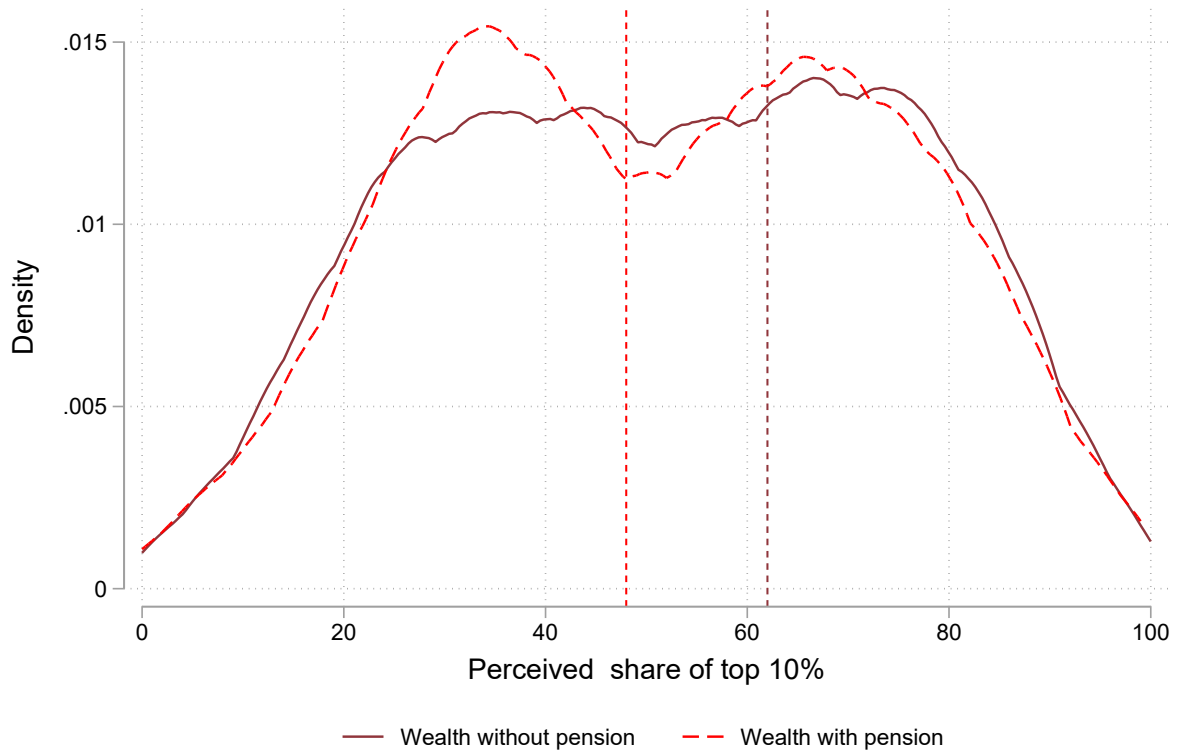
Figure A.2: Perceived level of income and wealth inequality by obtained education



*Note:* The figures show the distributions of perceived levels of income inequality (Panel A) and wealth inequality (Panel B) for respondents with a high and low education, separately. High education is defined as having obtained at least HBO or WO (i.e. a Bachelor degree). The perceived level of inequality is measured by the perceived share of total income/wealth held by the top 10% highest earners/wealthiest in the Netherlands. Vertical lines in the corresponding color mark the actual share (26% for income, and 62% for wealth). The sample is restricted to participants who are either in the Income or Wealth treatments,  $N = 2,193$ .

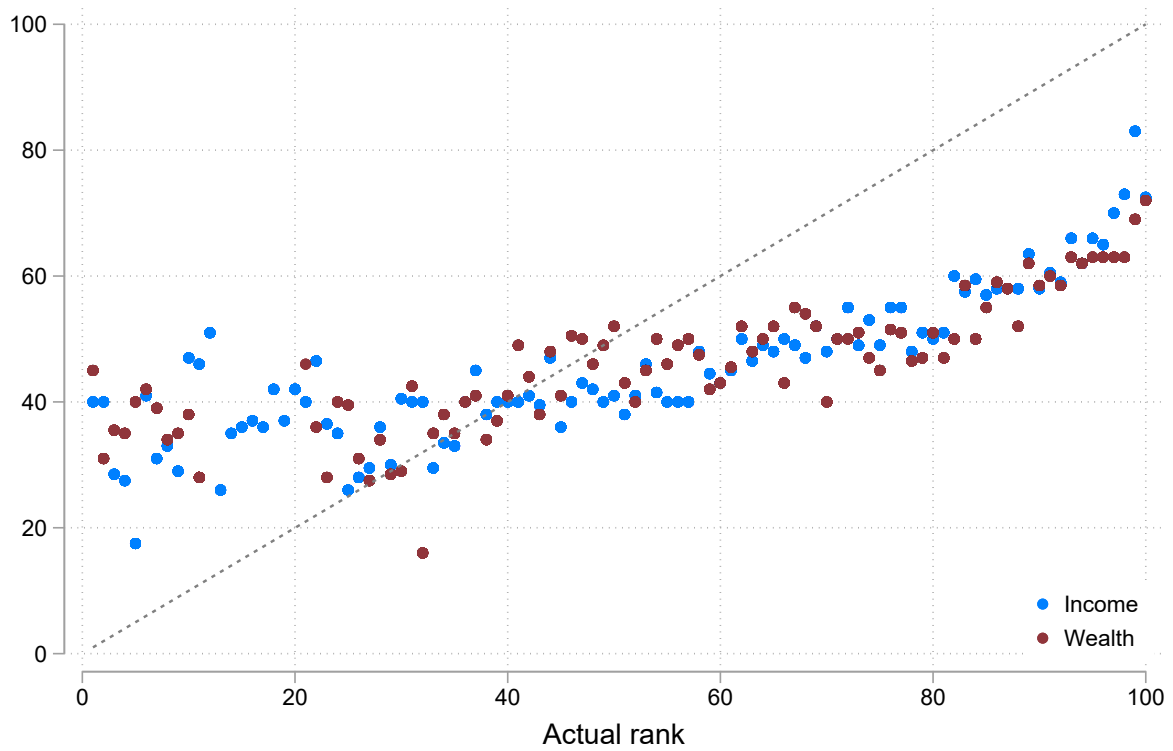


Figure A.3: Perceived levels of wealth inequality, including and excluding pensions



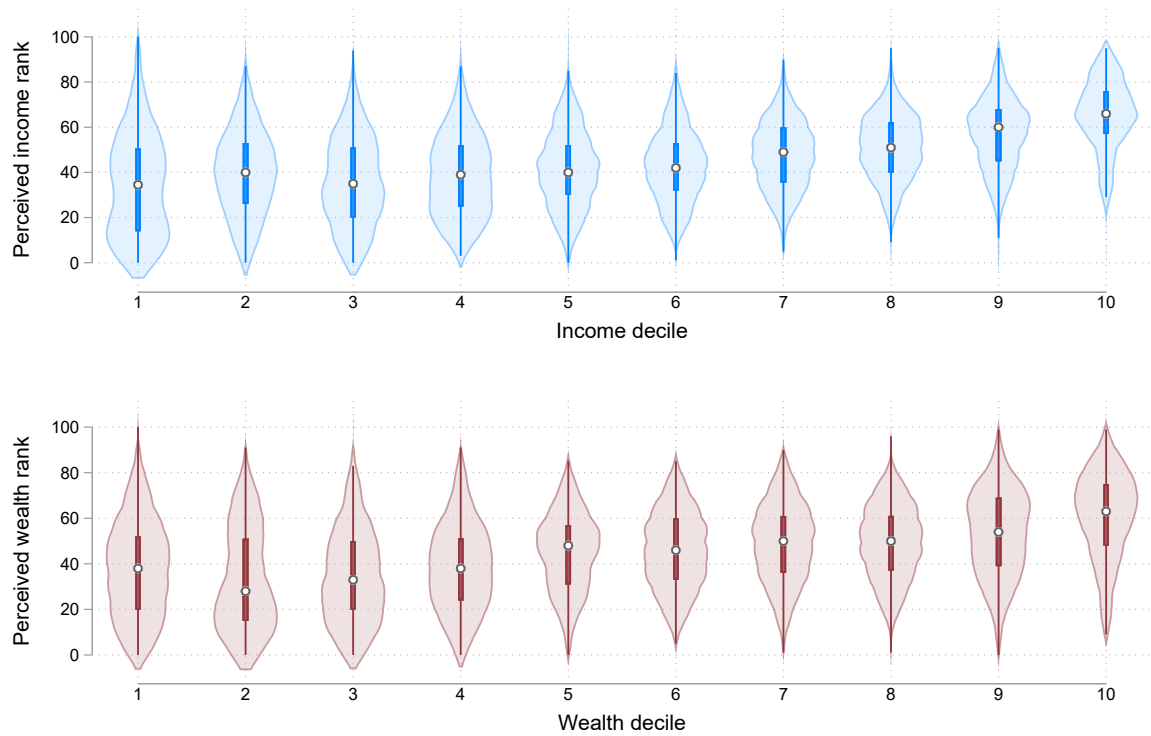
*Note:* The figure shows the perceived levels of wealth inequality for definitions of wealth including/excluding pensions separately. Vertical lines in the corresponding color mark the actual share of the top 10%: 48% including pensions, and 62% excluding pensions. The sample is restricted to participants who are either in the Wealth or Both treatments,  $N = 2,170$ .

Figure A.4: Median perceived rank as a function of actual rank, for income and wealth



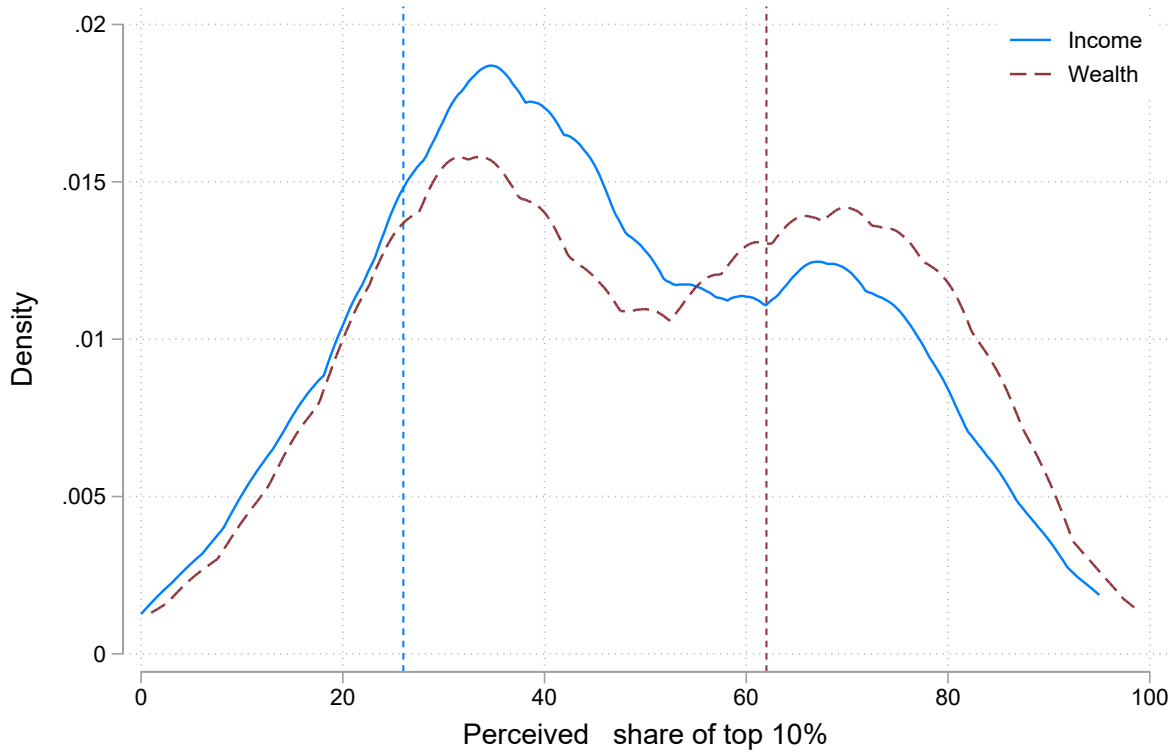
*Note:* The figure shows median perceived ranks in the income (blue) and wealth (red) distributions as a function of actual ranks in these distributions. The sample is restricted to respondents consenting to linking the survey responses to CBS registry data for whom we could observe income and wealth records,  $N = 3,796$  for income,  $N = 3,926$  for wealth.

Figure A.5: Distribution of perceived rank, by income and wealth decile



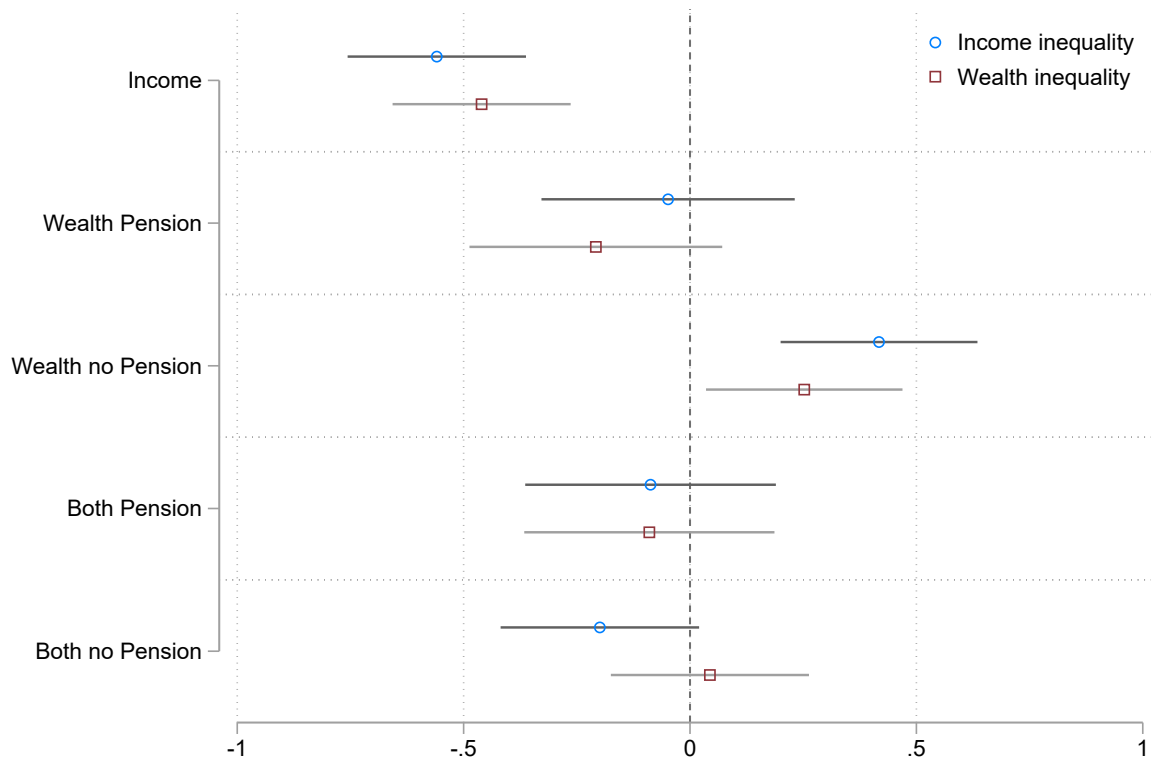
*Note:* The figure depicts the distributions of perceived rank for each decile of the respective distribution; income for the top panel and wealth for the bottom panel. Circles mark the median perceived rank, and thick lines marks the interquartile range. The sample is restricted to respondents consenting to linking the survey responses to CBS registry data for whom we could observe income and wealth records,  $N = 3,796$  for income,  $N = 3,926$  for wealth.

Figure A.6: Perceived level of income and wealth inequality, strict sample restrictions



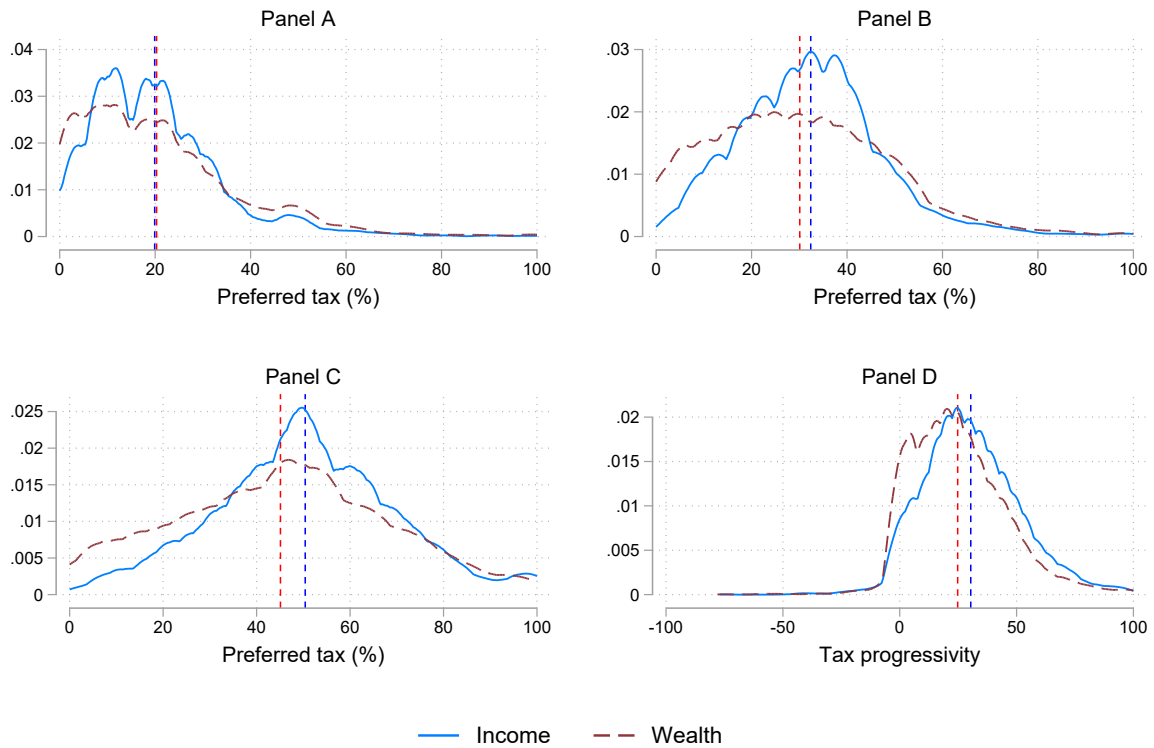
*Note:* The figure shows perceived levels of income (blue) and wealth (red) inequality as measured by the perceived share of total income/wealth held by the top 10% highest earners/wealthiest in the Netherlands. Vertical lines in the corresponding color mark the actual share (26% for income, and 62% for wealth). The sample excludes participants in the Both treatment, participants that: i) Belong to the top/bottom 10 percentiles in the distribution of completion time for the survey, and/or ii) belong to the bottom quintile of number of words written in Q5, resulting in a sample size of  $N = 1,300$ .

Figure A.7: Impact of information on perceived inequality, strict sample restrictions



*Note:* The figure shows the estimated average effects of information (y-axis) on perceived income inequality (blue) and wealth inequality (red), where the No information condition is used as base. Subjective income/wealth inequality is measured on a scale from 0 (very equal) to 10 (very unequal). Error bars mark the 95% confident intervals. In the No information condition, the average perceived level of income and wealth inequality are 6.4 and 6.8 respectively. The sample excludes participants that: i) Belong to the top/bottom 10 percentiles in the distribution of completion time for the survey, and/or ii) belong to the bottom quintile of number of words written in Q5, resulting in a sample of  $N = 2,712$ .

Figure A.8: Preferences for income and wealth taxation



*Note:* The figure depicts the distribution of preferred tax rates for total income derived from labor (blue) and wealth (red) and the average preferred tax rate for the respective tax (marked by vertical lines in the same color). Panel A shows the distributions of preferred taxes for a someone with a gross monthly income from labor/capital of EUR 2,000; Panel B for EUR 5,000 per month, and Panel C for EUR 50,000 per month. Panel D gives the distribution of preferred tax progressivity, as measured by the difference in the tax rate preferred for someone with EUR 50,000 vs. EUR 2,000. For all panels,  $N = 4,369$ .

Table A.1: Descriptive Statistics

	Scale	Full Sample	CBS Sample	Dutch Population
Age	Years	54.9	55.7	50.10
Male	Dummy	0.49	0.50	0.50
High education	Dummy	0.48	0.49	0.35
Home ownership	Dummy	0.72	0.72	0.69
Income rank	Rank	—	55.7	50.00
Wealth rank	Rank	—	56.9	50.00

*Note:* The table reports descriptive statistics for our full sample ( $N = 4,501$ ), the sub-sample matched with both income and wealth records from the CBS ( $N = 3,777$ ), and the Dutch population.

Table A.2: Sample size for each treatment condition

	Income	Wealth	Both	No info	
Pension	369	378	385	398	1,530
Rank	367	368	346	386	1,467
Control	383	362	368	391	1,504
	1,119	1,108	1,099	1,175	4,501

*Note:* The table shows the 12 between-subject treatment conditions of the survey experiment, with the corresponding number of participants in parentheses, for the total sample of  $N=4,501$ . The conditions are randomized with equal probability.

Table A.3: Selective attrition across treatment conditions

Dependent variable: Missing response	
	(1)
Income	0.001 (0.007)
Wealth	0.002 (0.007)
Both	0.005 (0.007)
Placebo	0.003 (0.006)
Pension	0.005 (0.006)
Constant	0.027*** (0.006)
Observations	4501

*Note:* The table reports regression estimates where the dependent variable is an indicator variable taking the value 1 if a respondent has not answered at least one of the questions Q2a–Q11, and 0 otherwise. The independent variables are the different treatment conditions, where No Information and Control are used as base. Standard errors are reported in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$



Table A.4: Summary statistics for perceived inequality measure by inequality treatment

	Inequality		Wealth		Both		Wealth + Both	
	Income inequality	Wealth inequality	Income inequality	Wealth inequality	Wealth Inequality	Wealth (no pension)	Wealth (pension)	
25 <sup>th</sup> percentile	30	30	30	36	32	33		
50 <sup>th</sup> percentile	44	50	42	55	51	50.5		
75 <sup>th</sup> percentile	64	70	65	73	70	70		
Average	46.4	49.8	46.3	53.9	52.1	51.4		
Standard deviation	21.5	22.6	22.1	22.9	23.0	22.6		

*Note:* The table reports summary statistics for the distribution of perceived income and wealth, for each of the information treatments: Income treatment (column 1), Wealth treatment (column 2), Both treatment (columns 3-4), and Wealth and Both treatments taken together (columns 5-6). The inequality measure is the perceived income/wealth share of the top 10% in the Netherlands.

Table A.5: Estimated treatment effects of Rank treatment

	Income			Wealth		
	(1)	(2)	(3)	(4)	(5)	(6)
	Meritocratic belief	Unfair	Progressivity index	Meritocratic belief	Unfair	Progressivity index
Income overestimation	0.004** (0.001)	0.002 (0.002)	-0.001 (0.001)			
Rank treatment	0.020 (0.064)	0.092 (0.084)	-0.003 (0.031)	0.063 (0.065)	0.073 (0.084)	-0.006 (0.031)
Rank treatment × Income overestimation	-0.001 (0.002)	0.002 (0.003)	0.000 (0.001)			
Wealth overestimation				-0.001 (0.001)	0.004** (0.002)	-0.003*** (0.0006)
Rank treatment × Wealth overestimation				0.003 (0.002)	-0.003 (0.003)	-0.008 (0.001)
Constant	5.841*** (0.037)	6.179*** (0.048)	0.002 (0.018)	5.794*** (0.037)	6.180*** (0.048)	-0.023 (0.018)
Observations	3,702	3,698	2,676	3,829	3,826	3,804
R <sup>2</sup>	(0.002)	(0.002)	(0.001)	(0.001)	(0.002)	(0.008)

*Note:* The table reports regression estimates of the effects caused by the Rank treatment. “Rank-treatment” is an indicator, taking the value one if a participant is randomly assigned to the Rank treatment, and zero otherwise. “Income/Wealth overestimation” are variables (-100–100) measuring the difference between a participant’s perceived income/wealth rank and their actual rank in the respective distribution. The columns give the estimates for changes in (1) “Meritocratic belief”; the degree to which one believes economic success to be the result of hard work as opposed to luck (0–10), (2) “Inequality unfair”; the degree to which one finds economic inequality in the Netherlands to be unfair (0–10), and (3) the “Progressivity Index”; measures the preferred progressivity across the income tax, the wealth tax, and the inheritance tax, where progressivity is measured as the ratio of the top over the bottom tax rate chosen by respondents. The index is the sum of normalized ratios divided by the number of policies. Robust standard errors are reported in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table A.6: Preferred share of labor and capital income paid in taxes at different income levels

	(1)	(2)	(3)
	Average income tax	Average wealth tax	$p$
EUR 2 000	19.93	20.34	< 0.05
EUR 5 000	32.44	30.14	< 0.01
EUR 50 000	50.38	45.15	< 0.01
Progressivity	30.45	24.79	< 0.01

*Note:* The table shows the average preferred tax (%) for different levels of monthly (gross) labor/capital income, and the respective tax progressivity (pp). Column (1) reports the average preferred tax on labor income, column (2) the average preferred tax on capital income, and column (3) reports the p-value of a two-sided t-test of the difference. No sample restrictions are employed.

## B Survey structure and randomization

Table A.7: Survey structure and randomization

	Income			Wealth			Both			Control		
	R	0	P	R	0	P	R	0	P	R	0	P
Info 1a (def no pension)										✓	✓	
Info 1b (def pension)												✓
Info 1c (def no pension + inc ineq)	✓	✓										
Info 1d (def pension + inc ineq)			✓									
Info 1e (def no pension + we ineq)				✓	✓							
Info 1f (def pension + we ineq)						✓						
Info 1g (def no pension + inc & we ineq)							✓	✓				
Info 1h (def no pension + inc & we ineq)									✓			
Q1a (inc share 10%)	✓	✓	✓				✓	✓	✓	✓	✓	✓
Q1b (wel share 10%)				✓	✓	✓	✓	✓	✓	✓	✓	✓
Info 2a (10% inc comparison)	✓	✓	✓									
Info 2b (10% we no pension comparison)				✓	✓							
Info 2c (10% we pension comparison)						✓						
Info 2d (10% inc & we no pension comparison)							✓	✓				
Info 2e (10% inc & we pension comparison)									✓			
Q2a (subjective inc ineq)	✓	✓	✓				✓	✓	✓	✓	✓	✓
Q2b (subjective we ineq)				✓	✓	✓	✓	✓	✓	✓	✓	✓
RE:Q2a (subjective inc ineq)				✓	✓	✓						
RE:Q2b (subjective we ineq)	✓	✓	✓									
Q3a (subjective inc rank)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Q3b (subjective we rank)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Q4a (feedback + update inc rank)	✓						✓			✓		
Q4b (feedback + update we rank)				✓			✓			✓		
Q5 (open-ended causes ineq)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Q6 (effort vs luck)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Q7a-f (agreement with statements)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Q8 (inc tax policy)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Q9 (we tax policy)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Q10 (inheritance tax policy)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Q11 (property tax policy)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Q12 (interest rate subsidy)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Q13 (incentivized donation)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

*Note:* The table provides, in chronological order, all the treatments and questions of the survey. ✓ means that the treatment/question was displayed to respondents of the corresponding group. Abbreviations used: “def”=definition; “inc”=income; “ineq”=inequality; “we”=wealth. Qx and RE:Qx refer to the same question asked at different moments in the survey.

## C Survey (English translation)

### Survey Economic Inequality and Fiscal Preferences

- *Welcome to this survey on economic inequality and fiscal preferences. We will now show you a short video with information about income and wealth. This video is important for filling out the rest of the survey.*

#### Instructions for video playback

Video with definitions of income and wealth and inequality measures, see section 0.1 for the different video scripts.

Q1a What percentage of the total yearly **income** in The Netherlands do you think is earned by the 10% biggest earners in The Netherlands? Give your best guess between 0% and 100%.

- Slider from 0% to 100%

Q1b What percentage of the total **wealth** in The Netherlands do you think is owned by the 10% richest people in The Netherlands? Give your best guess between 0% and 100%.

- Slider from 0% to 100%.

- **Treatment-dependent information about inequality, illustrated with a pie-chart.**

*[Example: Income inequality is higher/lower than you thought, and wealth inequality is higher/lower than you thought! In The Netherlands, 26% of the total income goes to the 10% highest earners, and 62% of total wealth is owned by the 10% richest people.]*

Q2a On a scale from 0 to 10, how equal do you think **income** is distributed in the Netherlands? 0 means very equal, 10 means very unequal.

- Answer with a slider from 0 to 10, where, if needed, default is 5.

Q2b On a scale from 0 to 10, how equal do you think **wealth** is distributed in the Netherlands? 0 means very equal, 10 means very unequal.

- Answer with a slider from 0 to 10, where, if needed, default is 5.

Q3a What percent of the Dutch population (18 years or older) has a lower **income** than you?  
Give your best guess using the following scale.

- Slider from 0% to 100% that explicitly reports percentages of population with higher and lower income.

Q3b What percent of the Dutch population (18 years or older) has a lower **wealth** than you?  
Give your best guess using the following scale.

- Slider from 0% to 100% that explicitly reports percentages of population with higher and lower wealth.

Q4a You just answered that [response]% of the Dutch population has a total yearly **income** which is lower than yours. Actually, this would correspond to an income of  $y$ . This information may give you more insight into your position. Please answer the question again.

- Slider from 0% to 100% that explicitly reports percentages of population with higher and lower income.

Q4b You just answered that [response]% of the Dutch population has a total **wealth** which is lower than yours. Actually, this would correspond to a total wealth of  $y$ . This information may give you more insight into your position. Please answer the question again.

- Slider from 0% to 100% that explicitly reports percentages of population with higher and lower wealth.

Q5 What do you see as the most important causes of economic inequality in the Netherlands?  
Please use full sentences in your answer.

- Answer: open text box.

Q6 In your opinion, is economic success mostly determined by luck or by effort? Give your answer on the following scale, where 0 means that only luck matters, 10 means that only effort matters.

- Answer with a slider from 0 to 10.

Q7 Give your agreement with the following statements, where 0 means that you fully disagree, 10 that you fully agree.

- a In the Netherlands, the economic differences between the rich and poor are *too large*.
- b In the Netherlands, the economic differences between the rich and poor are *unfair*.

- c It is the role of the government to reduce the economic differences between the rich and the poor.
- d Taxes and transfers are effective tools to reduce inequality.
- e People with higher income should pay a larger share (higher percentage) of their income in taxes than people with low income.
- f In the Netherlands, if the government increases the taxes that the rich have to pay, the rich will work less and invest less.

– Answer with a slider from 0 to 10

➤ *We will now ask you questions about specific Dutch policies. We will ask you about your preferences for the level of taxes for different kinds of incomes and wealth. There are no right or wrong answers, we are only interested in your opinion.*

Q8 This question is about tax on income earned through labor, such as a wage. How much tax should people pay per month over the following (gross) incomes?

1. Someone with an income from labor of 2,000 per month.
2. Someone with an income from labor of 5,000 per month.
3. Someone with an income from labor of 50,000 per month.

– For each level, answer with a slider from 0 to 100%.

Q9 This question is about tax on income earned derived from wealth, such as interest from savings, dividends and income from sales of equities, or real estate. How much tax should people pay per month over the following (gross) incomes?

1. Someone with an income from wealth of 2,000 per month.
2. Someone with an income from wealth of 5,000 per month.
3. Someone with an income from wealth of 50,000 per month.

– For each level, answer with a slider from 0 to 100%.

Q10 This question is about taxes on inheritances. Consider a parent who wants to leave money to one of his/her children. How much tax should people pay for each of the following inheritances?

1. For an inheritance of 10.000 euros.

2. For an inheritance of 100.000 euros.
  3. For an inheritance of 1.000.000 euros.
- For each level, answer with a slider from 0 to 100%.

Q11 The Dutch tax system charges homeowners a tax on the property in which they live, based on the value of the house (WOZ waarde). How much tax do you think people should pay for each of the following WOZ values?

1. For a WOZ waarde below 300.000 euros.
  2. For a WOZ waarde between 300.000 and 1.000.000 euros.
  3. For a WOZ waarde over 1.000.000 euros.
- For each level, answer with a slider from 0 to 100%.

Q12 In The Netherlands, people can partially deduct the interest paid on a mortgage from your taxable income. This measure is meant to stimulate home-ownership, as it reduces the tax burden of home-owners. However, there are strong differences of opinion about this policy in The Netherlands. Some people say it gives homeowners an unfair advantage compared to people without a house.

On the following scale you can indicate your preferred rate of deduction. Here 0% means no deduction and 100% means full deduction of interest paid.

- Answer with a slider from 0 to 100%.

Q13 By taking this survey, you are automatically entered into a lottery to win 100€. Within a month after the conclusion of the survey you will hear if you have won the prize. The prize will be added to your account at a later date.

Should you be selected to win the prize, you can donate a part it to Stichting Urgente Noden Nederland (SUN Nederland), see <https://www.sunnederland.nl>. SUN Nederland gives (one-off financial) support to people in financial distress who threaten to fall through the cracks. The gift or interest-free loan serves as a spring-board or safety-net and can be requested by social service professionals. The researchers will transfer your donation on your behalf to SUN Nederland.

In case you win 100 euros, how much would you like to donate to SUN Nederland?

- Slider from 0 to 100.



## D Video scripts

Below we list the components to be included in scripts and give **descriptions of the displays** of each specific video. In total there are 8 different videos.

List of **items** per video:

- Info1a: **welcome, income definition, wealth definition excluding pensions.**
- Info1b: **welcome, income definition, wealth definition including pensions.**
- Info1c: **welcome, income definition, wealth definition excluding pensions, income inequality**
- Info1d: **welcome, income definition, wealth definition including pensions, income inequality**
- Info1e: **welcome, income definition, wealth definition excluding pensions, wealth inequality**
- Info1f: **welcome, income definition, wealth definition including pensions, wealth inequality**
- Info1g: **welcome, income definition, wealth definition excluding pensions, income and wealth inequality**
- Info1h: **welcome, income definition, wealth definition including pensions, income and wealth inequality**

**Welcome:** Welcome to our survey on income and wealth in the Netherlands. What do we mean by income and wealth?

**[Income definition:]** By an individual's income, we mean the total after tax income received each month. This includes income from labor, including after tax salary and self-employment earnings, income from the government, such as Social Security benefits, pensions, and welfare payments, and income from assets and investments.

**Visualization — Build up the video in different steps:**

1. Show a person in the middle of the screen.
2. When video refers to labor income, add a (stylized/cartoon) factory building and an arrow with a money bag going to the person in the middle.

3. When video refers to government incomes, add a (stylized/cartoon) government building and an arrow with a money bag going to the person in the middle.
4. When video refers to capital income and investment income, add a (stylized/cartoon) bank building and an arrow with a money bag going to the person in the middle.

**[Wealth definition excluding (including) pensions:]** By an individual's wealth, we mean the value of all assets accumulated over time minus debt. Assets include all possessions, such as real-estate, cars, savings, stocks, and other forms of capital(, including pensions). When two individuals hold an asset together, we consider that each individual is entitled to half of the value of this asset.

Visualization — Build up the video in different steps:

1. Show a person in the middle of the screen.
2. When video refers to a house, add a (stylized/cartoon) house.
3. When video refers to a car, add a (stylized/cartoon) car.
4. When the video refers to savings, add a (stylized/cartoon) pile of money.
5. When the video refers to stocks, add a (stylized/cartoon) stock market index.
6. When the video refers to other forms of capital, add a (stylized/cartoon) version of painting/jewelry.
7. (When the video refers to pensions, add an old person with a stick.)
8. When the video mentions joint ownership, put every assets in a circle, and add a vertical dashed line through all the separate assets.

**Income Inequality:** Let us now focus on income inequality. How can we measure income inequality?

Imagine that society is represented by 10 people, ordered from the lowest to the highest earner. Thus, the person on the right [make the last one red and write highest earner below] represents the 10% highest earners. Now, let us represent the total income that everyone receives in society by a pie [move the ten people at the top of the screen, and display a pie in the middle of the screen]. We can measure inequality by looking at the share of the pie that goes to the highest earners. In a perfectly equal society, the highest earner would get exactly 10% of the pie [represent that dividing the pie in 10 equal parts with a person next to each slice on the outside

of the circle (with their feet on the circumference). Slider at the bottom as in the previous video]. As inequality increases, the highest earner gets a higher share of the pie [represent that with making the richest person and slice red, increasing that slice, with the share remaining for the 9 other people shrinking and no longer divided in 9 slices. Increase the slider at the bottom.].

Please now use the slider to answer the following question about income inequality in the Netherlands.

**Wealth Inequality:** Let us now focus on wealth inequality. How can we measure wealth inequality?

Imagine that society is represented by 10 people, ordered from the lowest to the highest wealth [show ten blue people next to each other]. Thus, the person on the right [make the last one red and write wealthiest below] represents the 10% with highest wealth. Now, let us represent the total wealth in society by a pie [move the ten people at the top of the screen, and display a pie in the middle of the screen]. We can measure inequality by looking at the share of the pie that is owned by the wealthiest. In a perfectly equal society, the wealthiest would get exactly 10% of the pie [represent that dividing the pie in 10 equal parts with a person next to each slice on the outside of the circle (with their feet on the circumference). Slider at the bottom as in the previous video]. As inequality increases, the wealthiest own a higher share of the pie [represent that with making the richest person and slice red, increasing that slice, with the share remaining for the 9 other people shrinking and no longer divided in 9 slices. Increase the slider at the bottom.].

Please now use the slider to answer the following question about wealth inequality in the Netherlands.

**Income and wealth inequality:** Let us now focus on income and wealth inequality.

How can we measure inequality?

Imagine that society is represented by 10 people, ordered from the poorest to the richest in terms of income or wealth [show ten blue people next to each other]. Thus, the person on the right [make the last one red and write richest below] represents the 10% with the highest income or wealth. Now, let us represent the total income or wealth in society by a pie [move the ten people at the top of the screen, and display a pie in the middle of the screen]. We measure inequality by looking at the share of the total income or wealth that goes to the richest. In a perfectly equal society, the richest would get exactly 10% of the pie [represent that dividing the pie in 10 equal parts with a person next to each slice on the outside of the circle (with their feet on the circumference). Slider at the bottom as in the previous video]. As inequality increases,

the richest gets a higher share of the pie [represent that with making the richest person and slice red, increasing that slice, with the share remaining for the 9 other people shrinking and no longer divided in 9 slices. Increase the slider at the bottom.].

Please now use the slider to answer the following question about income and wealth inequality in the Netherlands.