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**Working Paper**

## Experienced Inequality and Preferences for Redistribution

CESifo Working Paper, No. 6251

**Provided in Cooperation with:**

Ifo Institute – Leibniz Institute for Economic Research at the University of Munich

*Suggested Citation:* Roth, Christopher; Wohlfart, Johannes (2016) : Experienced Inequality and Preferences for Redistribution, CESifo Working Paper, No. 6251, Center for Economic Studies and ifo Institute (CESifo), Munich

This Version is available at:

<https://hdl.handle.net/10419/149338>

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## Experienced Inequality and Preferences for Redistribution

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CESIFO WORKING PAPER NO. 6251

CATEGORY 2: PUBLIC CHOICE

DECEMBER 2016

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ISSN 2364-1428

**CESifo**

Center for Economic Studies & Ifo Institute

# Experienced Inequality and Preferences for Redistribution

## Abstract

We examine in how far people's experiences of income inequality affect their preferences for redistribution. We use several large nationally representative datasets to provide evidence that people who have experienced more inequality while growing up are less in favor of redistribution, after controlling for income, demographics, unemployment experiences and current macro-economic conditions. They are also less likely to consider the prevailing distribution of incomes to be unfair, suggesting that inequality experiences affect the reference point about what is a fair division of overall income. Finally, we conduct an experiment to show that individuals randomly exposed to environments promoting inequality in the experience stage of the experiment redistribute less in a subsequent behavioral measure.

JEL-Codes: P160, E600, Z130.

Keywords: inequality, redistribution, macroeconomic experiences, experiment.

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December 7, 2016

We would like to thank Alberto Alesina, Heike Auerswald, Peter Bent, Enzo Cerletti, Anujit Chakraborty, Ester Faia, Eliana La Ferrara, Nicola Fuchs-Schündeln, Ingar Haaland, Michalis Haliassos, Emma Harrington, Michael Kosfeld, Ulrike Malmendier, Salvatore Nunnari, Matthew Rabin, Sonja Settele, Guido Tabellini, Bertil Tungodden, Ferdinand von Siemens and seminar participants at Goethe University Frankfurt and ZEW Mannheim as well as participants at the 10th Workshop on Political Economy at ifo Dresden for helpful comments. We also thank Ulrike Malmendier and Stefan Nagel for sharing code.

# 1 Introduction

Understanding the origins of individuals’ preferences for redistribution is a key question in political economy. People’s demand for redistribution influences the levels of government spending and taxation and thereby affects the degree of economic inequality. For example, people’s taste for redistribution can explain differences in the generosity of welfare systems between European countries and the US (Alesina et al., 2001).

Experiences of adverse macroeconomic conditions, such as recessions, have been shown to be an important determinant of redistributive preferences (Giuliano and Spilimbergo, 2014). At the same time, people’s aversion to inequality has been singled out as a key factor in shaping redistributive choices (Fehr and Schmidt, 1999). However, no evidence exists on how experiences of inequality affect people’s aversion to inequality and their demand for redistribution.

In this paper we examine how growing up in times of high income inequality affects views on inequality and preferences for redistribution. On the one hand, experiencing inequality could make people more used to an unequal distribution of incomes and therefore lower their taste for redistribution. On the other hand, people who have lived through times of high inequality could be particularly aware of potential adverse effects of inequality and could be more in favor of redistribution.

Our evidence comes from several nationally representative datasets: the US General Social Survey, the German General Social Survey as well as the European Social Survey.<sup>1</sup> To measure our respondents’ experiences of income inequality, we focus on the average level of income inequality that prevailed in their country while they were between 18 and 25 years old. This period of life is sometimes referred to as the “impressionable years” and has been identified as particularly important for the formation of political attitudes and beliefs (Giuliano and Spilimbergo, 2014; Krosnick and Alwin, 1989; Mannheim, 1970). Specifically, we calculate, for each birth-cohort in our datasets, the share of total income held by the top five percent of earners<sup>2</sup> during their impressionable years.<sup>3</sup> We show that our results are robust to using alternative

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<sup>1</sup>While our main evidence comes from the United States and Germany, we also leverage data from a variety of other OECD countries, such as Canada, Denmark, Finland, France, Italy, the Netherlands, Norway, Portugal, Sweden, Switzerland and the United Kingdom. We also replicate our main findings using the International Social Survey Program (ISSP) on Social Inequality.

<sup>2</sup>Top income shares are very commonly used measures of income inequality. The inequality data are taken from “The World Wealth and Income Database” (Alvaredo et al., 2011).

<sup>3</sup>Our results are robust to using alternative measures of income inequality, namely the share of total income held by the top ten percent of earners, the share of total income held by the top one percent of earners, as well as the Gini coefficient of equivalized household income.

measures of income inequality experiences following the methodology in Malmendier and Nagel (2011).

In all of our main specifications we control for age fixed effects and year fixed effects, i.e. we identify our key coefficient of interest making use of between cohort differences in inequality experiences within age groups and years. By including age fixed effects, we rule out that our findings result from changes in preferences over people’s life-time, for example by people becoming more conservative as they get older. The inclusion of year fixed effects ensures that our results are not driven by common shocks that affect everyone in a given year. In addition, we control for cohort-group fixed effects (cohort group brackets of 25 years) which mitigates the concern that our findings are driven by differences in political attitudes across cohorts associated with longer-term changes in zeitgeist.<sup>4</sup> We also control for income and a number of socioeconomic characteristics as well as the national unemployment rate people experienced in their impressionable years which could be correlated with inequality experiences.

Across datasets, we provide evidence that individuals who witnessed high levels of income inequality in their impressionable years are less in favor of redistributive policies and are less likely to identify with and to vote for left-wing parties. They are also more likely to believe that inequality increases motivation and that inequality arises due to differences in effort rather than luck.<sup>5</sup> We also find that people who have grown up in times of high inequality are less likely to consider the prevailing distribution of incomes to be unfair, suggesting that inequality experiences alter someone’s reference point about what is a fair division of resources.<sup>6</sup> Combined, our findings suggest that being used to an unequal distribution of incomes lowers people’s distaste for inequality and reduces their demand for redistribution.

To provide causal evidence that experiencing inequality can affect people’s reference points about the appropriate amount of redistribution and thereby alter their re-distributive preferences, we conduct an online experiment on Amazon Mechanical Turk. In the experiment respondents make a hypothetical distributive choice for two other individuals. Respondents are told that these two individuals have previously completed different numbers of tasks for us on MTurk.<sup>7</sup> In the first stage of the experiment we randomly assign our respondents either to an

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<sup>4</sup>Since we control for both age and year fixed effects, we cannot also include dummies for every individual cohort (Campbell, 2001). In addition, inequality experiences vary at the cohort-level, which prohibits separate identification of unrestricted cohort effects.

<sup>5</sup>This evidence on changes in beliefs is in line with the seminal theoretical work by Piketty (1995) who argues that economic circumstances could alter a person’s belief about the drivers of success.

<sup>6</sup>We provide evidence that inequality experiences exert the largest influence on political attitudes and beliefs during the impressionable years as compared to other periods in our respondents’ lives.

<sup>7</sup>This is related to the behavioral measure employed by Almås et al. (2016) and others.

inequality condition or to an equality condition. Individuals in the inequality condition choose between two options that result in highly unequal outcomes for the other workers, while people in the equality condition choose between two options that result in more equal outcomes for the other workers. In the second stage our respondents are again asked to distribute money between two other workers, but this time they all face the same choice set of potential payoffs to the two workers.

In line with the observational evidence, we find that individuals who have experienced inequality in the first stage of the experiment are less likely to redistribute in stage two compared to people in the equality condition. Since participants are in the role of a spectator who observes inequality between two other workers, our design rules out channels that work through the participants' own outcomes. This experimental evidence highlights that exposure to an institutional environment that promotes inequality can influence people's reference point about what is a fair division of resources and thereby affect people's preferences for redistribution.

We also use the observational data to examine alternative channels through which experiencing inequality could affect beliefs and redistributive preferences. First, we test whether people form their redistributive preferences based on the effect inequality had on them personally. It could be the case that only people who personally benefited from high inequality while growing up adjust their redistributive preferences. The effects are not significantly different for individuals with better starting conditions or more success in life, providing evidence against this mechanism. Second, we show that the effects are unlikely to operate through changes in perceived social status.

To provide evidence against the possibility that our effects are driven by cohort-specific changes in zeitgeist accompanied with changes in general political preferences, we conduct a series of placebo tests. We provide evidence that inequality experiences do not affect how conservative individuals are in matters unrelated to redistribution and inequality, such as nationalism, attitudes towards democracy, attitudes towards guns or attitudes towards immigrants. This is consistent with our interpretation that inequality experiences are driving the changes in redistributive preferences, rather than picking up more general differences in political attitudes across cohorts.

Moreover, we demonstrate the robustness of our results to controlling for other experiences during people's impressionable years, such as experiencing a crisis (Giuliano and Spilimbergo, 2014), the experienced growth rate of real per capita GDP, the experienced political ideology of

the leading party as well as the experienced size of the government. Our results barely change after controlling for these other experiences, indicating that omitted variable bias from other experiences during impressionable years is unlikely.

We contribute to a growing literature on the origins and determinants of redistributive preferences (Alesina et al., 2013; Durante et al., 2014; Alesina and Giuliano, 2010; Alesina and La Ferrara, 2005) and beliefs about inequality (Piketty, 1995).<sup>8</sup> Researchers have established that redistributive preferences are influenced by culture (Luttmer and Singhal, 2012; Alesina and Giuliano, 2010), political regimes (Alesina and Fuchs-Schuendeln, 2007; Pan and Xu, 2015), relative income (Karadja et al., 2016; Cruces et al., 2013) and historical experiences (Chen et al., 2016; Roland and Yang, 2016).<sup>9</sup>

Our paper is most closely related to Giuliano and Spilimbergo (2014) who show that individuals who have experienced a recession in their formative years believe that success in life depends more on luck than effort, support more government redistribution, and tend to vote for left-wing parties. Our paper shows that people’s experiences of unequal distributions of incomes matter on top of the effects of experiencing a crisis.

We also contribute to the literature on the relationship between inequality and the demand for redistribution. Inequality and preferences for redistribution are negatively correlated in the aggregate across countries, but this pattern vanishes when looking at within-country movements of inequality (Kenworthy and McCall, 2008). Changes in aggregate inequality in a country could affect the average demand for redistribution through various channels, such as changes in incomes of different groups, changes in beliefs about social mobility or fairness concerns.<sup>10</sup> Kerr (2014) finds that short-run increases in inequality within countries or within U.S. regions are associated with greater acceptance for wage differentials but also with higher support for redistributive policies at the individual level, conditional on individual characteristics. We identify the effect of growing up in times of high inequality conditional on effects of contemporaneous inequality that are common across cohorts by including year fixed effects.

Our findings highlight a channel through which long-run trends in inequality could be reflected in the average demand for redistribution in a country. When there is a long-term increase in inequality, younger generations could be more used to this inequality and exhibit lower distaste for

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<sup>8</sup>More generally, our paper is related to the literature on endogenous preferences (Nunn and Wantchekon, 2011; Kosse et al., 2016; Becker et al., 2016; Schildberg-Hörisch et al., 2014).

<sup>9</sup>For excellent reviews, see Alesina and Giuliano (2010) and Nunn (2012).

<sup>10</sup>Fairness concerns are commonly modeled as inequality aversion, i.e. the idea that people have a distaste for unequal distributions of income.

it relative to older generations. These effects could either amplify a potential negative relationship between long-run changes in inequality and preferences for redistribution, or they could mitigate a positive relationship between the two.

Our paper is also related to Kuziemko et al. (2015) who find that preferences for redistribution do not respond to information about inequality. We extend their paper in two ways: first, we provide field evidence that people’s experiences of inequality affect their preferences for redistribution; second, we show that people’s exposure to an institutional environment that gives rise to inequality can change people’s view on what distribution of resources is fair. Our experimental findings are also related to recent work by Charité et al. (2015) who show that reference points matter for people’s redistributive choices when subjects are given the opportunity to redistribute unequal, unearned initial endowments between two anonymous recipients.

At a more general level, our paper also complements the growing literature on the effects of lifetime experiences on belief formation and economic behavior (Hertwig et al., 2004; Nisbett and Ross, 1980; Weber et al., 1993). For instance, Malmendier and Nagel (2011) provide evidence that having experienced negative macroeconomic shocks makes people less likely to invest in stocks. Moreover, Malmendier and Nagel (2015) show that people’s experienced inflation rates predict their contemporaneous inflation expectations. Fuchs-Schuendeln and Schuendeln (2015) provide evidence that people’s experience of living in a democracy makes them more likely to support democratic regimes.

Our paper contributes to this literature by highlighting that experiences of income inequality alter people’s views about fairness and distributive justice and that they shape people’s political preferences and beliefs. More generally, our paper highlights that life-time experiences could affect preferences and beliefs later in life by changing people’s reference-points. At a methodological level, our paper is the first one that provides experimental evidence that experiences could affect preferences and beliefs through a reference point channel.

The paper proceeds as follows: Section 2 describes the data. In section 3, we present the main results of our analysis. Section 4 highlights potential mechanisms and we conduct a series of robustness checks in section 5. Section 6 presents the experimental design and the experimental results. Finally, the paper concludes.

## 2 Data

### 2.1 General Social Survey (US)

We leverage rich data on political preferences and beliefs from the General Social Survey (GSS). This dataset consists of repeated cross-sections from 1972 to 2014 that are representative for the US and has been widely used in previous research in economics (Alesina and La Ferrara, 2000; Giuliano and Spilimbergo, 2014). Following Giuliano and Spilimbergo (2014) we focus on questions in which respondents are asked about their preferences for redistribution to the poor. In addition, we examine people’s beliefs about the determinants of success in life, in line with the idea that individuals who believe that luck rather than hard work is a major determinant of success are more likely to be in favor of government redistribution (Piketty, 1995). Specifically we examine the following measures of redistributive preferences:

- **Help Poor:** People’s view on whether the government in Washington should do everything to improve the standard of living of all poor Americans or whether it is not the government’s responsibility, and that each person should take care of himself.
- **Pro-welfare:** People’s opinion on whether the government is not spending enough money on assistance to the poor.
- **Success due to luck:** People’s view on whether success is mostly due to luck or owing to hard work.

We also consider people’s self-placement on a conservative-liberal scale, their party affiliation, and their self-reported past voting behavior. We examine whether people identify more as Democrat or Republican and whether they report having voted for Democrats or Republicans. We code all variables such that high values mean that they are more in favor of redistribution and more likely to vote for Democrats. We also use questions that allow us to shed light on the mechanisms behind our findings. We look at people’s self-assessed social and economic position in society. In Appendix C, we provide more details on these variables. In Table A13 we display the summary statistics for our sample from the General Social Survey.

### 2.2 German General Social Survey

The German General Social Survey (Allbus) collects data on political attitudes and behavior, as well as a large set of demographics in Germany. Every two years since 1980 a representative

cross section of the population is surveyed using both constant and variable questions. We use data from the waves from 1980 to 2014. The previous literature emphasizes that support for redistribution depends on people’s beliefs about the sources of economic inequality (Benabou and Tirole, 2006; Alesina et al., 2001; Alesina and Angeletos, 2005; Fong, 2001). The German General Social Survey contains unique data on views about the sources and consequences of inequality:

- **Inequality is Unfair:** People’s opinion on whether the social inequalities prevailing in Germany are unfair.
- **Inequality does not increase motivation:** People’s beliefs about the effect of inequality on people’s motivation.
- **Inequality reflects luck:** People’s disagreement to the statement that differences in rank between people are acceptable as they essentially reflect how people used their opportunities.

We code the variables such that high values stand for less favorable attitudes to inequality. In addition, we focus on outcomes that are similar to the outcomes we use in the General Social Survey. Specifically, we look at political behavior as measured through voting intentions, self-reported past voting behavior and people’s self-assessment on a political scale. These variables are described in detail in Appendix C. In Table A14 we show summary statistics for our sample from the Allbus.

## 2.3 European Social Survey

The European Social Survey (ESS) is a dataset containing rich information about political attitudes, beliefs and behavioral patterns of the various populations in Europe. It also contains data on a rich set of demographic variables. The ESS has been widely used to study redistributive preferences, see for example Luttmer and Singhal (2012). We make use of all available waves from the ESS (2002-2014).<sup>1112</sup>

Our key outcome variables of interest are a measure capturing whether people are in favor of redistribution as well as people’s self-reported voting behavior and their self-placement on a

<sup>11</sup>Most of our sample from the ESS comes from three countries: France, Germany and the United Kingdom, each of which makes up for around 20 percent of the sample. Denmark, Finland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden and Switzerland all together constitute about 40 percent of the overall sample.

<sup>12</sup>Due to lacking inequality data we drop all respondents currently living in Eastern Germany and focus only on Western German Respondents.

political scale. As in the other datasets, we code all outcome variables such that higher values represent more left-wing views. These outcomes are described in more detail in Appendix C. In Table A15 we provide summary statistics for our sample from the ESS.

## 2.4 Normalizations, Controls and Missings

The outcome variables we use in our analysis are mostly self-placements between left and right or between agreement and disagreement to a particular statement on 4-point, 5-point or 10-point scales. We normalize all outcome variables as well as all experience variables using the mean and the standard deviation of the respective variables in our final samples of interest. These normalizations enable us to compare effect sizes across outcomes and across datasets.

We construct a consistent set of controls for key demographics, such as income, gender, marital status, education, religious affiliation and employment status for all of the datasets of interest. In Appendix D we describe the exact controls we include for each of the different datasets.<sup>13</sup>

## 2.5 Inequality and Unemployment Data

We use data on top income shares from the “The World Wealth and Income Database” (WID) (Alvaredo et al., 2011) which is the most extensive data source of internationally comparable measures of income inequality. The database contains very rich data on the share of overall national income earned by people at the top of the distribution. We focus on the share of total gross income earned by the top 1, the top 5 and the top 10 percent of earners respectively. We also make use of data on the Gini coefficient of equivalized disposable household incomes taken from the “Chartbook of Economic Inequality” (Atkinson and Morelli, 2014). For most countries data on the Gini coefficient are available only from a much later point in time than data on top income shares. In our main analysis we therefore focus on the experienced share of total income earned by the top five percent of earners.<sup>14</sup> In Appendix E, we provide a detailed overview on the inequality data that are available for each country and the respective cohorts we are able to use in our analysis.

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<sup>13</sup>To deal with missing values and to keep the sample as large as possible, for each of the above categories of controls we code missings as zero and include a dummy variable indicating missing values in that category.

<sup>14</sup>Note that our data on top income shares refer to total earnings before taxes and transfers, while our data on the Gini coefficient are based on disposable household income after taxes. The reason for this discrepancy is different data availability between the two measures. We do not consider this aspect material for our analysis, as we focus on one measure within each estimation and because movements in pre- and post-tax inequality are highly correlated.

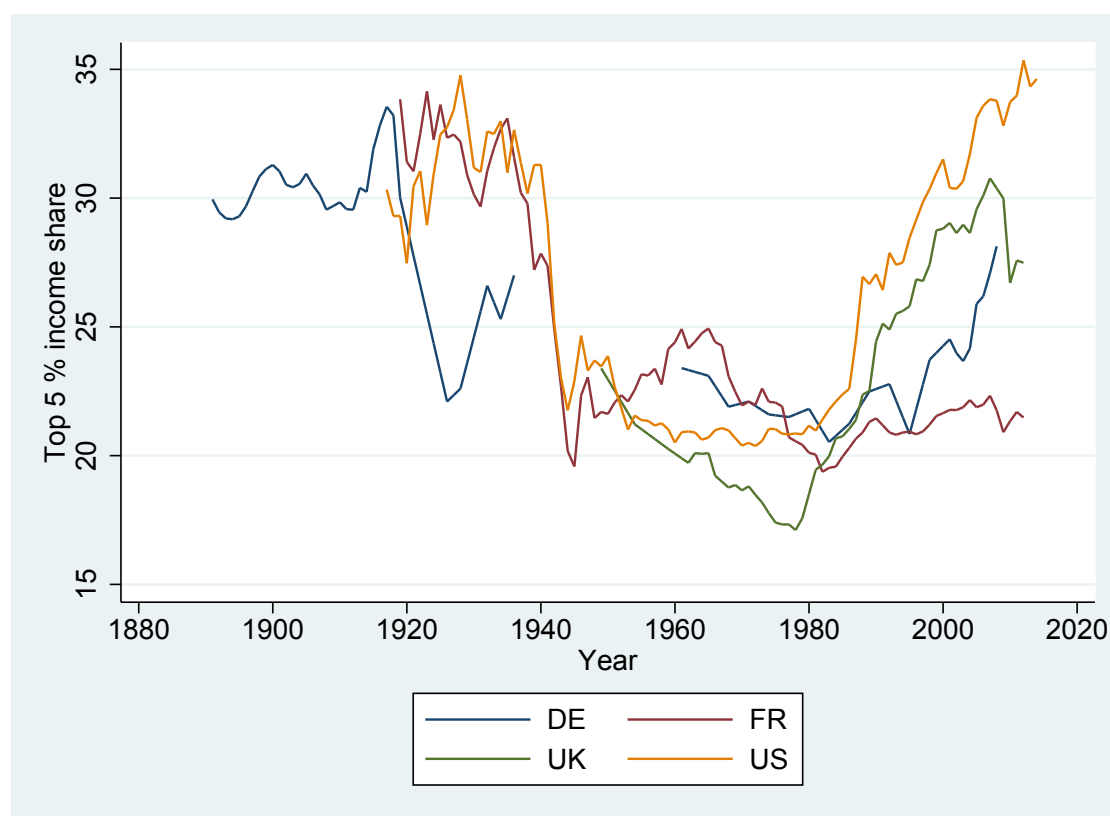


Figure 1: Top 5 percent share in total income over time and countries.

Figure 1 illustrates the evolution of the share of total income going to the top five percent in the largest countries that are part of our sample. We observe quite substantial variation of this measure over the last 100 years, both across countries and over time.

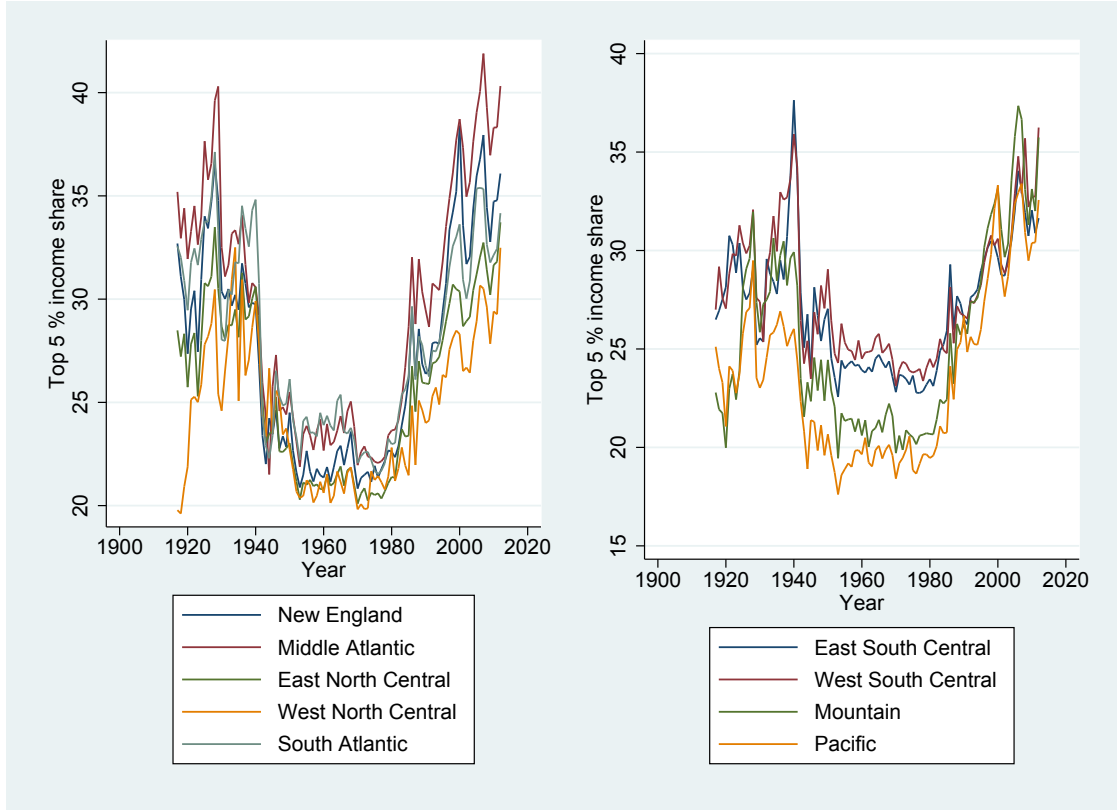


Figure 2: Top 5 percent share in total income over time and US census divisions.

In addition, we use data on top income shares in US census divisions. Figure 2 shows the evolution of the income share of the top five percent in the different census divisions over time. While the trends are similar across regions, there is still substantial variation across regions at any point in time.

In our analysis we focus on those countries for which we could obtain historical inequality data from the World Wealth and Income Database. We use linear interpolation to impute data for years in which inequality data are missing. We impute inequality data if the gap between any two data points for which inequality data are available, is at most six years.<sup>15</sup> We also use historical data on national unemployment rates from Global Financial Data (GFD) and use the same rule to impute missing values.

<sup>15</sup>This allows us to use much larger samples of individuals in our analyses. We have made sure that our results are robust to using different maximum gaps for the imputation of the inequality data.

## 2.6 Construction of Experience Variable

In most of our estimations we focus on the level of income inequality that our respondents experienced while they were between 18 and 25 years old, an age range sometimes referred to as the “impressionable years”. This age range corresponds to the time when most individuals begin to participate in political life. Previous literature has identified this time period as particularly important for the formation of political attitudes and beliefs. For instance, Krosnick and Alwin (1989) provide evidence that individuals’ susceptibility to attitude change is high during the impressionable years and drops considerably thereafter. Giuliano and Spilimbergo (2014) find that experiencing a recession while aged between 18 and 25 significantly affects political preferences later in life, while similar experiences in other age ranges do not seem to matter. Following this literature, we calculate, for each birth-cohort in our datasets, the average share of total income held by the top five percent of earners while this birth cohort was in their impressionable years.

In our main specifications we focus on the national-level inequality that our respondents experienced during their impressionable years in their country of residence,  $IE_{it}$ . In an alternative specification we use region-specific inequality experiences,  $IE_{irt}$ . The GSS provides data on the census division the respondents lived in at age 16, and we compute someone’s experienced inequality during his or her impressionable years using historical data on top income shares in this census division. This method relies on the assumption that our respondents did not move when they were aged between 16 and 25.<sup>16</sup>

Our datasets do not contain direct questions of the level of inequality that our respondents perceived while they were young. Our measures of experienced inequality are therefore based on the actual level of inequality that prevailed during our respondents’ formative years. In Appendix B we use data from the International Social Survey Program on Social Inequality (ISSP) to show that people’s perceived levels of inequality closely co-move with actual inequality in their country of residence. We show that people believe that they live in a more unequal society when inequality is higher. Similarly, people report higher estimates of pay gaps between CEOs, cabinet ministers and doctors on the one hand, and unskilled workers on the other hand, when inequality is high. These results are robust to including country and time fixed effects as well as demographic controls. We report these findings in tables A21 and A22.

While these findings indicate that our measure of inequality experiences is valid, the extent to

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<sup>16</sup>We provide evidence that our results are robust to excluding movers (defined as people living in a different census division when they are interviewed than the census division they lived in at age 16).

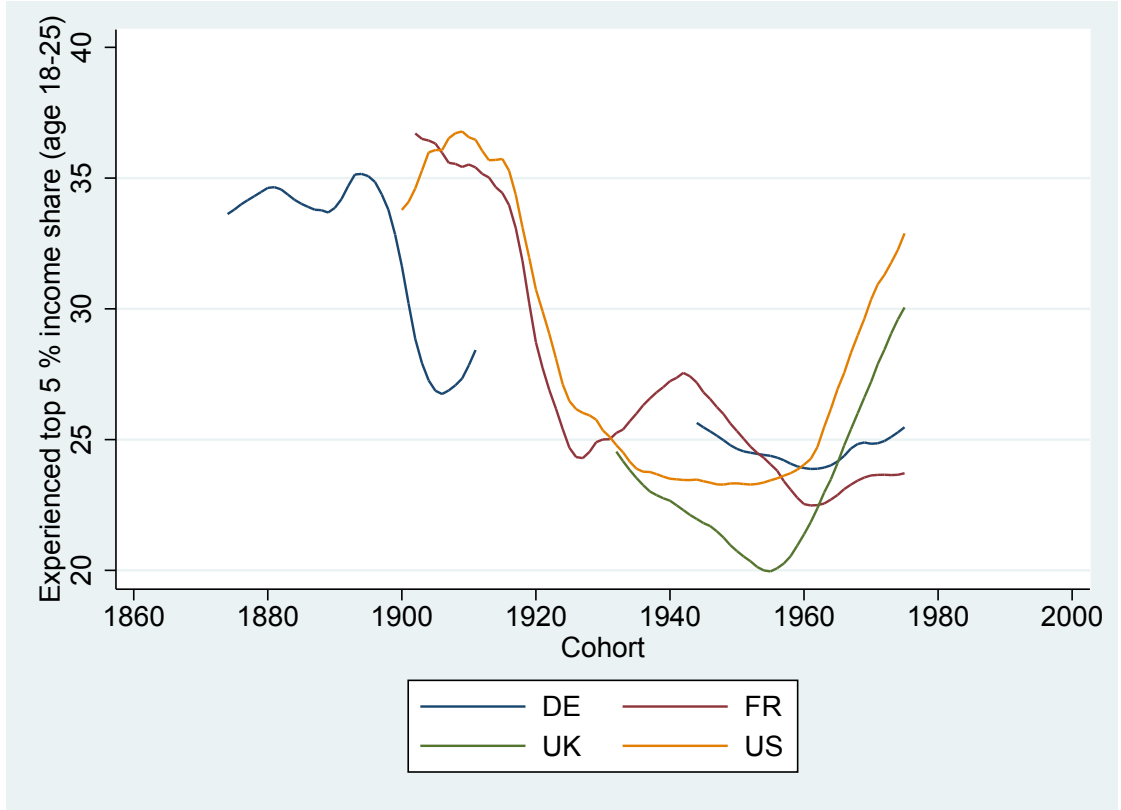


Figure 3: Experienced top 5 percent income share (age 18-25) against cohort across countries.

which individuals have “experienced inequality” depends on individual-level characteristics like people’s media consumption, their place of residence or their work place during their formative years. This means that our measure of “inequality experience” is measured with noise. However, this measurement error does not constitute a threat to the internal validity of our findings and, if anything, will bias our estimates towards zero.

Figure 3 plots the average income share of the top five percent experienced over impressionable years against cohort for the largest countries in our sample. We observe that in the US and in the UK cohorts born from around 1960 onward experienced higher levels of inequality during their impressionable years relative to earlier cohorts. The pattern is reversed for France. In the case of Germany, experienced inequality is the lowest for people born around 1960 and higher for those born before that or after. Figure 4 shows experienced inequality for cohorts growing up in the different US census divisions. The large differences across census divisions provide an additional source of variation that we exploit in our estimations.

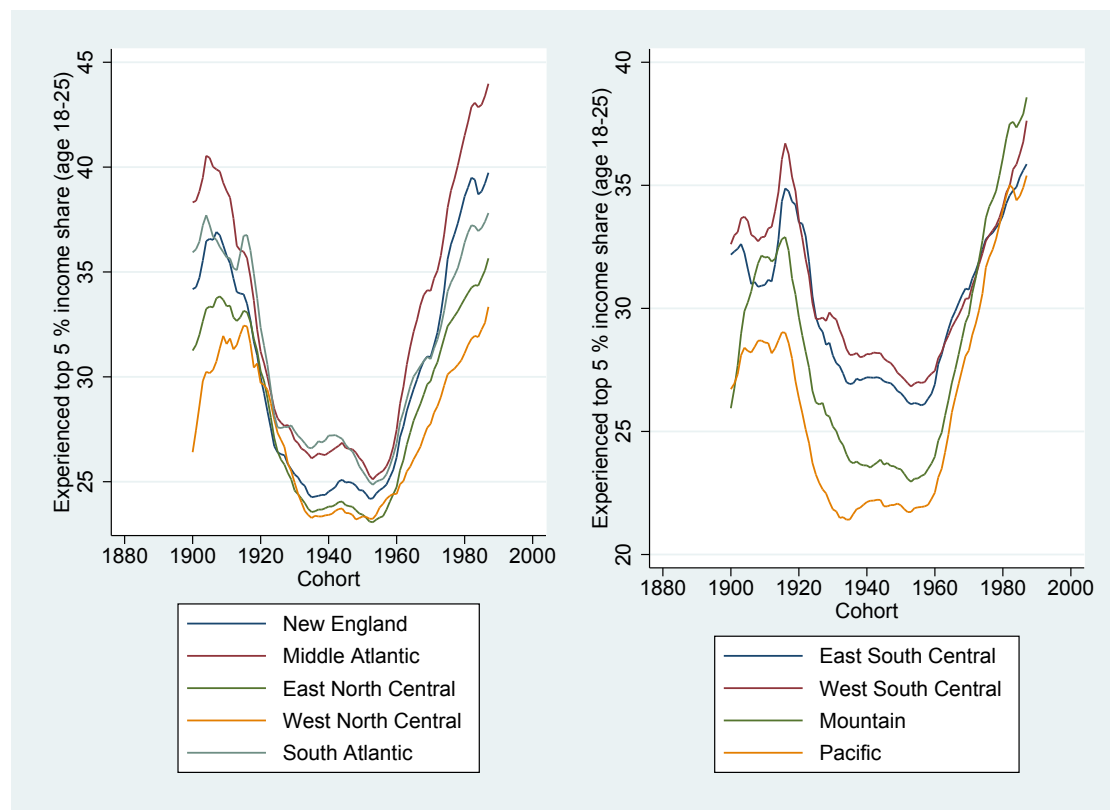


Figure 4: Experienced top 5 percent income share (age 18-25) against cohort across US census divisions.

Similarly, we calculate the average experienced national unemployment rate during our respondents' impressionable years,  $UE_{it}$ , to account for other macroeconomic shocks that could be correlated with inequality experiences. As our experience variables are reliant on having lived through the impressionable years (age 18 to 25) we restrict our attention to people of age 26 and older in most of our estimations.

### 3 Empirical Strategy and Results

#### 3.1 Empirical Specification: GSS and Allbus

We estimate the effect of inequality experiences,  $IE_{it}$ , on people's redistributive preferences,  $y_{irt}$ . In our preferred specification we also control for other macroeconomic experiences that might affect redistributive preferences (Giuliano and Spilimbergo, 2014). In particular, we control for peoples' national-level unemployment experiences,  $UE_{it}$ . Moreover, we include a vector of household controls,  $\mathbf{X}_{it}$ .<sup>17</sup> In addition, we also account for age fixed effects,  $\delta_{it}$ , regional fixed effects<sup>18</sup>,  $\rho_r$ , cohort group fixed effects,  $\pi_i$ <sup>19</sup>, and year fixed effects,  $\beta_t$ . Specifically, we estimate the following equation:

$$y_{irt} = \alpha_1 IE_{it} + \alpha_2 UE_{it} + \Pi^T \mathbf{X}_{it} + \delta_{it} + \rho_r + \beta_t + \pi_i + \varepsilon_{irt} \quad (1)$$

We also use region-specific inequality experiences,  $IE_{irt}$ , for the GSS. In these estimations we control for fixed effects for the census division our respondent lived in at age 16,  $\rho_{16i}$ , interacted with age fixed effects,  $\delta_{it}$ , cohort group fixed effects,  $\pi_i$ , as well as year fixed effects,  $\beta_t$ . This in turn allows us to non-parametrically control for age-specific trends at the regional level, differences across cohort groups at the regional level, as well as shocks that are correlated within groups of people growing up in the same census division. The specification is given as follows:

$$y_{irt} = \alpha_1 IE_{irt} + \alpha_2 UE_{it} + \Pi^T \mathbf{X}_{it} + \rho_{16it} \times \delta_{it} + \rho_{16it} \times \beta_t + \rho_{16it} \times \pi_i + \rho_r + \varepsilon_{irt} \quad (2)$$

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<sup>17</sup>This is a vector controlling for household income, household size, the respondent's marital status, religion, educational level and employment status.

<sup>18</sup>In the US this corresponds to census division and in Germany to the federal state.

<sup>19</sup>We include dummy variables for the cohorts born between 1876 and 1900, between 1901 and 1925, between 1926 and 1950, between 1951 and 1975, and 1976 or later, respectively.

### 3.2 Empirical Specification: ESS

The empirical specification for the European Social Survey is very similar to the specification that uses region-specific variation in inequality experiences in the US. We estimate the effect of country-specific inequality experiences during impressionable years,  $IE_{ict}$ , on people’s redistributive preferences,  $y_{ict}$ . We control for national-level unemployment experiences during impressionable years,  $UE_{ict}$ , and a vector of household controls,  $\mathbf{X}_{it}$ . In addition, we account for country-fixed effects,  $\rho_c$ , interacted with both time fixed effects,  $\beta_t$ , and cohort group fixed effects,  $\pi_i$ , as well as country-specific age trends,  $age_{it} \times \rho_c$ .<sup>20</sup>

$$y_{ict} = \alpha_1 IE_{ict} + \alpha_2 UE_{ict} + \Pi^T \mathbf{X}_{it} + \rho_c \times age_{it} + \rho_c \times \beta_t + \rho_c \times \pi_i + \varepsilon_{ict} \quad (3)$$

For all of the previous three empirical specifications, we report standard errors that are two-way clustered by the respondents’ age and cohort as we might expect large intra-cluster correlations in these non-nested clusters (Cameron and Miller, 2013). Importantly, our results are robust to clustering standard errors just by cohort or age.<sup>21</sup>

Since we test for a large set of outcome variables, we account for multiple hypothesis testing. For our main tables, we adjust the p-values using the “sharpened q-value approach” (Benjamini et al., 2006; Anderson, 2008). For each family of outcomes, we control for a false discovery rate of 5 percent, i.e. the expected proportion of rejections that are type I errors (Anderson, 2008).<sup>22</sup>

### 3.3 Results

In Table 1, we present the results from the General Social Survey. In Panel A we report the results on national-level inequality experiences during impressionable years, while Panel B shows the results using regional inequality experiences. As can be seen in Columns 1 and 2 in Panel A, we find strong evidence that individuals with higher inequality experiences are less likely to be in favor of helping the poor and less in favor of welfare. In Column 3, we show that people who

<sup>20</sup>Since each country is part of the ESS only in a few waves (sometimes only one) and since the time dimension of the ESS is short (2000-2015), we do not have enough variation of inequality experiences within country-age groups to include an interaction of age fixed effects and country fixed effects. Our independent variable varies at the country-cohort level, so in the extreme case of observing observations from a particular country only in one year, all the variation in the independent variable would be absorbed by the interaction of age fixed effects and country fixed effects.

<sup>21</sup>For all of these datasets we make use of population weights. This makes sure that we can make statements about a sample that is representative of the general population.

<sup>22</sup>These adjusted p-values are displayed in the tables as FDR-adjusted p-values.

Table 1: Main Results: General Social Survey (US)

|                                      | (1)                   | (2)                  | (3)                 | (4)                    | (5)                    | (6)                    |
|--------------------------------------|-----------------------|----------------------|---------------------|------------------------|------------------------|------------------------|
|                                      | Help poor             | Pro welfare          | Success due to luck | Liberal                | Party: Democrat        | Voted: Democrat        |
| <b>Panel A</b>                       |                       |                      |                     |                        |                        |                        |
| Inequality Experiences               | -0.0370**<br>(0.0147) | -0.0234*<br>(0.0126) | -0.0147<br>(0.0112) | -0.0383***<br>(0.0123) | -0.0476***<br>(0.0126) | -0.0414***<br>(0.0129) |
| FDR-adjusted p-values                | [.009]***             | [.027]**             | [.067]*             | [.004]***              | [.001]***              | [.004]***              |
| Observations                         | 23,199                | 26,135               | 29,083              | 40,136                 | 46,327                 | 32,907                 |
| R-squared                            | 0.108                 | 0.128                | 0.024               | 0.078                  | 0.146                  | 0.200                  |
| Age FE                               | Yes                   | Yes                  | Yes                 | Yes                    | Yes                    | Yes                    |
| Year FE                              | Yes                   | Yes                  | Yes                 | Yes                    | Yes                    | Yes                    |
| Cohort group FE                      | Yes                   | Yes                  | Yes                 | Yes                    | Yes                    | Yes                    |
| Census div FE                        | Yes                   | Yes                  | Yes                 | Yes                    | Yes                    | Yes                    |
| Unemployment Experiences             | Yes                   | Yes                  | Yes                 | Yes                    | Yes                    | Yes                    |
| HH controls                          | Yes                   | Yes                  | Yes                 | Yes                    | Yes                    | Yes                    |
| <b>Panel B</b>                       |                       |                      |                     |                        |                        |                        |
| Inequality Experiences<br>(Regional) | -0.0415**<br>(0.0179) | -0.0268*<br>(0.0138) | -0.0142<br>(0.0111) | -0.0598***<br>(0.0134) | -0.0522***<br>(0.0123) | -0.0377***<br>(0.0141) |
| FDR-adjusted p-values                | [.022]**              | [.045]**             | [.075]*             | [.002]***              | [.001]**               | [.002]**               |
| Observations                         | 22,987                | 25,831               | 28,670              | 39,632                 | 45,703                 | 32,597                 |
| R-squared                            | 0.139                 | 0.159                | 0.054               | 0.099                  | 0.170                  | 0.226                  |
| Census div 16 FE x Age FE            | Yes                   | Yes                  | Yes                 | Yes                    | Yes                    | Yes                    |
| Census div 16 FE x Year FE           | Yes                   | Yes                  | Yes                 | Yes                    | Yes                    | Yes                    |
| Census div 16 FE x Cohort group FE   | Yes                   | Yes                  | Yes                 | Yes                    | Yes                    | Yes                    |
| Census div FE                        | Yes                   | Yes                  | Yes                 | Yes                    | Yes                    | Yes                    |
| Unemployment Experiences             | Yes                   | Yes                  | Yes                 | Yes                    | Yes                    | Yes                    |
| HH controls                          | Yes                   | Yes                  | Yes                 | Yes                    | Yes                    | Yes                    |

Standard errors two-way clustered by age and cohort are displayed in parentheses. The p-values adjusted for a false discovery rate of five percent are presented in brackets. Inequality experiences in Panel A are based on the national level experienced share of total income earned by the top 5 percent during the impressionable years. Inequality experiences in Panel B are based on the regional experienced share of total income earned by the top 5 percent during the impressionable years. Unemployment experiences are based on the experienced national unemployment rate during the impressionable years. All specifications in Panel A control for age fixed effects, year fixed effects, cohort group fixed effects, as well as region fixed effects. In Panel B, we control for age fixed effects, year fixed effects and cohort group fixed effects interacted with census division at age 16 fixed effects and we also control for current census division fixed effects. All specifications control for a large set of controls: household income, marital status, education, employment status, household size, religion, and gender. All outcome measures are z-scored. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

experienced higher inequality become marginally significantly more likely to attribute success in life more to effort than to luck.<sup>23</sup> In Columns 4 to 6, we provide consistent evidence that people with higher levels of inequality experience are less likely to be liberal and less likely to vote for democrats. Across specifications, we find the effects to be quite similar between national and regional experiences in terms of both significance and magnitude.

In Table 2, we show the results from the German General Social Survey (ALLBUS). In Columns 1 to 3 we demonstrate that people with experiences of higher inequality hold different views on inequality. Specifically, these people are less likely to consider the prevailing level of

<sup>23</sup>One interpretation of this finding is that higher inequality experiences increase people's perceived income risk. Consequently, they demand more insurance which can come in the form of redistribution by the government.

Table 2: Main Results: German General Social Survey (Allbus)

|                          | (1)                   | (2)  | (3)                         | (4)                    | (5)                        | (6)                   |
|--------------------------|-----------------------|--|-----------------------------|------------------------|----------------------------|-----------------------|
|                          | Inequality:<br>Unfair | Inequality does not<br>increase motivation | Inequality<br>reflects luck | Left-wing              | Intention to Vote:<br>Left | Voted: Left           |
| Inequality Experiences   | -0.0543*<br>(0.0307)  | -0.0428<br>(0.0296)                        | -0.0684*<br>(0.0349)        | -0.0957***<br>(0.0196) | -0.0836***<br>(0.0298)     | -0.0961**<br>(0.0457) |
| FDR-adjusted p-values    | [.065]*               | [.08]*                                     | [.053]*                     | [.001]***              | [.013]**                   | [.049]***             |
| Observations             | 10,401                | 10,357                                     | 10,309                      | 18,979                 | 14,691                     | 9,533                 |
| R-squared                | 0.071                 | 0.044                                      | 0.068                       | 0.080                  | 0.109                      | 0.111                 |
| Age FE                   | Yes                   | Yes  | Yes                         | Yes                    | Yes                        | Yes                   |
| Year FE                  | Yes                   | Yes  | Yes                         | Yes                    | Yes                        | Yes                   |
| Cohort group FE          | Yes                   | Yes  | Yes                         | Yes                    | Yes                        | Yes                   |
| Region FE                | Yes                   | Yes  | Yes                         | Yes                    | Yes                        | Yes                   |
| Unemployment Experiences | Yes                   | Yes  | Yes                         | Yes                    | Yes                        | Yes                   |
| HH controls              | Yes                   | Yes  | Yes                         | Yes                    | Yes                        | Yes                   |

Standard errors two-way clustered by age and cohort are displayed in parentheses. The p-values adjusted for a false discovery rate of five percent are presented in brackets. Inequality experiences are based on the experienced share of total income earned by the top 5 percent during the impressionable years. Unemployment experiences are based on the experienced national unemployment rate during the impressionable years. All specifications control for age fixed effects, year fixed effects, cohort group fixed effects as well as region fixed effects. All specifications control for a large set of controls: household income, marital status, education, employment status, household size, religion, and gender. All outcome measures are z-scored. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

inequality as unfair (Column 1), suggesting that inequality experiences affect perceptions of what is a fair division of resources. Moreover, they are more likely to consider inequality important for motivation (Column 2) and to attribute differences in income to effort rather than luck (Column 3). In Columns 4 to 6 we examine the effects of inequality experiences on people's self-assessment on a political scale, their voting intentions as well as their voting behavior in the last federal election. In line with the previous findings, we find that experiences of higher inequality decrease people's support for left-wing parties.

Table 3 displays the results from the European Social Survey. As can be seen in Column 1, we provide evidence that people with high inequality experiences are less likely to agree to the statement that "the government should take measures to reduce differences in income levels". In addition, we find that people with more inequality experiences place themselves less on the left on a political scale and are less likely to have voted for a left-wing party in the last election. As can be seen in Tables 1 to 3 all of our key results are robust to taking into account multiple-hypothesis testing.<sup>24</sup>

To illustrate the magnitude of the effects, we compare the effect sizes found in the different

<sup>24</sup>In Tables A17 - A19 in appendix A, we also show our main results including all relevant controls. We find evidence that the controls predict preferences for redistribution in line with the previous literature (Alesina and Giuliano, 2013, 2010). For instance, individuals with higher incomes and more education are more against redistribution, while females are more in favor of redistribution.

Table 3: Main Results: European Social Survey

|                              | (1)                       | (2)              | (3)                |
|------------------------------|---------------------------|------------------|--------------------|
|                              | <b>Pro-redistribution</b> | <b>Left-wing</b> | <b>Voted: Left</b> |
| Experienced Inequality       | -0.0390*                  | -0.117***        | -0.121***          |
|                              | (0.0234)                  | (0.0200)         | (0.0389)           |
| FDR-adjusted p-values        | [.096]*                   | [.001]***        | [.002]***          |
| Observations                 | 85,529                    | 81,167           | 25,462             |
| R-squared                    | 0.143                     | 0.079            | 0.153              |
| Country FE x Age trends      | Yes                       | Yes              | Yes                |
| Country FE x Year FE         | Yes                       | Yes              | Yes                |
| Country FE x Cohort group FE | Yes                       | Yes              | Yes                |
| Unemployment Experiences     | Yes                       | Yes              | Yes                |
| HH controls                  | Yes                       | Yes              | Yes                |

Standard errors two-way clustered by age and cohort are displayed in parentheses. The p-values adjusted for a false discovery rate of five percent are presented in brackets. Inequality experiences are based on the experienced share of total national income earned by the top 5 percent during the impressionable years. Unemployment experiences are based on the experienced unemployment rate during the impressionable years. All specifications control for age trends, year fixed effects and cohort group fixed effects, each interacted with country fixed effects. All specifications control for a large set of controls: household income, marital status, education, employment status, household size, religion, and gender. All outcome measures are z-scored. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

samples to the effects of other important determinants of preferences for redistribution. In this exercise we focus on our respondents' self-placement on a political scale, as this variable is available across the datasets used. According to our estimates using national-level inequality experiences and the General Social Survey (US), a one standard deviation increase in inequality experiences leads to a decrease of 3.8 percent of a standard deviation in people's tendency to consider themselves as left-wing. Moving from the inequality experiences of the cohort born in 1950 (very low inequality experiences) to the cohort born in 1980 (high inequality experiences) implies a 10.3 percent of a standard deviation decrease in the dependent variable. For comparison, the effect of being female is an increase by 12.5 percent of a standard deviation, while the effect of holding a highschool degree is a decrease by around 9.5 percent of a standard deviation.

We obtain larger effect sizes in the sample from the German General Social Survey. Here, a one standard deviation increase in inequality experiences leads to a decrease of people's tendency to consider themselves left-wing by around 9.6 percent of a standard deviation. Moving from the low inequality experience of people born in 1950 to high inequality experiences of the cohort of 1980 implies a decrease in the dependent variable by 21.2 percent of a standard deviation. For comparison, being female increases the self-assessment as left-wing by around 7.7 percent of a standard deviation. Moving from the lowest to the highest quintile in the income distribution leads to a decrease in the dependent variable by 19.2 percent of a standard deviation.

According to our estimations on the cross-country sample from the ESS, a one standard deviation increase in inequality experiences leads to a decrease in people's self-classification as left-wing by around 11.7 percent of a standard deviation. For the cohort born in 1980, moving from the country where this cohort has the lowest inequality experience (Denmark) to the country where this cohort has the highest inequality experience (UK) implies a decrease in the tendency of people to consider themselves left-wing by almost 50 percent of a standard deviation.

We also replicate our key results using data on voting behavior and support for redistribution from the International Social Survey Program Module on Social Inequality. Importantly, our estimates are fairly similar in terms of magnitude and significance, which provides us with additional confidence in our results. We present the findings from this additional dataset in Appendix B.

Our findings are not contradictory to Kerr (2014) who finds that short-run increases in inequality within countries or U.S. regions are associated with greater demand for redistribution. He identifies effects of short-term changes in inequality that operate uniformly across cohorts,

which are absorbed by year fixed effects in our analysis. Thus, we identify the effect of growing up in times of high inequality on top of these effects. While all cohorts may exhibit a distaste for inequality, our findings suggest that the strength of this concern depends on someone’s experience while growing up.

The results of this paper are also in line with Alesina and Fuchs-Schuendeln (2007) who provide evidence that people who grew up and lived in East Germany under the communist regime are more in favor of redistribution than are people from West Germany. Our finding of a negative effect of inequality experiences on demand for redistribution provides an additional explanation for higher demand for redistribution in formerly communist countries, where income inequality was often low.

## **4 Mechanisms**

### **4.1 Reference Points and Fairness**

It could be that experiences of inequality alter people’s reference points and thereby affect people’s perception of appropriate levels of inequality. For example, individuals with a higher reference point about inequality due to experiences would perceive current levels of inequality as less severe and therefore exhibit a lower demand for redistribution. Indeed, recent evidence by Charité et al. (2015) shows that reference points play an important role in determining people’s taste for redistribution.

Above, we presented evidence that people are less likely to perceive the prevailing distribution of incomes as unfair if they have higher inequality experiences. Since everyone in a given year faces the same aggregate level of inequality, this suggests that people interpret the fairness of the prevailing distribution in light of their inequality experiences. We provide experimental evidence for this mechanism in section 6.

### **4.2 Extrapolation from own circumstances**

The negative effect of experiencing inequality on preferences for redistribution could be driven by individuals who benefited personally from high levels of inequality while they were young. If this was the case we would expect the effect to be stronger for those who had better starting conditions in life and for those who were more successful in life. To shed light on this mechanism, we examine

heterogeneous effects by a variety of proxies for starting conditions in life and economic status. For each of our main outcomes, we estimate the following specification:

$$y_{irt} = \alpha_1 \text{IE}_{it} + \alpha_2 \text{IE}_{it} \times \text{interact}_{it} + \alpha_3 \text{interact}_{it} + \alpha_4 \text{UE}_{it} + \Pi^T \mathbf{X}_{it} + \delta_{it} + \rho_r + \beta_t + \pi_i + \varepsilon_{irt} \quad (4)$$

where  $\text{interact}_{it}$  is our interaction variable of interest. We then calculate the estimated average effect sizes (AES) for the coefficients  $\alpha_1$  and  $\alpha_2$  across the six specification we estimate in the GSS or the Allbus, respectively (Kling et al., 2005; Giuliano and Spilimbergo, 2014).<sup>25</sup> Using the AES instead of individual coefficients increases our effective statistical power. This is particularly important for the heterogeneity analysis for which we have lower statistical power.

In Table 4 we show that there is no significant heterogeneity by relative family income at age 16 and by father’s education in our sample from the GSS.<sup>26 27</sup> This suggests that the effect is not driven by those who had better starting conditions in life. Moreover, the effect is only marginally significantly larger for those with high current relative income, and not significantly different for those with high education. In Table 5 we show that also in the Allbus sample the effects are fairly uniform across groups. Taken together, these homogeneous results suggest that extrapolation from own circumstances is an unlikely explanation for the effect of inequality experiences on redistributive preferences.<sup>28</sup>

### 4.3 Relative income

Experiences of inequality could also change people’s beliefs about their economic status. Specifically, people who grew up in times of high income inequality, and who are therefore used to more inequality, could be less likely to perceive their current relative income as low. People’s beliefs about their relative position in the income distribution have been shown to change peo-

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<sup>25</sup>The AES is defined as the average of all coefficient estimates across a family of estimations, where each coefficient is divided by the standard deviation of the respective outcome. All our outcomes are normalized, so the AES is the simple average of the estimated coefficients. We calculate p-values for the AES based on simultaneous estimation of the six regressions.

<sup>26</sup>These variables are coded as one if the respondent considered the income of his family at age 16 to be at least average and if the respondent’s father had at least high school education, respectively.

<sup>27</sup>We also do not find heterogeneity according to education of the mother.

<sup>28</sup>We also examined heterogeneity according to age, but do not report the results for brevity. We found that the effect is fairly uniform across age groups, suggesting that the effects persist over the lives of the respondents. In addition, we checked whether the effects vary by the degree someone’s perceived relative income increased or decreased between his or her youth and the survey year. We found no evidence for heterogeneous effects along this dimension.

Table 4: Heterogeneous Effects: General Social Survey (GSS)

|  | (1)                  | (2)                  | (3)                  | (4)                  |
|--|----------------------|----------------------|----------------------|----------------------|
|  | AES                  | AES                  | AES                  | AES                  |
| Inequality Experiences                                     | -.0213***<br>[0.001] | -.0435***<br>[0.000] | -.0278***<br>[0.000] | -0.0291**<br>[0.010] |
| Inequality Experiences $\times$ High relative income at 16 | -.0104<br>[0.128]    |                      |                      |                      |
| Inequality Experiences $\times$ High father's education    |                      | .008<br>[0.336]      |                      |                      |
| Inequality Experiences $\times$ High relative income       |                      |                      | -.0114<br>[0.120]    |                      |
| Inequality Experiences $\times$ High education             |                      |                      |                      | -.006<br>[0.401]     |
| Observations   | 25,078               | 24,818               | 30,271               | 31,919               |
| Age FE   | Yes                  | Yes                  | Yes                  | Yes                  |
| Year FE  | Yes                  | Yes                  | Yes                  | Yes                  |
| Cohort group FE  | Yes                  | Yes                  | Yes                  | Yes                  |
| Region FE  | Yes                  | Yes                  | Yes                  | Yes                  |
| Unemployment Experiences                                   | Yes                  | Yes                  | Yes                  | Yes                  |
| HH controls  | Yes                  | Yes                  | Yes                  | Yes                  |

P-values from simultaneous estimation clustered by cohort are displayed in parentheses. The number of observations refers to the average number used for the estimation of a given AES. Inequality experiences are based on the experienced share of total income earned by the top 5 percent during the impressionable years. Unemployment experiences are based on the experienced national unemployment rate during the impressionable years. All specifications control for age fixed effects, year fixed effects, cohort group fixed effects as well as region fixed effects. All specifications control for a large set of controls: household income, marital status, education, employment status, household size, religion, and gender. All outcome measures are z-scored. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table 5: Heterogeneous Effects: German General Social Survey (Allbus)

|   | (1)                  | (2)                  | (3)                  |
|---|----------------------|----------------------|----------------------|
|   | AES                  | AES                  | AES                  |
| Inequality Experiences                                  | -.0744***<br>[0.000] | -.0691***<br>[0.005] | -.0681***<br>[0.000] |
| Inequality Experiences $\times$ High father's education | .0059<br>[0.769]     |                      |                      |
| Inequality Experiences $\times$ High relative income    |                      | -.0177<br>[0.353]    |                      |
| Inequality Experiences $\times$ High education          |                      |                      | -.0204<br>[0.375]    |
| Observations  | 14,052               | 10,308               | 14,122               |
| Age FE  | Yes                  | Yes                  | Yes                  |
| Year FE   | Yes                  | Yes                  | Yes                  |
| Cohort group FE   | Yes                  | Yes                  | Yes                  |
| Region FE   | Yes                  | Yes                  | Yes                  |
| Unemployment Experiences                                | Yes                  | Yes                  | Yes                  |
| HH controls   | Yes                  | Yes                  | Yes                  |

P-values from simultaneous estimation clustered by cohort are displayed in parentheses. The number of observations refers to the average number used for the estimation of a given AES. Inequality experiences are based on the experienced share of total income earned by the top 5 percent during the impressionable years. Unemployment experiences are based on the experienced national unemployment rate during the impressionable years. All specifications control for age fixed effects, year fixed effects, cohort group fixed effects as well as region fixed effects. All specifications control for a large set of controls: household income, marital status, education, employment status, household size, religion, and gender. All outcome measures are z-scored. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table 6: Other outcomes: GSS and Allbus

|                          | (1)  | (2)                        | (3)                        |
|--------------------------|--|----------------------------|----------------------------|
|                          | <u>GSS (national inequality experiences)</u> |                            | <u>Allbus</u>              |
|                          | <b>Low relative income</b>                   | <b>Low social position</b> | <b>Low social position</b> |
| Inequality Experiences   | 0.00340<br>(0.0121)                          | 0.00467<br>(0.0118)        | -0.0368<br>(0.0234)        |
| Observations             | 43,234                                       | 44,402                     | 15,025                     |
| R-squared                | 0.257  | 0.205                      | 0.204                      |
| Age FE                   | Yes  | Yes                        | Yes                        |
| Year FE                  | Yes  | Yes                        | Yes                        |
| Cohort group FE          | Yes  | Yes                        | Yes                        |
| Region FE                | Yes  | Yes                        | Yes                        |
| Unemployment Experiences | Yes  | Yes                        | Yes                        |
| HH controls              | Yes  | Yes                        | Yes                        |

Standard errors two-way clustered by age and cohort are displayed in parentheses. Inequality experiences are based on the experienced share of total income earned by the top 5 percent during the impressionable years. Unemployment experiences are based on the experienced national unemployment rate during the impressionable years. All specifications control for age fixed effects, year fixed effects, cohort group fixed effects as well as regions fixed effects. All specifications control for a large set of controls: household income, marital status, education, employment status, household size, religion, and gender. All outcome measures are z-scored. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

ple's demand for redistribution (Cruces et al., 2013; Karadja et al., 2016). We therefore test whether experiences of high inequality lower people's perceived relative income. Similarly, we test whether inequality experiences affect people's self-perceived social class. Table 6 shows the results of these estimations for the GSS and Allbus, respectively. We find no evidence for a significant effect of inequality experiences on perceived relative income and social class.

## 5 Robustness

### 5.1 "Impressionable Years" versus Other Years

In our main specification we examined the effect of inequality experiences during impressionable years, i.e. when people are aged between 18 and 25. We focused on these years as the previous literature on the formation of beliefs suggests that this period in life is particularly important for shaping beliefs and preferences (Mannheim, 1970; Krosnick and Alwin, 1989; Giuliano and

Spilimbergo, 2014). In what follows we examine the influence of experiences in other periods of life on people’s preferences for redistribution. In particular, we use the Allbus and the GSS to examine the effect of inequality experiences during different eight year intervals (2–9, 10–17, 26–33, 34–41, 42–49, and 50–57) in our respondents’ lives. We closely follow the empirical strategy in Giuliano and Spilimbergo (2014).

In Panels A to G in Tables A1 to A3, we show how inequality experiences in different life periods affect people’s preferences for redistribution. While we still find significantly negative effects of experiences in life periods surrounding the impressionable years (10-17 and 26-33, respectively), the effects are weaker or vanish completely for other age ranges.<sup>29</sup> All in all, this evidence corroborates our view that inequality experiences during the impressionable years are vital in shaping people’s beliefs, values and political preferences.<sup>30</sup>

## 5.2 Life-time Experiences

We find very similar effects of inequality experiences when we use the methodology developed by Malmendier and Nagel (2011). While in our main estimations we look at the effect of inequality experiences during someone’s formative years, this alternative measure is based on a weighted average of top income shares experienced over a respondent’s lifetime until the time of the interview. Thus, in contrast to our previous measures, we now allow more recent experiences to still have some effect. In line with the above findings that earlier experiences matter more than later experiences, we use a weighting factor that gives more weight to early experiences and in which experiences only matter beginning from age 18.<sup>31</sup> We re-estimate our main specifications using the same set of controls but employing these alternative measures of experienced inequality and experienced unemployment. In Panels H of Tables A1 to A3 we show that we obtain very similar results in terms of effect size and statistical significance when we use this alternative measure of inequality experiences.

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<sup>29</sup>The differences in experiences across cohorts stem from medium- to longer-term changes in inequality. This is a key difference to Giuliano and Spilimbergo (2014) who examine the effect of experiencing macroeconomic shocks while young, which occur at a higher frequency. Finding some effect of inequality experienced during periods surrounding the impressionable years, which is correlated with inequality experienced from age 18 to 25, is therefore what one would expect.

<sup>30</sup>Given the nature of the dataset, it is difficult to compare the importance of experiences during impressionable years versus experiences during other periods of life. Since in each estimation we only focus on individuals who have lived through the relevant life period, we cannot hold constant the sample size and sample composition in the different specifications.

<sup>31</sup>For details regarding the construction of this alternative measure see Appendix F.

### 5.3 Placebo Outcomes

It could be the case that our estimates merely pick up cohort differences in political preferences and in particular in how left-wing people in different cohorts generally are. The inclusion of 25-year cohort-group fixed effects in our main specifications ensures that our results are not driven by longer-term general shifts in preferences across cohorts. To further address this concern, we show that other political attitudes that differ between the left and the right of the political spectrum, but that are not directly related to inequality and redistribution, are not affected by our measures of inequality experiences.

In Tables A4 - A6 we provide evidence that inequality experiences do not significantly affect nationalism, attitudes towards guns, attitudes towards immigrants<sup>32</sup>, attitudes towards democracy, attitudes towards the unification of the EU and people's belief in god.<sup>33</sup>

### 5.4 Other Experiences during Impressionable Years

We also examine in how far our results are sensitive to controlling for other macroeconomic experiences during impressionable years. Specifically, we control for whether our respondents experienced an economic crisis during their impressionable years. As in Giuliano and Spilimbergo (2014) we define a crisis experience as at least once having experienced a drop of real per capita GDP by 3.8 percent or more during the impressionable years. Next, we examine whether our estimates are sensitive to the inclusion of the average growth rate of real GDP per capita during the impressionable years. In order to control for the experienced size of the government, we include the average ratio of total tax revenue relative to GDP experienced during the impressionable years. Finally, we also include a proxy for experienced political ideology, namely the fraction of someone's impressionable years in which a Republican president (US) or conservative chancellor (Germany) was in office.

When we control for these other experiences in our estimations on the Allbus and the GSS our main results barely change (see Tables A7 and A8).<sup>34</sup> This indicates that our results are not driven by other experiences people made while growing up which are correlated with inequality experiences.

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<sup>32</sup>In the Allbus we focus only on attitudes towards immigrants that are not related to economic concerns. The respective variables in the GSS and the ESS mainly refer to whether the number of immigrants should be increased or decreased.

<sup>33</sup>In Appendix C, we provide detailed information on the placebo variables used in our analysis.

<sup>34</sup>We demonstrate robustness of our main specification by including these other experiences one at a time. Since all experience variables vary at the cohort level, and since macroeconomic variables tend to be highly correlated, including all these other experiences at once would lead to problems of multicollinearity.

## 5.5 Other Robustness Checks

In Tables A9-A12 we examine how sensitive our results are to a variety of robustness checks. Our results are robust to using different definitions of income inequality based on (i) the share of income earned by the top ten percent, (ii) the share of income earned by the top one percent as well as (iii) the Gini coefficient of equivalized disposable household incomes which is available for a much smaller sample of respondents.<sup>35</sup> In contrast to top income shares which are based on before-tax incomes, the Gini coefficient measures after-tax income inequality. We obtain very similar results when we use these alternative inequality measures. If anything, we find larger effect sizes when we use the Gini coefficient instead of top income shares.

In addition, we show that our results remain unchanged when we exclude all individuals with missing values in any of the controls. Our findings are also robust to not controlling for people's national unemployment experiences which alleviates concerns that inequality experiences operate through unobservable long-run effects of unemployment experiences. Moreover, the results are unaffected when we control for age trends rather than age fixed effects or when we exclude movers from our estimations on the GSS which rely on regional variation in income inequality experiences.<sup>36</sup> As a final robustness check we exclude the 25-year cohort group fixed effects from our specifications and obtain very similar results.

## 6 Experimental Evidence

In this section, we examine the causal effect of exposure to different levels of inequality on people's redistributive preferences by conducting a series of tightly controlled online experiments on Amazon Mechanical Turk. We experimentally vary our respondents' exposure to inequality in stage one of the experiment. Then, we assess in how far exposure to inequality in stage 1 affects people's redistributive preferences in stage 2 of the experiment. We hypothesize that individuals exposed to inequality in the first stage of the experiment will find high levels of inequality more acceptable and therefore redistribute less in the second stage.

The use of an experiment improves upon the observational evidence in three dimensions: first, it allows us to more cleanly identify the causal effect of experiencing inequality. It is not

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<sup>35</sup>While a lot of historical data on the Gini coefficient exist in the US, much less reliable data on the Gini coefficient are available for most European countries in our sample. This implies that the samples we can use in our analysis for the ESS are much smaller than for the measures of top income inequality.

<sup>36</sup>We define movers as people who live in a different census division when they are interviewed than when they were aged 16.

possible to randomly assign individuals to different life-time experiences and it is very difficult to exploit exogenous variation in inequality that is not correlated with other economic variables. Our experiment offers us tight control over the agent’s decision environment and allows us to keep constant payoffs and economic circumstances of agents, while only manipulating the degree of inequality our agents face in stage one of the experiment. Second, it allows us to measure redistributive preferences with behavioral measures rather than self-reports. Third, it allows us to test for mechanisms. In particular, by using a spectator design we shut down any mechanism involving self-interest or extrapolation from own circumstances, i.e. channels operating through our agents’ own outcomes.

The experiment captures the idea of an experienced distribution of income in a stylized manner. However, we believe that the experiment highlights a mechanism that could similarly operate for inequality experienced during someone’s formative years. Specifically, the experiment shows that people’s acceptance of inequality and their demand for redistribution may be highly dependent on the degree of inequality people are used to.

## 6.1 Experimental Design

### 6.1.1 Stage 1: Treatment

We randomly assign individuals into choice environments in which they make hypothetical choices about the payoffs of two other workers on mTurk, which we refer to as A and B. Individuals in the inequality condition choose between two options that are highly unequal between A and B, while people in the equality condition choose between two options that result in more equal outcomes for worker A and B. In other words, we significantly manipulate our agents’ choice sets which in turn affects the degree of inequality they experience in stage 1 of the experiment.

One group of individuals is randomly assigned to choose unequal outcomes, while another group of individuals is forced to choose more equal outcomes. This in turn implies that the agents operate either in environments in which institutions promote redistribution and thereby lower inequality, or in environments without redistribution and with high levels of inequality. Specifically, our participants are allocated to one of the following two conditions:

- **Equality Condition:** “Person A and B are both mTurk workers and they previously worked for us on a task. Worker A completed 2 tasks correctly, while worker B completed 8 tasks correctly. The number of correctly completed tasks depends on both the worker’s

effort and luck. We would like to pay them a total of \$1 for their work. How much money would you like to pay them?”

- Option A: 50 cents for worker A and 50 cents for worker B.
- Option B: 48 cents for worker A and 52 cents for worker B.

- **Inequality Condition:** “Person A and B are both mTurk workers and they previously worked for us on a task. Worker A completed 2 tasks correctly, while worker B completed 8 tasks correctly. The number of correctly completed tasks depends on both the worker’s effort and luck. We would like to pay them a total of \$1 for their work. How much money would you like to pay them?”

- Option A: 22 cents for worker A and 78 cents for worker B.
- Option B: 20 cents for worker A and 80 cents for worker B.

### 6.1.2 Stage 2: Redistribution Game

In the second stage our players again make hypothetical distributive choices between two workers who have completed a real-effort task.<sup>37</sup> Player C has completed three tasks correctly, while player D has completed seven tasks correctly. Our respondents are also told that “the number of correctly completed tasks depends on both the worker’s effort and luck.” Individuals decide how to split \$1 between the two workers. They can give a higher share of the \$1 to the worker who has completed more tasks correctly or the worker who completed less tasks correctly, or they can split the money equally between the two.<sup>38</sup> We code our measure of redistributive preferences,  $y_i$ , such that higher values correspond to larger shares of the money going to the lower-achieving worker.

### 6.1.3 Experiment 2

We also conduct an additional experiment (which we refer to as experiment 2) to assess the robustness of the first experiment. We make several changes: first, we use a different choice set for our main measure of re-distributive preferences. In particular, we restrict the choice set of our respondent in stage 2 of the experiment by not allowing them to give a larger share of the \$1 to the worker who completed less tasks correctly. Second, we use a different choice set for

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<sup>37</sup>We tell our respondents that “these workers are NOT the same people as from the previous task”.

<sup>38</sup>A more precise description of this behavioral measure can be found in Appendix G.

respondents in the inequality condition. Specifically, we let them choose between giving 20 cents to worker A and 80 cents to worker B, or nothing to worker A and 100 cents to worker B.

## 6.2 Sample

We ran our experiments on Amazon Mechanical Turk (MTurk), an online crowdsourcing marketplace commonly used to conduct online experiments. The pool of available workers is very large and more representative of the US population than student samples. Many experiments have been replicated using MTurk samples. MTurk participants produce high-quality data (Mason and Suri, 2012; Horton et al., 2011; Buhrmester et al., 2011), and are more attentive to instructions than college students (Hauser and Schwarz, 2016).

In order to participate in the experiment, people had to be based in the United States, have an overall rating of more than 95% and have completed more than 500 tasks on MTurk. These commonly applied restrictions are important in order to get high-quality data, as demonstrated by Peer et al. (2014). The experiments were run in June and July 2016. 200 participants completed experiment 1 and 202 individuals completed experiment 2.<sup>39</sup>

Our sample from the experiments is fairly similar to the general population. The median income in our sample is 46,000 while it is 53,000 in the US. The average age in our sample is 36 which is substantially below the average age of the US population. The proportion of people having a bachelor’s degree is higher in our sample than in the general population. An overview of the sample composition in our mTurk sample is given in Table A16.

## 6.3 Results

To compare the behavior of people in the equality condition with that of people in the inequality condition, we regress our measure of redistributive preferences,  $y_i$ , on a treatment indicator,  $\text{Inequality}_i$ , which takes the value one for people who are in the inequality condition, and the value zero for all the other participants. Specifically, the equation that we estimate is:

$$y_i = \pi_0 + \pi_1 \text{Inequality}_i + \varepsilon_i$$

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<sup>39</sup>Only eight people dropped out of experiment 1, while three individuals dropped out of experiment 2.

Table 7: Results from the Online Experiment

|                               | (1)                 | (2)                 | (3)                  | (4)                  |
|-------------------------------|---------------------|---------------------|----------------------|----------------------|
|                               | <u>Experiment 1</u> |                     | <u>Experiment 2</u>  |                      |
|                               | Redistribute        | Redistribute (z)    | Redistribute         | Redistribute (z)     |
| <b>Panel A</b>                |                     |                     |                      |                      |
| Inequality                    | -0.727**<br>(0.290) | -0.342**<br>(0.137) | -0.928***<br>(0.202) | -0.564***<br>(0.123) |
| Observations                  | 201                 | 201                 | 202                  | 202                  |
| R-squared                     | 0.031               | 0.031               | 0.096                | 0.096                |
| <b>Panel B: with controls</b> |                     |                     |                      |                      |
| Inequality                    | -0.694**<br>(0.297) | -0.327**<br>(0.140) | -0.969***<br>(0.207) | -0.589***<br>(0.126) |
| Observations                  | 200                 | 200                 | 202                  | 202                  |
| R-squared                     | 0.115               | 0.115               | 0.157                | 0.157                |

We apply robust standard errors. In Panel B we control for household income, education, employment status, household size, religion, and gender.\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

where  $\varepsilon_i$  is an individual-specific error term.<sup>40</sup> Second, we re-estimate the specification above including a set of demographic controls.<sup>41</sup>

In Table 7 we provide strong evidence that individuals exposed to environments that promote higher levels of inequality are less in favor of redistribution as measured by our behavioral measure of redistribution.<sup>42</sup> In Panel A, we present our main results by just regressing the outcome measure on an inequality treatment indicator, while Panel B includes a set of demographic controls. In Columns 1 and 2 of Table 7 we present the results from experiment 1. In Columns 3 and 4 we show the results from experiment 2.

The data from both experiments clearly show that people in the inequality condition systematically give a lower share of the \$1 to the lower-achieving worker. The effect sizes we observe are large. People in the inequality condition redistribute between .35 and .56 of a standard deviation less relative to people in the equality condition. These results are barely affected by the inclusion

<sup>40</sup>For all the specifications, we use robust standard errors.

<sup>41</sup>Specifically, we control for household income, education, employment status, household size, religion and gender.

<sup>42</sup>It is important to note that our behavioral measure of redistribution is significantly correlated with people's political affiliation. Specifically, Republicans redistribute less compared to Democrats which suggests that our behavioral measure does have a high degree of external validity.

of controls.<sup>43</sup>

Taken together, experiencing inequality seems to increase our respondents' inequality acceptance. The design of the experiment rules out channels working through people's personal outcomes. Our results therefore suggest that experiences of how money is distributed affect what is considered a fair allocation through the formation of reference points.

### 6.3.1 Alternative Mechanisms

Our treatment conditions could induce differential feelings of fairness as they mimic different fairness principles. In particular, the allocation of resources in the equality condition represents the "equality principle" according to which people with different performance will be paid equal amounts. The distribution of resources in the inequality condition, on the other hand, is closer to the "equity principle" which posits that people should be paid according to their performance in the task.

As the performance differences across workers depend both on effort and luck, it is not obvious which of the two options in each of the two treatment conditions should be considered fair. In the equality condition about two thirds of participants prefer option B, while the rest prefers option A. In the inequality condition about 70 percent of participants prefer option B. If most people actually considered the equity principle as fair (Abeler et al., 2010), then this would imply that participants in the equality condition would be forced to implement an unfair choice, while people in the inequality condition would be forced to implement a fair choice. This in turn could in theory affect people's behavior in stage two of the experiment. However, it is not clear why people forced to implement an "unfair" (according to the "equity principle") choice in stage 1 of the experiment, would systematically prefer to implement more equal payments between the workers in stage 2 of the experiment.

It could also be the case that respondents interpret the choice set in stage 1 of the experiment as a signal about the relative roles of effort and luck in determining the number of tasks that the workers have completed. In particular, people in the inequality condition could believe that success is due to effort rather than luck and therefore redistribute less. To address this concern, we asked our respondents whether they think that the number of correctly completed tasks by the workers depended more on the workers' effort or more on the workers' luck. People's responses

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<sup>43</sup>The effect sizes are quite large and therefore unlikely can be explained by experimenter demand effects (Zizzo, 2010). Evidence by de Quidt et al. (2016) suggests that demand effects when people change their beliefs about the experimenter's hypotheses are rather small.

to this question do not differ between the participants in the “inequality condition” and those in the “equality condition”.<sup>44</sup> This suggests that in our experiment exposure to environments promoting inequality affect redistributive preferences independently of effects working through beliefs about the determinants of success in life.

## 7 Conclusion

We use several large nationally representative datasets to highlight that people who have grown up in times of higher inequality are less left-wing as measured by their self-reported redistributive preferences as well as their party affiliation. We also show that people with more inequality experience hold different beliefs about inequality and are less likely to consider the prevailing level of inequality as too high. This suggests that experienced inequality could affect the way people evaluate current levels of inequality. We then test the conjecture that reference points may play an important role in shaping people’s redistributive choices in a tightly controlled experimental set-up.

We also provide evidence against alternative channels through which our effects could operate: first, we show that the effects are equally strong for those with worse starting conditions or less success in life, suggesting that people do not form their redistributive preferences based on the effect inequality had on them personally. Second, we demonstrate that our effects are unlikely to operate through changes in perceived relative income.

The results of this paper suggest that preferences for redistribution are shaped by the level of inequality that prevailed during people’s formative years. This implies that the increases in inequality over the last decades are reflected in lower preferences for redistribution among younger generations relative to older generations. While fairness concerns may have led to increasing demand for redistribution across cohorts (Kerr, 2014), these concerns seem to be weaker for younger generations who are more used to high levels of inequality. Going forward, the longer high levels of inequality prevail, the higher will be the the average level of experienced inequality among voters. Our findings suggest that the forces pushing society back towards lower levels of inequality may become weaker the longer high levels of inequality prevail.

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<sup>44</sup>This zero is percisely measured.

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## A Additional Tables

Table A1: GSS: National Inequality Experiences in Other Periods of Life

|                                       | (1)                    | (2)                   | (3)                  | (4)                     | (5)                     | (6)                    |
|---------------------------------------|------------------------|-----------------------|----------------------|-------------------------|-------------------------|------------------------|
|                                       | Help poor              | Pro welfare           | Success due to luck  | Liberal                 | Party: Democrat         | Voted: Democrat        |
| <b>Panel A: 2 to 9</b>                |                        |                       |                      |                         |                         |                        |
| Inequality Experiences                | -0.0269<br>(0.0332)    | -0.0313<br>(0.0253)   | 0.0358<br>(0.0362)   | -0.106***<br>(0.0327)   | -0.0309<br>(0.0369)     | 0.00160<br>(0.0361)    |
| Observations                          | 21,998                 | 23,703                | 26,806               | 37,492                  | 42,790                  | 30,219                 |
| <b>Panel B: 10 to 17</b>              |                        |                       |                      |                         |                         |                        |
| Inequality Experiences                | -0.0588**<br>(0.0232)  | -0.0361*<br>(0.0207)  | -0.00608<br>(0.0227) | -0.0533**<br>(0.0212)   | -0.0346<br>(0.0215)     | -0.0502**<br>(0.0215)  |
| Observations                          | 22,881                 | 25,299                | 28,331               | 39,313                  | 45,158                  | 32,054                 |
| <b>Panel C: 18 to 25 (main)</b>       |                        |                       |                      |                         |                         |                        |
| Inequality Experiences                | -0.0370**<br>(0.0147)  | -0.0234*<br>(0.0126)  | -0.0147<br>(0.0112)  | -0.0383***<br>(0.0123)  | -0.0476***<br>(0.0126)  | -0.0414***<br>(0.0129) |
| Observations                          | 23,199                 | 26,135                | 29,083               | 40,136                  | 46,327                  | 32,907                 |
| <b>Panel D: 26 to 33</b>              |                        |                       |                      |                         |                         |                        |
| Inequality Experiences                | -0.0403***<br>(0.0144) | -0.0279**<br>(0.0119) | -0.00735<br>(0.0111) | -0.0422***<br>(0.00920) | -0.0664***<br>(0.00972) | -0.0422***<br>(0.0131) |
| Observations                          | 18,663                 | 20,942                | 23,487               | 32,320                  | 37,467                  | 27,738                 |
| <b>Panel E: 34 to 41</b>              |                        |                       |                      |                         |                         |                        |
| Inequality Experiences                | -0.00458<br>(0.0254)   | -0.0206<br>(0.0183)   | -0.0183<br>(0.0186)  | 0.0235<br>(0.0174)      | -0.0831***<br>(0.0189)  | -0.0626***<br>(0.0203) |
| Observations                          | 14,181                 | 16,070                | 18,015               | 24,608                  | 28,798                  | 21,873                 |
| <b>Panel F: 42 to 49</b>              |                        |                       |                      |                         |                         |                        |
| Inequality Experiences                | 0.0369<br>(0.0331)     | -0.0174<br>(0.0229)   | -0.0278<br>(0.0186)  | 0.0473***<br>(0.0182)   | -0.0544***<br>(0.0178)  | -0.0230<br>(0.0178)    |
| Observations                          | 10,325                 | 11,821                | 13,253               | 17,976                  | 21,124                  | 16,363                 |
| <b>Panel G: 50 to 57</b>              |                        |                       |                      |                         |                         |                        |
| Inequality Experiences                | 0.0285<br>(0.0665)     | -0.0441<br>(0.0317)   | -0.0333<br>(0.0278)  | -0.0102<br>(0.0285)     | -0.0906***<br>(0.0332)  | -0.0725***<br>(0.0258) |
| Observations                          | 7,118                  | 8,035                 | 9,147                | 12,296                  | 14,505                  | 11,394                 |
| <b>Panel H: Life-time experiences</b> |                        |                       |                      |                         |                         |                        |
| $\lambda = -1$                        |                        |                       |                      |                         |                         |                        |
| Inequality Experiences                | -0.0463***<br>(0.0140) | -0.0162<br>(0.0163)   | -0.00953<br>(0.0133) | -0.0224<br>(0.0149)     | -0.0359***<br>(0.0116)  | -0.0256**<br>(0.0130)  |
| Observations                          | 23,199                 | 26,135                | 29,083               | 40,136                  | 46,327                  | 32,907                 |
| Age FE                                | Yes                    | Yes                   | Yes                  | Yes                     | Yes                     | Yes                    |
| Year FE                               | Yes                    | Yes                   | Yes                  | Yes                     | Yes                     | Yes                    |
| Cohort group FE                       | Yes                    | Yes                   | Yes                  | Yes                     | Yes                     | Yes                    |
| Census div FE                         | Yes                    | Yes                   | Yes                  | Yes                     | Yes                     | Yes                    |
| Unemployment Experiences              | Yes                    | Yes                   | Yes                  | Yes                     | Yes                     | Yes                    |
| HH controls                           | Yes                    | Yes                   | Yes                  | Yes                     | Yes                     | Yes                    |

Standard errors two-way clustered by age and cohort are displayed in parentheses. Inequality experiences are based on the national level experienced share of total income earned by the top 5 percent during different life periods. Unemployment experiences are based on the experienced national unemployment rate during the different life periods. We control for age fixed effects, year fixed effects, cohort group fixed effects as well as region fixed effects. All specifications control for a large set of controls: household income, marital status, education, employment status, household size, religion, and gender. In Panel H we display the results on the effect of life-time inequality experiences based on the methodology developed by Malmendier and Nagel (2011) - we use a weighting factor of  $\lambda = -1$ . \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table A2: GSS: Regional Inequality Experiences in Other Periods of Life

|                                      | (1)                   | (2)                    | (3)                  | (4)                    | (5)                    | (6)                    |
|--------------------------------------|-----------------------|------------------------|----------------------|------------------------|------------------------|------------------------|
|                                      | Help poor             | Pro welfare            | Success due to luck  | Liberal                | Party: Democrat        | Voted: Democrat        |
| <b>Panel A: 2 to 9</b>               |                       |                        |                      |                        |                        |                        |
| Inequality Experiences<br>(Regional) | -0.0398<br>(0.0338)   | -0.0478*<br>(0.0252)   | 0.0201<br>(0.0243)   | -0.0903***<br>(0.0213) | -0.0534**<br>(0.0247)  | -0.00692<br>(0.0271)   |
| Observations                         | 21,829                | 23,460                 | 26,458               | 37,063                 | 42,270                 | 29,970                 |
| <b>Panel B: 10 to 17</b>             |                       |                        |                      |                        |                        |                        |
| Inequality Experiences<br>(Regional) | -0.0287<br>(0.0188)   | -0.00502<br>(0.0138)   | -0.00782<br>(0.0215) | -0.0381**<br>(0.0168)  | -0.00525<br>(0.0146)   | -0.0333*<br>(0.0174)   |
| Observations                         | 22,704                | 25,037                 | 27,963               | 38,865                 | 44,603                 | 31,784                 |
| <b>Panel C: 18 to 25 (main)</b>      |                       |                        |                      |                        |                        |                        |
| Inequality Experiences<br>(Regional) | -0.0415**<br>(0.0179) | -0.0268*<br>(0.0138)   | -0.0142<br>(0.0111)  | -0.0598***<br>(0.0134) | -0.0522***<br>(0.0123) | -0.0377***<br>(0.0141) |
| Observations                         | 22,987                | 25,831                 | 28,670               | 39,632                 | 45,703                 | 32,597                 |
| <b>Panel D: 26 to 33</b>             |                       |                        |                      |                        |                        |                        |
| Inequality Experiences<br>(Regional) | -0.0384**<br>(0.0165) | -0.0406***<br>(0.0150) | -0.00866<br>(0.0135) | -0.0509***<br>(0.0115) | -0.0696***<br>(0.0105) | -0.0377***<br>(0.0142) |
| Observations                         | 18,500                | 20,699                 | 23,162               | 31,916                 | 36,956                 | 27,455                 |
| <b>Panel E: 34 to 41</b>             |                       |                        |                      |                        |                        |                        |
| Inequality Experiences<br>(Regional) | 0.00763<br>(0.0249)   | -0.0125<br>(0.0174)    | -0.0244<br>(0.0181)  | 0.00213<br>(0.0161)    | -0.0581***<br>(0.0177) | -0.0527***<br>(0.0189) |
| Observations                         | 14,065                | 15,880                 | 17,767               | 24,303                 | 28,403                 | 21,631                 |
| <b>Panel F: 42 to 49</b>             |                       |                        |                      |                        |                        |                        |
| Inequality Experiences<br>(Regional) | 0.0550<br>(0.0425)    | -0.0183<br>(0.0271)    | -0.0282<br>(0.0242)  | 0.0485***<br>(0.0186)  | -0.0470**<br>(0.0232)  | -0.00858<br>(0.0237)   |
| Observations                         | 10,236                | 11,674                 | 13,067               | 17,745                 | 20,826                 | 16,165                 |
| <b>Panel G: 50 to 57</b>             |                       |                        |                      |                        |                        |                        |
| Inequality Experiences<br>(Regional) | 0.0361<br>(0.0487)    | 0.0170<br>(0.0382)     | -0.0189<br>(0.0353)  | 0.0135<br>(0.0299)     | -0.120***<br>(0.0400)  | -0.0913***<br>(0.0321) |
| Observations                         | 7,037                 | 7,921                  | 9,011                | 12,121                 | 14,279                 | 11,241                 |
| Census div 16 FE x Age FE            | Yes                   | Yes                    | Yes                  | Yes                    | Yes                    | Yes                    |
| Census div 16 FE x Year FE           | Yes                   | Yes                    | Yes                  | Yes                    | Yes                    | Yes                    |
| Census div 16 FE x Cohort group FE   | Yes                   | Yes                    | Yes                  | Yes                    | Yes                    | Yes                    |
| Census div FE                        | Yes                   | Yes                    | Yes                  | Yes                    | Yes                    | Yes                    |
| Unemployment Experiences             | Yes                   | Yes                    | Yes                  | Yes                    | Yes                    | Yes                    |
| HH controls                          | Yes                   | Yes                    | Yes                  | Yes                    | Yes                    | Yes                    |

Standard errors two-way clustered by age and cohort are displayed in parentheses. Inequality experiences are based on the regional experienced share of total income earned by the top 5 percent during the different periods of life. Unemployment experiences are based on the experienced national unemployment rate during the different periods of life. We control for age fixed effects, year fixed effects and cohort group fixed effects, each interacted with census division at age 16 fixed effects and we also control for current census division fixed effects. All specifications control for a large set of controls: household income, marital status, education, employment status, household size, religion, and gender. All outcome measures are z-scored. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table A3: Allbus: Inequality Experiences in Other Periods of Life

|                                       | (1)                   | (2)  | (3)                         | (4)                     | (5)                        | (6)                   |
|---------------------------------------|-----------------------|--|-----------------------------|-------------------------|----------------------------|-----------------------|
|                                       | Inequality:<br>Unfair | Inequality does not<br>increase motivation | Inequality<br>reflects luck | Left-wing               | Intention to Vote:<br>Left | Voted: Left           |
| <b>Panel A: 2 to 9</b>                |                       |  |                             |                         |                            |                       |
| Inequality Experiences                | 0.0502<br>(0.0898)    | -0.0671<br>(0.0677)                        | 0.00994<br>(0.0571)         | 0.0205<br>(0.0541)      | 0.0672**<br>(0.0329)       | 0.0455<br>(0.0528)    |
| Observations                          | 7,506                 | 7,427                                      | 7,408                       | 14,072                  | 10,940                     | 6,855                 |
| <b>Panel B: 10 to 17</b>              |                       |  |                             |                         |                            |                       |
| Inequality Experiences                | -0.137***<br>(0.0483) | -0.0555<br>(0.0454)                        | -0.112***<br>(0.0331)       | -0.0358<br>(0.0287)     | -0.120***<br>(0.0232)      | -0.148***<br>(0.0408) |
| Observations                          | 8,942                 | 8,885                                      | 8,852                       | 16,248                  | 12,524                     | 8,023                 |
| <b>Panel C: 18 to 25 (main)</b>       |                       |  |                             |                         |                            |                       |
| Inequality Experiences                | -0.0543*<br>(0.0307)  | -0.0428<br>(0.0296)                        | -0.0684*<br>(0.0349)        | -0.0957***<br>(0.0196)  | -0.0836***<br>(0.0298)     | -0.0961**<br>(0.0457) |
| Observations                          | 10,401                | 10,357                                     | 10,309                      | 18,979                  | 14,691                     | 9,533                 |
| <b>Panel D: 26 to 33</b>              |                       |  |                             |                         |                            |                       |
| Inequality Experiences                | -0.00389<br>(0.0171)  | 0.00454<br>(0.0203)                        | -0.00287<br>(0.0183)        | -0.0196*<br>(0.0101)    | -0.00724<br>(0.0145)       | -0.00974<br>(0.0157)  |
| Observations                          | 9,740                 | 9,669                                      | 9,628                       | 17,462                  | 13,758                     | 9,123                 |
| <b>Panel E: 34 to 41</b>              |                       |  |                             |                         |                            |                       |
| Inequality Experiences                | 0.0315**<br>(0.0141)  | 0.0222<br>(0.0302)                         | 0.0505***<br>(0.0152)       | -0.0152<br>(0.0116)     | 0.0140<br>(0.0126)         | 0.0432**<br>(0.0171)  |
| Observations                          | 8,411                 | 8,329                                      | 8,300                       | 14,933                  | 11,916                     | 7,989                 |
| <b>Panel F: 42 to 49</b>              |                       |  |                             |                         |                            |                       |
| Inequality Experiences                | -0.00839<br>(0.0297)  | 0.0190<br>(0.0298)                         | 0.0107<br>(0.0163)          | -0.0275<br>(0.0233)     | 0.00227<br>(0.0230)        | -0.0296<br>(0.0202)   |
| Observations                          | 6,826                 | 6,726                                      | 6,710                       | 12,355                  | 9,993                      | 6,685                 |
| <b>Panel G: 50 to 57</b>              |                       |  |                             |                         |                            |                       |
| Inequality Experiences                | 0.0417<br>(0.0276)    | 0.102***<br>(0.0358)                       | 0.0733***<br>(0.0252)       | 0.0140<br>(0.0162)      | 0.0563***<br>(0.0147)      | 0.0533**<br>(0.0236)  |
| Observations                          | 5,111                 | 5,013                                      | 5,006                       | 9,387                   | 7,743                      | 5,130                 |
| <b>Panel H: Life-time experiences</b> |                       |  |                             |                         |                            |                       |
| $\lambda = -1$                        |                       |  |                             |                         |                            |                       |
| Inequality Experiences                | -0.0430*<br>(0.0192)  | -0.0532***<br>(0.0188)                     | -0.0698***<br>(0.0232)      | -0.0610***<br>(0.00827) | -0.0845***<br>(0.0181)     | -0.112***<br>(0.0219) |
| Observations                          | 7,556                 | 7,532                                      | 7,499                       | 14,163                  | 10,963                     | 7,249                 |
| Age FE                                | Yes                   | Yes  | Yes                         | Yes                     | Yes                        | Yes                   |
| Year FE                               | Yes                   | Yes  | Yes                         | Yes                     | Yes                        | Yes                   |
| Cohort group FE                       | Yes                   | Yes  | Yes                         | Yes                     | Yes                        | Yes                   |
| Region FE                             | Yes                   | Yes  | Yes                         | Yes                     | Yes                        | Yes                   |
| Unemployment Experiences              | Yes                   | Yes  | Yes                         | Yes                     | Yes                        | Yes                   |
| HH controls                           | Yes                   | Yes  | Yes                         | Yes                     | Yes                        | Yes                   |

Standard errors two-way clustered by age and cohort are displayed in parentheses. Inequality experiences are based on the experienced share of total income earned by the top 5 percent during the different periods of life. Unemployment experiences are based on the experienced national unemployment rate during the different periods of life. All specifications control for age fixed effects, year fixed effects, cohort group fixed effects as well as region fixed effects. All specifications control for a large set of controls: household income, marital status, education, employment status, household size, religion, and gender. In Panel H we display the results on the effect of life-time inequality experiences based on the methodology developed by Malmendier and Nagel (2011) - we use a weighting factor of  $\lambda = -1$ . All outcome measures are z-scored. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table A4: GSS: Placebos

|                          | (1)                    | (2)                   | (3)                 |
|--------------------------|------------------------|-----------------------|---------------------|
|                          | <b>Pro-immigration</b> | <b>Pro-guns</b>       | <b>God exists</b>   |
| Inequality Experiences   | 0.0329<br>(0.0343)     | -0.000870<br>(0.0104) | 0.00392<br>(0.0112) |
| Observations             | 8,266                  | 30,527                | 15,322              |
| R-squared                | 0.098                  | 0.084                 | 0.301               |
| Age FE                   | Yes                    | Yes                   | Yes                 |
| Year FE                  | Yes                    | Yes                   | Yes                 |
| Cohort group FE          | Yes                    | Yes                   | Yes                 |
| Census div FE            | Yes                    | Yes                   | Yes                 |
| Unemployment Experiences | Yes                    | Yes                   | Yes                 |
| HH controls              | Yes                    | Yes                   | Yes                 |

Standard errors are two-way clustered by age and cohort. Inequality experiences are based on the experienced share of total income earned by the top 5 percent during the impressionable years. Unemployment experiences are based on the experienced national unemployment rate during the impressionable years. All specifications control for age fixed effects, year fixed effects, cohort group fixed effects as well as region fixed effects. All specifications control for a large set of controls: household income, marital status, education, employment status, household size, religion, and gender. All outcome measures are z-scored. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table A5: Allbus: Placebos

|                          | (1)                    | (2)                 | (3)                           |
|--------------------------|------------------------|---------------------|-------------------------------|
|                          | <b>Pro-immigration</b> | <b>Nationalism</b>  | <b>Nature determines life</b> |
| Inequality Experiences   | -0.0330<br>(0.0272)    | -0.0298<br>(0.0344) | -0.0712<br>(0.0623)           |
| Observations             | 11,057                 | 5,666               | 4,178                         |
| R-squared                | 0.235                  | 0.122               | 0.090                         |
| Age FE                   | Yes                    | Yes                 | Yes                           |
| Year FE                  | Yes                    | Yes                 | Yes                           |
| Cohort group FE          | Yes                    | Yes                 | Yes                           |
| Region FE                | Yes                    | Yes                 | Yes                           |
| Unemployment Experiences | Yes                    | Yes                 | Yes                           |
| HH controls              | Yes                    | Yes                 | Yes                           |

Standard errors are two-way clustered by age and cohort. Inequality experiences are based on the experienced share of total income earned by the top 5 percent during the impressionable years. Unemployment experiences are based on the experienced national unemployment rate during the impressionable years. All specifications control for age fixed effects, year fixed effects, cohort group fixed effects as well as region fixed effects. All specifications control for a large set of controls: household income, marital status, education, employment status, household size, religion, and gender. All outcome measures are z-scored. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table A6: ESS: Placebos

|                              | (1)                    | (2)                       | (3)                   |
|------------------------------|------------------------|---------------------------|-----------------------|
|                              | <b>Pro-immigration</b> | <b>Pro-EU unification</b> | <b>Pro-democratic</b> |
| Inequality Experiences       | -0.00592<br>(0.0213)   | -0.0210<br>(0.0217)       | 0.0419<br>(0.0273)    |
| Observations                 | 81,136                 | 55,907                    | 48,045                |
| R-squared                    | 0.209                  | 0.109                     | 0.070                 |
| Country FE x Age trends      | Yes                    | Yes                       | Yes                   |
| Country FE x Year FE         | Yes                    | Yes                       | Yes                   |
| Country FE x Cohort group FE | Yes                    | Yes                       | Yes                   |
| Unemployment Experiences     | Yes                    | Yes                       | Yes                   |
| HH controls                  | Yes                    | Yes                       | Yes                   |

Standard errors are two-way clustered by age and cohort. Inequality experiences are based on the experienced share of total income earned by the top 5 percent during the impressionable years. Unemployment experiences are based on the experienced national unemployment rate during the impressionable years. All specifications control for age trends, year fixed effects and cohort group fixed effects, each interacted with country fixed effects. All specifications control for a large set of controls: household income, marital status, education, employment status, household size, religion, and gender. All outcome measures are z-scored. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table A7: GSS (national): Other Experiences during the Impressionable Years

|                                     | (1)                   | (2)                   | (3)                    | (4)                    | (5)                    | (6)                    |
|-------------------------------------|-----------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|
|                                     | Help poor             | Pro welfare           | Success due to luck    | Liberal                | Party: Democrat        | Voted: Democrat        |
| <b>Panel A: Unemployment (main)</b> |                       |                       |                        |                        |                        |                        |
| Inequality Experiences              | -0.0370**<br>(0.0147) | -0.0234*<br>(0.0126)  | -0.0147<br>(0.0112)    | -0.0383***<br>(0.0123) | -0.0476***<br>(0.0126) | -0.0414***<br>(0.0129) |
| Unemployment Experiences            | 0.00868<br>(0.0158)   | 0.000302<br>(0.00841) | 0.00397<br>(0.00823)   | 0.0177**<br>(0.00823)  | -0.00213<br>(0.00757)  | 0.00609<br>(0.00627)   |
| Observations                        | 23,199                | 26,135                | 29,083                 | 40,136                 | 46,327                 | 32,907                 |
| <b>Panel B: Crisis</b>              |                       |                       |                        |                        |                        |                        |
| Inequality Experiences              | -0.0331**<br>(0.0150) | -0.0249**<br>(0.0109) | -0.0115<br>(0.00885)   | -0.0271**<br>(0.0115)  | -0.0529***<br>(0.0105) | -0.0398***<br>(0.0123) |
| Experienced a Crisis                | -0.00768<br>(0.0286)  | 0.0268<br>(0.0284)    | -0.0222<br>(0.0335)    | -0.0584**<br>(0.0242)  | 0.0692***<br>(0.0222)  | 0.0247*<br>(0.0138)    |
| Observations                        | 23,199                | 26,135                | 29,083                 | 40,136                 | 46,327                 | 32,907                 |
| <b>Panel C: GDP Growth</b>          |                       |                       |                        |                        |                        |                        |
| Inequality Experiences              | -0.0363**<br>(0.0153) | -0.0225**<br>(0.0110) | -0.00855<br>(0.00959)  | -0.0306**<br>(0.0127)  | -0.0455***<br>(0.0103) | -0.0317***<br>(0.0109) |
| Experienced GDP growth              | -0.00925<br>(0.0124)  | 0.00219<br>(0.00620)  | 0.0129<br>(0.00873)    | 0.00119<br>(0.00761)   | 0.00910*<br>(0.00539)  | 0.0203***<br>(0.00707) |
| Observations                        | 23,199                | 26,135                | 29,083                 | 40,136                 | 46,327                 | 32,907                 |
| <b>Panel D: Tax Revenue</b>         |                       |                       |                        |                        |                        |                        |
| Inequality Experiences              | -0.0430**<br>(0.0204) | -0.0123<br>(0.0162)   | -0.0378**<br>(0.0147)  | -0.0668***<br>(0.0179) | -0.0425***<br>(0.0151) | -0.0501**<br>(0.0199)  |
| Experienced Tax Revenue rel to GDP  | -0.0435<br>(0.0957)   | 0.0433<br>(0.0562)    | -0.175***<br>(0.0536)  | -0.159**<br>(0.0632)   | -0.0247<br>(0.0471)    | -0.108*<br>(0.0650)    |
| Observations                        | 22,411                | 24,409                | 27,498                 | 38,335                 | 43,856                 | 31,063                 |
| <b>Panel E: Political ideology</b>  |                       |                       |                        |                        |                        |                        |
| Inequality Experiences              | -0.0351**<br>(0.0139) | -0.0226**<br>(0.0108) | -0.0113<br>(0.00918)   | -0.0317***<br>(0.0121) | -0.0465***<br>(0.0101) | -0.0370***<br>(0.0123) |
| Experienced Republican President    | 0.0163**<br>(0.00763) | -0.00559<br>(0.00553) | -0.0122**<br>(0.00598) | 0.00726<br>(0.00768)   | -0.0163**<br>(0.00767) | -0.0107<br>(0.00723)   |
| Observations                        | 23,199                | 26,135                | 29,083                 | 40,136                 | 46,327                 | 32,907                 |
| Age FE                              | Yes                   | Yes                   | Yes                    | Yes                    | Yes                    | Yes                    |
| Year FE                             | Yes                   | Yes                   | Yes                    | Yes                    | Yes                    | Yes                    |
| Cohort group FE                     | Yes                   | Yes                   | Yes                    | Yes                    | Yes                    | Yes                    |
| Census div FE                       | Yes                   | Yes                   | Yes                    | Yes                    | Yes                    | Yes                    |
| Unemployment Experiences            | Yes                   | Yes                   | Yes                    | Yes                    | Yes                    | Yes                    |
| HH controls                         | Yes                   | Yes                   | Yes                    | Yes                    | Yes                    | Yes                    |

Standard errors are two-way clustered by age and cohort. Inequality experiences are based on the national level experienced share of total income earned by the top 5 percent during the impressionable years. Unemployment experiences are based on the experienced unemployment rate during the impressionable years. All specifications control for age fixed effects, year fixed effects, cohort group fixed effects as well as region fixed effects. All specifications control for a large set of controls: household income, marital status, education, employment status, household size, religion, and gender. All outcome measures are z-scored. In Panel A we show the main results. In Panel B, we show the results controlling for crisis experiences. In Panel C, we show the results controlling for experienced growth of real GDP per capita. In Panel D, we control for the experienced size of the government as the experienced ratio of total tax revenue to GDP. In Panel E, we control for the fraction of the impressionable years in which a republican president was in office. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table A8: Allbus: Other Experiences during the Impressionable Years

|                                       | (1)                    | (2)  | (3)                         | (4)                    | (5)                        | (6)                   |
|---------------------------------------|------------------------|--|-----------------------------|------------------------|----------------------------|-----------------------|
|                                       | Inequality:<br>Unfair  | Inequality does not<br>increase motivation | Inequality<br>reflects luck | Left-wing              | Intention to Vote:<br>Left | Voted: Left           |
| <b>Panel A: Unemployment (main)</b>   |                        |  |                             |                        |                            |                       |
| Inequality Experiences                | -0.0544*<br>(0.0307)   | -0.0428<br>(0.0296)                        | -0.0684**<br>(0.0349)       | -0.0956***<br>(0.0196) | -0.0837***<br>(0.0298)     | -0.0962**<br>(0.0456) |
| Unemployment Experiences              | 0.108*<br>(0.0614)     | 0.0293<br>(0.0465)                         | 0.0994*<br>(0.0539)         | 0.00953<br>(0.0337)    | 0.0254<br>(0.0499)         | 0.0949<br>(0.0734)    |
| Observations                          | 10,401                 | 10,357                                     | 10,309                      | 18,979                 | 14,691                     | 9,533                 |
| <b>Panel B: Crisis</b>                |                        |  |                             |                        |                            |                       |
| Inequality Experiences                | -0.0892***<br>(0.0212) | -0.0522**<br>(0.0242)                      | -0.101***<br>(0.0271)       | -0.0978***<br>(0.0220) | -0.0902***<br>(0.0266)     | -0.124***<br>(0.0431) |
| Experienced a Crisis                  | -0.249***<br>(0.0831)  | -0.0380<br>(0.129)                         | 0.0728<br>(0.289)           | -0.0723<br>(0.0837)    | -0.0185<br>(0.0745)        | 0.107<br>(0.129)      |
| Observations                          | 10,401                 | 10,357                                     | 10,309                      | 18,979                 | 14,691                     | 9,533                 |
| <b>Panel C: GDP Growth</b>            |                        |  |                             |                        |                            |                       |
| Inequality Experiences                | -0.0891***<br>(0.0215) | -0.0518**<br>(0.0248)                      | -0.105***<br>(0.0276)       | -0.102***<br>(0.0219)  | -0.0952***<br>(0.0277)     | -0.127***<br>(0.0446) |
| Experienced GDP Growth                | 0.00369<br>(0.0341)    | 0.00314<br>(0.0244)                        | -0.0253<br>(0.0305)         | -0.0119<br>(0.0139)    | -0.0131<br>(0.00937)       | -0.0186<br>(0.0231)   |
| Observations                          | 10,401                 | 10,357                                     | 10,309                      | 18,979                 | 14,691                     | 9,533                 |
| <b>Panel D: Tax Revenue</b>           |                        |  |                             |                        |                            |                       |
| Inequality Experiences                | -0.0902***<br>(0.0211) | -0.0725***<br>(0.0246)                     | -0.0968***<br>(0.0251)      | -0.118***<br>(0.0209)  | -0.111***<br>(0.0292)      | -0.130***<br>(0.0498) |
| Experienced Tax Revenue rel to GDP    | 0.111<br>(0.0853)      | 0.144<br>(0.0989)                          | -0.00542<br>(0.0490)        | -0.0157<br>(0.0573)    | -0.0111<br>(0.0824)        | -0.0637<br>(0.112)    |
| <b>Panel E: Political Ideology</b>    |                        |  |                             |                        |                            |                       |
| Inequality Experiences                | -0.0835***<br>(0.0204) | -0.0620**<br>(0.0251)                      | -0.0939***<br>(0.0277)      | -0.121***<br>(0.0224)  | -0.0993***<br>(0.0288)     | -0.129**<br>(0.0518)  |
| Experienced a conservative chancellor | 0.0139<br>(0.0164)     | 0.0126<br>(0.0134)                         | -0.0104<br>(0.0129)         | 0.00211<br>(0.00987)   | -0.0254*<br>(0.0145)       | -0.0158<br>(0.0241)   |
| Observations                          | 9,974                  | 9,955                                      | 9,902                       | 17,740                 | 13,602                     | 9,046                 |
| Age FE                                | Yes                    | Yes  | Yes                         | Yes                    | Yes                        | Yes                   |
| Year FE                               | Yes                    | Yes  | Yes                         | Yes                    | Yes                        | Yes                   |
| Cohort group FE                       | Yes                    | Yes  | Yes                         | Yes                    | Yes                        | Yes                   |
| Census div FE                         | Yes                    | Yes  | Yes                         | Yes                    | Yes                        | Yes                   |
| Unemployment Experiences              | Yes                    | Yes  | Yes                         | Yes                    | Yes                        | Yes                   |
| HH controls                           | Yes                    | Yes  | Yes                         | Yes                    | Yes                        | Yes                   |

Standard errors are two-way clustered by age and cohort. Inequality experiences are based on the national level experienced share of total income earned by the top 5 percent during the impressionable years. Unemployment experiences are based on the experienced unemployment rate during the impressionable years. All specifications control for age fixed effects, year fixed effects, cohort group fixed effects as well as region fixed effects. All specifications control for a large set of controls: household income, marital status, education, employment status, household size, religion, and gender. All outcome measures are z-scored. In Panel A we show the main results. In Panel B, we show the results controlling for crisis experiences. In Panel C, we show the results controlling for experienced growth of real GDP per capita. In Panel D, we control for the experienced size of the government as the experienced ratio of total tax revenue to GDP. In Panel E, we control for the fraction of the impressionable years in which a conservative chancellor was in office. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table A9: GSS: Robustness (National Inequality Experiences)

|   | (1)                    | (2)                     | (3)                   | (4)                     | (5)                     | (6)                     |
|---|------------------------|-------------------------|-----------------------|-------------------------|-------------------------|-------------------------|
|   | Help poor              | Pro welfare             | Success due to luck   | Liberal                 | Party: Democrat         | Voted: Democrat         |
| <b>Panel A: Main</b>                                |                        |                         |                       |                         |                         |                         |
| Inequality Experiences                              | -0.0370**<br>(0.0147)  | -0.0234*<br>(0.0126)    | -0.0147<br>(0.0112)   | -0.0383***<br>(0.0123)  | -0.0476***<br>(0.0126)  | -0.0414***<br>(0.0129)  |
| Observations  | 23,199                 | 26,135                  | 29,083                | 40,136                  | 46,327                  | 32,907                  |
| <b>Panel B: Top 1 percent</b>                       |                        |                         |                       |                         |                         |                         |
| Inequality Experiences                              | -0.0398***<br>(0.0141) | -0.0215*<br>(0.0126)    | -0.0125<br>(0.0112)   | -0.0451***<br>(0.0124)  | -0.0469***<br>(0.0123)  | -0.0411***<br>(0.0129)  |
| Observations  | 23,238                 | 26,325                  | 29,233                | 40,302                  | 46,587                  | 33,097                  |
| <b>Panel C: Top 10 percent</b>                      |                        |                         |                       |                         |                         |                         |
| Inequality Experiences                              | -0.0361**<br>(0.0158)  | -0.0258**<br>(0.0129)   | -0.0163<br>(0.0113)   | -0.0347***<br>(0.0127)  | -0.0515***<br>(0.0128)  | -0.0426***<br>(0.0131)  |
| Observations  | 23,199                 | 26,135                  | 29,083                | 40,136                  | 46,327                  | 32,907                  |
| <b>Panel D: No missings</b>                         |                        |                         |                       |                         |                         |                         |
| Inequality Experiences                              | -0.0458***<br>(0.0155) | -0.0373***<br>(0.0126)  | -0.0221*<br>(0.0128)  | -0.0467***<br>(0.0139)  | -0.0510***<br>(0.0124)  | -0.0437***<br>(0.0141)  |
| Observations  | 20,935                 | 23,817                  | 26,311                | 36,458                  | 40,736                  | 29,298                  |
| <b>Panel E: No unemployment experience controls</b> |                        |                         |                       |                         |                         |                         |
| Inequality Experiences                              | -0.0337**<br>(0.0143)  | -0.0233**<br>(0.0105)   | -0.0129<br>(0.00891)  | -0.0310**<br>(0.0122)   | -0.0485***<br>(0.0107)  | -0.0383***<br>(0.0121)  |
| Observations  | 23,199                 | 26,135                  | 29,083                | 40,136                  | 46,327                  | 32,907                  |
| <b>Panel F: Age trend</b>                           |                        |                         |                       |                         |                         |                         |
| Inequality Experiences                              | -0.0441***<br>(0.0142) | -0.0284**<br>(0.0131)   | -0.0183*<br>(0.0102)  | -0.0303***<br>(0.0114)  | -0.0547***<br>(0.0117)  | -0.0428***<br>(0.0113)  |
| Observations  | 23,199                 | 26,135                  | 29,083                | 40,136                  | 46,327                  | 32,907                  |
| <b>Panel G: Gini coefficient</b>                    |                        |                         |                       |                         |                         |                         |
| Inequality Experiences                              | -0.0494***<br>(0.0122) | -0.0157<br>(0.0127)     | -0.00360<br>(0.00907) | -0.0750***<br>(0.0113)  | -0.0481***<br>(0.00914) | -0.0517***<br>(0.0130)  |
| Observations  | 19,626                 | 20,246                  | 23,272                | 33,004                  | 37,253                  | 25,906                  |
| <b>Panel H: No cohort group FE</b>                  |                        |                         |                       |                         |                         |                         |
| Inequality Experiences                              | -0.0254**<br>(0.0113)  | -0.0298***<br>(0.00863) | -0.0133<br>(0.00825)  | -0.0294***<br>(0.00902) | -0.0211**<br>(0.0107)   | -0.0240***<br>(0.00833) |
| Observations  | 23,199                 | 26,135                  | 29,083                | 40,136                  | 46,327                  | 32,907                  |
| Age FE  | Yes                    | Yes                     | Yes                   | Yes                     | Yes                     | Yes                     |
| Year FE   | Yes                    | Yes                     | Yes                   | Yes                     | Yes                     | Yes                     |
| Cohort group FE                                     | Yes                    | Yes                     | Yes                   | Yes                     | Yes                     | Yes                     |
| Census div FE                                       | Yes                    | Yes                     | Yes                   | Yes                     | Yes                     | Yes                     |
| Unemployment Experiences                            | Yes                    | Yes                     | Yes                   | Yes                     | Yes                     | Yes                     |
| HH controls   | Yes                    | Yes                     | Yes                   | Yes                     | Yes                     | Yes                     |

Standard errors are two-way clustered by age and cohort. Inequality experiences are based on the national level experienced share of total income earned by the top 5 percent during the impressionable years, unless otherwise stated. Unemployment experiences are based on the experienced unemployment rate during the impressionable years. All specifications control for age fixed effects, year fixed effects, cohort group fixed effects as well as region fixed effects. All specifications control for a large set of controls: household income, marital status, education, employment status, household size, religion, and gender. All outcome measures are z-scored. In Panel A, we show the main results. In Panel B, we show the results using the top 1 percent income share as our measure of inequality. In Panel C, we show the results using the top 10 percent income share as our measure of inequality. In Panel D, we only use observations for which we do not have missings in any of the controls. In Panel E, we do not make use of unemployment experience controls. In Panel F, we use an age trend rather than age fixed effects. In Panel G, we show the results using the Gini coefficient as our measure of income inequality. In Panel H, we do not make use of cohort group fixed effects. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table A10: GSS: Robustness (Regional Inequality Experiences)

|   | (1)                    | (2)                    | (3)                   | (4)                     | (5)                    | (6)                    |
|---|------------------------|------------------------|-----------------------|-------------------------|------------------------|------------------------|
|   | Help poor              | Pro welfare            | Success due to luck   | Liberal                 | Party: Democrat        | Voted: Democrat        |
| <b>Panel A: Main</b>                                |                        |                        |                       |                         |                        |                        |
| Inequality Experiences                              | -0.0415**<br>(0.0179)  | -0.0268*<br>(0.0138)   | -0.0142<br>(0.0111)   | -0.0598***<br>(0.0134)  | -0.0522***<br>(0.0123) | -0.0377***<br>(0.0141) |
| Observations  | 22,987                 | 25,831                 | 28,670                | 39,632                  | 45,703                 | 32,597                 |
| <b>Panel B: Top 1 percent</b>                       |                        |                        |                       |                         |                        |                        |
| Inequality Experiences                              | -0.0398***<br>(0.0141) | -0.0215*<br>(0.0126)   | -0.0125<br>(0.0112)   | -0.0451***<br>(0.0124)  | -0.0469***<br>(0.0123) | -0.0411***<br>(0.0129) |
| Observations  | 22,987                 | 25,831                 | 28,670                | 39,632                  | 45,703                 | 32,597                 |
| <b>Panel C: Top 10 percent</b>                      |                        |                        |                       |                         |                        |                        |
| Inequality Experiences                              | -0.0419**<br>(0.0179)  | -0.0241*<br>(0.0143)   | -0.0168<br>(0.0119)   | -0.0564***<br>(0.0137)  | -0.0498***<br>(0.0125) | -0.0351**<br>(0.0154)  |
| Observations  | 22,987                 | 25,831                 | 28,670                | 39,632                  | 45,703                 | 32,597                 |
| <b>Panel D: No missings</b>                         |                        |                        |                       |                         |                        |                        |
| Inequality Experiences                              | -0.0523***<br>(0.0185) | -0.0455***<br>(0.0146) | -0.0180<br>(0.0130)   | -0.0687***<br>(0.0147)  | -0.0591***<br>(0.0123) | -0.0417***<br>(0.0154) |
| Observations  | 20,748                 | 23,545                 | 25,957                | 36,017                  | 40,234                 | 29,033                 |
| <b>Panel E: No unemployment experience controls</b> |                        |                        |                       |                         |                        |                        |
| Inequality Experiences                              | -0.0370**<br>(0.0176)  | -0.0276**<br>(0.0123)  | -0.0129<br>(0.00923)  | -0.0526***<br>(0.0135)  | -0.0529***<br>(0.0109) | -0.0358***<br>(0.0138) |
| Observations  | 22,987                 | 25,831                 | 28,670                | 39,632                  | 45,703                 | 32,597                 |
| <b>Panel F: Age trend</b>                           |                        |                        |                       |                         |                        |                        |
| Inequality Experiences                              | -0.0479***<br>(0.0176) | -0.0272*<br>(0.0140)   | -0.0174*<br>(0.00966) | -0.0494***<br>(0.0125)  | -0.0575***<br>(0.0111) | -0.0355***<br>(0.0130) |
| Observations  | 22,987                 | 25,831                 | 28,670                | 39,632                  | 45,703                 | 32,597                 |
| <b>Panel G: No movers</b>                           |                        |                        |                       |                         |                        |                        |
| Inequality Experiences                              | -0.0409**<br>(0.0203)  | -0.0239*<br>(0.0128)   | -0.0135<br>(0.0141)   | -0.0499***<br>(0.0153)  | -0.0584***<br>(0.0128) | -0.0376***<br>(0.0146) |
| Observations  | 17,653                 | 19,914                 | 22,108                | 30,481                  | 35,252                 | 24,833                 |
| <b>Panel H: No cohort group FE</b>                  |                        |                        |                       |                         |                        |                        |
| Inequality Experiences                              | -0.0274**<br>(0.0109)  | -0.0310***<br>(0.0100) | -0.0122*<br>(0.00731) | -0.0355***<br>(0.00943) | -0.0184*<br>(0.00981)  | -0.0168**<br>(0.00733) |
| Observations  | 22,987                 | 25,831                 | 28,670                | 39,632                  | 45,703                 | 32,597                 |
| Census div 16 FE x Age FE                           | Yes                    | Yes                    | Yes                   | Yes                     | Yes                    | Yes                    |
| Census div 16 FE x Year FE                          | Yes                    | Yes                    | Yes                   | Yes                     | Yes                    | Yes                    |
| Census div 16 FE x Cohort group FE                  | Yes                    | Yes                    | Yes                   | Yes                     | Yes                    | Yes                    |
| Census div FE                                       | Yes                    | Yes                    | Yes                   | Yes                     | Yes                    | Yes                    |
| Unemployment Experiences                            | Yes                    | Yes                    | Yes                   | Yes                     | Yes                    | Yes                    |
| HH controls   | Yes                    | Yes                    | Yes                   | Yes                     | Yes                    | Yes                    |

Standard errors are two-way clustered by age and cohort. Inequality experiences are based on the national level experienced share of total income earned by the top 5 percent during the impressionable years, unless otherwise stated. Unemployment experiences are based on the experienced unemployment rate during the impressionable years. All specifications control for age fixed effects, year fixed effects and cohort group fixed effects, each interacted with census division at 16 fixed effects. All specifications control for a large set of controls: household income, marital status, education, employment status, household size, religion, and gender. All outcome measures are z-scored. In Panel A, we show the main results. In Panel B, we show the results using the top 1 percent income share as our measure of inequality. In Panel C, we show the results using the top 10 percent income share as our measure of inequality. In Panel D, we only use observations for which we do not have missings in any of the controls. In Panel E, we do not make use of unemployment experience controls. In Panel F, we use an age trend rather than age fixed effects. In Panel G, we show the results excluding those who moved to a different census division between age 16 and the time of the interview. In Panel H, we do not make use of cohort group fixed effects.

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table A11: Allbus: Robustness

|   | (1)                    | (2)  | (3)                         | (4)                     | (5)                        | (6)                    |
|---|------------------------|--|-----------------------------|-------------------------|----------------------------|------------------------|
|   | Inequality:<br>Unfair  | Inequality does not<br>increase motivation | Inequality<br>reflects luck | Left-wing               | Intention to Vote:<br>Left | Voted: Left            |
| <b>Panel A: Main</b>                                    |                        |  |                             |                         |                            |                        |
| Inequality Experiences                                  | -0.0544*<br>(0.0307)   | -0.0428<br>(0.0296)                        | -0.0684**<br>(0.0349)       | -0.0956***<br>(0.0196)  | -0.0837***<br>(0.0298)     | -0.0962**<br>(0.0456)  |
| Observations  | 10,401                 | 10,357                                     | 10,309                      | 18,979                  | 14,691                     | 9,533                  |
| <b>Panel B: Top 1 percent</b>                           |                        |  |                             |                         |                            |                        |
| Inequality Experiences                                  | -0.109***<br>(0.0333)  | -0.0650*<br>(0.0352)                       | -0.123***<br>(0.0286)       | -0.125***<br>(0.0229)   | -0.138***<br>(0.0287)      | -0.141***<br>(0.0430)  |
| Observations  | 13,635                 | 13,537                                     | 13,478                      | 25,555                  | 20,236                     | 12,930                 |
| <b>Panel C: Top 10 percent</b>                          |                        |  |                             |                         |                            |                        |
| Inequality Experiences                                  | -0.0678<br>(0.0466)    | -0.0697<br>(0.0436)                        | -0.0579<br>(0.0525)         | -0.127***<br>(0.0312)   | -0.0742*<br>(0.0394)       | -0.0824<br>(0.0729)    |
| Observations  | 10,401                 | 10,357                                     | 10,309                      | 18,979                  | 14,691                     | 9,533                  |
| <b>Panel D: No missings</b>                             |                        |  |                             |                         |                            |                        |
| Inequality Experiences                                  | -0.0382<br>(0.0365)    | -0.0610*<br>(0.0339)                       | -0.0626<br>(0.0411)         | -0.102***<br>(0.0254)   | -0.0987***<br>(0.0352)     | -0.0833<br>(0.0562)    |
| Observations  | 7,719                  | 7,686                                      | 7,669                       | 13,609                  | 10,997                     | 6,831                  |
| <b>Panel E: No unemployment<br/>experience controls</b> |                        |  |                             |                         |                            |                        |
| Inequality Experiences                                  | -0.0896***<br>(0.0212) | -0.0523**<br>(0.0242)                      | -0.101***<br>(0.0271)       | -0.0983***<br>(0.0219)  | -0.0904***<br>(0.0266)     | -0.124***<br>(0.0430)  |
| Observations  | 10,401                 | 10,357                                     | 10,309                      | 18,979                  | 14,691                     | 9,533                  |
| <b>Panel F: Age trend</b>                               |                        |  |                             |                         |                            |                        |
| Inequality Experiences                                  | -0.0548**<br>(0.0236)  | -0.0498**<br>(0.0213)                      | -0.0864***<br>(0.0239)      | -0.0982***<br>(0.0186)  | -0.105***<br>(0.0295)      | -0.0987**<br>(0.0478)  |
| Observations  | 10,401                 | 10,357                                     | 10,309                      | 18,979                  | 14,691                     | 9,533                  |
| <b>Panel G: Gini coefficient</b>                        |                        |  |                             |                         |                            |                        |
| Inequality Experiences                                  | -0.0188<br>(0.0216)    | -0.0616***<br>(0.0172)                     | -0.0458**<br>(0.0226)       | -0.0530***<br>(0.00863) | -0.0695***<br>(0.0123)     | -0.0539**<br>(0.0221)  |
| Observations  | 9,783                  | 9,766                                      | 9,716                       | 17,318                  | 13,242                     | 8,827                  |
| <b>Panel H: No cohort group FE</b>                      |                        |  |                             |                         |                            |                        |
| Inequality Experiences                                  | -0.0347*<br>(0.0200)   | -0.0398**<br>(0.0202)                      | -0.0512**<br>(0.0239)       | -0.0492***<br>(0.0132)  | -0.0674***<br>(0.0178)     | -0.0979***<br>(0.0294) |
| Observations  | 10,401                 | 10,357                                     | 10,309                      | 18,979                  | 14,691                     | 9,533                  |
| Age FE  | Yes                    | Yes  | Yes                         | Yes                     | Yes                        | Yes                    |
| Year FE   | Yes                    | Yes  | Yes                         | Yes                     | Yes                        | Yes                    |
| Cohort group FE   | Yes                    | Yes  | Yes                         | Yes                     | Yes                        | Yes                    |
| Region FE   | Yes                    | Yes  | Yes                         | Yes                     | Yes                        | Yes                    |
| Unemployment Experiences                                | Yes                    | Yes  | Yes                         | Yes                     | Yes                        | Yes                    |
| HH controls   | Yes                    | Yes  | Yes                         | Yes                     | Yes                        | Yes                    |

Standard errors are two-way clustered by age and cohort. Inequality experiences are based on the national level experienced share of total income earned by the top 5 percent during the impressionable years, unless otherwise stated. Unemployment experiences are based on the experienced unemployment rate during the impressionable years. All specifications control for age fixed effects, year fixed effects, cohort group fixed effects as well as region fixed effects. All specifications control for a large set of controls: household income, marital status, education, employment status, household size, religion, and gender. All outcome measures are z-scored. In Panel A, we show the main results. In Panel B, we show the results using the top 1 percent income share as our measure of inequality. In Panel C, we show the results using the top 10 percent income share as our measure of inequality. In Panel D, we only use observations for which we do not have missings in any of the controls. In Panel E, we do not make use of unemployment experience controls. In Panel F, we use an age trend rather than age fixed effects. In Panel G, we show the results using the Gini coefficient as our measure of income inequality. In Panel H, we do not make use of cohort group fixed effects. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table A12: ESS: Robustness

|   | (1)                    | (2)                    | (3)                   |
|---|------------------------|------------------------|-----------------------|
|   | Pro-redistribution     | Left-wing              | Voted: Left           |
| <b>Panel A: Main</b>                                |                        |                        |                       |
| Inequality Experiences                              | -0.0390*<br>(0.0234)   | -0.117***<br>(0.0200)  | -0.121***<br>(0.0389) |
| Observations  | 85,529                 | 81,167                 | 25,462                |
| <b>Panel B: Top 1 percent</b>                       |                        |                        |                       |
| Inequality Experiences                              | -0.0509*<br>(0.0279)   | -0.124***<br>(0.0193)  | -0.127***<br>(0.0371) |
| Observations  | 92,831                 | 87,731                 | 28,591                |
| <b>Panel C: Top 10 percent</b>                      |                        |                        |                       |
| Inequality Experiences                              | -0.0412*<br>(0.0223)   | -0.108***<br>(0.0203)  | -0.114***<br>(0.0404) |
| Observations  | 84,485                 | 79,676                 | 25,438                |
| <b>Panel D: No missings</b>                         |                        |                        |                       |
| Inequality Experiences                              | -0.0486**<br>(0.0244)  | -0.124***<br>(0.0251)  | -0.118***<br>(0.0453) |
| Observations  | 68,937                 | 66,498                 | 21,899                |
| <b>Panel E: No unemployment experience controls</b> |                        |                        |                       |
| Inequality Experiences                              | -0.0435*<br>(0.0241)   | -0.118***<br>(0.0193)  | -0.118***<br>(0.0367) |
| Observations  | 85,529                 | 81,167                 | 25,462                |
| <b>Panel F: Gini coefficient</b>                    |                        |                        |                       |
| Inequality Experiences                              | -0.0850**<br>(0.0344)  | -0.155**<br>(0.0613)   | -0.183**<br>(0.0795)  |
| Observations  | 44,670                 | 42,077                 | 15,852                |
| <b>Panel G: No cohort group FE</b>                  |                        |                        |                       |
| Inequality Experiences                              | -0.0491***<br>(0.0144) | -0.106***<br>(0.00980) | -0.139***<br>(0.0245) |
| Observations  | 85,529                 | 81,167                 | 25,462                |
| Country FE x Age trend                              | Yes                    | Yes                    | Yes                   |
| Country FE x Year FE                                | Yes                    | Yes                    | Yes                   |
| Country FE x Cohort group FE                        | Yes                    | Yes                    | Yes                   |
| Unemployment Experiences                            | Yes                    | Yes                    | Yes                   |
| HH controls   | Yes                    | Yes                    | Yes                   |

Standard errors are two-way clustered by age and cohort. Inequality experiences are based on the experienced share of total income earned by the top 5 percent during the impressionable years unless otherwise stated. Unemployment experiences are based on the experienced national unemployment rate during the impressionable years. All specifications control for age trends, year fixed effects as well as cohort group fixed effects, each interacted with country fixed effects. All specifications control for a large set of controls: household income, marital status, education, employment status, household size, religion, and gender. All outcome measures are z-scored. In Panel A, we show the main results. In Panel B, we show the results using the top 1 percent income share as our measure of inequality. In Panel C, we show the results using the top 10 percent income share as our measure of inequality. In Panel D, we only use observations for which we do not have missings in any of the controls. In Panel E, we do not make use of unemployment experience controls. In Panel F, we show the results using the Gini coefficient as our measure of income inequality. In Panel G, we do not make use of cohort group fixed effects. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table A13: GSS: Summary Stats

| Variable                                  | Mean   | Std. Dev. | Min.   | Max.   | N     |
|---|--------|-----------|--------|--------|-------|
| Vote democrat                             | 0.466  | 0.499     | 0      | 1      | 32907 |
| Share top 10 during impr years (national) | 34.879 | 4.16      | 31.779 | 46.294 | 47207 |
| Share top 5 during impr years (national)  | 23.587 | 3.785     | 20.679 | 33.926 | 47207 |
| Share top 1 during impr years (national)  | 10.375 | 2.882     | 7.875  | 17.805 | 47207 |
| Gini during impr year (national)          | 38.566 | 2.035     | 36.838 | 45.225 | 36080 |
| Unemployment during impr years            | 6.545  | 2.913     | 3.875  | 17.988 | 47207 |
| Share top 10 during impr years (regional) | 35.411 | 3.898     | 28.246 | 50.609 | 46544 |
| Share top 5 during impr years (regional)  | 24.458 | 3.514     | 18.935 | 39.275 | 46544 |
| Share top 1 during impr years (regional)  | 11.429 | 2.705     | 7.565  | 23.098 | 46544 |
| Full-time employed                        | 0.517  | 0.5       | 0      | 1      | 47207 |
| Part-time employed                        | 0.096  | 0.294     | 0      | 1      | 47207 |
| Temporarily not working                   | 0.024  | 0.152     | 0      | 1      | 47207 |
| Unemployed                                | 0.03   | 0.17      | 0      | 1      | 47207 |
| Retired                                   | 0.135  | 0.342     | 0      | 1      | 47207 |
| In School                                 | 0.011  | 0.103     | 0      | 1      | 47207 |
| Keeping house                             | 0.168  | 0.374     | 0      | 1      | 47207 |
| Other labor force                         | 0.021  | 0.142     | 0      | 1      | 47207 |
| Married                                   | 0.675  | 0.468     | 0      | 1      | 47207 |
| Widowed                                   | 0.072  | 0.258     | 0      | 1      | 47207 |
| Divorced                                  | 0.107  | 0.31      | 0      | 1      | 47207 |
| Separated                                 | 0.028  | 0.164     | 0      | 1      | 47207 |
| Single                                    | 0.118  | 0.323     | 0      | 1      | 47207 |
| Age                                       | 48.249 | 14.975    | 26     | 88     | 47207 |
| Less than high school                     | 0.207  | 0.405     | 0      | 1      | 47207 |
| High school                               | 0.570  | 0.495     | 0      | 1      | 47207 |
| College                                   | 0.221  | 0.415     | 0      | 1      | 47207 |
| Female                                    | 0.547  | 0.498     | 0      | 1      | 47207 |
| White                                     | 0.839  | 0.367     | 0      | 1      | 47207 |
| Black                                     | 0.133  | 0.339     | 0      | 1      | 47207 |
| Other race                                | 0.028  | 0.165     | 0      | 1      | 47207 |
| Born in US                                | 0.84   | 0.367     | 0      | 1      | 47207 |
| Household Size                            | 2.853  | 1.28      | 1      | 5      | 47203 |
| Urban                                     | 0.466  | 0.499     | 0      | 1      | 47207 |
| Protestant                                | 0.614  | 0.487     | 0      | 1      | 47207 |
| Catholic                                  | 0.234  | 0.423     | 0      | 1      | 47207 |
| Jewish                                    | 0.019  | 0.137     | 0      | 1      | 47207 |
| No religion                               | 0.097  | 0.297     | 0      | 1      | 47207 |
| Other religion                            | 0.032  | 0.175     | 0      | 1      | 47207 |

Table A14: Allbus: Summary Stats

| Variable                       | Mean   | Std. Dev. | Min.   | Max.  | N     |
|--------------------------------|--------|-----------|--------|-------|-------|
| Share top 10 during impr years | -0.049 | 0.925     | -0.652 | 5.612 | 20712 |
| Share top 5 during impr years  | -0.06  | 0.885     | -0.883 | 8.556 | 20712 |
| Share top 1 during impr years  | -0.352 | 0.88      | -1.278 | 9.106 | 20712 |
| Gini during impr years         | -0.017 | 0.966     | -0.842 | 3.322 | 18626 |
| Unemployment during impr years | -0.129 | 0.927     | -1.129 | 3.529 | 20712 |
| Age                            | 42.72  | 12.798    | 26     | 102   | 20712 |
| Female                         | 0.517  | 0.5       | 0      | 1     | 20712 |
| Education: No schooling        | 0.012  | 0.107     | 0      | 1     | 20712 |
| Education: "Hauptschule"       | 0.422  | 0.494     | 0      | 1     | 20712 |
| Education: Middle school       | 0.284  | 0.451     | 0      | 1     | 20712 |
| Education: A-levels            | 0.277  | 0.448     | 0      | 1     | 20712 |
| Married                        | 0.686  | 0.464     | 0      | 1     | 20712 |
| Separated                      | 0.016  | 0.126     | 0      | 1     | 20712 |
| Widowed                        | 0.04   | 0.195     | 0      | 1     | 20712 |
| Divorced                       | 0.071  | 0.256     | 0      | 1     | 20712 |
| Single                         | 0.186  | 0.389     | 0      | 1     | 20712 |
| Full-time employed             | 0.544  | 0.498     | 0      | 1     | 20712 |
| Part-time employed             | 0.118  | 0.322     | 0      | 1     | 20712 |
| Out of labor force             | 0.314  | 0.464     | 0      | 1     | 20712 |
| Unemployed                     | 0.007  | 0.081     | 0      | 1     | 20712 |
| Retired                        | 0.014  | 0.117     | 0      | 1     | 20712 |
| Student                        | 0.002  | 0.049     | 0      | 1     | 20712 |
| Other employment               | 0      | 0.02      | 0      | 1     | 20712 |
| Protestant                     | 0.412  | 0.492     | 0      | 1     | 20712 |
| Catholic                       | 0.412  | 0.492     | 0      | 1     | 20712 |
| Other religion                 | 0.015  | 0.123     | 0      | 1     | 20712 |
| No Religion                    | 0.157  | 0.363     | 0      | 1     | 20712 |
| Household Size                 | 2.851  | 1.228     | 1      | 5     | 20665 |

Table A15: ESS: Summary Stats

| Variable                       | Mean   | Std. Dev. | Min.   | Max.   | N     |
|--------------------------------|--------|-----------|--------|--------|-------|
| Share top 10 during impr years | 31.468 | 3.126     | 21.839 | 43.379 | 79640 |
| Share top 5 during impr years  | 20.898 | 2.622     | 13.343 | 32.606 | 86303 |
| Share top 1 during impr years  | 8.48   | 1.918     | 4.024  | 17.25  | 86303 |
| Gini during impr years         | 28.411 | 3.717     | 20.569 | 37.15  | 43918 |
| Unemployment during impr years | 6.854  | 4.284     | 0.01   | 35.287 | 86303 |
| Male                           | 0.479  | 0.5       | 0      | 1      | 86303 |
| Age                            | 47.236 | 12.989    | 26     | 102    | 86303 |
| Below high school              | 0.264  | 0.441     | 0      | 1      | 86303 |
| High school                    | 0.451  | 0.498     | 0      | 1      | 86303 |
| College                        | 0.278  | 0.448     | 0      | 1      | 86303 |
| Married                        | 0.601  | 0.49      | 0      | 1      | 86303 |
| Separated                      | 0.014  | 0.116     | 0      | 1      | 86303 |
| Divorced                       | 0.088  | 0.283     | 0      | 1      | 86303 |
| Widowed                        | 0.036  | 0.185     | 0      | 1      | 86303 |
| Never married                  | 0.207  | 0.405     | 0      | 1      | 86303 |
| Employed                       | 0.789  | 0.408     | 0      | 1      | 86303 |
| Self-employed                  | 0.13   | 0.336     | 0      | 1      | 86303 |
| Not in paid work               | 0.055  | 0.229     | 0      | 1      | 86303 |
| Religion: Catholic             | 0.265  | 0.441     | 0      | 1      | 86303 |
| Religion: Protestant           | 0.197  | 0.398     | 0      | 1      | 86303 |
| Religion: Eastern Orthodox     | 0.001  | 0.023     | 0      | 1      | 86303 |
| Religion: other christian      | 0.013  | 0.114     | 0      | 1      | 86303 |
| Religion: Jewish               | 0.001  | 0.034     | 0      | 1      | 86303 |
| Religion: Islamic              | 0.006  | 0.078     | 0      | 1      | 86303 |
| Religion: Other                | 0.005  | 0.074     | 0      | 1      | 86303 |
| Religion: None                 | 0.403  | 0.49      | 0      | 1      | 86303 |
| Household Size                 | 2.778  | 1.218     | 1      | 5      | 86270 |
| Income bracket (waves 1-3)     | 7.29   | 2.169     | 1      | 12     | 31690 |
| Income bracket (waves 4-7)     | 5.905  | 2.748     | 1      | 10     | 43220 |
| Denmark                        | 0.021  | 0.145     | 0      | 1      | 86303 |
| Finland                        | 0.019  | 0.137     | 0      | 1      | 86303 |
| France                         | 0.189  | 0.391     | 0      | 1      | 86303 |
| Germany                        | 0.238  | 0.426     | 0      | 1      | 86303 |
| Great Britain                  | 0.21   | 0.408     | 0      | 1      | 86303 |
| Italy                          | 0.044  | 0.205     | 0      | 1      | 86303 |
| Netherlands                    | 0.078  | 0.268     | 0      | 1      | 86303 |
| Norway                         | 0.02   | 0.14      | 0      | 1      | 86303 |
| Portugal                       | 0.019  | 0.138     | 0      | 1      | 86303 |
| Spain                          | 0.09   | 0.286     | 0      | 1      | 86303 |
| Sweden                         | 0.041  | 0.199     | 0      | 1      | 86303 |
| Switzerland                    | 0.03   | 0.171     | 0      | 1      | 86303 |

Table A16: Experimental Sample: Summary stats

| <b>Variable</b>                   | <b>Mean</b> | <b>Std. Dev.</b> | <b>N</b> |
|-----------------------------------|-------------|------------------|----------|
| Income                            | 46044.776   | 26498.068        | 402      |
| Grade 12 or less                  | 0.015       | 0.121            | 405      |
| Graduated high school             | 0.16        | 0.368            | 405      |
| Some college no degree            | 0.279       | 0.449            | 405      |
| Associate degree                  | 0.099       | 0.299            | 405      |
| Bachelor degree                   | 0.323       | 0.468            | 405      |
| Postgrad                          | 0.116       | 0.321            | 405      |
| Full-time employed                | 0.625       | 0.485            | 405      |
| Part-time employed                | 0.193       | 0.395            | 405      |
| Unemployed                        | 0.069       | 0.254            | 405      |
| Unemployed: not looking for a job | 0.047       | 0.212            | 405      |
| Retired                           | 0.017       | 0.13             | 405      |
| Other employment                  | 0.042       | 0.201            | 405      |
| White                             | 0.741       | 0.438            | 402      |
| Black                             | 0.085       | 0.279            | 402      |
| Hispanic                          | 0.067       | 0.251            | 402      |
| Age                               | 35.706      | 11.222           | 402      |

Table A17: GSS (national inequality experiences): Main Results showing Key Controls

|                          | (1)                    | (2)                    | (3)                    | (4)                    | (5)                    | (6)                    |
|--------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
|                          | Help poor              | Pro welfare            | Success due to luck    | Liberal                | Party: Democrat        | Voted: Democrat        |
| Inequality Experiences   | -0.0370**<br>(0.0147)  | -0.0234*<br>(0.0126)   | -0.0147<br>(0.0112)    | -0.0383***<br>(0.0123) | -0.0476***<br>(0.0126) | -0.0414***<br>(0.0129) |
| Unemployment Experiences | 0.00868<br>(0.0158)    | 0.000302<br>(0.00841)  | 0.00397<br>(0.00823)   | 0.0177**<br>(0.00823)  | -0.00213<br>(0.00757)  | 0.00609<br>(0.00627)   |
| Female                   | 0.137***<br>(0.0171)   | 0.0130<br>(0.0165)     | -0.101***<br>(0.0156)  | 0.125***<br>(0.0124)   | 0.126***<br>(0.0141)   | 0.117***<br>(0.0146)   |
| Part-time employed       | 0.0176<br>(0.0259)     | 0.0452<br>(0.0278)     | 0.0540**<br>(0.0233)   | 0.0204<br>(0.0132)     | -0.0384**<br>(0.0159)  | 0.00530<br>(0.0184)    |
| Temporarily not working  | 0.0397<br>(0.0416)     | 0.0739<br>(0.0486)     | -0.0147<br>(0.0442)    | 0.109***<br>(0.0384)   | 0.0420<br>(0.0308)     | 0.0478<br>(0.0359)     |
| Unemployed               | 0.157***<br>(0.0377)   | 0.226***<br>(0.0458)   | 0.110**<br>(0.0480)    | 0.0481*<br>(0.0267)    | 0.0806***<br>(0.0305)  | 0.0913***<br>(0.0296)  |
| Retired                  | 0.0986***<br>(0.0373)  | 0.120***<br>(0.0192)   | -0.000732<br>(0.0282)  | 0.0152<br>(0.0231)     | 0.0677***<br>(0.0182)  | 0.0836***<br>(0.0255)  |
| In school                | 0.0151<br>(0.0570)     | 0.300***<br>(0.0506)   | 0.142***<br>(0.0512)   | 0.0821<br>(0.0569)     | 0.0827<br>(0.0504)     | 0.0421<br>(0.0640)     |
| Keeping the house        | 0.0631***<br>(0.0215)  | 0.148***<br>(0.0179)   | -0.0248<br>(0.0201)    | -0.0797***<br>(0.0203) | -0.0509***<br>(0.0157) | -0.0259<br>(0.0216)    |
| Other labor force        | 0.250***<br>(0.0534)   | 0.336***<br>(0.0503)   | -0.0295<br>(0.0497)    | 0.0619*<br>(0.0372)    | 0.0385<br>(0.0379)     | 0.0635*<br>(0.0351)    |
| Married                  | -0.121***<br>(0.0207)  | -0.151***<br>(0.0287)  | -0.0789***<br>(0.0227) | -0.186***<br>(0.0212)  | -0.115***<br>(0.0149)  | -0.134***<br>(0.0216)  |
| Widowed                  | -0.0928**<br>(0.0414)  | -0.0928***<br>(0.0339) | -0.0883***<br>(0.0310) | -0.0997***<br>(0.0280) | -0.0287<br>(0.0182)    | -0.0933***<br>(0.0301) |
| Divorced                 | -0.0329<br>(0.0216)    | -0.0285<br>(0.0269)    | -0.00705<br>(0.0306)   | -0.0210<br>(0.0245)    | -0.0331*<br>(0.0194)   | -0.0613**<br>(0.0247)  |
| Separated                | 0.00189<br>(0.0447)    | -0.0145<br>(0.0489)    | -0.0570<br>(0.0383)    | -0.00536<br>(0.0329)   | -0.0853***<br>(0.0276) | -0.0858***<br>(0.0308) |
| High-school              | -0.244***<br>(0.0232)  | -0.123***<br>(0.0162)  | 0.0624***<br>(0.0196)  | -0.0958***<br>(0.0147) | -0.176***<br>(0.0198)  | -0.190***<br>(0.0206)  |
| College                  | -0.319***<br>(0.0260)  | 0.0310<br>(0.0223)     | 0.100***<br>(0.0261)   | -0.0137<br>(0.0176)    | -0.246***<br>(0.0269)  | -0.137***<br>(0.0237)  |
| Black                    | 0.526***<br>(0.0199)   | 0.604***<br>(0.0282)   | 0.180***<br>(0.0202)   | 0.317***<br>(0.0195)   | 0.888***<br>(0.0179)   | 1.027***<br>(0.0143)   |
| Other race               | 0.160***<br>(0.0349)   | 0.234***<br>(0.0546)   | 0.0784*<br>(0.0459)    | 0.157***<br>(0.0395)   | 0.339***<br>(0.0307)   | 0.441***<br>(0.0519)   |
| Income bracket 2         | 0.103<br>(0.0979)      | 0.0769<br>(0.0756)     | -0.0732<br>(0.0869)    | -0.116<br>(0.0851)     | 0.0377<br>(0.0484)     | 0.0604<br>(0.0752)     |
| Income bracket 3         | 0.0830<br>(0.112)      | 0.0170<br>(0.0694)     | -0.00125<br>(0.0867)   | -0.0922<br>(0.0979)    | 0.105**<br>(0.0535)    | 0.171**<br>(0.0853)    |
| Income bracket 4         | 0.131<br>(0.105)       | -0.107<br>(0.0820)     | -0.107<br>(0.0796)     | -0.0490<br>(0.0955)    | 0.139***<br>(0.0498)   | 0.164**<br>(0.0804)    |
| Income bracket 5         | 0.119<br>(0.103)       | -0.109<br>(0.0731)     | -0.0625<br>(0.0704)    | -0.111<br>(0.0944)     | 0.174***<br>(0.0485)   | 0.141*<br>(0.0751)     |
| Income bracket 6         | 0.111<br>(0.116)       | -0.171**<br>(0.0741)   | -0.145**<br>(0.0649)   | -0.0804<br>(0.0841)    | 0.115**<br>(0.0472)    | 0.119<br>(0.0764)      |
| Income bracket 7         | 0.00347<br>(0.101)     | -0.233***<br>(0.0785)  | -0.0755<br>(0.0774)    | -0.0977<br>(0.0896)    | 0.185***<br>(0.0464)   | 0.108<br>(0.0825)      |
| Income bracket 8         | -0.0282<br>(0.102)     | -0.243***<br>(0.0780)  | -0.0536<br>(0.0604)    | -0.0447<br>(0.0833)    | 0.183***<br>(0.0482)   | 0.140*<br>(0.0829)     |
| Income bracket 9         | -0.0445<br>(0.0955)    | -0.345***<br>(0.0742)  | -0.0811<br>(0.0608)    | -0.0533<br>(0.0799)    | 0.181***<br>(0.0440)   | 0.103<br>(0.0735)      |
| Income bracket 10        | -0.0354<br>(0.0851)    | -0.417***<br>(0.0679)  | -0.152**<br>(0.0638)   | -0.0854<br>(0.0780)    | 0.149***<br>(0.0443)   | 0.0780<br>(0.0768)     |
| Income bracket 11        | -0.141*<br>(0.0842)    | -0.409***<br>(0.0646)  | -0.137*<br>(0.0727)    | -0.115<br>(0.0802)     | 0.112**<br>(0.0470)    | 0.0423<br>(0.0724)     |
| Income bracket 12        | -0.234***<br>(0.0878)  | -0.498***<br>(0.0684)  | -0.138**<br>(0.0625)   | -0.134*<br>(0.0781)    | 0.0209<br>(0.0415)     | -0.0655<br>(0.0702)    |
| Protestant               | -0.160***<br>(0.0188)  | -0.144***<br>(0.0231)  | -0.138***<br>(0.0244)  | -0.535***<br>(0.0235)  | -0.348***<br>(0.0188)  | -0.535***<br>(0.0241)  |
| Catholic                 | -0.0755***<br>(0.0247) | -0.107***<br>(0.0233)  | -0.114***<br>(0.0260)  | -0.401***<br>(0.0247)  | -0.0534***<br>(0.0191) | -0.317***<br>(0.0232)  |
| Jewish                   | 0.0504<br>(0.0523)     | 0.200***<br>(0.0505)   | 0.0814<br>(0.0555)     | 0.0642<br>(0.0461)     | 0.378***<br>(0.0443)   | 0.196***<br>(0.0486)   |
| Other religion           | -0.0429<br>(0.0355)    | -0.112***<br>(0.0396)  | -0.0184<br>(0.0455)    | -0.327***<br>(0.0486)  | -0.176***<br>(0.0337)  | -0.240***<br>(0.0430)  |
| Cohort: 1876 - 1900      | -0.464<br>(0.303)      | -0.191**<br>(0.0757)   | 0.0247<br>(0.106)      | 0.0176<br>(0.135)      | -0.132<br>(0.136)      | 0.0393<br>(0.0841)     |
| Cohort: 1901 - 1925      | -0.0569<br>(0.0601)    | -0.0102<br>(0.0623)    | 0.0636<br>(0.0523)     | 0.0858<br>(0.0875)     | -0.0332<br>(0.0778)    | -0.00948<br>(0.0726)   |
| Cohort: 1926 - 1950      | -0.0832*<br>(0.0473)   | 0.0153<br>(0.0550)     | 0.0477<br>(0.0417)     | 0.0487<br>(0.0719)     | -0.0792<br>(0.0574)    | -0.0349<br>(0.0563)    |
| Cohort: 1951 - 1975      | -0.0662*<br>(0.0399)   | 0.00629<br>(0.0478)    | 0.00460<br>(0.0333)    | -0.0184<br>(0.0534)    | -0.151***<br>(0.0418)  | -0.106***<br>(0.0408)  |
| Observations             | 23,199                 | 26,135                 | 29,083                 | 40,136                 | 46,327                 | 32,907                 |
| R-squared                | 0.108                  | 0.128                  | 0.024                  | 0.078                  | 0.146                  | 0.200                  |
| Age FE                   | Yes                    | Yes                    | Yes                    | Yes                    | Yes                    | Yes                    |
| Year FE                  | Yes                    | Yes                    | Yes                    | Yes                    | Yes                    | Yes                    |
| Census div FE            | Yes                    | Yes                    | Yes                    | Yes                    | Yes                    | Yes                    |
| HH controls              | Yes                    | Yes                    | Yes                    | Yes                    | Yes                    | Yes                    |

Standard errors are two-way clustered by age and cohort. Inequality experiences are based on the experienced share of total income earned by the top 5 percent during the impressionable years. Unemployment experiences are based on the experienced unemployment rate during the impressionable years. All specifications control for age fixed effects, region fixed effects as well as year fixed effects. All specifications control for a large set of controls: household income, marital status, education, employment status, household size, religion, and gender. All outcome measures are z-scored. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table A18: Allbus: Main Results showing Key Controls

|                            | (1)                    | (2)  | (3)                         | (4)                    | (5)                        | (6)                   |
|----------------------------|------------------------|--|-----------------------------|------------------------|----------------------------|-----------------------|
|                            | Inequality:<br>Unfair  | Inequality does not<br>increase motivation | Inequality<br>reflects luck | Left-wing              | Intention to Vote:<br>Left | Voted: Left           |
| Inequality Experiences     | -0.0543*<br>(0.0307)   | -0.0428<br>(0.0296)                        | -0.0684*<br>(0.0349)        | -0.0957***<br>(0.0196) | -0.0836***<br>(0.0298)     | -0.0961**<br>(0.0457) |
| Unemployment Experiences   | 0.104*<br>(0.0586)     | 0.0279<br>(0.0443)                         | 0.0950*<br>(0.0515)         | 0.00877<br>(0.0321)    | 0.0243<br>(0.0477)         | 0.0909<br>(0.0701)    |
| Female                     | 0.0884***<br>(0.0231)  | 0.126***<br>(0.0240)                       | 0.0969***<br>(0.0232)       | 0.0771***<br>(0.0132)  | 0.0547***<br>(0.0200)      | 0.0425<br>(0.0322)    |
| Education: "Hauptschule"   | -0.185**<br>(0.0944)   | -0.0912<br>(0.117)                         | -0.0306<br>(0.101)          | -0.0140<br>(0.0594)    | -0.0189<br>(0.0796)        | 0.0780<br>(0.0689)    |
| Education: "Middle School" | -0.239**<br>(0.0974)   | 0.0269<br>(0.122)                          | 0.122<br>(0.104)            | 0.0226<br>(0.0573)     | -0.0402<br>(0.0755)        | 0.0414<br>(0.0561)    |
| Education: "A-level"       | -0.171*<br>(0.0906)    | 0.196*<br>(0.116)                          | 0.370***<br>(0.0897)        | 0.249***<br>(0.0593)   | 0.119<br>(0.0739)          | 0.244***<br>(0.0653)  |
| Married                    | -0.0541<br>(0.0341)    | -0.0294<br>(0.0284)                        | -0.0389<br>(0.0289)         | -0.137***<br>(0.0248)  | -0.131***<br>(0.0214)      | -0.183***<br>(0.0351) |
| Separated                  | 0.0162<br>(0.0633)     | -0.0822*<br>(0.0495)                       | -0.00468<br>(0.0697)        | -0.119*<br>(0.0640)    | 0.00804<br>(0.0635)        | -0.121<br>(0.0808)    |
| Widowed                    | -0.0283<br>(0.0710)    | 0.0562<br>(0.0573)                         | 0.0585<br>(0.0909)          | -0.163***<br>(0.0436)  | -0.0767**<br>(0.0361)      | -0.127**<br>(0.0552)  |
| Divorced                   | 0.103**<br>(0.0521)    | 0.0298<br>(0.0500)                         | 0.0797**<br>(0.0360)        | -0.0806**<br>(0.0379)  | 0.0261<br>(0.0381)         | -0.0569<br>(0.0387)   |
| Part-time employed         | 0.0453<br>(0.0318)     | 0.00123<br>(0.0454)                        | 0.0389<br>(0.0362)          | 0.0757***<br>(0.0176)  | 0.0958***<br>(0.0289)      | 0.125***<br>(0.0317)  |
| Out of the labor force     | 0.0837***<br>(0.0278)  | 0.0231<br>(0.0285)                         | 0.0536*<br>(0.0277)         | 0.0422*<br>(0.0229)    | 0.0748***<br>(0.0209)      | 0.0804***<br>(0.0224) |
| Unemployed                 | 0.379***<br>(0.0956)   | 0.164<br>(0.114)                           | 0.378***<br>(0.100)         | 0.317***<br>(0.123)    | 0.325***<br>(0.0292)       | 0.336***<br>(0.0995)  |
| Retired                    | 0.0112<br>(0.110)      | 0.0109<br>(0.136)                          | 0.0520<br>(0.167)           | 0.0405<br>(0.0523)     | 0.207***<br>(0.0741)       | 0.162<br>(0.125)      |
| Student                    | 0.445***<br>(0.0871)   | 0.675***<br>(0.105)                        | 0.186<br>(0.163)            | 0.473***<br>(0.147)    | 0.203*<br>(0.119)          | 0.289**<br>(0.117)    |
| Other employment           | 0.573<br>(0.502)       | -0.643<br>(0.426)                          | -0.316<br>(0.576)           | 0.206<br>(0.224)       | 0.485<br>(0.453)           | 0.611***<br>(0.127)   |
| Protestant                 | -0.0492**<br>(0.0250)  | -0.0692**<br>(0.0319)                      | -0.0562*<br>(0.0317)        | -0.177***<br>(0.0196)  | -0.230***<br>(0.0159)      | -0.204***<br>(0.0176) |
| Catholic                   | -0.0793***<br>(0.0242) | -0.0634*<br>(0.0372)                       | -0.0505<br>(0.0351)         | -0.323***<br>(0.0245)  | -0.490***<br>(0.0224)      | -0.506***<br>(0.0322) |
| Other religion             | -0.137*<br>(0.0823)    | 0.0117<br>(0.0926)                         | -0.0476<br>(0.0837)         | -0.112*<br>(0.0585)    | -0.0247<br>(0.0762)        | -0.113<br>(0.107)     |
| Income quintile: 2         | -0.0793**<br>(0.0328)  | 0.0145<br>(0.0501)                         | -0.000689<br>(0.0371)       | -0.0736*<br>(0.0386)   | -0.130***<br>(0.0346)      | -0.130***<br>(0.0484) |
| Income quintile: 3         | -0.108***<br>(0.0364)  | -0.0784*<br>(0.0461)                       | -0.0760**<br>(0.0319)       | -0.0946***<br>(0.0342) | -0.143***<br>(0.0330)      | -0.135***<br>(0.0398) |
| Income quintile: 4         | -0.176***<br>(0.0378)  | -0.0870*<br>(0.0466)                       | -0.0970**<br>(0.0453)       | -0.0985***<br>(0.0339) | -0.150***<br>(0.0345)      | -0.173***<br>(0.0389) |
| Income quintile: 5         | -0.296***<br>(0.0332)  | -0.153***<br>(0.0465)                      | -0.186***<br>(0.0377)       | -0.192***<br>(0.0389)  | -0.298***<br>(0.0307)      | -0.295***<br>(0.0438) |
| Cohort: 1876 - 1900        | 0.692**<br>(0.345)     | -0.165<br>(0.342)                          | 0.441<br>(0.404)            | 0.720***<br>(0.265)    | 0.945**<br>(0.449)         | 0.825**<br>(0.400)    |
| Cohort: 1901 - 1925        |                        |  |                             | 0.130<br>(0.266)       | 0.328<br>(0.422)           |                       |
| Cohort: 1926 - 1950        | -0.117**<br>(0.0546)   | -0.0695<br>(0.0819)                        | -0.101<br>(0.0635)          | -0.106*<br>(0.0637)    | -0.0842<br>(0.0691)        | -0.0754<br>(0.125)    |
| Cohort: 1951 - 1975        | -0.0975*<br>(0.0583)   | -0.0474<br>(0.0739)                        | -0.0866<br>(0.0541)         | -0.123**<br>(0.0574)   | -0.0149<br>(0.0676)        | -0.0318<br>(0.121)    |
| Observations               | 10,401                 | 10,357                                     | 10,309                      | 18,979                 | 14,691                     | 9,533                 |
| R-squared                  | 0.071                  | 0.044                                      | 0.068                       | 0.080                  | 0.109                      | 0.111                 |
| Age FE                     | Yes                    | Yes  | Yes                         | Yes                    | Yes                        | Yes                   |
| Year FE                    | Yes                    | Yes  | Yes                         | Yes                    | Yes                        | Yes                   |
| Region FE                  | Yes                    | Yes  | Yes                         | Yes                    | Yes                        | Yes                   |
| Unemployment Experiences   | Yes                    | Yes  | Yes                         | Yes                    | Yes                        | Yes                   |
| HH controls                | Yes                    | Yes  | Yes                         | Yes                    | Yes                        | Yes                   |

Standard errors are two-way clustered by age and cohort. Inequality experiences are based on the experienced share of total income earned by the top 5 percent during the impressionable years. Unemployment experiences are based on the experienced national unemployment rate during the impressionable years. All specifications control for age fixed effects, region fixed effects as well as year fixed effects. All specifications control for a large set of controls: household income, marital status, education, employment status, household size, religion, and gender. All outcome measures are z-scored. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table A19: ESS: Main Results showing Key Controls

|                              | (1)                    | (2)                    | (3)                    |
|------------------------------|------------------------|------------------------|------------------------|
|                              | Pro-redistribution     | Voted: Left            | Left-wing              |
| Inequality Experiences       | -0.0390*<br>(0.0234)   | -0.117***<br>(0.0200)  | -0.121***<br>(0.0389)  |
| Unemployment Experiences     | -0.0328**<br>(0.0163)  | -0.00740<br>(0.0140)   | 0.0164<br>(0.0285)     |
| Male                         | -0.119***<br>(0.00963) | -0.0870***<br>(0.0118) | -0.101***<br>(0.0163)  |
| High school                  | -0.0756***<br>(0.0138) | -0.0298**<br>(0.0121)  | -0.0682**<br>(0.0291)  |
| College                      | -0.204***<br>(0.0114)  | 0.140***<br>(0.0142)   | 0.141***<br>(0.0273)   |
| Married                      | -0.0751***<br>(0.0130) | -0.118***<br>(0.0128)  | -0.0747***<br>(0.0230) |
| Separated                    | -0.0626<br>(0.0405)    | -0.219***<br>(0.0537)  | -0.120*<br>(0.0654)    |
| Divorced                     | -0.0259<br>(0.0178)    | -0.0397*<br>(0.0211)   | -0.0404<br>(0.0385)    |
| Widowed                      | -0.0550**<br>(0.0225)  | -0.0882***<br>(0.0318) | -0.0813*<br>(0.0485)   |
| Self-Employed                | -0.183***<br>(0.0123)  | -0.232***<br>(0.0194)  | -0.228***<br>(0.0170)  |
| Not in paid work             | -0.0387<br>(0.0255)    | -0.0548***<br>(0.0202) | 0.00122<br>(0.0381)    |
| Religion: Catholic           | -0.127***<br>(0.0158)  | -0.353***<br>(0.0179)  | -0.421***<br>(0.0232)  |
| Religion: Protestant         | -0.113***<br>(0.0119)  | -0.269***<br>(0.0146)  | -0.247***<br>(0.0227)  |
| Religion: Eastern Orthodox   | -0.170<br>(0.192)      | 0.117<br>(0.128)       | -0.142<br>(0.272)      |
| Religion: Other Christian    | 0.0235<br>(0.0485)     | -0.226***<br>(0.0384)  | -0.0571<br>(0.0822)    |
| Religion: Jewish             | -0.502***<br>(0.158)   | -0.216*<br>(0.123)     | -0.318*<br>(0.189)     |
| Religion: Islamic            | 0.170**<br>(0.0638)    | 0.158**<br>(0.0789)    | 0.445***<br>(0.0904)   |
| Religion: Other              | 0.0714<br>(0.0630)     | 0.109*<br>(0.0634)     | 0.135<br>(0.0931)      |
| Income bracket: 1            | -0.0118<br>(0.246)     | -0.141<br>(0.193)      | -0.0517<br>(0.246)     |
| Income bracket: 2            | 0.0142<br>(0.227)      | -0.202<br>(0.195)      | -0.128<br>(0.240)      |
| Income bracket: 3            | -0.0558<br>(0.239)     | -0.155<br>(0.192)      | -0.0891<br>(0.223)     |
| Income bracket: 4            | -0.0943<br>(0.240)     | -0.275<br>(0.196)      | -0.200<br>(0.233)      |
| Income bracket: 5            | -0.115<br>(0.241)      | -0.257<br>(0.185)      | -0.170<br>(0.238)      |
| Income bracket: 6            | -0.162<br>(0.233)      | -0.272<br>(0.195)      | -0.190<br>(0.227)      |
| Income bracket: 7            | -0.209<br>(0.231)      | -0.235<br>(0.193)      | -0.185<br>(0.234)      |
| Income bracket: 8            | -0.275<br>(0.240)      | -0.281<br>(0.189)      | -0.243<br>(0.244)      |
| Income bracket: 9            | -0.398*<br>(0.222)     | -0.298<br>(0.187)      | -0.206<br>(0.223)      |
| Income bracket: 10           | -0.669***<br>(0.243)   | -0.443**<br>(0.195)    | -0.415*<br>(0.232)     |
| Observations                 | 85,529                 | 81,167                 | 25,462                 |
| R-squared                    | 0.143                  | 0.079                  | 0.153                  |
| Country FE x Age trends      | Yes                    | Yes                    | Yes                    |
| Country FE x Year FE         | Yes                    | Yes                    | Yes                    |
| Country FE x Cohort group FE | Yes                    | Yes                    | Yes                    |
| HH controls                  | Yes                    | Yes                    | Yes                    |

Standard errors are two-way clustered by age and cohort. Inequality experiences are based on the experienced share of total income earned by the top 5 percent during the impressionable years. Unemployment experiences are based on the experienced unemployment rate during the impressionable years. All specifications control for age trends, year fixed effects as well as cohort group fixed effects, each interacted with country fixed effects. All specifications control for a large set of controls: household income, marital status, education, employment status, household size, religion, and gender. All outcome measures are z-scored. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

## B Additional Results from the ISSP

### B.1 Description of the ISSP

We also make use of a unique dataset containing rich data on perceptions about inequality, the International Social Survey Program (ISSP) module on Social Inequality. The ISSP has been widely used to study perceptions of social inequality, see for example Kiatpongsan and Norton (2014) or Norton and Ariely (2011). There are in total four waves of the social inequality module: one in 1987, one in 1992, one in 1999 and the last available one in 2009. On the one hand, the ISSP allows us to examine whether perceived and actual income inequality co-move. On the other hand, we provide an additional robustness check by replicating our main results on the ISSP.

In table A20 we report summary statistics for the sample from the ISSP that we use to replicate our main findings.<sup>45</sup> Most of our sample from the ISSP comes from six countries: Australia, France, Germany<sup>46</sup>, Norway, the United Kingdom and the US, each of which makes up for around ten percent of the sample. Canada, Denmark, Finland, Italy, Japan, the Netherlands, New Zealand, Portugal, Spain, Sweden and Switzerland together constitute about 40 percent of the overall sample.

### B.2 Co-movement between actual and perceived inequality

#### B.2.1 Outcome variables: Perceptions of inequality

First, we create a variable capturing people's beliefs about how much inequality there is in their countries based on their response to the following question: "These five diagrams show different types of society. Please read the descriptions and look at the diagrams and decide which you think best describes [ COUNTRY ]:

- Type A: A small elite at the top, very few people in the middle and the great mass of people at the bottom.
- Type B: A society like a pyramid with a small elite at the top, more people in the middle, and most at the bottom.

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<sup>45</sup>We can use a slightly larger sample to examine the correlation between actual inequality and perceived inequality because we can also use respondents who are younger than 26.

<sup>46</sup>Due to lacking inequality data we drop all respondents currently living in Eastern Germany and focus only on Western German Respondents.

Table A20: Summary Stats: ISSP

| Variable                       | Mean   | Std. Dev. | Min.   | Max.   | N     |
|--------------------------------|--------|-----------|--------|--------|-------|
| Share top 10 during impr years | 30.994 | 3.936     | 21.839 | 44.81  | 38239 |
| Share top 5 during impr years  | 20.36  | 3.329     | 13.343 | 38.555 | 38974 |
| Share top 1 during impr years  | 8.147  | 2.346     | 4.024  | 18.709 | 40508 |
| Gini during impr years         | 31.137 | 5.857     | 20.569 | 44.712 | 18246 |
| Unemployment during impr years | 5.293  | 3.962     | 0.01   | 35.287 | 40663 |
| Age                            | 49.962 | 15.334    | 26     | 98     | 44918 |
| Female                         | 0.524  | 0.499     | 0      | 1      | 44918 |
| Below secondary                | 0.45   | 0.498     | 0      | 1      | 44918 |
| Secondary                      | 0.227  | 0.419     | 0      | 1      | 44918 |
| Above secondary                | 0.309  | 0.462     | 0      | 1      | 44918 |
| Married                        | 0.667  | 0.471     | 0      | 1      | 44918 |
| Widowed                        | 0.076  | 0.265     | 0      | 1      | 44918 |
| Divorced                       | 0.076  | 0.265     | 0      | 1      | 44918 |
| Separated                      | 0.02   | 0.139     | 0      | 1      | 44918 |
| Single                         | 0.154  | 0.361     | 0      | 1      | 44918 |
| Full-time employed             | 0.402  | 0.49      | 0      | 1      | 44918 |
| Part-time employed             | 0.082  | 0.275     | 0      | 1      | 44918 |
| Unemployed                     | 0.031  | 0.174     | 0      | 1      | 44918 |
| Student                        | 0.012  | 0.109     | 0      | 1      | 44918 |
| Retired                        | 0.18   | 0.384     | 0      | 1      | 44918 |
| Other employment               | 0.118  | 0.323     | 0      | 1      | 44918 |
| Catholic                       | 0.273  | 0.445     | 0      | 1      | 44918 |
| Church of England              | 0.086  | 0.28      | 0      | 1      | 44918 |
| Protestant                     | 0.104  | 0.306     | 0      | 1      | 44918 |
| No religion                    | 0.21   | 0.407     | 0      | 1      | 44918 |
| Other religion                 | 0.261  | 0.439     | 0      | 1      | 44918 |
| Household Size                 | 2.774  | 1.294     | 1      | 5      | 43151 |
| Australia                      | 0.138  | 0.345     | 0      | 1      | 44918 |
| Canada                         | 0.035  | 0.183     | 0      | 1      | 44918 |
| Denmark                        | 0.025  | 0.157     | 0      | 1      | 44918 |
| Finland                        | 0.015  | 0.122     | 0      | 1      | 44918 |
| France                         | 0.094  | 0.292     | 0      | 1      | 44918 |
| Germany                        | 0.111  | 0.314     | 0      | 1      | 44918 |
| Great Britain                  | 0.072  | 0.259     | 0      | 1      | 44918 |
| Italy                          | 0.021  | 0.143     | 0      | 1      | 44918 |
| Japan                          | 0.051  | 0.22      | 0      | 1      | 44918 |
| Netherlands                    | 0.03   | 0.171     | 0      | 1      | 44918 |
| Norway                         | 0.082  | 0.274     | 0      | 1      | 44918 |
| NZL                            | 0.059  | 0.235     | 0      | 1      | 44918 |
| Portugal                       | 0.051  | 0.22      | 0      | 1      | 17269 |
| Spain                          | 0.046  | 0.209     | 0      | 1      | 44918 |
| Sweden                         | 0.063  | 0.242     | 0      | 1      | 44918 |
| Switzerland                    | 0.025  | 0.157     | 0      | 1      | 44918 |
| US                             | 0.114  | 0.318     | 0      | 1      | 44918 |

- Type C: A pyramid except that just a few people are at the bottom.
- Type D: A society with most people in the middle.
- Type E: Many people near the top, and only a few near the bottom.

What type of society is [ COUNTRY ] today – which diagram comes closest?” We code this variable such that high values mean that people think that the country they live in today is more unequal, ranking perceived society progressively as more equal moving from type A to type E.

Second, we use unique data on people’s beliefs about earnings in different occupations to construct measures of beliefs about the pay gaps between CEOs and unskilled workers; Cabinet ministers and unskilled workers; and doctors and unskilled workers. For example, the respondents are asked: “How much do you think an unskilled worker in a factory earns before taxes?”; or they are asked: “How much do you think a chairman of a large national company earns before taxes?” We calculate pay gaps as the ratios between the estimates for the higher-earning professions and the estimate for unskilled workers. To account for outliers we winsorize the estimated pay gaps at the 99th percentile.

### B.2.2 Results: Perceptions of inequality

In tables A21 and A22 we show the results from regressing beliefs about inequality on actual top income shares. In some specifications we add country and year fixed effects and a set of demographic controls. Across specifications, we find that actual inequality strongly predicts people’s perceived level of inequality.

Table A21: ISSP: Perceptions of inequality

|                                 | (1)<br>Belief: high inequality | (2)<br>Belief: high inequality | (3)<br>Belief: high inequality |
|---------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Current Income Share of Top 5 % | 0.0371***<br>(0.00142)         | 0.0490***<br>(0.00520)         | 0.0488***<br>(0.00524)         |
| Observations                    | 33,052                         | 33,052                         | 33,052                         |
| R-squared                       | 0.025                          | 0.126                          | 0.157                          |
| Year FE                         | No                             | Yes                            | Yes                            |
| Country FE                      | No                             | Yes                            | Yes                            |
| HH controls                     | No                             | No                             | Yes                            |

Robust standard errors in parentheses

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

Table A22: ISSP: Estimated pay gaps

|                                 | (1)                            | (2)   | (3)                               |
|---------------------------------|--------------------------------|---|-----------------------------------|
|                                 | Estimated CEO<br>worker paygap | Estimated cabinet minister<br>worker paygap | Estimated doctor<br>worker paygap |
| Current Income Share of Top 5 % | 1.786***<br>(0.200)            | 0.227***<br>(0.0368)                        | 0.153***<br>(0.0198)              |
| Observations                    | 43,841                         | 43,809                                      | 44,191                            |
| R-squared                       | 0.182                          | 0.129                                       | 0.128                             |
| Year FE                         | Yes                            | Yes   | Yes                               |
| Country FE                      | Yes                            | Yes   | Yes                               |
| HH controls                     | Yes                            | Yes   | Yes                               |

Robust standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

### B.3 Replication of main results on the ISSP

#### B.3.1 Outcomes: Experienced inequality

Our main outcome variables of interest on preferences for redistribution focus on the role the government should play and are given as follows:<sup>47</sup>

- **Too much inequality:** “Differences in income in [ COUNTRY ] are too large.” We code this variable such that high values in this question correspond to more agreement to this statement.
- **Tax the rich more:** Moreover, we use a question on people’s desired tax levels of people with different income levels: “Do you think people with high incomes should pay a larger share of their income in taxes than those with low incomes, the same share, or a smaller share?” High values mean that individuals want higher shares of taxes for richer people.
- **Do not reduce benefits to the poor:** “The government should spend less on benefits for the poor”. We code this variable such that high values indicate disagreement with this statement.
- **Party affiliation: Left:** We also use data on people’s party affiliation and their voting intention. In particular, individuals are asked for which party they intend to vote in the

<sup>47</sup>These questions are answered on a 5 point scale where 1 means “strongly agree” and 5 means “strongly disagree”.

next election. The data provided by the ISSP then classifies people’s voting behavior on a scale from (1) far right to (5) far left.<sup>48</sup>

- **Voted: Left:** Moreover, individuals are asked about their voting behavior in the last election. As before we use the derived data from the ISSP that classifies the voting intention on a scale ranging from (1) far right to (5) far left.

### **B.3.2 Results: Experienced inequality**

We show the results from the replication of our main findings on the ISSP sample in A23. We find that high inequality experiences are associated with less agreement that there is too much inequality in the respondent’s country (Column 1). We find no significant effect on agreement to the statement that the rich should be taxed more than the poor, even though the sign of the coefficient goes into the expected direction (Column 2). However, people who have experienced high inequality are significantly more likely to be in favor of reducing the benefits to the poor (Column 3) and are significantly less likely to be affiliated to a left-wing party or to vote for a left-wing party (Columns 4 and 5).

Taken together, the results from the ISSP strongly replicate our earlier findings on the samples from the GSS, Allbus and ESS. This provides us with additional confidence in the robustness of our results.

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<sup>48</sup>We set this variable to missing for all individuals who either do not intend to vote, or intend to vote for another party not part of this left-right spectrum.

Table A23: ISSP: Replication of main findings

|                              | (1)                            | (2)                          | (3)   | (4)                               | (5)                    |
|------------------------------|--------------------------------|------------------------------|---|-----------------------------------|------------------------|
|                              | <b>Too much<br/>inequality</b> | <b>Tax the<br/>rich more</b> | <b>Do not reduce<br/>benefits to the poor</b> | <b>Party affiliation<br/>Left</b> | <b>Voted:<br/>Left</b> |
| Inequality Experiences       | -0.0535**<br>(0.0242)          | -0.0101<br>(0.0215)          | -0.0612**<br>(0.0280)                         | -0.121**<br>(0.0560)              | -0.0529**<br>(0.0218)  |
| Observations                 | 34,439                         | 33,445                       | 19,100  | 7,761                             | 26,048                 |
| R-squared                    | 0.142                          | 0.075                        | 0.103   | 0.058                             | 0.075                  |
| Country FE x Age trends      | Yes                            | Yes                          | Yes   | Yes                               | Yes                    |
| Country FE x Year FE         | Yes                            | Yes                          | Yes   | Yes                               | Yes                    |
| Country FE x Cohort group FE | Yes                            | Yes                          | Yes   | Yes                               | Yes                    |
| Unemployment Experiences     | Yes                            | Yes                          | Yes   | Yes                               | Yes                    |
| HH controls                  | Yes                            | Yes                          | Yes   | Yes                               | Yes                    |

Standard errors are two-way clustered by age and cohort. Inequality experiences are based on the experienced share of total income earned by the top 5 percent during impressionable years. Unemployment experiences are based on the experienced national unemployment during impressionable years. All specification control for age trends, year fixed effects and cohort group fixed effects, each interacted with country fixed effects. All specifications control for a large set of controls: household income, marital status, education, employment status, household size, religion, and gender. All outcome measures are z-scored.\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

## C Description of Outcomes

### C.1 General Social Survey

#### C.1.1 Main Outcomes

- **Help Poor:** “Some people think that the government in Washington should do everything to improve the standard of living of all poor Americans (they are at point 5 on this card). Other people think it is not the government’s responsibility, and that each person should take care of himself (they are at point 1). Where are you placing yourself in this scale?”
- **Pro-welfare:** “We are faced with many problems in this country, none of which can be solved easily or inexpensively. I am going to name some of these problems, and for each one I would like you to tell me whether you think we are spending too much money on it, too little money or about the right amount.” We focus on people’s answer to that question on the issue of “assistance to the poor.” We code this variable such that higher values indicate too little assistance to the poor.
- **Success due to luck:** “Some people say that people get ahead by their own hard work; others say that lucky breaks or help from other people are more important. Which do you think is most important?” The answer can take a value from 1 to 3: hard work is most important (1), hard work and luck are equally important (2), luck is most important (3).
- **Liberal:** “We hear a lot of talk these days about liberals and conservatives. I am going to show you a seven-point scale on which the political views that people might hold are arranged from extremely liberal to extremely conservative. Where would you place yourself in this scale?” We coded the question such that high values mean that the respondent is liberal.
- **Party: Democrat:** “Generally speaking, do you usually think of yourself as a Republican, Democrat, Independent, or what?” We coded this variable such that higher values correspond to support of the democratic party and lower values to the support of Republicans. We set observations as missing if respondents identified with another party.
- **Voted: Democrat:** We also look at people’s past voting behavior. Specifically, this variable takes value one if the respondent voted for the democratic candidate in the last presidential election and takes value zero if the respondent voted for the republican can-

didate. We set this measure to missing if the respondent did not vote in the presidential election or if the respondent voted for an independent candidate.

### C.1.2 Mechanisms

- **Low relative income:** People’s self-assessed position in the income distribution on a five-point scale reaching from “Far below average” to “Far above average”. We code this variable such that high values correspond to perceived low relative income.
- **Low social position:** People’s self-assessed position in society on a four-point scale, reaching from “Lower class” to “Upper class” We code this variable such that high values indicate a perceived low social position.

### C.1.3 Placebo Outcomes

- **Pro-immigration:** People’s view on whether the number of immigrants should be increased or decreased on a five-point scale from (1) decrease a lot to (5) increase a lot.
- **Pro-guns:** This variable takes value one for people opposing a law which would require a person to obtain a police permit before he or she could buy a gun.
- **God exists:** People’s belief in god on a six-point scale from (1) people not believing in God to (6) people stating that they know God really exists and that they have no doubts about it.

## C.2 Allbus

### C.2.1 Main Outcomes

- **Inequality: Unfair:** Disagreement on 4-point scale to the statement: “I think the social inequalities in this country are fair.” We coded this variable such that higher values correspond to more distaste of inequality.
- **Inequality does not increase motivation:** This variable captures people’s beliefs about the effect of inequality on motivation. High values mean that people think that inequality does not increase motivation.

- **Inequality reflects luck:** Disagreement on 4-point scale to the statement: “Differences in rank between people are acceptable as they essentially reflect how people used their opportunities.” High values mean that people disagree with this statement.
- **Left-wing:** People’s self-assessment of their political views on a 10-point scale. We coded this variable such that high values indicate a more left-wing self-assessment.
- **Intention to vote: Left:** We classified each party based on the classification of parties on the left-right spectrum from Huber and Inglehart (1995). Higher values correspond to intentions to vote for more left-wing parties.
- **Voted: Left:** As above we create an index for each party that our respondent voted for using the classification of parties on the left-right spectrum from Huber and Inglehart (1995). Higher values of this variable mean that people voted for more left-wing parties.

### C.2.2 Mechanisms

- **Low social position:** “In our society there are people who are at the top and people who are at the bottom. Where would you place yourself on such a scale?” This is coded such that high values mean that people think that they are closer to the bottom of the distribution.

### C.2.3 Placebo Outcomes

- **Pro-immigration:** We construct an index of attitudes towards immigrants by looking at the following questions on a scale from (1) strongly disagree to (7) strongly agree.
  - Immigrants should adapt to German customs.
  - Immigrants should not have any right to participate politically.
  - Immigrants should not be allowed to marry Germans.

The index is coded such that more disagreement to these statements receives higher values.

- **Nationalism:** People’s nationalism is measured on a four point scale ranging from (1) very proud to be German to (4) not very proud to be German. We code this variable such that high values indicate high nationalism.

- **Nature determines life:** People’s agreement to the statement “in the final analysis, our life is determined by the laws of nature.” on a scale from (1) strongly agree to (5) strongly disagree. We code this variable such that high values indicate agreement to this statement.

### C.3 ESS

#### C.3.1 Main Outcomes

- **Pro-redistribution:** “The government should take measures to reduce differences in income levels.” We code this variable such that high values correspond to agreement to this statement.
- **Left-wing:** “In politics people sometimes talk of ‘left’ and ‘right’. Where would you place yourself on this scale, where 0 means the left and 10 means the right?” We recode this variable such that high values refer to people placing themselves on the left.
- **Voted: Left:** People’s voting behavior in the last election. In particular, we coded up this voting behavior on a right-left scale, taking higher values for left-wing parties and lower values for right-wing parties. As in Giuliano and Spilimbergo (2014), we used the classification of parties on the left-right spectrum from Huber and Inglehart (1995). If the party was not part of Huber’s classification or if a person did not vote, we coded the observation as missing.

#### C.3.2 Placebo Outcomes

- **Pro-immigration:** We construct an index of attitudes towards immigrants by looking at the following questions with scales from (1) to (4) and (0) to (10).
  - “Allow many immigrants of same race/ethnic group” (4) vs. “Allow no immigrants of the same race/ethnic group” (1).
  - “Allow many immigrants of different race/ethnic group” (4) vs. “Allow no immigrants of different race/ethnic group” (1).
  - “Allow many immigrants from poorer countries to Europe” (4) vs. “Allow no immigrants from poorer countries to Europe” (1).
  - “Immigration is good for the economy” (10) vs. “Immigration is bad for the economy” (0).

- “Immigration is good for cultural life” (10) vs. “Immigration is bad for cultural life” (0).
- “Immigration makes this country a better place to live” (10) vs. “Immigration makes this country a worse place to live” (0).

We code the index such that high values indicate more positive attitudes towards immigrants.

- **Pro-EU unification:** “European unification should go further” (10) or “European unification has gone too far” (0).
- **Pro-democratic:** People’s agreement on a 5-point scale to the statement “Political parties that wish to overthrow democracy should be banned.”

## D Data description: Control Variables

### D.1 General Social Survey

We control for our respondents' employment status by including dummy variables on whether the respondent is employed part-time, temporarily not working, unemployed, retired, in school, keeping the house or in other employment (the base category is full-time employment). To account for the respondent's marital status, we include the following dummies: whether the respondent is married, widowed, divorced or separated (the omitted category is "never married").

We include the following set of indicator variables to capture our respondent's educational attainment: an indicator for whether our respondent completed at most high school as well as a dummy for whether our respondent completed college ("below highschool" is the omitted category). We also include a dummy for whether our respondent is black. Following Giuliano and Spilimbergo (2014) we include dummies for each of the 12 income brackets available in the GSS to control for absolute household income. In addition, we include a set of dummies for our respondents' household size. Finally, we also control for our respondent's religion by including dummies for whether they are protestant, catholic, Jewish or whether they have another religion. Finally, we include a dummy indicating the gender of the respondent.

### D.2 German General Social Survey (Allbus)

We control for key demographics, such as income, gender, marital status, education, religious affiliation and employment status. In particular, we control for education by including dummy variables for the type of schooling our respondent completed.<sup>49</sup> We control for marital status by including dummy variables for whether our respondent is married, widowed, divorced or separated (single is the omitted category).

We account for people's employment status by dummies for whether our respondent is part-time employed, unemployed, out of the labor force, student, retired, or in other employment (the omitted category is full-time employment). We also control for people's position in the income distribution in a given year by including dummies for quintiles of self-reported monthly household income.

We also control for our respondent's religion by including dummy variables for whether our

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<sup>49</sup>In particular, we include dummies for "Hauptschule", "Realschule" and "Abitur/FH". Below "Hauptschule" is the omitted category.

respondent is catholic, protestant or member of another religion (the omitted category is “no religion”). Finally, we also include a dummy variable indicating the gender of the respondent.

### **D.3 European Social Survey**

We control for education by including dummy variables for whether our respondent completed at most high-school or holds a college degree (no completion of high school is the omitted category). We control for marital status by including dummy variables for whether our respondent is married, widowed, divorced or separated (single is the omitted category). We account for people’s employment status by including dummy variables for whether they are self-employed or not in paid work (the omitted category is that they are employed).

We also control for people’s income level. For waves one to three we make use of the only available income variable which measures absolute household income levels categorized into 12 brackets. For waves four to seven we use a variable on the country-specific income decile that our respondent’s household belongs to. We also control for household size with a set of dummies indicating whether there is one person in the household, two, three, four or more than five.

We also control for our respondent’s religion by including dummies for whether our respondent is catholic, protestant, affiliated to another Christian religion, Islamic, Jewish or affiliated to another religion (the omitted category is “no religion”). Finally, we also include a dummy variable indicating the gender of our respondent.

## E Inequality Data

We now provide an overview of the inequality data we use in our analysis. We linearly interpolate missing inequality data up to gaps of six years. In our analysis we make use of those cohorts for which this method gives inequality data for their full “impressionable years” (age 18-25). Table A24 shows the years for which inequality data are available for the different countries in our sample.

Table A24: Availability of Inequality Data

| Country                     | Share top 10 percent | Share top 5 percent  | Share top 1 percent  | Gini coefficient |
|-----------------------------|----------------------|----------------------|----------------------|------------------|
| Australia                   | 1941-2010            | 1939-2010            | 1921-2010            | 1981-2010        |
| Canada                      | 1941-2010            | 1920-2010            | 1920-2010            | 1976-2011        |
| Denmark                     | 1903-2010            | 1903-2010            | 1903-2010            | -                |
| Finland                     | 1920-2009            | 1920-2009            | 1920-2009            | 1966-2011        |
| France                      | 1919-2012            | 1915-2012            | 1915-2012            | 1956-2011        |
| Germany                     | 1891-1936; 1961-2008 | 1891-1938; 1961-2008 | 1891-1938; 1957-2008 | 1962-2010        |
| Italy                       | 1974-2009            | 1974-2009            | 1974-2009            | 1967-2010        |
| Ireland                     | 1975-2009            | -                    | 1975-2009            | -                |
| Japan                       | 1947-2010            | 1907-1924; 1947-2010 | 1886-2010            | 1962-2001        |
| Netherlands                 | 1914-2012            | 1914-2012            | 1914-2012            | 1977-2008        |
| New Zealand                 | 1924-2012            | 1921-2012            | 1921-2012            | 1982-2009        |
| Norway                      | 1948-2011            | 1948-2011            | 1948-2011            | 1986-2011        |
| Portugal                    | 1976-2005            | 1976-2005            | 1976-2005            | 1993-2011        |
| Spain                       | 1981-2012            | 1981-2012            | 1981-2012            | 1990-2011        |
| Sweden                      | 1903-1920; 1930-2013 | 1903-1920; 1930-2013 | 1903-1920; 1930-2013 | 1975-2011        |
| Switzerland                 | 1933-2010            | 1933-2010            | 1933-2010            | -                |
| United Kingdom              | 1949-2012            | 1949-2012            | 1949-2012            | 1961-2011        |
| United States (national)    | 1917-2014            | 1917-2014            | 1913-2014            | 1944-2012        |
| United States (state-level) | 1917-2015            | 1917-2015            | 1917-2015            | -                |

In this table we provide an overview of the available inequality data for the countries in our sample. These data are taken from “The World Wealth and Income Database” (Alvaredo et al., 2011) and from the “Chartbook of Economic Inequality” (Atkinson and Morelli, 2014).

## F Construction of Life-time Experiences

As in Malmendier and Nagel (2011) and Malmendier and Nagel (2015), we construct a weighted average of past national-level income shares of the top five percent<sup>50</sup> for each individual  $i$  in country  $c$  and in year  $t$ , using a specification of weights that introduces merely one additional parameter to measure past experiences (Malmendier and Shen, 2015):

$$IE_{ict}(\lambda) = \sum_{k=1}^{age_{it}-1} w_{it}(k, \lambda) I_{c,t-k} \quad (5)$$

where

$$w_{it}(k, \lambda) = \frac{(age_{it} - k)^\lambda}{\sum_{k=1}^{age_{it}-1} (age_{it} - k)^\lambda} \quad (6)$$

where  $I_{c,t-k}$  is the share of total income held by the top five percent of earners in year  $t-k$ . Given that the empirical literature on the role of experiences in the formation of political attitudes posits a big importance of early experiences and in particular experiences during the impressionable years (Giuliano and Spilimbergo, 2014; Krosnick and Alwin, 1989), we assume that experiences before age 18 do not matter. In other words, we construct the experience measures as the weighted average of experiences from age 18 onwards.

The weights  $w_{it}(k, \lambda)$  are a function of  $k$ , i.e. how distant the inequality was experienced relative to the individual's age at time  $t$ , and of the weighting parameter  $\lambda$ . The value of  $\lambda$  determines the relative importance of distant experiences compared to more recent experiences. In our estimations we use a weight of  $\lambda = -1$  which gives rise to a weight that increases linearly when one moves further into the past from the survey year.<sup>51</sup> This weighting scheme gives more importance to people's early experiences, while still allowing for some impact of more recent experiences in life.<sup>52</sup>

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<sup>50</sup>We used the exact same methodology to look at alternative measures of inequality. The results looked very similar and are omitted for brevity.

<sup>51</sup>We obtain very similar results when we use weights of  $\lambda = -0.5$  or  $\lambda = -2$  instead.

<sup>52</sup>If  $\lambda > 0$ , the weights are decreasing in lag  $k$ , i.e. income inequality experienced closer to current age at time  $t$  receives higher weight.

## G Experimental Instructions

### G.1 Experiment 1

#### G.1.1 Introduction

This study is conducted by researchers from Goethe University Frankfurt and the University of Oxford. Participants will be asked to answer a few questions about their preferences, as well as a set of demographic questions. Participation in the study typically takes 2 minutes and is strictly anonymous.

In order to be paid, it is necessary to finish the survey. If you complete the survey, you will receive a fixed payment of 30 cents. Each person is only allowed to participate in the experiment once. If you encounter a technical problem, please do not restart the experiment, but contact us at [dphiloxfordecon@gmail.com](mailto:dphiloxfordecon@gmail.com). If participants have further questions about this study or their rights, or if they wish to lodge a complaint or concern, they may contact us at [dphiloxfordecon@gmail.com](mailto:dphiloxfordecon@gmail.com)

- I have read the information provided on the previous page.
- I have had the opportunity to ask questions about the study.
- I understand that I may withdraw from the study at any time.
- I understand how to raise a concern or make a complaint.
- I understand that I can only participate in this experiment once.
- I understand that close attention to the survey is required for my responses to count.

If you are 18 years of age or older, agree with the statements above, and freely consent to participate in the study, please click on the “I Agree” button to begin the experiment.

- I Agree
- I Disagree

### **G.1.2 Treatment Conditions**

#### **Equality Condition:**

We will now ask you to complete a hypothetical task. Imagine that there are two worker who worked for us on several tasks.

Worker A completed two tasks correctly, while worker B completed eight tasks correctly. The number of correctly completed tasks depends on both the worker's effort and luck.

How would you like to split one dollar between worker A and worker B?

- Give 50 cents to player A and 50 cents to player B.
- Give 48 cents to player A and 52 cents to player B.

#### **Inequality Condition:**

We will now ask you to complete a hypothetical task. Imagine that there are two worker who worked for us on several tasks.

Worker A completed two tasks correctly, while worker B completed eight tasks correctly. The number of correctly completed tasks depends on both the worker's effort and luck.

How would you like to split one dollar between worker A and worker B?

- 22 cents for worker A and 78 cents for worker B.
- 20 cents for worker A and 80 cents for worker B.

### **G.1.3 Outcome Measure: Behavioral Measure of Redistribution**

We will now ask you to complete a hypothetical task. Imagine that there are two workers who worked for us on several tasks. Note, these workers are NOT the same people as from the previous task.

Worker C completed three tasks correctly, while worker D completed seven tasks correctly. The number of correctly completed tasks depends on both the worker's effort and luck.

How would you like to split one dollar between worker C and worker D?

- Give 80 cents to worker C and 20 cents to worker D.
- Give 75 cents to worker C and 25 cents to worker D.
- Give 70 cents to worker C and 30 cents to worker D.
- Give 65 cents to worker C and 35 cents to worker D.
- Give 60 cents to worker C and 40 cents to worker D.
- Give 55 cents to worker C and 45 cents to worker D.
- Give 50 cents to worker C and 50 cents to worker D.
- Give 45 cents to worker C and 55 cents to worker D.
- Give 40 cents to worker C and 60 cents to worker D.
- Give 35 cents to worker C and 65 cents to worker D.
- Give 30 cents to worker C and 70 cents to worker D.
- Give 25 cents to worker C and 75 cents to worker D.
- Give 20 cents to worker C and 80 cents to worker D.

#### **G.1.4 Demographics**

The main part of the survey is now over. We will now just ask you some general questions about yourself.

Which of these describes you more accurately? [Male, Female]

What year were you born?

In which state do you currently reside?

How many people are there in your household including yourself?

What was your annual household income (before taxes) in 2015? [Less than \$10,000, Between \$10,000 and \$19,999, Between \$20,000 and \$29,999, Between \$30,000 and \$39,999, Between \$40,000 and \$49,999, Between \$50,000 and \$59,999, Between \$60,000 and \$69,999, Between \$70,000 and \$79,999, Between \$80,000 and \$99,999, More than \$100,000]

What is the highest level of education you have completed? [12th grade or less; Graduated high school or equivalent; Some college, no degree; Associate degree; Bachelor's degree; Post-graduate degree]

What is your religion? [Christianity, Judaism, Islam, Hinduism, None, Other]

What is your ethnicity? [White, Black, Hispanic, Asian, Other]

What category would best describe your political orientation? [Republican, Democrat, Other]

Which of these describes your current situation most accurately? [Employed full-time, Employed part-time, Unemployed and looking for a job, Unemployed but not looking for a job, Retired, Other]

## **G.2 Experimental Instructions: Experiment 2**

### **G.2.1 Introduction**

This study is conducted by researchers from Goethe University Frankfurt and the University of Oxford. Participants will be asked to answer a few questions about their preferences, as well as a set of demographic questions. Participation in the study typically takes 2 minutes and is strictly anonymous.

In order to be paid, it is necessary to finish the survey. If you complete the survey, you will receive a fixed payment of 30 cents. Each person is only allowed to participate in the experiment once. If you encounter a technical problem, please do not restart the experiment, but contact us at [dphiloxfordecon@gmail.com](mailto:dphiloxfordecon@gmail.com). If participants have further questions about this study or their rights, or if they wish to lodge a complaint or concern, they may contact us at [dphiloxfordecon@gmail.com](mailto:dphiloxfordecon@gmail.com)

- I have read the information provided on the previous page.
- I have had the opportunity to ask questions about the study.
- I understand that I may withdraw from the study at any time.
- I understand how to raise a concern or make a complaint.
- I understand that I can only participate in this experiment once.
- I understand that close attention to the survey is required for my responses to count.

If you are 18 years of age or older, agree with the statements above, and freely consent to participate in the study, please click on the “I Agree” button to begin the experiment.

- I Agree
- I Disagree

### **G.2.2 Treatment Conditions**

**Equality Condition:**

We will now ask you to complete a hypothetical task. Imagine that there are two worker who worked for us on several tasks.

Worker A completed two tasks correctly, while worker B completed eight tasks correctly. The number of correctly completed tasks depends on both the worker's effort and luck.

How would you like to split one dollar between worker A and worker B?

- Give 50 cents to player A and 50 cents to player B.
- Give 48 cents to player A and 52 cents to player B.

**Inequality Condition:**

We will now ask you to complete a hypothetical task. Imagine that there are two worker who worked for us on several tasks.

Worker A completed two tasks correctly, while worker B completed eight tasks correctly. The number of correctly completed tasks depends on both the worker's effort and luck.

How would you like to split one dollar between worker A and worker B?

- Nothing for worker A and 100 cents for worker B.
- 20 cents for worker A and 80 cents for worker B.

**G.2.3 Outcome Measure: Behavioral Measure of Redistribution**

We will now ask you to complete a hypothetical task. Imagine that there are two workers who worked for us on several tasks. Note, these workers are NOT the same people as from the previous task.

Worker C completed three tasks correctly, while worker D completed seven tasks correctly. The number of correctly completed tasks depends on both the worker's effort and luck.

How would you like to split one dollar between worker C and worker D?

- Give 50 cents to worker C and 50 cents to worker D.
- Give 45 cents to worker C and 55 cents to worker D.
- Give 40 cents to worker C and 60 cents to worker D.
- Give 35 cents to worker C and 65 cents to worker D.
- Give 30 cents to worker C and 70 cents to worker D.
- Give 25 cents to worker C and 75 cents to worker D.
- Give 20 cents to worker C and 80 cents to worker D.