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Perception of Inequality and Social Mobility in Germany: evidence from the Inequality Barometer

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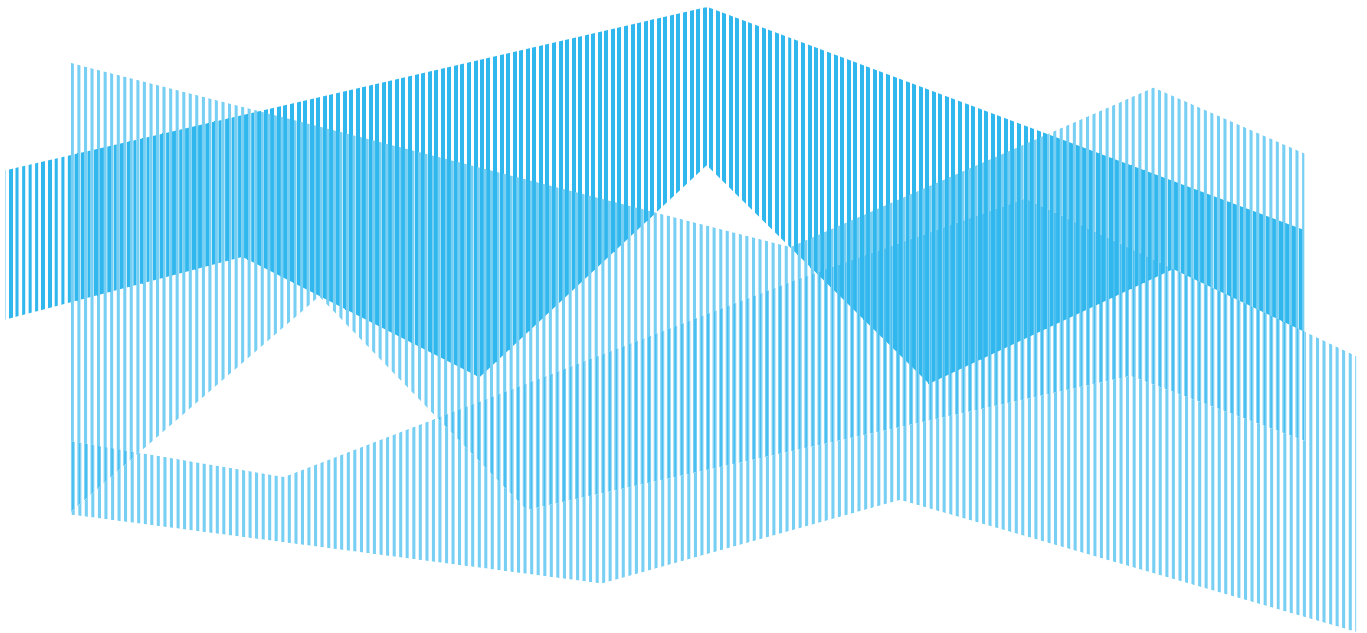
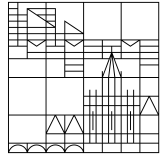
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Perception of Inequality and Social Mobility in Germany: evidence from the Inequality Barometer

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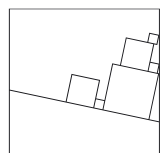
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Abstract

The Inequality Barometer is an online survey first conducted in Germany in 2020. It gauges individual perceptions of multiple aspects of inequality and social mobility as well as a range of policy preferences related to inequality. Responses were collected for a representative sample of the German resident population. The total sample consists of 6000 respondents. This paper introduces the basic structure and content of the survey and provides a detailed description of the procedures and methodologies adopted in the survey. It further presents preliminary descriptive results from the survey's core module. Our results indicate that there are substantial differences between how people in Germany perceive different aspects of inequality and social mobility. In sum, we find that respondents underestimate the extent of inequality in important ways, which has critical policy implications for the future of the welfare state in Germany and elsewhere, in particular in the post-Covid era.

Keywords: inequality, social mobility, perceptions

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Luna Bellani, Nona Bledow, Marius R. Busemeyer, Guido Schwerdt

June 10, 2021

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1 Introduction

The main aim of the Inequality Barometer is to study subjective perceptions and normative evaluations of inequality and social mobility in Germany, how these perceptions are formed, and the extent to which they are associated with policy preferences. This paper describes the survey structure and methodology and provides a broad overview of the main insights from its core module.

Inequality and social mobility play a vital role in the political and economic development of a society. One aspect crucial for understanding this role and how it differs across countries and time is how people *perceive* these features. Attitudes towards inequality and preferences over government policies that influence inequality are politically relevant, since they influence political competition and eventually government responsiveness to this issue. However, evidence has been mounting that people may not perceive inequality very clearly, potentially under- or overestimating its true extent. Subjective perceptions of the state of the world seem to frequently differ from actual objective facts. This can help explain why people appear to react differently to, for example, rising inequality, compared to what is expected in canonical social science models. If people do not realize that inequality is increasing or misjudge their relative position in the income distribution, they will not necessarily adjust their demand for redistribution accordingly.

It is therefore essential to integrate in the analysis of people’s attitudes towards inequality the study of how they subjectively perceive the state of the world with respect to inequality. The same applies with regard to social mobility.

The importance of subjective perceptions of inequality and how they might affect the formation of actual preferences has been increasingly acknowledged in the literature. Recent research has studied people’s perception of their own income situation relative to the rest of society, finding both under- and overestimation (Gimpelson and Treisman, 2018; Fernández-Albertos and Kuo, 2018; Engelhardt and Wagener, 2018; Karadja et al., 2017; Bublitz, 2016; Cruces et al., 2013). Recent work has also looked at how individuals perceive inequality in broader society, again finding evidence for misperceptions, depending among other things on country context (Gimpelson and Treisman, 2018; Norton and Ariely, 2011; Chambers et al., 2013; Sachweh and Olafsdottir, 2012). Literature comparing perceived prospects of social mobility to actual social mobility finds similar results: people in some countries, such as the US, appear to overestimate social mobility, while those in several European countries underestimate it (Alesina et al., 2018; Engelhardt and Wagener, 2014).

Given these differences between actual inequality and social mobility levels and the perceptions thereof, the question arises what this implies for policy preferences. Concerning this question, a large part of the literature focuses on the impact of perceptions on general preference for redistribution (Cruces et al., 2013; Brown-Iannuzzi et al., 2015; Karadja et al., 2017; Alesina et al., 2018). The results from these studies are mixed: some find significant effects of perceptions on preferences, others find effects only for specific groups, based on income or political affiliation, yet others find no effects at all. Consequently, there are no clear conclusions with regard to what role perceptions and their deviation from actual inequality developments play with regard to policy preferences.

A comprehensive study comparing perceptions of both social mobility and inequality in Germany and taking general attitudes as well as specific policy preferences into account is lacking so far. While there are multiple surveys with questions on perceived inequality available for the case of Germany (such as the German Socio-Economic Panel (SOEP), the ALLBUS, the European Social Survey (ESS) and the International Social Survey Programme (ISSP)), the Inequality Barometer has several advantages. Its focus is explicitly on inequality and inequality-related topics, and it combines this with a range of questions on social mobility. It further includes questions concerning the normative evaluation of different kinds of inequality and social mobility. It also gauges preferences with regard to both general redistribution and the welfare state as well as more specific policies. It thus provides a truly comprehensive study of what Germans think about inequality and social mobility. Further, due to its large sample size (more than 6,200 respondents), detailed sub-group analyses and studying heterogeneity across local contexts are possible. Besides the core module, described at length below, it consists of four other modules which include sophisticated and innovative survey methods (such as vignettes and survey experiments).

Our main results show that misperceptions of inequality are common. People underestimate inequality in important ways. There is a strong bias towards the middle in self-placements on the income distribution: the rich underestimate their position while the poor overestimate theirs.

Furthermore, we find that the relative magnitude of wealth inequality is underestimated. At the same time respondents perceive the distribution in the society overall as more right-skewed than it actually is, thus expressing more pessimistic views about the fairness of distribution in Germany. Respondents are also quite pessimistic regarding chances of upward mobility in society. Examining normative judgements, a majority of respondents would prefer a relatively egalitarian society. Yet around half of the respondents agree to some extent that differences between people are acceptable.

The remainder of the paper is structured as follows: we first outline the structure of our survey, introduce the different modules, and highlight its core contributions. Subsequently we describe details of our survey design and the process of data collection, before providing a brief summary of sample characteristics. In the following section we then present the main descriptive results from the core module.

2 Survey structure and core contributions

The Inequality Barometer consists of five modules. The first is the core module, which is the focus of this paper and is presented in detail below. The Inequality Barometer is designed as a repeating survey; therefore, the core module will be repeated in future waves (currently planned in 2022 and 2024, respectively) in order to trace how perceptions of inequality and related policy preferences develop and change over time.

Modules two to five cover particular aspects of inequality and focus on more specific areas. Module two focuses on inheritance taxation and, using survey experiments that provide information on characteristics of German inheritance tax, it examines how self-interest and perceptions of the relevance of inherited wealth shift public preferences over taxing inheritance. The third module looks at social mobility and higher education: Respondents are provided with an information treatment on the family background of university students and are subsequently asked for their support for different types of university tuition fees. The fourth module uses vignettes to look at support for long-term and short-term policies addressing inequality. The final module provides information about household carbon footprints and potential tax burdens and studies how this affects support for carbon tax. Our large sample allows us to make use of these various survey experiment techniques while retaining enough responses in subgroups to be able to analyze these in detail.

In its core module, our survey contributes to the study of inequality by measuring perceptions of multiple aspects of inequality and social mobility. It further also asks for the normative evaluation of inequality in society. In order to do this, we make use of different approaches.

The first of these approaches is to measure perceptions about the distribution of resources (i.e. income and wealth) in broader society. We first ask respondents how they perceive the current distribution of resources in Germany, and then what kind of distribution they would prefer in an ideal setting. While this has been studied before, including for the case of Germany (see the 2016 wave of the ISSP, Niehues (2014), Engelhardt and Wagener (2018)), our large sample size opens up the possibility of engaging in more fine-grained analysis. Our survey is representative at the NUTS-2 level and offers the possibility of engaging in data analysis on lower district levels, even though it might not be fully representative there.

Further, we add a new element to the study of society-wide inequality perceptions by studying both perceptions of distributional inequalities with regard to the upper 10%, as well as the lower 10%. We do this for the level of Germany, of the EU, and the State (Bundesland) a respondent resides in.¹

These different questions allow us to measure how people perceive society-wide inequality in two complementary ways. The first relies on a relatively intuitive method of displaying images of shapes of the distribution of resources. It thus avoids the difficulties in confronting people with percentages or other ways of displaying proportions. Our second measure, on the other hand, works with assigning proportions to the richest or poorest 10%, thus getting at the perceived distribution more directly and allowing for much more variance.

As mentioned, the shapes-of-society question includes a normative component. Additional aspects of the normative evaluation are captured by a question asking to what extent status differences between people are justified and by a set of questions asking for the determinants of getting ahead in life. In order to know where people position themselves on the income distribution we include a question asking respondents to place themselves on a ladder with ten rungs, which is a standard measure for perceived social status. In a second step we further ask respondents to place their parents on the ladder, in order to get a measure of their perceived mobility experience between generations. We further include a measure of perceived society-wide social mobility in Germany inspired by Alesina et al. (2018), who conducted a survey in the US and four European countries, but not in Germany. Respondents are asked how many children from families in the lowest income quintile are expected to move to all five quintiles when they grow up.

A further innovation of our survey is that we add questions examining perceptions of inequality on dimensions other than income, namely wealth, access to higher education, health (life expectancy), and political participation. Every respondent is asked how high they think the difference between the income of the poorest and the richest 10% is. In addition they are asked, through a similarly phrased question, how high they think the difference is with respect to one of the other dimensions; the dimensions are assigned randomly. This allows us to gauge the extent to which perceptions of income inequality are related to perceptions of inequality on the other dimensions.

3 Survey design and data collection

3.1 Organizational and methodological details

The survey was conducted in collaboration with the survey company Kantar. Participants were recruited from a commercial online access panel linked to Kantar. On implementation, we further worked together with the SurveyLAB and the Methods Hub of the Excellence Cluster “The Politics of Inequality” at the University of Konstanz. The survey mode was computer-assisted web interviewing (CAWI). This allowed us to include important elements such as (partly visual) information treatments and vignettes.

¹Even though this is part of the general module, it will not be discussed in this paper, but, together with the related survey experiments is discussed at length elsewhere (see Bellani and Bledow, 2021).

The universe of our survey is the adult population in Germany, meaning participants were required to be 18 years old or above and residents of Germany. To ensure representativeness across gender, age, and education, the dataset includes sampling weights to adjust for remaining imbalances resulting from quota sampling. Further, our sample is representative in terms of gender age and education at the NUTS-2 level.

The fieldwork for the survey was conducted between September 8 and 30, 2020. Overall the survey yielded 6411 complete responses. The response rate was 37.12%, including only completed interviews. This response rate is within the usual range for online surveys. Weights were constructed using iterative distribution adjustments.² For constructing the weights, data from the official statistical office of Germany was used (specifically the Mikrozensus 2018 and the Bevölkerungsfortschreibung 2018).

In constructing the final data set, the data was thoroughly cleaned and several quality checks were applied by Kantar. Various potential indicators for unreliable data were checked and those respondents with suspicious values were excluded. Respondents with the following values were excluded: speeders who completed the survey in less than 40% of median answer time; respondents who chose not to answer more than 20% of all questions; straightliners, i.e. respondents with suspicious answer patterns to matrix questions; respondents who exhibited a combination of implausible answers to socio-economic questions. This adds up to excluding 3.17% of respondents. After dropping respondents with suspicious values, our net data set includes 6208 respondents.

Before launching the full survey we conducted two pretests. A cognitive pretest of the questionnaire was conducted in April 2020. The primary goal was to test especially the newly developed questions. In order to present the questions in a form as close as possible to how they would be presented to the respondents in the full survey, cognitive pretest participants received an online survey consisting of the relevant subset of questions. Simultaneously to the participants filling in the survey, interviewers conducted interviews with the respondents, which were conducted via telephone due to the pandemic constraints. In these interviews the participants were first asked to give spontaneous feedback and were then probed for their perceptions and comprehension of specific elements. Ten interviews were conducted. The interviewees were diverse in terms of age, gender, and educational background. Following the analysis of the results, we revised the questions, partly refining the question wording and making changes to the question types.

In a second step, we tested the full survey in a larger, quantitative pretest, with respondents from the panel we also used in the actual survey. Our pretest sample consists of 355 respondents, 301 of which completed the survey. The questions included in this pretest were generally in their final version, nevertheless we had several considerations concerning question versions and question ordering that we wanted to investigate. Having more respondents allowed us to test multiple question versions and inter-dependencies between questions. After analyzing the data from the pretest, we decided on final question versions and made minor changes to question ordering.

²Details on the construction of the survey weights can be found in the technical report, which is available upon request.

3.2 Sample characteristics

As described in the previous section our sample is representative at the NUTS-2 level. The resulting distribution at the Bundesland level is displayed in Table 1. Our survey also includes a broad range of socio-demographic variables. Descriptive statistics of these variables are presented in Table 2. Gender, age, and education, the postal code, and the variable Bundesland do not have any missings – answering them was mandatory since they were relevant for the sampling criteria. All other questions could be skipped. Some questions included answer options that allowed for explicitly opting out, such as ‘don’t know’ or ‘no statement’. These were included in questions that were relatively complicated, in order to avoid respondents breaking off the survey due to frustration. They were further included in questions that can be considered to touch on sensitive matters, such as political opinions or income. Given these considerations and the availability of explicit opt-out options, it is little surprising that the highest rate of missingness can be found in complicated and sensitive questions. However, the amount of missings is nowhere above 15%. The highest rate is in the question concerning party preferences, which overall 14.82% of respondents declined to answer. Similarly, the rate is relatively high for self-placement on the left-right scale, with 11.30%. In the question on perceived social mobility roughly 10% of those who receive the question opted out. A further question that is notorious for many people refusing to answer is income. Since it is important for the study of inequality we used a two step procedure to measure income. We first asked people to fill in their monthly net household income. If people chose not to answer this question they received a second question, asking them to indicate which category their income falls into, and noting that the information is important for our survey. This strategy worked well, overall we have around 10% of answers missing for income (compared to above 30% for the open income question). In the descriptive results presented below missings are excluded.

Table 1: Number of respondents by Bundesland

| | Which Bundesland do you live in? | |
|------------------------|----------------------------------|------------|
| | frequency | percentage |
| Baden-Württemberg | 775 | 12.48 |
| Bavaria | 915 | 14.74 |
| Berlin | 269 | 4.33 |
| Brandenburg | 179 | 2.88 |
| Bremen | 53 | .85 |
| Hamburg | 127 | 2.05 |
| Hesse | 535 | 8.62 |
| Mecklenburg-Vorpommern | 101 | 1.63 |
| Lower Saxony | 541 | 8.71 |
| North Rhine-Westphalia | 1408 | 22.68 |
| Rhineland-Palatinate | 338 | 5.44 |
| Saarland | 84 | 1.35 |
| Saxony | 355 | 5.72 |
| Saxony-Anhalt | 165 | 2.66 |
| Schleswig-Holstein | 191 | 3.08 |
| Thuringia | 172 | 2.77 |
| Total | 6208 | 100 |

Table 2: Descriptive statistics of main sociodemographics variables

| Variable | Description | Sample distribution | Official statistics |
|-----------------------|---|--|--|
| Gender | variable with the values 0 if male, 1 if female, 2 if diverse | 51.35% female, 48.53% male, 0.11% diverse gender | 50.65% female, 49.35% male |
| Age | in years at the time of the survey, computed from year of birth | mean: 50.31 years, SD: 16.61, Q1: 36, Q2: 51, Q3: 64 | 44.5 years (includes people under the age of 18) |
| Education | levels of general education (excluding vocational and academic education) | 35.26% lower education, 30.64% medium education, 34.10% higher education | 32.06% lower education, 30.00% medium education, 33.50% higher education |
| Income | measured in 10 categories, answers elicited partly as categorical answers, partly as sum (in euros), transformed into deciles | mean: 5.21, SD: 2.77, Q1: 3, Q2: 5, Q3: 8, missing: n=757 | |
| Political orientation | Self-placement on left/right scale, 0=left, 10=right | mean: 4.71, SD: 1.88, Q1: 4, Q2: 5, Q3: 7, missing: n=701 | |

Note: Q1, Q2, Q3 refer to the values at 25%, at 50% and at 75%. The official statistics stem from Destatis data from 2019 and 2020.

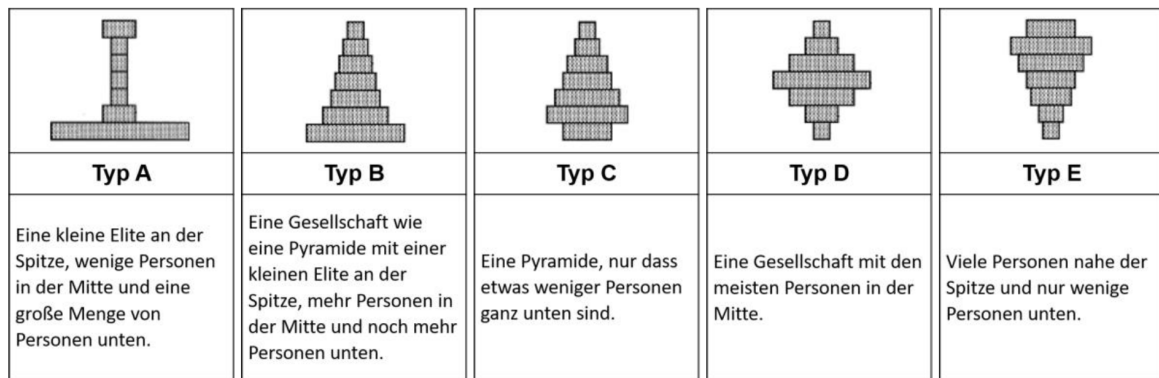
4 Descriptive findings

4.1 Perceptions of society-wide inequality

A first aspect we look at is how people perceive society-wide inequality, i.e. how they think income and wealth are overall distributed in the society they live in. We measure this first by showing the respondents a figure displaying five images of distributions, with a brief description of the societies these images represent (see Figure 1). We then ask respondents to indicate which of these images they think best represents the contemporary society in Germany. The question does not refer to income or wealth explicitly, but asks for the shape of society and status more generally. However, income and wealth are likely to be one main consideration in thinking about upper, lower, and middle segments of society. We therefore conceptualize this as a perception of income and wealth inequality.

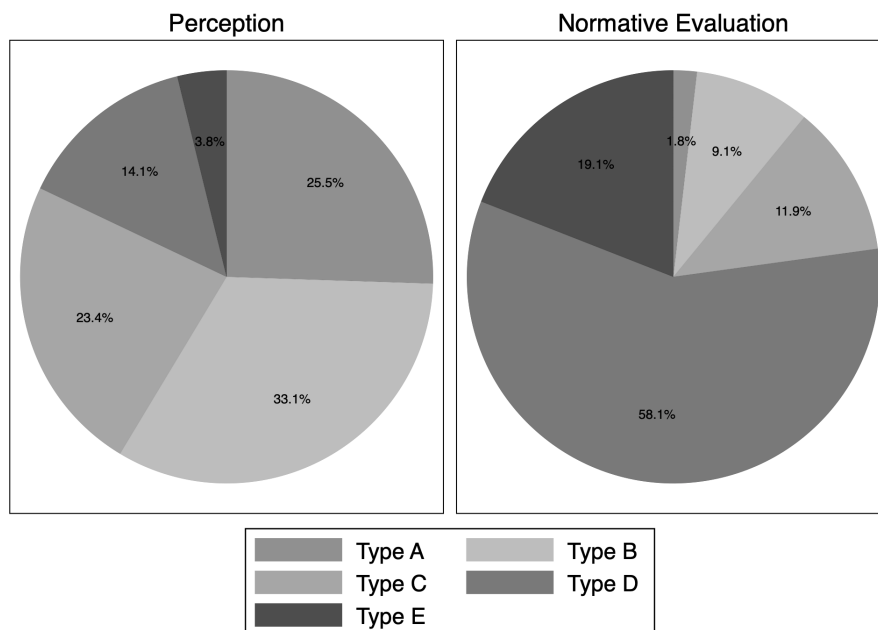
Most respondents think Germany resembles type B: a pyramid with a relatively large bottom, i.e. lower socio-economic class. The second most common perception is type A, which has an even larger lower class and smaller middle classes. More than 50% of respondents thus think that the largest group in Germany is the group with the lowest socio-economic status. Given that we think income plays a major role in people’s assessment, it is informative to compare these perceptions to actual inequality levels. The actual shape of the income distribution in Germany is most similar to type C (Niehues, 2014). This means the majority of Germans think that the income distribution is more right-skewed than is actually the case. This holds, of course, only to the extent that respondents have economic inequality in mind as one central aspect when

Figure 1: The five shapes of society as presented in the survey



answering.

Figure 2: Perceptions and evaluations of society wide inequality

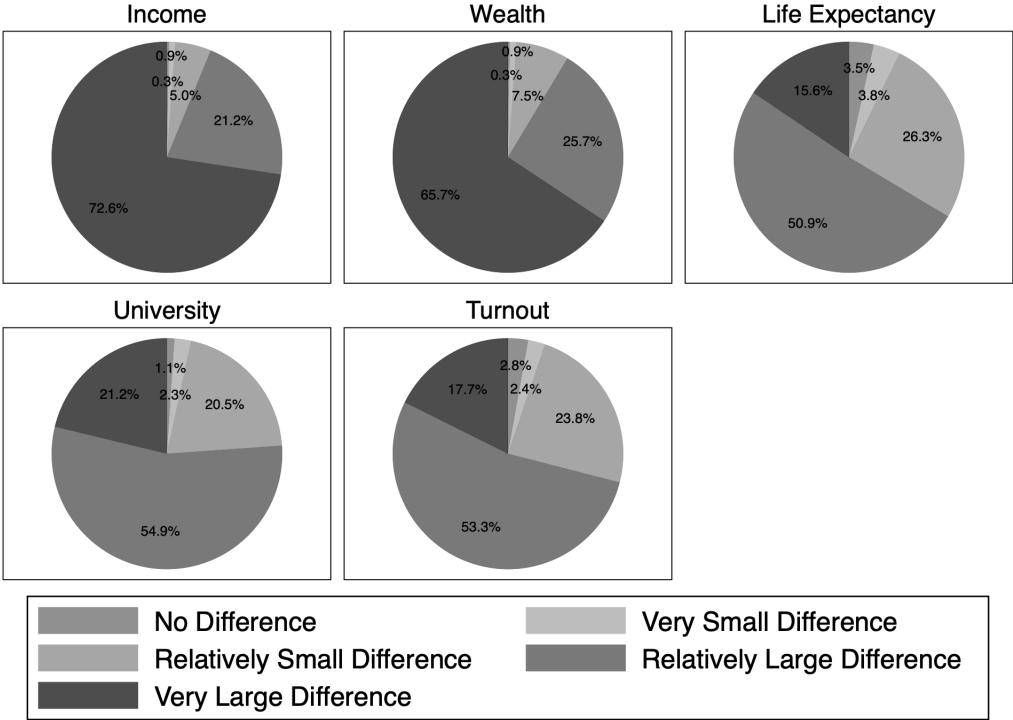


4.2 Different dimensions of inequality

In the next step, we compared perceptions of inequality along different dimensions. This includes first measures asking specifically about how income and wealth inequality are perceived, and, secondly, bringing in other dimensions of inequality, namely life expectancy, access to higher education, and electoral turn-out.

In order to measure perceptions of income inequality we ask how high the difference in income between the richest 10% and the poorest 10% is perceived to be. There are five answer categories: no difference, rather small, small, rather large, large. Taken by itself, these categories hold little explanatory value; it is the comparison across different dimensions of inequality that makes the difference here. Hence, we ask how high people perceive the differences in wealth to be when comparing the richest and the poorest 10%. We then add similarly structured questions

Figure 3: Different dimensions of inequality – answer frequencies



asking about life expectancy, access to higher education, and electoral turn-out. Specifically, we ask about these inequalities in relation to economic inequality. For education, for example, the question asks how high the difference in university attendance between the poorest and the richest 10% is perceived to be. Asking these questions one after the other may risk evoking overly consistent answers, or influencing the answers in other ways. We therefore split the sample into four groups with each group getting the question on income inequality and in addition one of the remaining four categories.

As can be seen in Figure 3, the answers ‘no difference’ and ‘very small difference’ are chosen by very few respondents across all dimensions. This is to be expected. Nevertheless, there is interesting variation across the other three categories. For all dimensions the majority of respondents perceive the difference to be rather large or very large. This percentage is highest for income and wealth (above 90%), followed by 77% for access to university, 71% for turn-out, and 67% for life-expectancy. Concerning the relation between the different dimensions, as is to be expected, income inequality is positively correlated to all other dimensions.³ The coefficient is highest for the correlation with wealth (0.61), followed by education (0.36), electoral turn-out and life-expectancy (both 0.28). Another important finding emerging from these descriptive data is that wealth inequality is perceived as less severe than income inequality, although the former is, objectively speaking, much more pronounced in Germany than the latter. Hence, this indicates that respondents underestimate the extent of wealth inequality.

These measures of perceived inequality are consistent with the shapes-of-society measure: those who perceive the more right-skewed distributions as more closely representing Germany

³Because of the sample split, correlations between the different dimensions are not observed.

also perceive income and wealth differences to be greater. This association also exists with respect to the dimensions of life-expectancy, access to education and turn-out, but less strongly. In a further step we look at how the perceptions differ across subgroups. We find that inequality is perceived to be greater by people with higher incomes and higher education levels. This is the case for all dimensions of inequality, but most strongly for inequality in income and wealth.⁴

4.3 Self-positioning in the income distribution

Figure 4: Ladder representation of the income distribution



A further approach to measure perceptions of income inequality is to ask respondents' to position themselves in the distribution of incomes and then aggregate these responses. We do this by displaying an image of a ladder with 10 rungs, with the two ends of the ladder representing the 10% with the highest and the 10% with the lowest income respectively, and asking people where they would place themselves. Because we also ask people how much their household income is at a different point in the survey, we can compare their subjective perception of their relative position to their actual position in the distribution of incomes.⁵ As can be seen in Figure 3, in terms of actual income our sample is relatively well spread out across the deciles.⁶ Yet if we look at self-placement, almost a quarter of respondents perceives themselves to be in the middle and many more to be close to the middle. There is a clear tendency of those who are, in fact, lower in the ladder to overestimate their position and an even clearer tendency of those on top to underestimate their relative placement. This is consistent with what has been found in previous studies (for example Gimpelson and Treisman, 2018; Engelhardt and Wagener, 2018;

⁴The correlation coefficients are 0.12 and 0.14 for income and wealth respectively. For education, a t-test of the mean for the highest education group against that of the lowest education group (omitting the middle income group) is significant for all dimensions.

⁵Note that we refer to the individual person in the ladder question, while we ask for household income. The comparison is thus not perfect.

⁶If it were perfectly representative we should have a uniform distribution, with a tenth of respondents falling into each of the deciles, we clearly face some issues of non-response especially in the top deciles.

Bublitz, 2016).

Table 3 shows the distribution of positive and negative bias in more detail (Figure 6 provides a summary visualization). A positive bias means someone overestimates their placement and a negative bias vice versa.⁷ Columns 1 and 2 show clearly that people on the lower end of the income distribution have a positive bias, i.e. overestimate their relative income position, while those on the upper end underestimate it. The remaining columns show that a larger proportion of respondents on the upper end places themselves wrongly (columns 3 and 5) and that their bias is larger on average (columns 4 and 5). Accordingly, the tendency of the rich to underestimate their income position is more pronounced. Also noteworthy, although not unexpected, is the observation that people in Eastern Germany on average place themselves, as well as their parents, on a lower step on the ladder.

Figure 5: Actual and perceived income placement

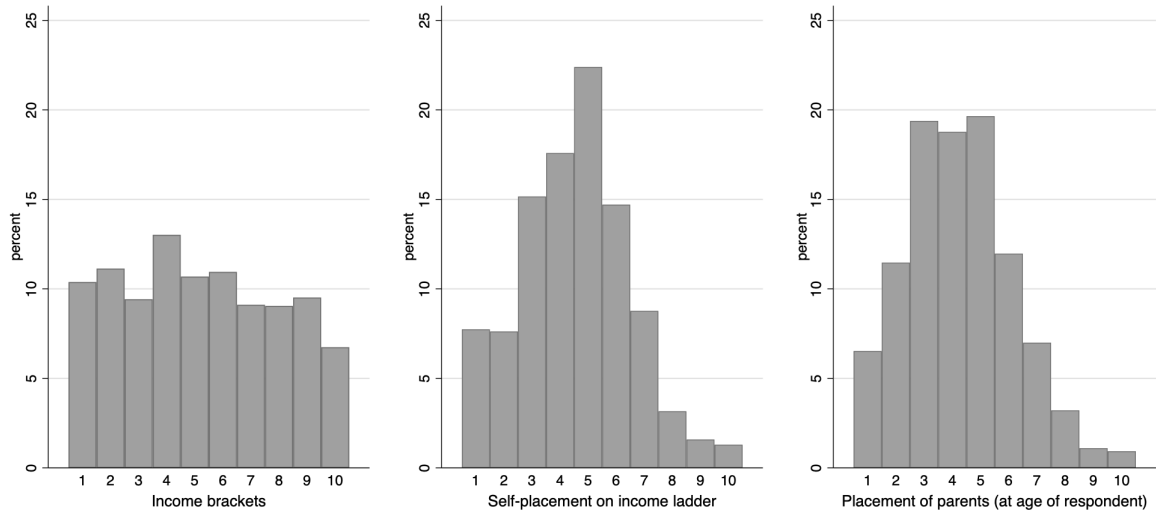
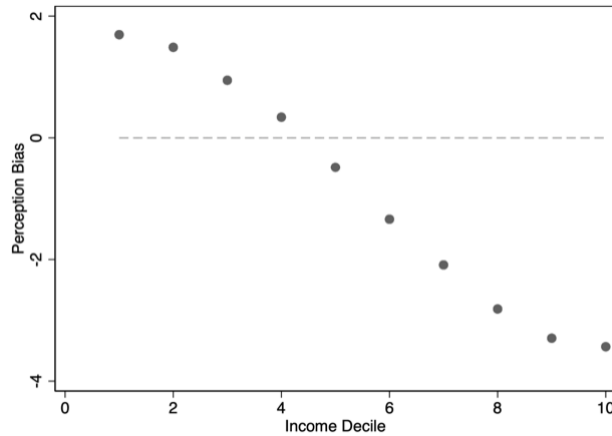


Table 3: Bias in self-placement by actual income decile

| | (1) | (2) | (3) | (4) | (5) | (6) |
|------------------|--------------------------|-----------|-------------------------------|-----------------------|-------------------------------|-----------------------|
| Objective decile | Average perceived decile | Mean bias | Proportion with positive bias | Average positive bias | Proportion with negative bias | Average negative bias |
| 1 | 2.66 | 1.66 | .61 | 2.81 | 0 | 0 |
| 2 | 3.50 | 1.50 | .70 | 2.35 | .13 | -1 |
| 3 | 3.96 | .96 | .61 | 2.01 | .17 | -1.45 |
| 4 | 4.34 | .34 | .44 | 1.79 | .30 | -1.47 |
| 5 | 4.53 | -.47 | .24 | 1.56 | .49 | -1.76 |
| 6 | 4.64 | -1.36 | .13 | 1.57 | .70 | -2.16 |
| 7 | 4.91 | -2.09 | .04 | 1.87 | .86 | -2.47 |
| 8 | 5.18 | -2.82 | .02 | 1.27 | .94 | -3 |
| 9 | 5.70 | -3.30 | .02 | 1 | .97 | -3.39 |
| 10 | 6.56 | -3.44 | 0 | 0 | .94 | -3.64 |

⁷The bias is calculated by simply subtracting the actual income decile from the perceived rung on the income ladder.

Figure 6: Bias in self-placement by actual income decile (visualization)



4.4 Perceptions of social mobility

As noted above, one contribution of our survey is to combine the study of perceived inequality with that of perceived social mobility. Here we first look at the perceived mobility experience of individuals, i.e. how their income situation has changed relative to that of their parents. Second, we also look at how society-wide social mobility is perceived; specifically, we look at how high the chances of upward mobility for those from the lowest quintile are perceived to be.

For studying individuals' perceived mobility experience, we compare self-placement on the income ladder with how the respondents place their parents, when they were at the age the respondent is now. Note that the perceptions of experienced mobility have to be interpreted with caution, given that self-placement on the ladder is clearly biased towards the middle, as discussed in the previous section. Figure 3 shows that the placement of parents on the ladder is somewhat less biased towards the middle than that of respondents themselves. It is also a bit lower on average, the mean is 4.3 compared to 4.5 for self-placement. It is also notable that we have more than double the amount of non-response for the placement of parents (6% compared to 2%) – respondents appear to be more unsure about where to place their parents than themselves, which is to be expected.

Figure 7: Perceived individual mobility experiences

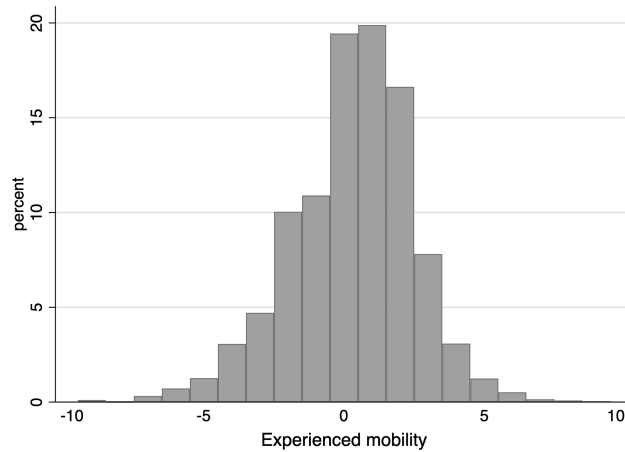
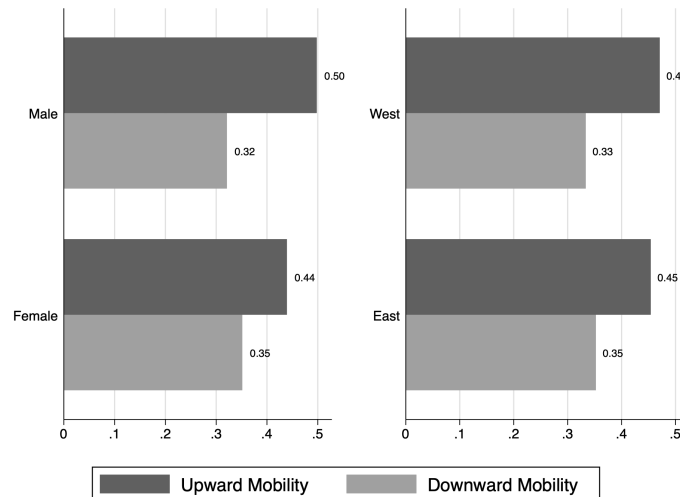


Figure 8: Perceived upward and downward mobility experience by gender and East/West Germany



Almost half of our respondents state that they have experienced upward mobility, 47%, while 34% claim to have experienced downward mobility – the remaining 20% see themselves in the same decile as their parents were at their age. The size of the perceived shift in income deciles tends to be rather small: of those who perceive themselves as having experienced mobility, about 70% have moved only one or two steps (see Figure 7). Women more frequently report a negative mobility experience than men, the same holds for people from East Germany (see Figure 8). The latter finding is particularly interesting (and maybe discouraging regarding the long-term (perceived) benefits of re-unification): even though the standard of living (in terms of standard economic parameters) has increased significantly in East Germany since re-unification, those who still live in this part of Germany tend to perceive downward rather than upward mobility. To some extent, this could be a selection effect (i.e. those who are more optimistic and upwardly mobile have moved to the West already), but the finding is still significant.

Concerning perceived upward mobility in the society, we use a measure similar to that used by Alesina et al. (2018). We display an image with two ladders, this time with 5 rungs each.

Table 4: Perceived upward mobility in different regions and experienced mobility

| | (1) | (2) | (3) | (4) |
|----------------|----------------------|---------------------|-----------------|---------------------------------|
| | Perceived Germany | Perceived Europe | Perceived US | Experienced Germany (ladder) |
| Q1 to Q5 | 7.7 | 9.6 | 11.7 | 0.7 |
| Q1 to Q4 | 9.0 | 10.9 | 12.0 | 4.1 |
| Q1 to Q3 | 22.6 | 21.6 | 22.3 | 17.9 |
| Q1 to Q2 | 25.6 | 23.0 | 21.8 | 47.3 |
| Q1 stays in Q1 | 37.7 | 34.9 | 32.2 | 30.0 |

For columns (2) and (3) cf. Alesina et al. (2018).

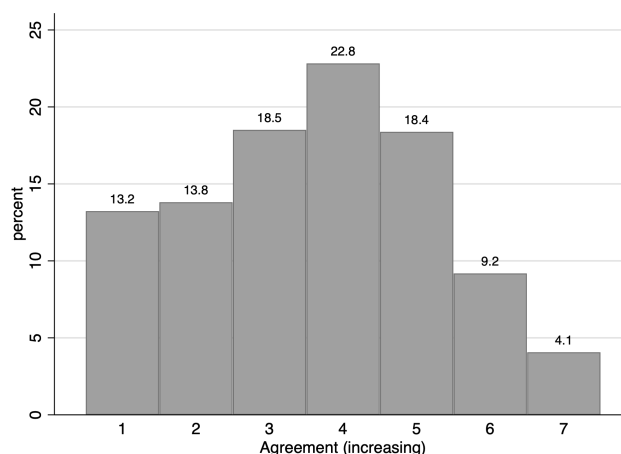
One represents the five income groups of the parent generation, the other the 5 income groups of the children (once they are grown up). We then ask respondents to indicate how many children coming from the lowest rung on the parent ladder make it to each of the rungs on the second ladder, once they grow up. On average, our respondents are more pessimistic than those in other country contexts (see the results by Alesina et al., 2018). The mean of the percentage of offspring from the 100 lowest income families that is expected to move to the highest income quintile is 7.7%, the percentage that is expected to remain in the lowest income group is 37.7%. Respondents in Germany accordingly appear to be less optimistic than respondents in other European countries or the US, as measured by Alesina et al. (2018) (see Table 4). In Germany, women are somewhat more optimistic than men. Interestingly, the perception of society-wide upward mobility is, on average, not related to the perception of one’s own mobility experience. This may partly be explained by our measure of experienced mobility being distorted by the bias towards the middle in self-placements on the income ladder.

4.5 Normative views on inequality and social mobility

The shapes-of-society question, discussed in section 4.1, also asks respondents to indicate, which shape they think the society in Germany *should* resemble (as a reminder: above, we only discussed how respondents perceive the current shape of society as it is, not as it should be). This captures normative views concerning society-wide inequality and distribution. In response to this question, the majority picked type D (see Figure 2), the distribution with the largest middle class. This is followed by type E, which has an inverse pyramid shape with the largest group being the upper middle classes. Almost half (44%) see a difference between the way that society is and the way it should be, which is a significant ‘normative gap’. For those whose perception of the status quo and the desirable distribution is the same, the most frequent choice is type D. This means that they differ from those who perceive a normative gap more in their perceptions of the status quo than in their normative view. Normative evaluations of the shape of society are related to seeing more inequality on different dimensions: those who favor more left-skewed distributions perceive income and wealth differences⁸ to be greater. Overall, normative views concerning the general shape of society are thus widely shared across respondents. However, other aspects of inequality, such as how it comes about as well as concerns about equity and merit, also play a role in people’s normative views.

⁸As measured by the item displayed in Figure 3.

Figure 9: Status differences – answer frequencies



The question reads: To what extent do you agree with the following statement? Status differences between people are acceptable, because they essentially express how people have realized the opportunities that they had.

An additional perspective which takes the issue of how inequalities come about into account is given by another item, in which respondents are asked for the level of agreement to the statement that status differences are acceptable, because they mirror to what extent people have realized the chances they had. The answer scale ranges from complete disagreement (1) to complete agreement (7). Disagreement with this question can indicate two things: either respondents disagree with the outcome (they would simply prefer a more egalitarian distribution) or they would, in principle, accept a non-egalitarian distribution but disagree with the statement that outcomes in our society mirror what people make of their chances. This question thus captures both egalitarian as well as equity concerns. Agreement with this question, in contrast, indicates that respondents are not strict egalitarians and that they perceive the way that inequalities come about in the current society to be (at least somewhat) fair. The mean is 3.6, i.e. there is an overall tendency to disagree with the statement. The relative answer frequencies are displayed in Figure 9. Men and respondents with higher incomes are somewhat more likely to state that status differences are acceptable.

We also approach the question of how inequalities come about more directly via an item asking which factors are seen as being important to get ahead in life. This can indirectly also convey to what extent people think differences are acceptable, since the belief that they are due to factors outside individual control, such as luck or a wealthy family, is less consistent with views that people themselves are responsible for realizing the chances they are given (and this in turn is often considered relevant for equity). As displayed in table 5, most respondents think a wealthy family background is not particularly important. Good education, on the other hand, is thought to be extremely important by the majority of respondents. Working hard is similarly judged important by most, but with higher answer frequencies for somewhat and very important rather than extremely important. Having luck is also thought to be important by most, but somewhat less strongly so than working hard. Taken together, these responses therefore suggest that meritocratic attitudes (hard work and effort are rewarded by getting ahead in live) are quite wide-spread in the German population, in spite of the more pessimistic views on social

mobility documented above.

The answer patterns to the different questions are, for the most part, not strongly related (most correlation coefficients are around 0.1, all are positive). The assessment of the importance of having a good education and hard work are correlated more strongly, the coefficient is 0.33; similarly, having a wealthy family background and luck have a correlation coefficient of 0.27. The answer patterns accordingly exhibit the distinction between factors that some see to be somewhat more within individual control (education and hard work) and those that are outside of individual control (luck and family wealth).

Table 5: What is important to get ahead in life? Answer frequencies

| | Wealthy fam- ily % | Good educa- tion % | Work hard % | Have luck % |
|-------------------------|--------------------------|--------------------------|----------------|----------------|
| 1 - Not at all | 11.86 | .57 | 1.19 | 1.41 |
| 2 - Not very important | 29.91 | 1.65 | 6.18 | 11.32 |
| 3 - Somewhat important | 26.64 | 12.26 | 31.11 | 36.18 |
| 4 - Very important | 17.51 | 33.77 | 39.76 | 29.72 |
| 5 - Extremely important | 12.50 | 51.19 | 21.10 | 20.15 |
| No reply | 1.58 | .57 | .65 | 1.21 |
| Observations | 6178 | 6179 | 6167 | 6176 |

The question reads: How important are, in your opinion, the following things in order to get ahead in life?

4.6 Comparing inequality and social mobility perceptions

As mentioned, one advantage of our survey is that it gauges both perceptions of inequality and perceptions of social mobility; we can thus compare them, which we do briefly in the following. We first consider respondents' self-placement on the income scale and their perception of society-wide social mobility (see column (2) and (3) of Table 6). Those respondents who overestimate their income position are more optimistic about social mobility in society, while those who underestimate it perceive social mobility to be lower.⁹

We can further compare the perception of different dimensions of inequality in the society to social mobility perceptions:¹⁰ For all dimensions of inequality, those who perceive inequality to be small are more optimistic with respect to upward social mobility in society. For those who state that inequality is relatively small the percentage of children from the 100 poorest families who end up in the richest quintile is larger than for those who think inequality is large or very large. Analogously, the former group expects less children from the 100 poorest families to be stuck in the lowest quintile. This pattern holds for all dimensions of inequality, but it is strongest for wealth inequality: Those who think wealth inequality is rather small believe 34% of those from the poorest background will make it to the highest quintile – those who think

⁹Note that, similarly, those in the upper half of the actual income distribution are more pessimistic than those on the lower half; however, these findings have to be interpreted with care: these two measures are related, since those in the upper half are much more likely to underestimate their position. Higher educated people also are more pessimistic on average.

¹⁰We cannot compare the answer to inequality perceptions as measured by the shape of society question, since this question and the perceived social mobility question were administered to a split sample: half the respondents got the former, while the other half got the latter.

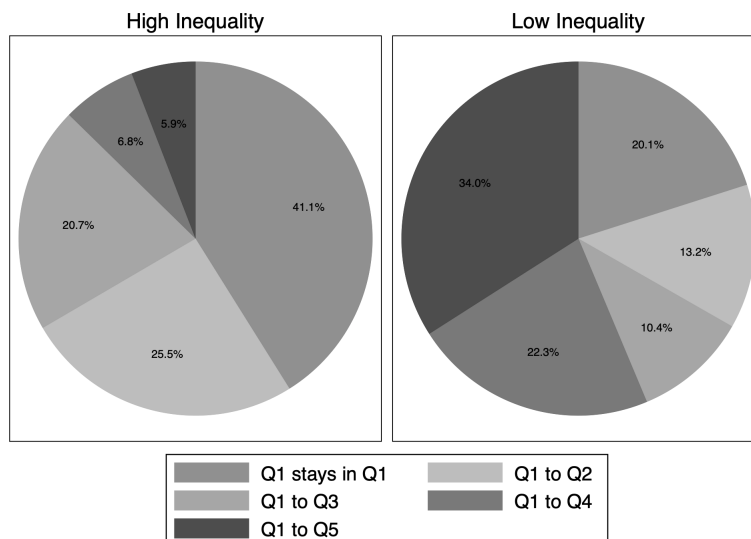
Table 6: Perceived upward mobility in society across self-placement and income groups

| | (1) | (2) | (3) | (4) | (5) |
|--------------------|-----------------|--------------------------|---------------------------|----------------------------|----------------------------|
| Perceived mobility | Mean percentage | Mean for over-estimators | Mean for under-estimators | Mean for lower income half | Mean for upper income half |
| Q1 to Q5 | 7.7 | 9.4 | 6.6 | 8.8 | 6.7 |
| Q1 to Q4 | 9.0 | 10.4 | 7.9 | 10.0 | 8.1 |
| Q1 to Q3 | 22.6 | 23.1 | 22.0 | 23.1 | 22.1 |
| Q1 to Q2 | 25.6 | 25.6 | 25.5 | 25.2 | 25.9 |
| Q1 stays in Q1 | 37.7 | 35.0 | 40.0 | 36.0 | 39.2 |

The five rows indicate the perceived percentage of the children from the 100 lowest income families to move to the five income brackets when they grow up.

inequality is higher expect only 6% to do so. Further, the former group thinks 20% will stay in the lowest quintile, while the latter group thinks that this will apply to 41.10% (see Figure 10).

Figure 10: Perceived Upward Mobility by Perception of Wealth Inequality



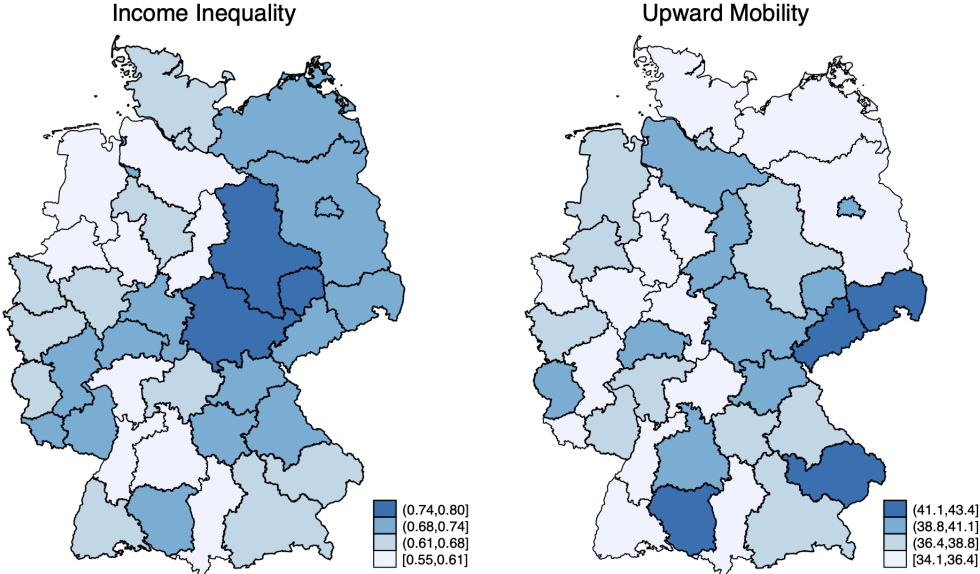
It further seems plausible to expect that perceptions of social mobility are related to what is seen as important for getting ahead in life. However, we find no difference in perceptions depending on the importance of luck and only small differences for the importance of a good education or hard work. Yet we do find a relatively clear descriptive pattern in the case of the importance of wealth: those who think coming from a wealthy family is not important are somewhat more optimistic about upward mobility. On average they think 10% of children from the lowest quintile will make it to the highest and 33% will remain in the lowest. For those who think wealth is extremely important the figures are 7.2% and 45.3%.

4.7 The Geography of Inequality and Mobility Perceptions

Perceptions of income inequality and perceptions of social mobility are not uniformly distributed across the country. As mentioned above, a particular strength of our survey is that it allows to measure regional and local variation in attitudes and preferences. Figure 11 visualizes the

variation in perceived inequality and social mobility in Germany at the NUTS-2 level. The regional variation in perceived income inequality is measured by the share of survey respondents, who answer that they strongly agree with the statement that differences in income are too high. The regional variation in social mobility perceptions is measured by the region-specific expected share of children from families in the bottom quintile of the income distribution, who will themselves end up in the bottom quintile as adults. Both perception measures are binned into four color levels representing regions with similar perceptions of income inequality and social mobility. Shaded areas with darker colors in Figure 11 represent NUTS-2 regions with either higher perceived income inequality (left map) or lower perceived upward mobility (right map).

Figure 11: Geographical Variation of Perception of Inequality and Upward Mobility



A first result worth noting is that perception of inequality and social mobility are not as strongly correlated as one might have expected. In fact in our sample the correlation at the individual level is only 0.11 and, when looking at the regional averages, there is little overlap in the distribution of these perceptions across regions. The figure provides eye-ball evidence for existing East-West differences in the perception of income inequality. While perceptions of income inequality vary quite a bit across regions in former West German states, in all regions in former East German states at least two-thirds of the people believe that differences in income are too high. Front runners in this respect are Saxony-Anhalt and Thuringia with about three-quarters or more people believing that differences in income are too high. Thus, in line with common expectations, respondents in East Germany seem to be inherently and significantly more concerned about income inequality.

Interestingly, a similar East-West divide does not exist when people are asked about social mobility. Regions with low and high shares of people perceiving upward mobility as low can be found in the west and in the east of Germany. Front runners in this statistic, with more than 41 percent of people expecting that children of parents from the bottom quintile of the income distribution will not advance to higher quintiles as adults, are Lower Bavaria and Tübingen in the west as well as Dresden and Chemnitz in the east.

A tentative interpretation of this finding is that the persisting wage differences between East and West Germany may play a role in explaining the East-West differences in the perception of income inequality. However, this regional divide does not map into similar differences with respect to perceptions of social mobility. Further research is clearly needed here.

5 Summary and conclusion

This paper describes the structure and methodological details of the novel Inequality Barometer survey. It also presents preliminary descriptive findings. These descriptive results mirror similar findings in the existing literature: Most importantly, we find evidence for a significant degree of misperceptions of inequality. Broadly speaking, respondents severely underestimate the extent of inequality in important ways: the rich underestimate their relatively high position in the income scale, while the poor overestimate their relatively low position. In the aggregate, this leads to a severe overestimation of the size of the middle class, while the extent of inequality is under-estimated. Interestingly, when directly asked about the general shape of the distribution of life chances in society, the respondents seem to be more pessimistic as they perceive a larger ‘bottom’ than is objectively correct.

Our survey also includes a comparison of perceptions of inequality across different dimensions. We find that the size of the difference between the 10% at the bottom and the 10% at the top varies across these dimensions: it is perceived largest in income followed by wealth and the remaining dimensions. Again, these perceptions indicate important and consequential misperceptions: Respondents generally believe that wealth is distributed more equally than income in Germany, although the reverse is true. This indicates a significant underestimation of the extent of wealth inequality.

Concerning social mobility, German residents appear to be less optimistic than peers in other European countries and the US. Optimist perceptions are related: those respondents who perceive less inequality in society or who overestimate their own placement on the income distribution tend to also perceive more opportunities for upward mobility. We further find that perceptions of social mobility vary considerably across different regions in Germany. In the case of inequality perceptions there appears to be a pattern across East and West German states, with inequality being more consistently perceived as high in the former. With regard to social mobility there is no clear pattern.

Turning to normative evaluations: respondents in Germany would like society to be more egalitarian than they perceive it to be; almost half of respondents perceive a normative gap between what they perceive society to be currently and what they think it should look like ideally. Nevertheless, about the same share of respondents also agrees at least to some extent that differences between people are acceptable.

In the next steps we aim to explore the data provided by the Inequality Barometer in much more detail. The items introduced descriptively above are being further analyzed, investigating their micro-level determinants, as well as their relation with each other. We are further working on the other modules contained in the survey (see 2), which offer abundant opportunities to explore the shape of inequality and social mobility perceptions in Germany, as well as their determinants and consequences for policy preferences.

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