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# Rising income inequality and the relative decline in subjective social status of the working class

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## ABSTRACT

The declining ‘subjective social status’ of the low-educated working class has been advanced as a prominent explanation for right-wing populism. The working class has certainly been adversely affected by rising income inequality over the past decades, but we do not actually know if their perceived standing in the social hierarchy has declined correspondingly over time. This article examines trends in subjective social status in two ‘most likely cases’ – Germany and the US – between 1980 and 2018. We find that the subjective social status of the working class has not declined in *absolute* terms. However, there is evidence for *relative* status declines for the working class in Germany and substantial within-class heterogeneity in both countries. These findings imply that rising income inequality has a nuanced impact on status perceptions. When assessing the role of subjective social status for political outcomes, longitudinal perspectives that consider both absolute and relative changes seem promising.

**KEYWORDS** Subjective social status; income inequality; working class; absolute changes; relative changes

The working class plays a key role in the electoral transformation of Western democracies over the past decades and the rising support of radical right parties in particular (Oesch and Rennwald 2018). To explain this transformation, a growing literature has highlighted perceptions of social marginalisation and resentment among the working class (Cramer 2016; Hochschild 2016; Gidron and Hall 2017; Gest *et al.* 2018; Gidron and Hall 2020). A main concept in this literature is ‘subjective social status’, that is, a person’s self-perceived standing, respect, or esteem within a social hierarchy. Gidron and Hall (2017, 2020) forcefully argue that

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subjective social status is shaped by both economic and cultural developments. In their view, the (relative) status of low-educated men has declined compared with other groups, and this decline – reinforced by trends such as occupational change (Kurer 2020) and rising income inequality (Engler and Weisstanner 2020, 2021) – provides fertile ground for radical right parties promising to protect or restore these groups' status.

However, few studies have investigated whether and how subjective social status has actually changed over time. Contrary to the thrust of Gidron and Hall (2017), Oesch and Vigna (2021) find that the subjective social status of the working class has remained broadly constant between 1987 and 2017, with few differences across countries. The two studies use the same survey sources and operationalisation of subjective social status (the 'social ladder' question of self-placement in the social hierarchy on a 1–10 scale), but Gidron and Hall (2017) explore differences between low- and high-educated groups, while Oesch and Vigna (2021) focus on gaps by social class (based on information about individuals' occupation). These contradictory findings are surprising, given that the working class has been adversely affected by the economic changes of recent decades, with income inequality generally rising and working-class incomes often stagnating.

We argue that what is missing in this debate is a clear conceptual distinction between *absolute* and *relative* changes in subjective social status. *Absolute* change, as understood here, focuses on change in the reported status of a specific group over time (i.e. without reference to the levels reported by other groups). *Relative* change instead focuses on the *difference* between the reported status of one group versus another over time (e.g. on how the gap in subjective status between the working class and others in the society changes). The literature on electoral realignments often highlights relative decline rather than the experience of absolute status decline or economic hardship as leading working-class individuals to support radical right parties (Bornschier and Kriesi 2013; Häusermann 2020; Kurer 2020). In a context of increasing socio-economic disparities, we can expect to observe not necessarily a decline in absolute levels of subjective status, but a widening relative gap in subjective social status between the working class and the rest of the population over time.

In this article, we therefore explore (a) whether the subjective status of the working class actually declined in absolute or relative terms over time, and (b) how the evolution of subjective status over time aligns with rising income inequality and increasing income gaps between these groups. We aim to provide a longitudinal perspective on these questions by comparing trends over recent decades in Germany and the US. These are selected because they represent two 'most likely cases', in the sense that they are countries where we are most likely to see shifts in subjective

status among some groups given the way income inequality evolved over the period. Income inequality has increased strongly in both countries since the 1980s, although from a considerable lower level in Germany, and with different phasing across the decades, distinctive factors at work, and differences in where income growth was most heavily concentrated (Nolan 2018a; Pontusson and Weisstanner 2018).

Our empirical analysis thus explores trends in subjective social status in the US and West Germany between 1980 and 2018, using the General Social Survey (GSS) for the US, and the German General Social Survey (ALLBUS) for West Germany. Although these surveys do not allow one to observe individual changes over time, not being panel studies following the same individuals over time, they are of high quality and allow us to compare trends over an extensive period of time.

Our findings provide no evidence for the claim that the subjective social status of the working class has declined in *absolute* terms. Reported status among this group in the 2010s in the US is at similar levels to the 1980s and in Germany is at higher levels than it had been then. In *relative* terms, we find that the status of the working class relative to the middle and upper class has declined in Germany, but not in the US. The relative status decline of the German working-class is seen to be driven by objective economic circumstances such as income or education, but economic factors cannot fully explain the pattern observed in the US. Although there is significant heterogeneity *within* the working class in both countries, in the US a significant relative status decline among the white (and male) working class compared with other sub-groups of the working class is found.

These findings imply that rising income inequality has had a nuanced impact on subjective social status perceptions for the working class over the past decades. Our over-time findings are clearly at odds with the cross-sectional findings that higher income inequality is generally associated with lower status levels (Lindemann and Saar 2014; Wilkinson and Pickett 2018; Schneider 2019). Contrary to what Gidron and Hall (2017, 2020) suggest, the working class has not increasingly felt 'socially marginalised', to the extent that we conceptualise this as involving an *absolute* decline in their subjective social status. However, unlike Oesch and Vigna (2021), we actually do find some important *relative* status decline among the working class in both countries. Our data covers a slightly longer time span than Oesch and Vigna (2021), but we also explicitly test if the relative change in the difference in status between working- and non-working classes over time is significant and document crucial variation within the working class. Hence, when assessing the role of subjective social status for political outcomes, longitudinal perspectives that consider both absolute and relative trends would seem promising.

## Theory and hypotheses

This article examines the widespread proposition that the subjective social status of the working class has declined over time. Following Gidron and Hall (2017: S61), we define *subjective social status* (SSS) as ‘the level of social respect or esteem people believe is accorded them within the social order’. Behind this lies the concept of ‘status order’ set out by Max Weber: as Chan and Goldthorpe (2004: 383) describe it, ‘a set of hierarchical relations that express perceived and typically accepted social superiority, equality or inferiority of a quite generalised kind, attaching not to qualities of particular individuals but rather to social positions that they hold or to certain of their ascribed attributes (e.g. ‘birth’ or ethnicity)’.

The concept of status is distinct from social class, which is based on social relations in economic life and has an objective economic basis. Social class is often measured based on information about an individual’s occupation, using schema such as the European Socio-economic Classification or that put forward by Oesch (2006). Status is also distinct from other indicators of social stratification based on factors such as power or socio-economic resources including income and wealth. With social status being a relational concept, *subjective* social status seeks to capture how people assess their social standing by engaging in social comparisons with other groups and by referring to the respect and esteem that is given to them by other people around them (Gidron and Hall 2017: S61, Schneider 2019: 411).

### *Income inequality and SSS*

Several studies claim that there is a negative association between income inequality and SSS (Lindemann and Saar 2014; Schneider 2019; Gidron and Hall 2020). Status, in turn, reinforces social inequality and precludes low-status individuals from attaining positions of resources and power (Ridgeway 2014). Relative deprivation theory (Runciman 1966) expects that those groups most adversely affected by income inequality should feel more inferior and rank themselves lower in society (Schneider 2019: 411; Gidron and Hall 2020: 1040). In this view, higher income inequality should be associated with lower SSS primarily among those most adversely affected by inequality, like low-income, low-educated or working-class groups.

In contrast, the ‘status anxiety’ mechanism highlights the damaging psychological and health consequences of income inequality for *all* individuals in society. Following Wilkinson and Pickett (2009, 2018), income inequality gets ‘under the skin’ as status hierarchies widen and individuals become more concerned with status comparisons. This in turn produces

widespread status anxiety and can cause adverse physical and mental health outcomes (Layte and Whelan 2014: 526). A possible synthesis of both mechanism perspectives is that inequality not only increases the feeling of relative deprivation among adversely affected groups, but also reduces most individuals' subjective social status by increasing the relevance and frequency of comparisons between themselves to those in upper income groups (Schneider 2019: 411–12).

However, the empirical evidence from studies on the negative association between inequality and SSS (Lindemann and Saar 2014; Schneider 2019; Gidron and Hall 2020) is based on cross-sectional evidence, using the *level* of income inequality as a predictor for subjective social status. This could run the risk of spurious correlations because of unobserved variables. Over-time studies that could shed more light on the consequences of inequality on trends in subjective social status are rare. As discussed in the introduction, Gidron and Hall (2017) claim that the relative social status of non-tertiary educated men has declined in many advanced democracies. Oesch and Vigna (2021) critically examine these claims. They find that, focussing on social class rather than educational categories, subjective social status of the working class has remained largely constant between 1987 and 2017 – even in countries where income inequality has increased strongly.

### ***Absolute and relative changes in subjective status***

This disagreement on the impact of inequality developments on trends in SSS and, by implication, wider social and political outcomes, is surprising in light of the clear effect that rising income inequality has had on the relative position of the working class. There is no doubt that the *relative* economic position of the working class has been adversely affected by rising income inequality over the past decades in many places (Pontusson and Weisstanner 2018; Weisstanner and Armingeon 2020). However, there has been a great deal of variation in the extent to which the *absolute* position of different groups has changed over time. In some countries, inequality trends have coincided with strong income growth across the distribution, while in other countries many groups have seen their incomes stagnating (Nolan 2018a, 2018b).

We argue that to bring this debate forward and resolve these contradictory findings, we need to introduce a clear conceptual separation between *absolute* and *relative* changes in SSS and corresponding changes in objective conditions. There are several theoretical reasons to expect that the distinction between absolute and relative trends in socio-economic conditions matters for broader social and political outcomes. For example, political economy models often emphasise the importance of relative

position to shape redistributive conflicts (Meltzer and Richard 1981). In contrast, the economic voting literature has traditionally focussed on how changes in economic conditions in absolute terms affect electoral outcomes (Powell and Whitten 1993: 396). Most relevant for our purposes, the literature on electoral realignments has argued that (perceived) relative deprivation explains working-class support for radical right parties better than indicators of absolute economic hardship (Bornschieer and Kriesi 2013; Burgoon *et al.* 2019; Häusermann 2020; Kurer 2020).

Here, by *absolute* changes we specifically refer to actual changes in the status levels reported by persons without reference to what other individuals or groups are reporting. By the nature of the concept and the measurement tool being employed, these will still be framed with reference to the respondent's own expectations and represent their perceived ranking relative to others. We do not necessarily expect that subjective social status has declined in absolute terms since the 1980s. Even though the working class has lost out in relative terms as income inequality has increased since the 1980s, real incomes and living standards have not actually declined; in some countries they have grown substantially, in others they have stagnated but not shown outright declines (Nolan 2018a). As a result, we examine the following expectation: *As income inequality has increased, have the levels of subjective social status of the working class remained stable over time?*

However, we are also interested in *relative* status changes, that is, how the actual levels of subjective social status of the working class evolved compared to those levels for other individuals and groups. Rising income inequality implies that the gap in the socio-economic hierarchy between the working class and the rest of the population has increased markedly. Higher income inequality leaves those at the lower end of the social hierarchy relatively deprived and prone to less favourable social comparisons with those at the upper end of the social hierarchy (Lindemann and Saar 2014; Gidron and Hall 2017, 2020). As a result, we should expect to see what we will refer to as a *relative* status decline for the working class relative to upper-class groups in cases where inequality has increased: the gap between their actual levels as reported should be expected to widen. We thus want to examine in particular: *As income inequality has increased, has the subjective social status of the working class relative to the rest of the population declined over time?*

The nature of the increase in income inequality is clearly of relevance here, so it is important to set out what happened since the early 1980s in Germany versus the US in that respect. Both saw a marked increase in income inequality over the period; indeed, it may come as a surprise to some that the Gini coefficient for disposable household income (adjusting for household size), the most common way to summarise overall



inequality trends, rose by a very similar amount in the two countries. This increase was from a much lower level in Germany, with the Gini (which ranges from 0 to 1) starting at about 0.24 and increasing to 0.29, whereas in the US it rose from about 0.33 to 0.39.<sup>1</sup> There were also differences in the timing of the increase, which was heavily concentrated in 2000–2005 for Germany whereas the US saw a surge in the 1980s; distinctive factors were also at work in each country, on which we do not have space to elaborate here (but see for example Nolan 2018a, 2018b; Nolan and Weisstanner 2021). Importantly in the current context, there were also marked differences in how those towards the bottom fared versus those around the middle and towards the top. In the case of Germany much of the increase in overall inequality reflected the failure of lower incomes to keep pace with those around the middle; while the middle also lagged behind the top, this was a less significant contributor.<sup>2</sup> In the US, by contrast, lower incomes came closer to keeping up with those around the middle but both were far outpaced by growth towards the top.<sup>3</sup> The income shares going to the very top – the top 1% or 0.1% – may not be adequately captured in household surveys, but figures from the World Inequality Database based on data from tax returns and the national accounts reveal that these also rose considerably more rapidly in the US over the period, with the top 1% share going up by about 3 percentage points in Germany but by about three times that much in the US.

Before proceeding with the empirical analysis, we anticipate that there might be substantial heterogeneity in subjective social status trends *within* the working class. SSS is not only driven by economic factors, such as class gaps, but also by cultural factors (Gidron and Hall 2017, 2020). We focus on four potential sources of heterogeneity: age, gender, education, and race. As income inequality has increased, gaps between groups defined by these attributes might have increased, over and above widening gaps between the working class and the rest of the population, and might not have affected all members of the working class to the same extent. In general, we expect that such within-class heterogeneity does not play an important role if trends in subjective social status and objective economic circumstances (such as income and wealth) closely track each other – in that case, economic factors explain trends in SSS well. In contrast, if trends in SSS and objective economic circumstances diverge, we expect that there is important within-class heterogeneity and that this heterogeneity is driven by non-economic or cultural factors.

We also see theoretical reasons that within-class heterogeneity is likely to play out in somewhat different ways across the two countries. For the *German* context, a strong divide between labour market insiders and outsiders has been documented by the dualization literature (Emmenegger

*et al.* 2012; Schwander and Häusermann 2013). At least before the so-called Hartz or Agenda 2010 reforms, the German welfare state has institutionalised these insider-outsider divides (Schwander and Manow 2017). Thus, rising inequality likely has affected different parts of the German working class unequally, depending on their occupational employment risks, age and gender (Schwander and Häusermann 2013).

For the US context, race has long been highlighted as an important factor dividing the working class. Income inequality between white and non-white Americans remains substantial, but Gidron and Hall (2017: S63–7) have found that relative declines in subjective social status were especially pronounced among older, male and white working-class individuals. These are not the most materially deprived groups within the working class, but often seem to feel increasingly threatened by social decline, compared to ethnic minorities or women (Hochschild 2016; Gest *et al.* 2018). Older, male and white working-class citizens have also driven voting for right-wing populists (Mutz 2018; Norris and Inglehart 2019).

It is possible that cultural factors based on immigration status play a similar role in Germany as race does in the US. It is also possible that skills-based conflicts between insiders and outsiders divide not just the German working class, but also the US working class. We treat this as an empirical question. Our goal here is not to provide a comprehensive account of how these group-based characteristics relate to subjective social status. Rather, our analysis will empirically assess the variation in trends *within* the working class who may not have been uniformly impacted by the major economic and cultural developments of the past decades.

## Data

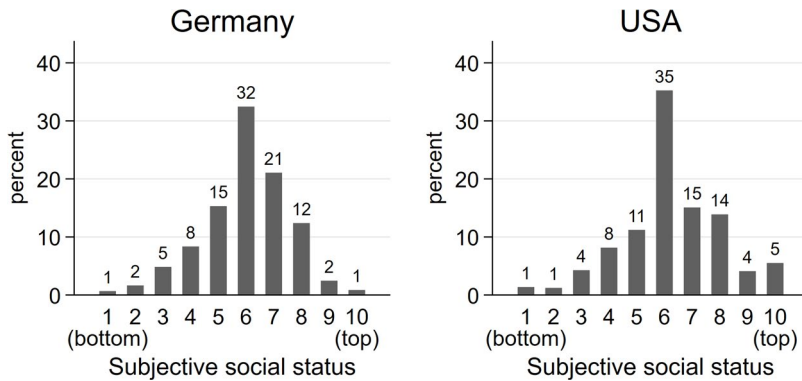
The empirical analysis is based on two surveys with information on subjective social status since the early 1980s: the German General Social Survey (known as 'ALLBUS', <https://www.gesis.org/en/allbus/allbus-home>) for West Germany, and the General Social Survey (GSS, [https://gss.norc.org/](https://gss.norc.umd.edu/)) for the US. We exclude the former East German regions from our sample to compare the same regions in Germany before and after 1990. In Germany, 17 waves are available between 1980 and 2018, compared to 10 waves in the US between 1983 and 2018. The ALLBUS and GSS are also used as the basis for the International Social Survey Programme (ISSP), on which comparable studies rely (Gidron and Hall 2017; Oesch and Vigna 2021). However, the original ALLBUS and GSS are available for a longer time period than the ISSP, which records subjective social status only from 1987.

Following most of the other studies in the literature to which we are referring (Gidron and Hall 2017, 2020; Lindemann and Saar 2014; Oesch and Vigna 2021), we measure *subjective social status* with the ‘social ladder’ or ‘MacArthur scale’ question, where people mark their perceived position on the rungs of a ladder representing the social hierarchy from 1 ‘bottom’ to 10 ‘top’ (Adler *et al.* 2000). The question formulation is ‘*In our society there are groups which tend to be towards the top and those that are towards the bottom. Here we have a scale that runs from top to bottom. Where would you put yourself on this scale?*’

A potential downside of this measure is that the question posed does not define the social hierarchy, so when ranking themselves on the ladder respondents could have in mind other factors such as income, living standards, economic security or education, alongside social status. This is the basis for critiques by for example Bukodi and Goldthorpe (2021) of its use in studies of populism. The relationship between this ‘ladder’ measure and such objective factors clearly merits further investigation, as does its relationship with objective measures of status hierarchy such as Chan and Goldthorpe (2004)’s for the UK based on the occupational structure of friendship. However, the fact that the social ladder has been used in these highly-cited and influential studies makes the investigation of trends in this measure of particular interest. Furthermore, it has been argued that the question’s structure makes it more comparable across cultures and over time, especially compared to subjective class identification, the major alternative in the literature to assess perceived social standing (Lindemann and Saar 2014: 8). Moreover, the fact that individuals have to come up with their own social comparisons and self-appraisals means that pre-defined subcategories whose meaning can change over time are avoided (Schneider 2019: 411).

Figure 1 shows the distribution of our dependent variable, responses to the ‘social ladder’ question, pooling all survey waves. In both countries, the most often chosen answer category by large margins is ‘6’, the category slightly above the (hypothetical) average of 5.5. About 32% in Germany and 35% in the US have placed themselves in category 6. In contrast, very few individuals place themselves at the very bottom or the very top of the social ladder. Overall, this pattern is consistent in many other countries (Evans and Kelley 2004). The notable exception is that in the US, 5% of respondents see themselves in the top category, while fewer than 1% in Germany do.

Our major explanatory variable distinguishes the ‘working class’ (coded as 1) from upper/salariat and intermediate social classes (coded as 0). We identify working-class occupations based on the European Socio-Economic Classification (ESeC) (Rose and Harrison 2010), combining respondents who are (or previously were) employed in one of the



**Figure 1.** Distribution of subjective social status.

Note: Data from ALLBUS 1980–2018 in Germany (N = 25,442) and GSS 1983–2018 in the US (N = 14,986).

following three categories: Lower services, sales and clerical occupations (lower-grade service workers), lower technical occupations (skilled workers), and routine occupations (semi- and unskilled workers). We coded these ESeC categories on the basis of harmonised information about occupation (3-digit ISCO-88 in the ALLBUS, 3-digit ISCO-08 in the GSS) and employment status.

According to this operationalisation, 48% of German respondents and 44% of US respondents in our final sample pooled across waves belong to the working class. This share was higher in the 1980s (56% in Germany, 46% in the US). By the 2010s, the share of working-class respondents has declined to 40% in Germany and 43% in the US. Our working-class measure includes a modest number of respondents in working-class occupations who have tertiary educational attainment (2% of all respondents in Germany, 3% in the US). Excluding these respondents, who are a distinctive group in terms of their history and prospects, from the ‘*working class*’ category does not change the substantive results. Of course, there are alternative ways to conceptualise and operationalise the working class, based on more fine-grained class schemes. However, given the data limitations (no consistent information about supervision of employees and firm size across all years), our primary goal is to employ a simple class measure that can be related to trends in subjective social status alongside ‘objective’ economic characteristics.

In order to capture the impact of rising income inequality on the relative position of different classes we focus on the income measures available in each survey. Income is asked as after-tax monthly household income in Germany<sup>4</sup> and pre-tax annual family income in the US. The German income data is available as a continuous measure (partly asked as an open-ended measure and partly in categories). Following common

practice in inequality research, we top-code these incomes at 10 times the median of non-equivalised income. In contrast, the US income data is available in categories, which we coded into income amounts by assigning the midpoints of each category (Hout 2004).<sup>5</sup> Finally, we equivalised both the German and the US income data by the square root of number of household members and adjusted for inflation using 2015 CPIs.

In addition to income, some models control for employment status (dummies for part-time, unemployed, and non-employed, with full-time employment as the reference category) and education (five categories). Finally, all models control for gender (female = 1), age (in five age brackets) and marital status (married = 1). Summary statistics for all variables are available in online appendix 1. In the German ALLBUS survey, a potential data quality issue arises for the year 2002, when well-off respondents were severely over-represented in this year (for reasons unknown to us) and sampling weights do not adequately correct for this. While we should be cautious about the trends in this particular year, our substantive findings below are unchanged if we would simply drop this clear outlier year.

## **Methodology**

We estimate ordered logistic regression models, in light of the ordinal 10-point scale of the dependent variable. There is no consensus in the related life satisfaction literature whether such scales can reasonably be compared with using linear regressions (e.g. Ferrer-i-Carbonell and Frijters 2004) or whether this ignores critical assumptions related to the ordinal nature of the scale (Schröder and Yitzhaki 2017). We opt for ordered logistic regression models of subjective social status, which allows us to model the precise point on this ladder on which someone with a particular set of characteristics places themselves. However, to facilitate presentation and interpretation of the results we use the estimated model to predict and visualise the probability that respondents select one of the above-average categories of subjective social status (7, 8, 9 or 10), as opposed to a value between 1 and 6 (see Figure 1). We also take a pragmatic stance with regard to methodological alternatives. As we discuss in the findings part and online appendix 2, our results are largely similar with estimating linear regression models or using different cut-off points in presenting the status outcome probabilities (i.e. the probability to select values 6–10 or 8–10 instead of 7–10).

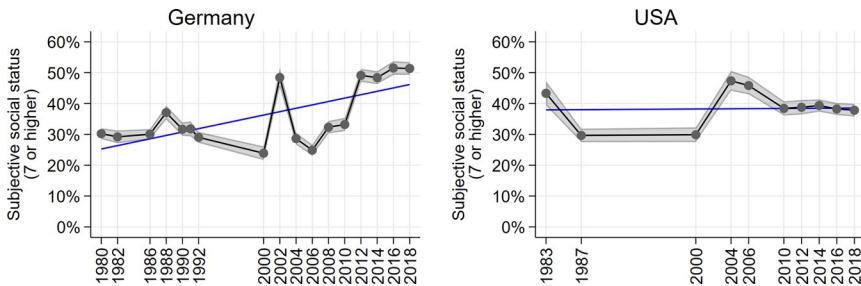
We pool all waves, but always estimate separate models for the two countries, and use robust standard errors. To assess change over time, we begin by showing the descriptive trends over each of the available survey years. To smooth out random fluctuations in individual surveys,

we subsequently assign the available surveys to two dummy variables with value 0 for the 1980s/early 1990s (the reference group, surveys between 1980 and 1992, where available) and value 1 for the 2000s (2000–2008) and the 2010s (2010–2018), respectively. We interact these dummies with our working-class measure and calculate the predicted probabilities of the outcome variable over time.

## Findings

Before turning to the regression models, [Figure 2](#) shows the overall trends in subjective social status across the entire population in Germany and the US. In neither case is there evidence for a general decline in subjective social status, here shown as the predicted probability of respondents selecting value 7 or higher on the 1–10 scale (alternative status outcomes are discussed below and in online appendix 2). In Germany, there is even a clear upward drift. The slope of the best-fit trend line is statistically significant ( $R^2 = 0.41$ ,  $p=0.005$ ,  $N=17$ ), mostly because of the high levels of status in the last few years from 2012 to 2018. The outlier year 2002 does not affect this upward trend. In the US, the trend slope is basically flat ( $R^2 = 0.00$ ,  $p=0.998$ ,  $N=10$ ). The data from these two countries clearly reject the widespread idea that rising inequality *per se* leads to a general fall in perceived social status.

In the following, we explore if and how trends in subjective social status differ between the working class and the rest of the population. [Table 1](#) presents the results of ordered logistic regressions of subjective social status. Models 1 (Germany) and 4 (US) control for age, gender and marital status, while objective socio-economic covariates are added in Models 2 and 5 (employment status and education) and Models 3 and 6 (income). The Bayesian Information Criteria (BIC) indicates that the model fit improves substantially when adding employment status,



**Figure 2.** Trends in subjective social status over time.

Note: Predicted probability of selecting values 7, 8, 9 or 10 on the social ladder scale (with 95% confidence intervals). No control variables included. Blue line=best-fit regression line.

**Table 1.** Ordered logistic regression models of subjective social status.

	Germany			USA		
	(1)	(2)	(3)	(4)	(5)	(6)
Working class (dummy)	-0.187*** (0.008)	-0.124*** (0.008)	-0.093*** (0.008)	-0.189*** (0.019)	-0.122*** (0.019)	-0.106*** (0.018)
2000s (reference: 1980s)	0.021* (0.010)	-0.014 (0.009)	-0.019* (0.008)	0.043* (0.018)	0.018 (0.017)	0.029+ (0.016)
2010s (reference: 1980s)	0.190*** (0.009)	0.127*** (0.009)	0.130*** (0.008)	0.018 (0.016)	-0.017 (0.015)	-0.009 (0.014)
Working class*2000s	-0.055*** (0.012)	-0.031** (0.012)	-0.013 (0.011)	0.044 (0.025)	0.055* (0.025)	0.067** (0.024)
Working class*2010s	-0.090*** (0.012)	-0.043*** (0.012)	-0.014 (0.011)	0.037 (0.021)	0.054* (0.021)	0.064** (0.020)
Female	-0.023*** (0.005)	0.033*** (0.005)	0.024*** (0.005)	-0.038*** (0.007)	-0.033*** (0.007)	-0.019** (0.007)
Aged 30–39 (reference: 18–29)	-0.019* (0.009)	-0.033*** (0.008)	-0.025** (0.008)	-0.035** (0.012)	-0.043*** (0.012)	-0.046*** (0.012)
Aged 40–49 (reference: 18–29)	-0.012 (0.009)	-0.024** (0.008)	-0.029*** (0.008)	-0.015 (0.013)	-0.020 (0.012)	-0.040** (0.012)
Aged 50–59 (reference: 18–29)	-0.030** (0.009)	-0.026** (0.009)	-0.046*** (0.009)	-0.002 (0.013)	0.003 (0.013)	-0.030* (0.012)
Aged 60+ (reference: 18–29)	-0.053*** (0.008)	0.014 (0.009)	-0.018* (0.009)	0.045*** (0.012)	0.059*** (0.013)	0.029* (0.013)
Married	0.084*** (0.005)	0.082*** (0.005)	0.068*** (0.005)	0.063*** (0.008)	0.050*** (0.007)	0.022** (0.007)
Part-time employed (reference: full-time)		-0.042*** (0.008)	-0.000 (0.008)		0.001 (0.012)	0.019 (0.012)
Unemployed (reference: full-time)		-0.159*** (0.030)	-0.093** (0.031)		-0.041* (0.021)	-0.011 (0.020)
Non-employed/other (reference: full-time)		-0.093*** (0.007)	-0.028*** (0.007)		-0.013 (0.009)	0.016+ (0.009)
Education, 2 <sup>nd</sup> category (reference: no qualification)		0.117*** (0.017)	0.108*** (0.019)		0.090*** (0.011)	0.058*** (0.012)
Education, 3 <sup>rd</sup> category (reference: no qualification)		0.195*** (0.016)	0.172*** (0.018)		0.134*** (0.017)	0.088*** (0.018)
Education, 4 <sup>th</sup> category (reference: no qualification)		0.286*** (0.019)	0.237*** (0.021)		0.230*** (0.014)	0.144*** (0.015)
Education, 5 <sup>th</sup> category (reference: no qualification)		0.366*** (0.017)	0.284*** (0.019)		0.331*** (0.016)	0.212*** (0.017)
Monthly household income in 1,000s €//\$			0.108*** (0.003)			0.033*** (0.001)
BIC	89,645	88,438	86,687	56,745	56,185	55,606
N	25,442	25,442	25,442	14,986	14,986	14,986

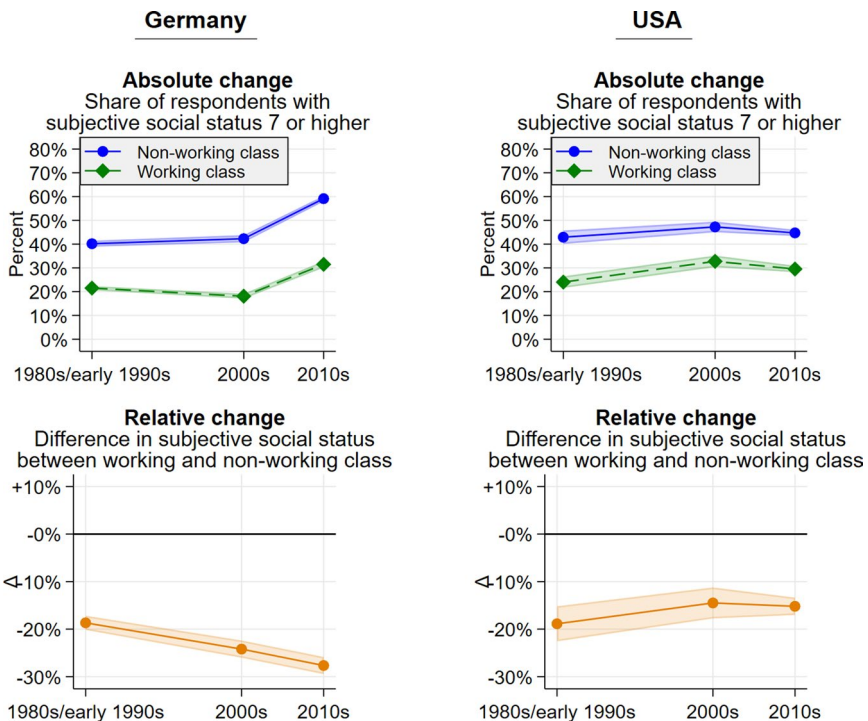
Notes: + $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ . Estimates are average marginal effects (AMEs) and can be interpreted as expected changes in the probability of selecting values 7–10 on the social ladder scale. Robust standard errors in parentheses. BIC = Bayesian Information Criterion.

education, and income. The estimated coefficients are ‘average marginal effects’ (AMEs) that can be interpreted as the expected impact of having a particular characteristic, relative to someone who does not have it, on the probability of selecting values from 7 to 10 on the status scale. For example, the coefficient for ‘working class’ in Model 1 indicates that working-class respondents in the 1980s were 18.7 percentage points less likely to report a high status (7 or higher) than non-working-class respondents.

As the results in Table 1 show, the working class in both countries always has a considerably lower probability to obtain a high subjective social status, even after adding objective economic controls. However, we are primarily interested in how this relationship has changed over time, which we can capture with the interaction between ‘working class’ and the time period dummies.

The key finding in Table 1 is that there is only partial support for the expected relative decline in subjective social status of the working class over time. In Germany, the interaction term between working class and time period is negative and statistically significant in Model 1, which indicates that the subjective social status of the working class relative to the non-working class has declined over time. In contrast, in the US, there is no evidence for such a relative status decline. There the interaction terms are positive – which would indicate a relative status *increase* of the working class, against our expectations – but not statistically significant in Model 4.

Figure 3 should facilitate the interpretation of these interaction results and further allows us to distinguish between ‘absolute’ change in



**Figure 3.** Subjective social status trends among the working class and non-working class.

Note: Predicted probabilities with 95% confidence intervals, based on Models 1 and 4 in Table 1.



subjective status of the working/upper classes and ‘relative’ change in the difference between the two groups. In *absolute* terms (upper panel of Figure 3), there is certainly no decline in status among the working class over the past four decades. In Germany, the increase in recent years is also shared among the working class. In the US, the working class has seen a strong increase in status in the mid-2000s. Its status has subsequently declined to slightly lower levels after 2010, but is still above the earlier status levels.

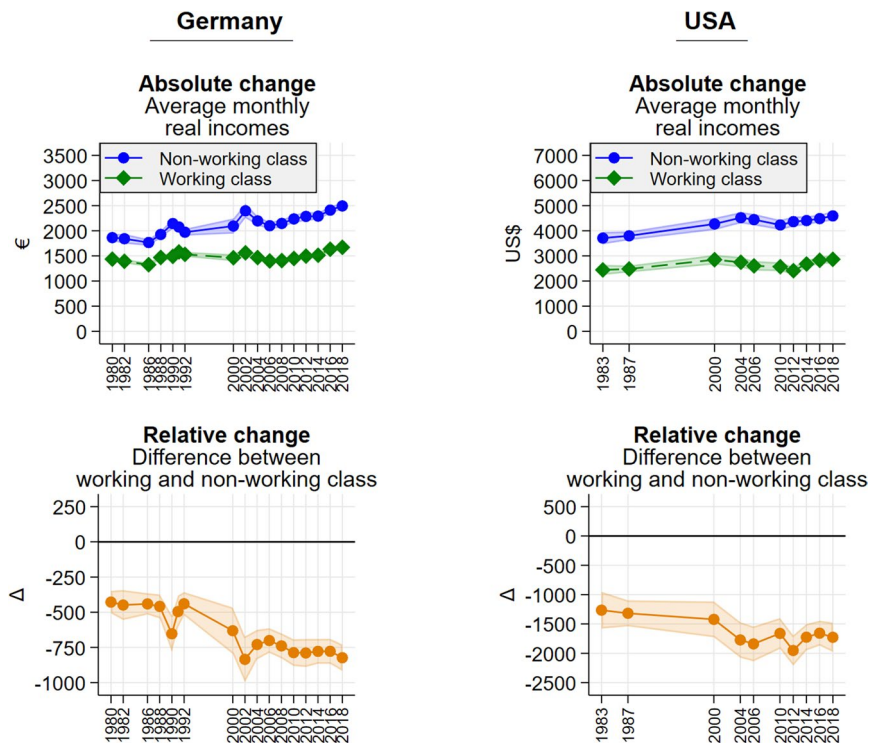
The picture in *relative* terms (i.e. differences between the two groups, see lower panels of Figure 3) is notably different. In Germany, the status gap of the working class relative to other classes has widened significantly over time, from a 19%-gap in the probability to attain high status in the 1980s and early 1990s, to a 24%-gap in the 2000s, to a 28%-gap in the 2010s. In the US, the status gap between the working and upper classes has not widened in relative terms – if anything, the gap has narrowed.

Online appendix 2 shows that this pattern of absolute and relative changes is robust to different ways of measuring the dependent variable and alternative model specifications (such as linear regression models of average SSS). Only one specification that predicts status values 6 or above as the outcome variable fails to confirm the relative decline of working-class status in Germany in the 2010s, but still finds a statistically significant relative decline in the 2000s compared to the 1980s. Moreover, online appendix 3 shows some variation in the pattern across different birth cohorts, but no fundamental differences. The relative status decline of the German working class seems to be driven by cohorts born in the 1950s and 1960s, and some relative status decline is also found in the US for cohorts born in the 1960s. We will resume discussing variation within the working class by age, gender, education, and race below.

Returning to Table 1, we find that the relative status decline found for Germany can entirely be ‘explained’ by objective economic circumstances. The latter *mediate* the relationship between class position and subjective social status, since working-class respondents are associated with lower socio-economic resources, which in turn are associated with lower status. Accordingly, once we control for employment and education (Model 2), the crucial interaction terms between working class and time period become weaker, and they become statistically insignificant in Model 3 once we control for income. Although we do not use a formal mediation analysis here, these findings are very similar to the longitudinal analysis of life satisfaction by Lipps and Oesch (2018) in Germany. In our case, this suggests that the observed relative decline of working-class status in Germany is mediated by, and can be traced back to, objective economic circumstances.

For the US, we find a similar mediation effect. While the interaction between working class and time period was not statistically significant in Model 4, controlling for employment, education and income in Models 5 and 6 leads to a positive and statistically significant interaction term. In other words, once we control for the adverse objective economic conditions of the working class, this group even has seen a relative status *improvement* in the 2000s and 2010s compared with 1983/1987.

The observation that income (and to a lesser extent, education and employment status) has strong mediating effects on the relationship between working class and subjective social status is not surprising given the context of rising income inequality in Germany and the US described earlier. In Figure 4, we simply give a flavour to show how the relative economic position of the working class relative to other groups has also deteriorated since the 1980s in the surveys on which we are relying for the measures of social status. The estimates in Figure 4 show the



**Figure 4.** Real income trends among the working class and non-working class. Note: Average real incomes by group and year estimated with linear OLS models (controls: age, gender and marital status). Based on inflation-adjusted equivalised household incomes as measured in ALLBUS (post-tax incomes, in 2015 euros) and GSS (pre-tax incomes, in 2015 US Dollars). 95% confidence intervals shown.

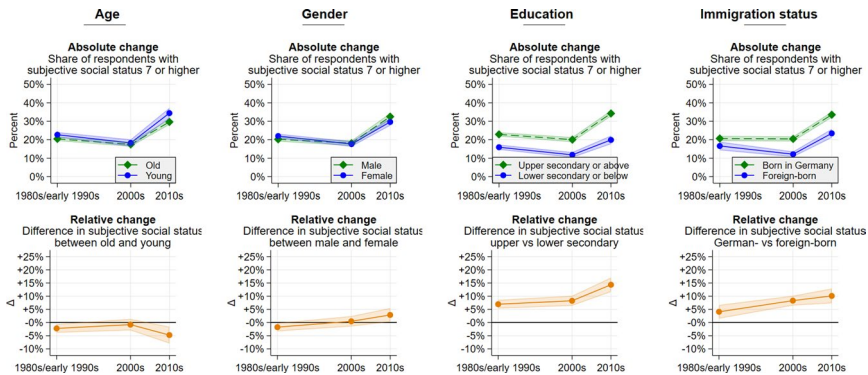
development of real household incomes measured from the surveys. It is very likely that this imperfect measure underestimates the true extent of the relative decline in the working class's objective economic circumstances, because especially income at the top of the distribution is likely to be underreported.

Despite these caveats, Figure 4 demonstrates that income gaps between the working class and the rest of the population have widened significantly since the 1980s even according to our surveys. In absolute terms, the working class has seen almost no real income growth compared to the 1980s in both Germany and the US. In contrast, other socio-economic groups have seen more robust absolute income growth. In relative terms, the income gap of the working class relative to other socio-economic groups has widened significantly over time. In Germany, the gap in monthly net income has increased from about €430 in 1980 to €820 in 2018 (inflation-adjusted). The monthly gross income gap in the US has widened from about \$1250 in 1983 to \$1900 in 2018. This is consistent with the rise in overall income inequality in each case noted earlier. In Germany this increase primarily reflects lower incomes failing to keep pace with the middle rather than higher incomes pulling away from the middle – the ALLBUS survey shows the same pattern as the dedicated income surveys in the Luxembourg Income Study mentioned earlier. For the US, the General Social Survey data we are using shows growth in higher incomes outpacing the middle to a much greater extent than in Germany; lower incomes also lag behind the middle early in the period covered.<sup>6</sup> Such differences between the two countries in how overall inequality rose may contribute to the divergence between them in how SSS evolved: depending on which groups are being taken as key comparators in forming a view about one's social status, soaring incomes towards the top may be of much less relevance to the working class than trends in the incomes of those much closer to them in the distribution. This clearly merits further investigation in future research.

To sum up so far, in both countries, we must reject the hypothesis that subjective status of the working class has declined in *absolute* terms. Reported status among the working class today is at equal or higher levels compared to the 1980s. In *relative* terms, however, we find that the status of the working class relative to other classes has declined in Germany, but not in the US. In both cases, the status gap between the two groups tends to narrow over time once we account for objective economic circumstances, which mediate the relationship between class and subjective social status and have diverged considerably over time. Hence, rising inequality stands out not as leading to outright status decline, but as an important factor in mediating the relative trends in different groups' status perceptions.

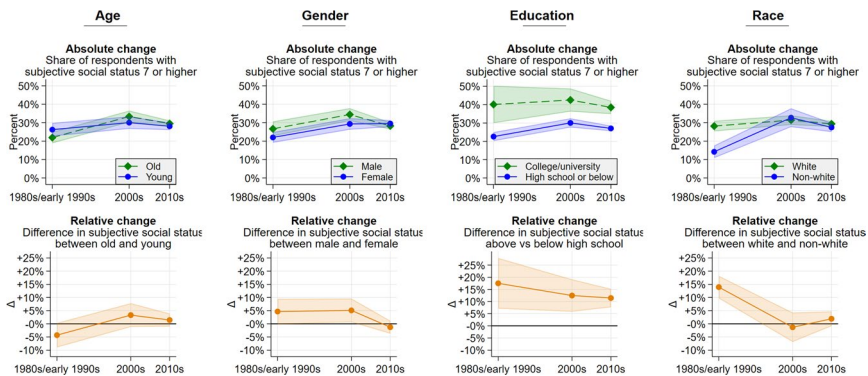
## Variation within the working class

The final set of results in Figures 5 and 6 address possible explanations for the absence of a stronger absolute or relative status decline among the working class, given the scale of rising inequality in the two cases. We explore the variation *within* the working class in terms of age, gender, education, immigration status (for the German case) and race (for the US race).<sup>7</sup> Group-based social inequalities related to these characteristics might cross-cut class cleavages in subjective social status trends. We expect that holding objective indicators constant, older, male, low-skilled, and white/native sub-groups of the working class might have felt they were doing



**Figure 5.** Variation *within* the German working class.

Note: Predicted probability of selecting values 7–10. Based on ordered logistic regression models similar to Model 1 in Table 1 but with sample restricted to working class ( $N = 12,152$ ). 95% confidence intervals shown.



**Figure 6.** Variation *within* the US working class.

Note: Predicted probability of selecting values 7–10. Based on ordered logistic regression models similar to Model 4 in Table 1 but with sample restricted to working class ( $N = 6,056$ ). 95% confidence intervals shown.

less well in relative terms over the past decades. They might therefore be more likely than younger, female, high-skilled and non-white workers to have experienced relative decline in their status.

We find strong evidence for such heterogeneity within the working class, but with notable differences between the two countries. [Figure 5](#) for Germany shows that for a sample restricted to the working class, there are few clear trends in within-class status differences related to age, gender and immigration status. But the German working class is strongly divided between high-skilled and low-skilled workers. The gap in reported status between those with and without upper secondary qualifications has increased over time to about 15 percentage points. These patterns are broadly similar if we control for objective economic circumstances (online appendix 4).

Group-based status differences within the working class also play an important role in the US, as [Figure 6](#) demonstrates. Older working-class members used to have a lower subjective social status than their younger counterparts in the 1980s, but this difference has vanished in the later time periods. Working-class men used to have a higher status than working-class women in the 1980s and 2000s (though that gap was not statistically significant), but the relative status difference has significantly reversed in the 2010s. Working-class men stand out as one of the few groups with a sharp and statistically significant *absolute* status decline between the 2000s and the 2010s. Within-working-class patterns by education have not changed significantly over time.

Most strikingly, there are substantial differences between white and non-white working-class respondents in the US. Non-white working-class respondents have seen a large absolute improvement in their subjective social status. Between the 1980s and 2000s, the share of *non-white* working-class respondents selecting one of the top categories increased from 14% to 33%, controlling for age and gender. The status of the *white* working class also slightly improved in absolute terms, but the difference relative to their non-white counterparts has fundamentally reversed. In the 1980s, 28% of white working-class respondents were likely to select 7 or higher on the status scale, compared with only 14% non-white respondents. By the 2000s and 2010s, the difference has become statistically insignificant. Since the 2000s, white and non-white working-class respondents had about the same likelihood to express high status attainment.

These major relative changes in status are especially remarkable because they are *not* explained by differences in objective economic circumstances between the white and non-white working-class sub-groups, at least insofar as we can capture those here. As shown in online appendix 4, the relative trend patterns are substantively similar if we control for

income, education, and employment status – i.e. dimensions on which non-white and female respondents still face additional disadvantages and structural discrimination, but on which some modest improvements in relative terms will have been registered over the period studied. The increases in subjective social status for non-white working-class respondents we are noting here are therefore over and above any impact of such objective circumstances; teasing out what may be driving those increases is of significant interest but beyond the scope of this study.

## Conclusion

The working class has been adversely affected by the economic changes of recent decades, including rising income inequality, in many rich countries. It would be reasonable to expect that this would translate into a decline in their self-perceived standing in the social hierarchy, and the notion that such a decline underlies rising support for populism is widely articulated. However, few studies have investigated whether and how subjective social status has actually changed over time. Gidron and Hall (2017) provide some evidence that the relative social status of non-tertiary educated men has declined in many advanced democracies, whereas Oesch and Vigna (2021) focussing on social class find that the subjective social status of the working class has remained broadly constant between 1987 and 2017, with few differences across countries.

This article has provided a new perspective on these questions by in-depth analysis of trends over time in two particularly relevant cases, Germany and the US, where income inequality has increased strongly since the 1980s and consistent information on measures of subjective social status is available. At the outset we highlight the importance of a clear conceptual distinction between *absolute* and *relative* changes in subjective social status, arguing that increasing socio-economic disparities may not necessarily be associated with an absolute decline in reported status of the working class, but could drive a widening relative gap between them and the rest of the population. We also note that a similar overall increase in income inequality may have different implications for the position of the working class versus other groups, depending in particular on whether it is driven primarily by lower incomes lagging behind the middle (as in Germany) or by higher incomes pulling away from the rest (which was much more the case in the US).

Our empirical analysis finds no evidence to support the claim that the subjective social status of the working class has declined in absolute terms in either country. Status among this group today is at similar levels in the US and higher levels in Germany compared to the 1980s. In relative terms, the status of the working class relative to other groups

has declined in Germany, and this is entirely driven by objective economic circumstances mediating the relationship between class position and status over time. No such relative decline in status for the working class as a whole is seen in the US. However, there is significant heterogeneity *within* the working class related to age, gender, education, and race. In particular, in the US a relative status decline among the white and male working class compared with other sub-groups of the working class is found, having controlled for changes in education, employment and income. This reflects an improvement in subjective status for those comparator sub-groups rather than an absolute decline for white male working-class respondents.

These findings imply that the relationships between rising income inequality, objective socio-economic disparities, and subjective social status perceptions for the working class over recent decades are complex. In line with Gidron and Hall (2017, 2020)'s influential work, both economic and cultural factors seem to explain trends in subjective social status, although we do not see the working class feeling 'socially marginalised' to the extent that this is conceptualised as involving an absolute decline in their subjective social status. However, our findings of relative status decline among the working class in Germany and among some groups within the working class in the US also offer a crucial qualification to Oesch and Vigna (2021)'s results on the subjective social status of the working class remaining broadly constant. Our findings thus serve to highlight that both absolute and relative changes in subjective status need to be incorporated into the picture, and that the drivers of trends in subjective status (including the nuances of how income inequality has evolved) need to be better understood if their linkages to political behaviours and outcomes are to be reliably established. In the absence of panel data, investigation of more fine-grained sub-groups such as by age cohort, gender and occupation may be particularly promising in that regard.

## Notes

1. This is based on figures from the Luxembourg Income Study (LIS) database, interpolating to 1983 in the case of the US from figures for 1979 and 1986. The increase in the US case may be marginally overstated due to changes in data collection and treatment, especially from 1993.
2. As well as weakening redistribution due to social transfer and tax policies, this reflects what has been happening to wage inequality, arising from important features specific to Germany but also perhaps some institutional features common to some coordinated market economies, notably high wage coordination combined with less inclusive unions as argued by Vlandas (2018).

3. This can be seen from figures also in LIS for the ratio of the top decile income cut-off to the median and of both these to the bottom decile cut-off.
4. There is no specific reference to which month the question refers to in Germany. However, the self-employed are asked about their *average* monthly net income. We used the harmonised variable ‘hhinc’.
5. For the open-ended top-category, we used the simple correction suggested by Donnelly and Pop-Eleches (2018: 359), using the width of the second-highest category plus the lower bound of the highest category.
6. In the LIS data lower incomes for the entire population did not lag significantly behind the middle; incomes are measured pre-tax in GSS and in much less depth than dedicated income surveys, as described earlier, and only working-age households are being included.
7. Due to the large sample size of the ALLBUS and GSS, the group sizes are sufficient for this analysis (see also the summary statistics in online appendix 1).

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