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Firm Size and Society

The Link Between Firm Size, Job Outcomes, and Political Attitudes

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Abstract

Given the recent reconcentration of the economy in many private industries, the impact of working in firms of different sizes on occupational and political outcomes is of renewed interest. Using micro-level data for the US and Germany, two most dissimilar cases in terms of labor market and political institutions, we show that large firms provide substantially more material and welfare benefits to their workers, while small firms are characterized by the highest job satisfaction and more harmonious relational dynamics. Workers in medium-sized firms appear to be "betwixt and between," being worst off in many dimensions, thus contradicting utopias of medium-sized-firm capitalism. Within firms of similar size, we also document a significant polarization between employers' and their employees' job experiences and political views. Given the number of waking hours spent in the workplace, the firm, hitherto a neglected locus of social sorting and socialization through which the economy shapes society, should figure more prominently in economic sociology research.

Keywords: company size, Germany, job outcomes, political attitudes, USA

Zusammenfassung

Angesichts der jüngsten Re-Konzentration der Wirtschaft in vielen privaten Sektoren rücken die Auswirkungen der Arbeit in Unternehmen unterschiedlicher Größe auf gesellschaftliche Zusammenhänge erneut in den Mittelpunkt des Interesses. Anhand von Mikroebene-Daten für die USA und Deutschland, zwei Länder, die sich in Bezug auf den Arbeitsmarkt und die politischen Institutionen stark unterscheiden, zeigen wir, dass große Unternehmen ihren Arbeitnehmenden wesentlich mehr materielle und soziale Leistungen bieten, während sich kleine Unternehmen durch die höchste Arbeitszufriedenheit und eine harmonischere Beziehungsdynamik auszeichnen. Arbeitnehmende in mittelständischen Unternehmen scheinen hingegen "zwischen den Stühlen zu sitzen" und in vielerlei Hinsicht am schlechtesten gestellt zu sein, was den Verheißungen des Mittelstandskapitalismus widerspricht. In Unternehmen ähnlicher Größe dokumentieren wir auch eine signifikante Polarisierung zwischen den beruflichen Erfahrungen und den politischen Ansichten der Arbeitgebenden und ihrer Arbeitnehmenden. In Anbetracht der am Arbeitsplatz verbrachten Lebenszeit sollte das Unternehmen als Ort der sozialen Selektion und der Sozialisierung, durch den die Wirtschaft die Gesellschaft prägt, stärker in den Blick wirtschaftssoziologischer Forschung genommen werden.

Schlagwörter: Arbeitsplatzqualität, Deutschland, politische Einstellungen, Unternehmensgröße, USA

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Firm Size and Society: The Link Between Firm Size, Job Outcomes, and Political Attitudes

1 The workplace as a site of economic and political sorting and socialization? Introduction

While primary socialization in the family and early education are usually considered the most important experiences that influence the way an individual interprets and interacts with the world around them (Bourdieu 1980), modern societies are also characterized by increasingly individualized life courses in which individuals have the autonomy to choose to join cross-cutting social circles that can expand their horizons (Simmel [1890] 2012). While friends and secondary associations are among the most important of these circles, joining them is based on an entirely voluntary act that typically leads individuals to become part of homophilous social networks that mainly reinforce their preexisting beliefs (McPherson, Smith-Lovin, and Cook 2001).

Despite longer leisure times and years in education, individuals in modern societies still spend most of their waking hours at work throughout their adult life (Ortiz-Ospina, Giattino, and Roser 2020). Unlike friends and voluntary associations, the distinctive feature of workplaces is that they are based on limited voluntary choice. Most people have a great deal of freedom in choosing their occupation, but at the same time, because of the practical constraints associated with their need to earn a livelihood, they usually do not have much control over the characteristics of the specific workplace in which they work. Therefore, the workplace is an ideal site to observe the interplay between individual subjectivity and structural constraints that can lead to interactions between heterogeneous individuals that enrich their worldviews (Mutz and Mondak 2006). While adults are less malleable than their younger counterparts, they spend more than one third of their waking hours throughout much of their active life in the working environment or, in capitalist societies, the private firm, where the great majority of the active population works. How private corporations select and socialize individuals, let alone how recent changes in the corporate world, most notably the increasing market concentration around big firms, might change societies, has largely escaped the attention of social scientists, despite a long-standing line of thought concerned with how big corporate power puts individual freedom, equality (Hager and Baines 2020), democracy (Bagg 2023), and society at risk (Mills 1956; Whyte [1956] 2002). This paper returns to the question by asking how firm size is linked to the life and perceptions of citizen employees.

The question is particularly timely as the last few decades have seen a reconcentration of the economy in large corporations, particularly in the United States (Philippon 2019) and Europe (Affeldt et al. 2021). Superstar firms have also been associated with the fall of the wage share and rise of wage inequalities (Autor et al. 2020). Big companies,

including the new platform economy players, have been targeted again not only by antitrust authorities (Rahman and Thelen 2019) but also by a new anti-monopoly critique reminiscent of the older populism (Khan 2018). These critiques reconnect with longheld suspicions of large bureaucracies and organizations (Schumpeter [1942] 2008), seen as a breeding ground for the uniform "organization man" (Whyte [1956] 2002) and hence endangering individualism and democracy.

The rosier "small is beautiful" counternarrative, by contrast, sees in small and mediumsized enterprises (SME) a panacea for everything wrong in big-firm capitalism (Atkinson and Lind 2018). Economies differ by how much they rely on big firms to produce overall output, where the German stronger SME-based economy is often cited as one counterexample to American big-firm capitalism. Looking back on a long Jeffersonian tradition in the US itself, the German SMEs or "Mittelstand" have regularly figured in The Economist (2012) or The Wall Street Journal (2011) to explain why the German (export) economy coped better with the growth crisis in the 1980s and again in the Great Recession. SMEs are hailed by all political parties as the better employer, a better buffer against economic instability and privatization of welfare institutions, stimulating industrial democracy and fostering democratic attitudes, while SME owners are viewed as "patient capitalists" who are close to their employees and are responsible citizens (Ergen and Kohl 2021). Against the backdrop of this positive image of SMEs, the population perceives the rise of large companies as clearly detrimental to SMEs: General Social Survey (GSS) data used below indicate that 60 percent of Americans were convinced that large international companies are doing more and more damage to local businesses in 2004, which increased to 65 percent in 2014 after the global financial crisis.

While there is already a rich literature highlighting that working in large firms is associated with a series of material job advantages, based on employee surveys or industry data (Kalleberg and Van Buren 1996), in particular a big-firm wage premium (Hollister 2004), but also with more work time and stress (Lai, Saridakis, and Blackburn 2015), pervading also the economics literature (Winter-Ebmer and Zweimuller 1999), we build on and go beyond this stream of research in several ways. First, we expand the number of outcomes that firm size may have an impact on by going beyond objective material advantages. Using recent micro-level data from the GSS in the United States and the German Socio-Economic Panel (SOEP), we consider a wider set of job-related outcomes, in particular objective working conditions and their subjective assessments, as well as political outcomes. Taking both the objective and subjective dimensions of work into account is crucial, as an individual's evaluation of their work situation does not merely reflect objective working conditions (Pencavel 2009). Employees who are exposed to the same objective working conditions may subjectively evaluate them very differently, having different expectations about what constitutes satisfying conditions due to the relational dynamics that develop in the workplace and to the fact that different profiles of individuals may self-select into workplaces of different sizes. Second, we look at the effects on both employees and employers within firm-size bins. Going back to Marxian thinking (Marx 1990), we are particularly interested in understanding

the extent to which employees and employers in the same company can subjectively interpret the same objective outcomes differently and see different political solutions to them. Third, while we do not have detailed information on the industrial and regional context in which firms of varying size are active (Kalleberg and Van Buren 1996), we take into account the potential role of context by focusing on two countries, big-firm US and SME-biased Germany, which also represent most dissimilar cases in terms of both labor market and firm institutions (Hall and Soskice 2001).

What are the empirical effects of different company size on an individual's life and thinking in light of the recent concentration of economies? Surprisingly, our results are remarkably similar across the two very different German and American institutional contexts and can be summarized in four stylized facts. First, large firms are clearly better able than smaller ones to provide objective benefits to their employees (social prestige, job stability and security, income and income satisfaction, corporate welfare). While this partially confirms existing findings on wages and benefits in the two countries (Hollister 2004; Wagner 1997), we also show that it extends to many other dimensions and is not limited to objective working conditions, but also includes subjective viewpoints on each item. At the same time, despite their disadvantage in these dimensions, wage earners in the smallest firms – local, non-export firms in construction, the crafts or hospitality sector - are the most satisfied with their overall work situation, a satisfaction that can be linked in particular to the harmonious working atmosphere between workers and supervisors, but also to the lowest objective and subjective overtime burden. Taken together, this empirical pattern shows that small and large firms have found different ways to resolve the contradictions that capitalism creates among workers (Bell 1976) by offering different forms of self-realization as part of an individual's job (Boltanski and Chiapello 1999). While small companies offer a form of intrinsic self-realization based on harmonious work dynamics, large companies rely on one of extrinsic self-realization based on objective benefits.

This, second, points to non-linear effects which often follow a *U-shaped* pattern, leaving employees in medium-sized firms, especially in the German Mittelstand, worst off. While the objective rewards in these firms are not comparable to those in large companies, the relational dynamics with management are worse than elsewhere. This all adds up to why these workers express the lowest levels of satisfaction with their overall working conditions. It means that the contradictions and dissatisfaction that capitalism generates among employees are still mainly to be found in medium-sized companies, which offer neither the intrinsic self-realization of small companies nor the extrinsic benefits of large ones.

Third, in terms of political attitudes, employees of (German) smaller firms, again compared to those of larger firms, are less interested in politics in general but more actively involved in (local) politics and less likely to support progressive center-left parties and government intervention. Politicization and progressive politics are more pronounced in bigger companies. Their US counterparts show similar trends, albeit with low statis-

tical significance. This may be related to the profile of workers who are most likely to work in large companies, especially highly skilled professionals who are attracted by the combination of economic liberalism and cultural progressiveness of the (New) Left (Beramendi and Rehm 2015; Piketty 2017).

Finally, workers' perceptions of the work environment and political attitudes often do not coincide with those of their employers. This *mismatch* is most striking again among medium-sized companies, especially those in the German Mittelstand. Their company owners are the objectively most privileged occupational group, and feel that way, while their employees have the opposite experience. Rooted in local politics, these owners are most likely to support conservative and liberal political parties and oppose government intervention, while their employees' political views are at the opposite end. This shows that although certain capitalist contradictions have been resolved in relation to the professional sphere, the political divide between capital and labor is still prominent (e.g., Oesch and Rennwald 2010).

Our findings generally cast doubt on the outright rejection of big business capitalism and the over-romanticization of medium-sized companies, which sit uncomfortably with the well-off big firms and cozy small capitalists. While big firms may correlate with many undesirable macro outcomes within (industrial) democracy (Malleson 2023), the opposite is true for many micro-level outcomes. The broader theoretical message returns to Georg Simmel's (1902) original observation that social phenomena and groups are also determined by their size. The link between firm size and work-related and political attitudes runs through German and American capitalism, despite them being so different. While for both employees and owners we can reject the null hypothesis that firm size does not matter in almost all regressions, the cross-sectional design we adopted, starting in 2002, does not allow us to fully understand whether we are dealing with causal or selection effects. We therefore interpret our results as reflecting the cumulative effect of the secondary socialization function of firms of a given size and the opportunity for individuals to place themselves in a work environment where they interact with similar individuals who may reinforce their initial worldviews. Overall, our findings allow us to reinterpret the increasing segregation in the workplace and the polarization between the international, mobile superstar companies and the more regionally rooted SMEs, as well as the increasingly different two worlds owners and their employees inhabit. While the reconcentration of the economy around fewer larger firms may still have negative effects on the economy as a whole – inequality, workplace segregation, housing market unaffordability, privatization of welfare - the effects at the individual level may be less worrisome than the general big-firm criticism suggests.

2 Size matters: Theoretical framework

The relationship between forms of organization and their (potentially optimal) size has long figured in the history of thought about democracies (Dahl and Tufte 1974), the transition from rural communities to modern dense societies (Durkheim [1893] 1984; Tönnies [1887] 2005), and also social animals within biology (Ward and Webster 2016). The same holds for the importance of economic size and its potential consequences: The basic idea that where you work determines how you think and that workplaces of larger size make a difference in this regard can be found across a range of classics. Marx's material determinism is at the core of such a perspective (Marx and Engels [1848] 1948). Postulating the primacy of economic structures over ideological superstructures, he argued that the specific position of an individual in the mode of production, and hence their social integration in the society, is associated with a series of constraints and opportunities that shape their outlook on the world. The proletariat, internalizing its alienated and commodified role, is hence destined to develop a submissive and passive approach to social reality that is best suited to cope with the constraints it faces at the workplace. Occupying a different position in the mode of production, the petite bourgeoisie, i.e., small-scale establishments with working owners, is rather prone to reactionary thinking in contrast to industrial or big-firm workers being at the forefront of revolutionary ideologies.

It was Georg Simmel's (1902) essayistic work on the quantitative aspects of the group that then set the tone for taking the simple but effective size variable as an important entry point for any study in social science. He observed that an increase in the number of members of a group does not entail a mere quantitative change but also has qualitative implications: "a group of a certain extent and beyond a certain stage in its increase of numbers must develop for its maintenance certain forms and organization which it did not previously need" (Simmel 1902, 2). Similar observations had already been made by Herbert Spencer ([1882] 2003) and later taken up in Peter Blau's work (1970): the larger the group, the greater its internal differentiation (division of labor); the simpler and less radical the guiding ideas behind most personal interactions, the more abstract and less intimate they are; the less autonomy a member has, the more "nervous" the member's state of mind and the more laws (and not just individuality or morals) are used to govern. Simmel also made the important observation that group size and group structures are not necessarily linearly correlated. Simmel's work is important to understand that size may not have causal efficacy in itself, but it may in many senses be a proxy for other social features and a different form of social organization.

One key such feature is what kind of governance, and hence relationship between governors and governed, larger groups require. Most classic literature observes a tighter and more abstract central mode of governance in larger groups, in their transition from community to society (Tönnies [1887] 2005) or when passing from a mass movement to a professional organization under the "iron law of oligarchy" (Michels [1925] 1989). The classics were written at a time of rising bureaucratization in both public service

and private industry, with the birth, or rather explosion, of modern civil servants and private employees. Max Weber ([1922] 1978) is notably known for his analysis of the former, whose rational administration requires office holders to adopt impersonal roles, stand in strict hierarchies, act within their competences, and detach their personal outlooks from professional activity. Weber – similar to Durkheim's ([1893] 1984) thoughts on the integrating role of professions – does not articulate very much, however, about the impact of life as a public servant on individual private lives and worldviews, but lets it be understood that modern bureaucracies, of which he generally speaks quite highly, may run the risk of lowering those individuals' degrees of freedom.

This trope is much more dominant in the literature on private employees, which is also the focus of our analysis because of the difficult comparability of the size parameter in public service. On the European side, Kracauer's much underappreciated book *Die Angestellten* already makes the observation that "conditions in many small and mediumsized enterprises are of a different nature, but the modern large corporation is the model for the future. The problems it generates and the needs shared by its masses of employees increasingly determine political life and thinking" (Kracauer [1930] 1971, 7, our translation). The growing concentration of industries and their bureaucracies in the private sector led postwar social scientists to voice similar Weberian concerns about the loss of individual autonomy and a standardization of "organization man" (Mills 1956; Whyte [1956] 2002). Our main working hypothesis, then, is that not only do work environments not leave the working population untouched but the kind of private company best proxied through its size makes a material, cognitive, and ideological difference for people working in firms, both the employees and also their much understudied employers.

In modern social sciences, most extant research focuses on the material dimension of the working environment. Firm size is a standard variable used in quantitative studies based on employee or employer data with wage, benefits, work time, or even stress levels as potential outcomes. The literature largely confirms a somewhat declining large-firm wage premium in many different countries (Lallemand, Plasman, and Rycx 2007), including the US (Even and Macpherson 2012) and Germany (Gürtzgen 2006), and the question, or rather "persistent puzzle" (Mayo and Murray 1991), is more about which theory explains it best. Most studies find that industry classifications only explain a small share of the wage gap, some find that it is not necessarily the small size but the young age of small firms (Nyström and Elvung 2014), and others agree on worker sorting/matching theories (Dahlin, Kelly, and Moen 2008), efficiency wages (Brown, Hamilton, and Medoff 1990), internal labor markets (Hollister 2004), or the presence of unions (Miller and Mulvey 1996). Who and how many workers participate in large firms is hence also relevant for questions of wage inequality (Cobb and Lin 2017; Giesecke, Heisig, and Solga 2015) and the gender wage gap (Bertrand and Hallock 2001). Kalleberg and Van Buren (1996) extend the wage premium finding to fringe benefits and other job rewards where similar big-firm effects can be found.

Big firms have also been found to be where performance-related pay is higher (Artz 2008), but with worse management-employee relationships than in smaller firms (Tansel and Gazîoğlu 2014). Findings regarding the effect of firm size on job satisfaction itself are rather inconsistent (Lang and Johnson 1994). Big firms have also been shown to be associated with better tenure conditions in German firms (Carroll and Mayer 1986). Firm size has been evidenced as an important factor for many more, often firm-level outcomes evidenced in business studies, e.g., profitability, capital structure, innovativeness, stock market performance or recovery (Moscarini and Postel-Vinay 2010), job creation (Ayyagari, Demirguc-Kunt, and Maksimovic 2011), transaction costs (Nooteboom 1993). Organizational studies have also found that firm size matters for the lack of institutional change (Haveman 1993) but may reduce failure rates (Ranger-Moore 1997).

When it comes to the subjective dimension of how workers perceive their work, but also wider issues in society, the literature becomes rather sketchy. This is partially due to most employer-employee survey or general establishment data concentrating rather on objective and work-related features of workplaces. Most surveys also focus on employees only, even though employers have been shown to be a heterogeneous class (Tsai 2005). These data sources, some of which have complete industry establishment coverage, are rich in characterizations of the workplace but often poor in terms of variables, other than socioeconomic ones, on workers. We argue that it is crucial to focus on both the objective and subjective dimensions because the way an individual perceives their work environment, their "frame of reference," is the result of an encounter between the objective working conditions and the individual's expectations of them (Hulin, Roznowski, and Hachiya 1985). The dominant frame of reference in a particular workplace is crucially influenced by the type of people who self-select for particular jobs, as well as the relationship dynamics and "political atmosphere" that develop in particular workplaces (Pencavel 2009). Better working conditions do not necessarily lead to higher job satisfaction if subjective expectations are high. For example, it is well known that union members are less satisfied with most aspects of their jobs than non-members, even though they are objectively better off than non-members in these same dimensions (Hadziabdic 2020).

Existing research has also described the role of specific organizational structures on political participation and orientation. The role of community size has a long tradition dating back to ancient Greece and continues in today's research. This research shows that smaller communities mean tighter social networks and therefore a higher likelihood of political action (Carreras and Bowler 2019) and increased support for social democratic parties (Fiorini et al. 2024). The idea is that smaller groups provide experience of local government, which then translates into a greater sense of political efficacy, which in turn leads to greater political participation (McDonnell 2020). Can a similar mechanism be invoked for workplaces? The spillover hypothesis suggests that participation in workplace decision-making leads to higher political participation because of the civic skills it generates (Greenberg, Grunberg, and Daniel 1996). When bureaucratic and hierarchical procedures are not perceived as overly authoritarian (Ayala 2000) but as part of a well-functioning complex organizational structure, they accustom work-

ers to formal procedures similar to those in politics and thus increase the likelihood of institutional political participation (Sobel 1993). In terms of political orientation, Kitschelt and Rehm (2014) show that workers with authority within a firm tend to have less redistributive preferences, more libertarian attitudes, and more pro-immigration attitudes. Mutz and Mondak (2006) show that the workplace may be the perfect environment to foster cross-cutting interactions among individuals with different political beliefs, leading to greater tolerance. Indeed, small companies may have an advantage in terms of the autonomy granted to employees and the absence of remote control mechanisms (Kalleberg and Van Buren 1996).

We focus on Germany and the US for reasons of data availability and comparability, but also for more substantive reasons. Indeed, existing literature situates these two countries at opposite ends of labor market institutions, given that the way the working population (self-)selects and is socialized in the workplace depends to no minor extent on the way work is institutionalized in a given country. The varieties of capitalism approach sees Germany and the US as two extremes (Hall and Soskice 2001). The US has a "hire-andfire" labor market with higher risk of unemployment and shorter tenure, less union and collective bargaining agreement density, but minimum wages, and no tradition of intrafirm works councils. By contrast, Germany has stronger worker protection, longer tenure, higher union and collective bargaining density (with a minimum wage introduced only in 2010), and works councils. The American worker has traditionally been organized around a firm with fringe benefits, particularly in health and pensions, making up a corporate welfare state ever since WWII (Klein 2010), with a notable "risk shift" from companies to individuals in recent decades (Hacker 2006). German employers are also better organized (Thelen 2020), and the German economy is known to host more SMEs compared to the US. Within the SMEs, Germany also has a higher share of family-owned companies (Berghoff and Köhler 2020). Finally, while workplace selection and socialization effects might work through different institutional settings in the two countries, there is a transatlantic consensus on the positive effects of SMEs on many different aspects of society and the economy. By looking at the effects of firm size in these two quite different country contexts, we therefore try to show that the findings of our conditional correlates hold even under very heterogeneous background conditions.

3 A quantitative take on firm size and its effects: Data and methodological elements

Data: The German Socio-Economic Panel and the US General Social Survey

To empirically operationalize our research question, we rely on data from the Socio-Economic Panel (SOEP) and the General Social Survey (GSS). Both surveys provide information on the number of people employed at the respondent's workplace, as well

as an extensive set of variables measuring job outcomes and political attitudes. This distinguishes them from establishment-level surveys or employee surveys, which often lack the latter variables. Since most of the key variables we need are available in the GSS from 2002 on, we use 2002 as the starting point for both surveys and focus on all survey waves in which the variables we consider are available, the last year of analysis being 2021 with GSS data and 2020 with SOEP data. Consistent with our theoretical framework, the analyses are limited to private-sector employees and employers.

Focusing on the key independent variable, we recoded the categories originally available in the surveys to maximize comparability between the two countries and between employees and the self-employed, without neglecting the differences in thresholds for defining medium-sized enterprises in Germany and the US. For employees, we distinguish between four categories: 1–9 employees; 10–99 employees; 100–199 (SOEP)/100–499 (GSS) employees; 200–1999 (SOEP)/500–1999 (GSS) employees; 2000 or more employees. The difference between the German and US data concerns the threshold (at least 200 or 500 employees) used to define medium-sized enterprises. While this definition is to some extent arbitrary and may vary by source and sector, the 200-employee threshold for Germany is close to the 250-employee threshold used by European Commission (2015), and the 500-employee threshold for the US is the one most commonly used by the U.S. Small Business Administration (SBA 2019). For self-employed respondents, we consider four categories: no employees; 1–9 employees; 10–99 (SOEP)/10–96¹ (GSS) employees; 100 or more (SOEP)/97 or more (GSS) employees.²

While considering firm size as an ordinal variable is a limitation related to the surveys both offering information only in this form, an ordinal operationalization has some advantages over a numerical form. Indeed, the relationship between firm size and organizational structures is clearly non-linear. Structural differentiation increases with firm size, but the marginal effect of an additional employee on the change in internal dynamics is diminishing (Blau 1970). Moreover, organizational structures do not vary continuously with firm size but only at certain discrete break points. These are not necessarily the same for firms in different sectors³ and may also be different for different forms of organizational structures.⁴ Without imposing a linear or quadratic form that will never perfectly match the relationship between firm size and job outcomes, with the categorical solution described above we can nevertheless capture non-linear effects and provide

¹ The cut-off point 96/97 employees is constrained by the way the response categories are reported in the GSS output. Up to 96 employees, we have information on the exact number of employees, while all companies with 97 or more employees are grouped together. As this last category comprises only 15 observations, the associated estimates should be interpreted with caution.

² Due to the small number (15) of self-employed persons with more than 96 employees in the GSS data, we were forced to combine all owners of firms with 100 or more employees.

³ Controlling for economic sector, as we do, limits the influence of this kind of heterogeneity.

⁴ We hence focus on a variety of job outcomes as dependent variables.

estimates with an intuitive interpretation, allowing us to distinguish between small, medium, and large firms with different occupational and socialization effects.

Regarding job outcomes as dependent variables, we include an objective and a subjective dimension for each underlying concept whenever possible. We consider five dimensions related to material working conditions (job quality, job stability, income, social protection, role of trade unions) and two dimensions related to more informal arrangements between employers and employees (overtime and hierarchical relationships).⁵ As a first concept, we focus on a general operationalization of job quality, using Treiman's (2013) prestige scale as the objective dimension⁶ and job/work satisfaction as the subjective dimension. We then consider job stability, measured objectively in terms of job tenure and subjectively in terms of worries about job security/perceived risk of unemployment. When considering pay as a key aspect of job satisfaction, we use income as the objective measure, and satisfaction with income/financial situation on the subjective side. Financial security can also be achieved through company benefits, where the presence of a company pension is a reliable objective measure and satisfaction with fringe benefits (available only for the US) is the subjective dimension. The role attributed to unions, either through objective membership or subjective belief that strong unions are necessary (available only for the US), is the fifth concept we consider as a dependent variable. As a sixth concept, we measure overwork objectively by overtime and subjectively as perceived time pressure/overwork. We then focus on relational dynamics by considering the quality of relationships between workers and supervisors and the degree of recognition workers receive from them.

Coming to political outcomes, we operationalize political participation through interest in politics and involvement in (local) politics (available only for Germany). In terms of party preferences, in Germany we consider support for the two major left- (SPD) and right-wing (CDU) parties as well as for the largest liberal party (FDP), which is close to business interests, while in the US we rely on a seven-point scale mapping the strength of attachment to the Republicans versus the Democrats. Finally, as a tenth concept, we consider a measure of respondents' preference for a free market economy over government intervention policies. The survey questions and details on the operationalization of firm size and all dependent variables are provided in Tables A1–2, Appendix A.

In addition, we use a number of control variables by including a set of standard sociodemographic characteristics (gender, age group, education level, nationality [Germany]/race [US], region, marital status, number of children), working status,⁷ economic

While these dependent variables may seem numerous, they represent the least common denominator of the core concepts we wanted to measure. Our preliminary tests, based on the much larger number of job outcomes that is available in the GSS and SOEP data, provide results that are impressively consistent with the main empirical pattern we describe below.

⁶ The scale is derived from survey data in which respondents are asked to rate the relative social prestige of different occupations.

⁷ Despite our focus being only on individuals working in the private sector, the models below

sector, and year fixed effects. These variables are exogenous to firm size and are used to control for selection effects of specific individual profiles in firms of different sizes, to ensure that patterns specific to certain economic sectors are not confounded with firm size, and to partial out period effects. Descriptive statistics on all variables can be found in Tables A3–4, Appendix A. In addition, Tables A5–6 provide a detailed breakdown of the economic activities that are most commonly represented in firms of different sizes. This is crucial to get an idea of the different economic activities in which the employees of small, medium, and large enterprises are mainly engaged.

Model specification: Cross-sectional analyses

In order to estimate the relationship between firm size and job and political outcomes, we rely on the following functional form:

$$D_{it} = \alpha + F'_{it}\beta + C'_{it}\gamma + \mu_{it}, for i = 1, ..., N and t = 1, ..., T$$
 (1)

where D_{it} represents the dependent variable; α a constant term; F_{it} a vector with the nine dummy variables related to firm size categories for both employees and the self-employed with the associated estimates β ; C_{it} a vector with the control variables described above with the associated estimate γ ; and μ_{it} a general error term. The index i represents individuals and t survey years. While SOEP is a panel survey with repeated observations of the same individuals, GSS data are cross-sectional and no individual is actually observed in two different time periods. This functional form is estimated using ordinary least squares. To deal with heteroscedasticity and serial correlation (only for SOEP data) issues, we use cluster-robust standard errors with the individual as the cluster unit for SOEP data and robust standard errors with GSS data. In order to be able to compare the magnitude of the effects across outcomes, we standardized all dependent variables.

While we consider the effect of firm size on each dependent variable after controlling for the exogenous factors most likely to distinguish firms with different numbers of employees, we cannot rule out the possibility that additional variables in the error term may affect both firm size and the outcome variables. Therefore, we avoid interpreting our results in causal terms. While a longitudinal design that focuses on individuals moving between firms of different sizes (referred to here as "switchers") would give us greater leverage to control for selection effects, statistical power issues prevented us from pursuing this strategy with the panel data version of GSS since it provides too few individuals to produce reliable estimates. With SOEP data, we face an external validity

show the presence of some residual categories of workers classified as studying, unemployed, or non-working. This is because our definition of private sector workers is less restrictive (it focuses on individuals who worked in the week before the survey) than the one used in the control variable (which requires stable employment to be classified as full- or part-time work).

issue since we found that switchers between firm sizes in Germany differ significantly from the average worker (younger, working part-time or on a fixed-term contract, and switching from certain sectors, especially manufacturing, to others).

4 Varieties of non-linearity: Results

As we are only interested in the estimates related to firm size, we have presented them in ten figures, each focusing on a set of dependent variables that operationalize one of the ten core concepts we consider as outcomes. The full regression models with control variables can be found in Tables B1–4, Appendix B. In the regression models, we used employees in the largest firms with 2000 or more employees as the reference category. Although they come from the same regression, we present the estimates for employees and for the self-employed for the same dependent variable in separate graphs. To facilitate comparison of the magnitude of the estimates, in addition to standardizing the dependent variables (the estimates are hence expressed in standard deviations), we use the same bounds [–0.6, 0.6] for the *y*-axis in all graphs. Estimates are represented by barplot bars whose height corresponds to the magnitude of the estimate, accompanied by standard error bars. Barplot bars representing estimates that are significant at the 5 percent level are filled in gray, otherwise white. In the regression tables in Appendix B, the exact p-value for each estimate is also provided.

Looking at job quality in Figure 1, we find that employment in firms of increasing size is associated with increasing occupational prestige. Jobs in small firms are perceived as less prestigious than those in the largest firms in both countries (Germany: -0.20^{***} ; US: -0.13^{***}). Apart from owners without employees, self-employment is considered more prestigious than employment in a firm of any size. In Germany, the peak of public prominence is reached by employers with 10–99 employees (0.56^{***}), while in the US there is a huge reputational bonus associated with owning a large firm (1.12^{***}). For subjective ratings of job quality, differences between workers are smaller but show a peak in small firms in both countries (Germany: 0.041^{***} ; US: 0.059, p=0.31), although significant only in Germany, and a significant minimum in job/work satisfaction among individuals working in firms with 100–199/499 employees (Germany: 0.051^{***} ; US: 0.12^{*}). Self-employed individuals are more satisfied with their job situation than any employee category, with satisfaction highest among employers with 10–99 employees in Germany (0.37^{***}), while in the US there is a pattern of increasing satisfaction with firm size (0.59^{***} for owners of the largest firms).

⁸ Significance levels: *p < 0.05; **p < 0.01; ***p < 0.001.

Figure 1 Average treatment effects of firm size on objective and subjective job quality

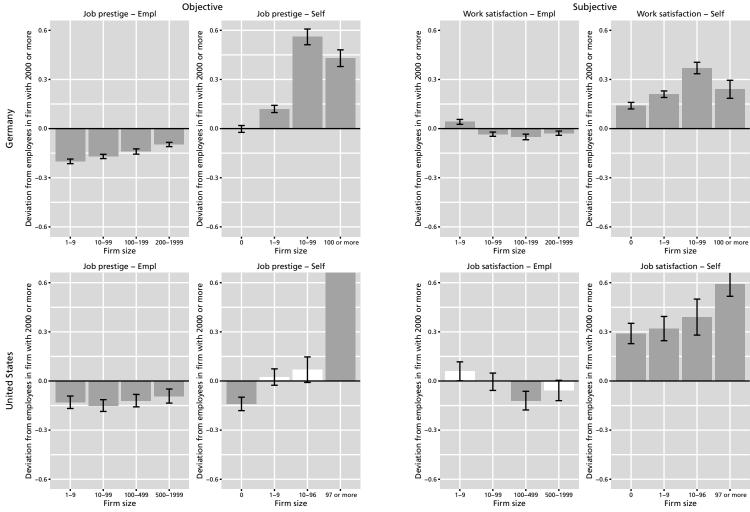
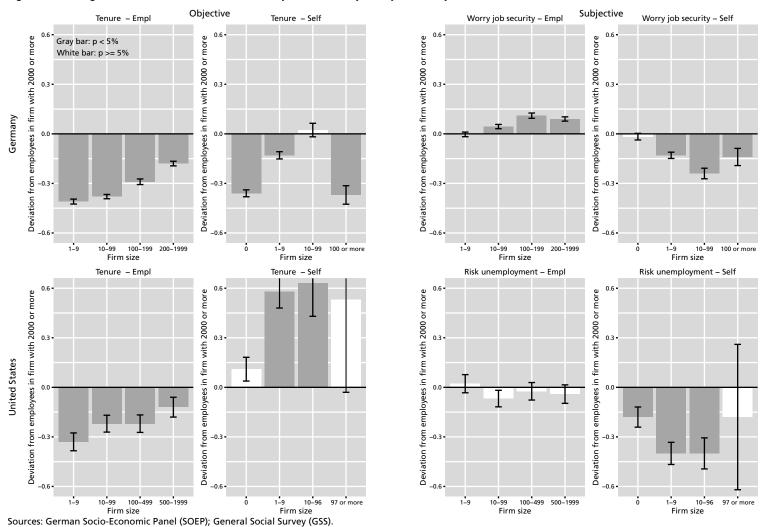


Figure 2 shows that small firms offer the least stable jobs (Germany: -0.41**; US: -0.33***) and average job tenure increases significantly with company size in both Germany and the US. The pattern for the self-employed in Germany shows that all categories except one (10–99 employees, estimate not significant) have shorter tenure than employees in large firms, with the minimum (-0.37***) for large-firm owners. In the US, all categories of employers have higher job stability than employees, with a peak for employers with 10–96 employees (0.63**). Looking at the subjective risk of losing one's job, job insecurity among German workers is highest in medium-sized firms with 100–199 employees (0.11***), while the smallest and largest firms are the workplaces where these concerns are lowest. No significant differences are found among employees in firms of different sizes in the US. The pattern of job security among the self-employed is consistent in both countries: all feel more secure about their jobs than their employees, and employers in firms with 10–99/96 employees are the least likely to feel insecure about losing their jobs (Germany: 0.24***; US: -0.40***).

Figures 3, 4, and 5 present the results with objective and subjective operationalizations of income, company pension, and union membership, respectively. In all three outcomes, we observe a pattern of increasing and significant estimates that places employees in large firms in the objectively most privileged position in both countries, in particular compared to the smallest firms (Germany: salary [-0.16***], company pension $[-0.65^{***}]$, union membership $[-0.54^{***}]$; US: salary $[-0.31^{***}]$, company pension $[-0.62^{***}]$, union membership $[0.43^{***}]$). In both countries, objective income privilege translates into subjective income satisfaction, and again the largest deviations from large firms occur in small firms (Germany: -0.35***; US: -0.14**). For the US, we also find that a higher probability of having a company pension plan leads to subjective satisfaction with fringe benefits (small firms [0.48***]), while firm size is not a significant determinant of employee attitudes toward unions. Among the self-employed, firm owners without employees are less affluent than the reference (Germany: -0.11***; US: -0.29***), while owners of large firms are the most affluent (Germany: 0.50***; US: 1.96***). This disadvantage explains why owners with no employees are also the least satisfied with their income in both countries (Germany: 0.43***; US: -0.12*), while satisfaction is highest among employers with 10-99/96 employees (Germany: 0.22***; US: 0.33***). For the US, we also see that employers view the role of unions much more negatively than employees, with a decreasing tendency depending on company size (0.95* for employers with 97 or more employees).

Looking at overtime in Figure 6, German workers in small firms are least affected by overtime (-0.14^{***}), while individuals working in the largest firms are most affected by it. In the US, workers are least likely to work overtime in both small and large firms, while the peak is in firms with 500–1999 employees (0.12, p=0.053). Among the self-employed, owners of the largest firms are by far the most likely to work overtime in Germany (2.94^{***}), while in the US, overtime concerns employers with 10–96 employees (0.49^{*}) most and large-firm employers (-0.54^{***}) least. Looking at employees' subjective

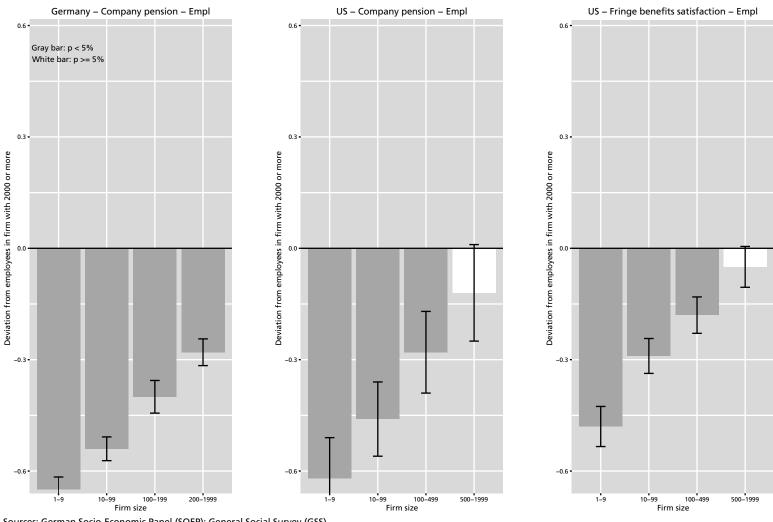
Figure 2 Average treatment effects of firm size on objective and subjective job stability



Subjective Objective Income - Empl Income satisfaction - Empl Income satisfaction - Self Income - Self Deviation from employees in firm with 2000 or more Deviation from employees in firm with 2000 or more Gray bar: p < 5% Deviation from employees in firm with 2000 or more Deviation from employees in firm with 2000 or more White bar: p >= 5% 0.3 Germany -0.6 **-**10-99 100-Firm size 1-9 10-9 Firm size 10-99 100 or more 100-199 200-1999 1-9 10-99 100-199 200-1999 1-9 10-Firm size 10-99 100 or more Firm size Income - Empl Income - Self Income satisfaction - Empl Income satisfaction - Self 0.6 -Deviation from employees in firm with 2000 or more Deviation from employees in firm with 2000 or more Deviation from employees in firm with 2000 or more Deviation from employees in firm with 2000 or more United States -0.6 --0.6 -1–9 10–96 97 or more Firm size 100-499 500-1999 10-99 100-Firm size 1-9 10–99 100–499 500–1999 Firm size 1–9 10– Firm size 10-96 97 or more

Figure 3 Average treatment effects of firm size on objective and subjective income

Figure 4 Average treatment effects of firm size on objective and subjective company welfare benefits



Germany – Union member – Empl US – Union member – Empl Deviation from employees in firm with 2000 or more Gray bar: p < 5% Deviation from employees in firm with 2000 or more White bar: p >= 5% -0.6 200-1999 500-1999 Firm size Firm size US – Strong unions – Empl US - Strong unions - Self Deviation from employees in firm with 2000 or more Deviation from employees in firm with 2000 or more -0.6 **-**Sources: German Socio-Economic Panel (SOEP); General Social Survey (GSS).

Figure 5 Average treatment effects of firm size on objective and subjective evaluation of unions

Objective Subjective Overtime - Self Time pressure - Empl Time pressure - Self Overtime - Empl in firm with 2000 or more Deviation from employees in firm with 2000 or more Deviation from employees in firm with 2000 or more firm with 2000 or more Gray bar: p < 5% Germany Deviation from employees Deviation from -0.6 **-**-0.6 **-**10–99 100–199 200–1999 Firm size 1–9 10–99 100 or more Firm size 1-9 10–99 100–199 200–1999 Firm size 1–9 10–99 100 or more Firm size Overtime - Empl Overtime - Self Overwork - Empl Overwork - Self with 2000 or more Deviation from employees in firm with 2000 or more Deviation from employees in firm with 2000 or more Deviation from employees in firm with 2000 or more 0.3 -**United States** from employees in firm Deviation f 100-499 500-1999 1–9 10–96 97 or more Firm size 10-99 100-499 500-1999 10-99 100-Firm size 10-96 97 or more Firm size Firm size Sources: German Socio-Economic Panel (SOEP); General Social Survey (GSS).

Figure 6 Average treatment effects of firm size on objective and subjective overwork

evaluation of overtime, time pressure is perceived most strongly in the largest companies in Germany (0.11*) compared to small firms, while all other categories are not clearly distinguishable. In the US, a similar pattern to objective work is observed, with individuals in small firms feeling the least overworked (0.13*), while the peak level of overwork is in firms with 500–1999 employees (0.064, p = 0.34), although not significantly. Among the self-employed, the only significant pattern evident in both countries is that firm owners with no employees are the category least likely to feel time-pressured or overworked (Germany: -0.13^* ; US: -0.26^{***}).

If we focus on the relational dynamics from the employee's perspective in Figure 7, employees in small companies are most likely to feel that they are recognized by their superiors or have a good relationship with management, although only in the US significantly more often than in the reference (Germany: 0.051, p = 0.39; US: 0.50^{***}). In Germany, the medium-sized companies with 100-199 employees perform worst on this dimension, while in the US it is the largest companies. Similarly, in Germany it is again companies with 100-199 employees that give their employees the least sense of being recognized for their work (-0.14^{*}), while small companies again provide the rosiest environment (0.059, p = 0.32), though also again not significantly. In the US, a non-significant curvilinear pattern emerges with a peak for the probability of receiving work praise in small firms, which then decreases and reaches a low point in firms with 500-1999 employees before increasing slightly in the largest firms.

Turning our attention to political attitudes by examining political engagement, Figure 8 shows that German employees' interest in politics increases with firm size (comparison with small firms [0.12***]), while no significant differences by firm size are evident in the US. In Germany, employers report higher levels of interest in politics than all categories of employees, and this interest increases with firm size (large employers [0.27***]). As with employees, we are unable to identify a clear pattern of significant differences among US employers. For Germany, a measure of involvement in politics indicates slightly greater involvement in political affairs among employees in small firms than among all other categories (0.048*). Employers are again more involved than all other employee categories, with political activity highest among owners of businesses with 10–99 employees (0.35***).

Looking at partisan preferences in Figure 9, we notice that the probability of supporting the largest left-wing party (SPD) among workers increases with firm size and is particularly low among workers in the two categories representing the smallest firms (-0.10^{***}) . A pattern increasing with firm size is also evident in the GSS data for worker orientation on a scale between Republicans and Democrats, although the differences do not cross the threshold of statistical significance (small firms [-0.053], p = 0.21). With

⁹ Due to the lower political engagement of employees in small firms, as highlighted above, part of the lower impact on their party preferences is also related to the general tendency to have no party preference, and not just the lack of an effect of firm size for particular parties.

Germany – Recognition from supervisors – Empl Germany - Work recognition - Empl 0.6 -Gray bar: p < 5% Deviation from employees in firm with 2000 or more Deviation from employees in firm with 2000 or more White bar: p >= 5% -0.6 -0.6 -1–9 200-1999 1-9 200-1999 Firm size Firm size US - Relationship with management - Empl US - Work praise - Empl 0.6 -0.6 -Deviation from employees in firm with 2000 or more Deviation from employees in firm with 2000 or more -0.6 500-1999 1-9 500-1999

Figure 7 Average treatment effects of firm size on relational dynamics between employees and superiors

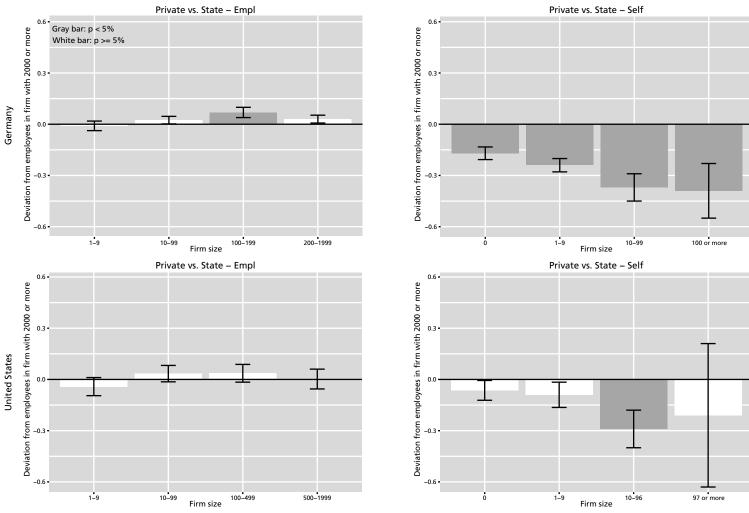
Germany - Interest in politics - Empl Germany - Local politics - Empl Germany - Interest in politics - Self Gray bar: p < 5% Deviation from employees in firm with 2000 or more Deviation from employees in firm with 2000 or more Deviation from employees in firm with 2000 or more White bar: p >= 5% I -0.6 **-**-0.6 --0.6 -10–99 Firm size 1-9 Firm size 100-199 200-1999 10-99 1-9 10-99 100-199 Firm size 100 or more Germany - Local politics - Self US – Interest in politics – Empl US - Interest in politics - Self 0.6 -0.6 Deviation from employees in firm with 2000 or more Deviation from employees in firm with 2000 or more မို့ မို့ Deviation from employees in firm with 2000 or more -0.6 1-9 10-99 100-499 Firm size

Figure 8 Average treatment effects of firm size on political involvement

Anything else vs. CDU - Empl Anything else vs. CDU - Self Anything else vs. SPD - Empl Anything else vs. SPD - Self 0.6 -Gray bar: p < 5% Deviation from employees in firm with 2000 or more Deviation from employees in firm with 2000 or more Deviation from employees in firm with 2000 or more မို့ မို့ Deviation from employees in firm with 2000 or more White bar: p >= 5% 0.3 --0.6 -0.6 10-99 100-199 200-1999 10-99 100 or more 10-99 100-199 200-1999 10-99 100 or more Firm size Firm size Firm size Firm size Anything else vs. FDP - Empl Anything else vs. FDP - Self Republican vs. Democrat - Empl Republican vs. Democrat – Self 0.6 -Deviation from employees in firm with 2000 or more Deviation from employees in firm with 2000 or more ເລື່ອ ເລື່ອ ເລື່ອ Deviation from employees in firm with 2000 or more Deviation from employees in firm with 2000 or more -0.6 -0.6 **-**-0.6 10-99 100-Firm size 100-199 200-1999 1-9 10-Firm size 10-96 10-99 100 or more 10-99 100-499 500-1999 1-9 Firm size Firm size Sources: German Socio-Economic Panel (SOEP); General Social Survey (GSS).

Figure 9 Average treatment effects of firm size on partisan preferences

Figure 10 Average treatment effects of firm size on opinion of state interventionism



the exception of large employers (no significant difference), in Germany, support for the SPD is significantly lower among employers than employees, with the minimum for small firms with 1–9 employees (–0.19***). Among employers in the US, support is clearly for Republicans compared to Democrats, with attachment to Democrats declining sharply with increasing firm size (largest owners [–0.58**]). For Germany, we also examine support for two other parties by firm size. Support for the CDU, the main right-wing party, does not differ much by firm size among employees, although support is lowest among those working in firms with 10–99 (–0.034*). By contrast, among the self-employed, support is highest in firms with 10–99 employees (0.36***). The FDP is the main liberal party; support for it is low among employees, especially in companies with 100–199 employees (–0.049**). The FDP enjoys significantly higher support among employers, increasing with firm size (largest firms [0.24*]).

Finally, focusing on attitudes toward the free market economy and state interventionism in Figure 10, state interventionism is most popular among German employees of firms with 100-199 employees (0.069^*) . A similar, though non-significant, pattern with the highest scores in firms with 10-99 (0.034, p=0.49) and 100-499 (0.036, p=0.49) employees is observed among American workers. Aversion to government interference is evident among German employers, reaching a low point (-0.39^*) in the largest firms, and among US employers, with a low point among employers with 10-96 employees (-0.29^{**}) .

5 Little harmony or big money: Discussion

Table 1 summarizes the empirical patterns we derived for each of the dependent variables by grouping them together along our four underlying constructs (material job outcomes [job quality, job stability, income, social security, trade unions], informal/relational job outcomes [overtime, hierarchical relations], political involvement [interest in politics, (local) political action], political orientation [partisan preferences]), by distinguishing between employees and the self-employed, and by providing a direct comparison between Germany and the US. We adopted a "most dissimilar cases" research design to test the importance of firm size by examining its effects in two polar opposites of capitalist functioning. Despite some differences, the most striking aspect of Table 1 is the strong similarity of the empirical patterns we found for the two countries. Thus, firm size appears to be a very consistent determinant/correlate of both the job and political attitudes we considered as dependent variables. We structure the discussion of these results by first focusing on the work-related and political dimensions for employees. We then address the same two sets of variables for employers. Finally, we highlight the general picture that emerges when we focus on the role of firm size on professional and political outcomes and on the potential mismatch between employees and employers.

Table 1 Summary of empirical findings

Dependent variable	Germany employees	US employees	Germany self- employed	US self-employed
Prestige	Increasing	Increasing	Peak 10–99 (more than reference)	Increasing with huge peak 97 or more (more than reference)
Job satisfaction	Peak 1–9, bottom 100–199	Peak 1–9, bottom 100–499	Peak 10–99 (more than reference)	Increasing (more than reference)
Tenure	Increasing	Increasing	Peak 10–99 (other categories less than reference)	Peak 10–96 (all categories more than reference)
Job insecurity	Peak 100–199	No differences	Bottom 10–99 (less than reference)	Bottom 10–96 (less than reference)
Income	Increasing	Increasing	Increasing (only self-employed less than reference)	Increasing (only self-employed less than reference)
Income satisfaction	Increasing	Increasing	Peak 10–99 (more than reference)	Peak 10–96 (more than reference)
Company pension	Increasing	Increasing	Not applicable	Not applicable
Satisfaction with fringe benefits	Not available	Increasing	Not applicable	Not applicable
Union member	Increasing	Increasing	Not applicable	Not applicable
Attitude toward unions	Not available	No differences	Not available	Decreasing (less than reference)
Overtime	Bottom 1–9, others fluctuating (all less than reference)	Increasing until 500–1999 (reference lowest)	Peak large firms (far more than reference)	Increasing until 10–97 (more than reference), bottom large firms (far less than reference)
Subjective overwork	Bottom 1–9, others fluctuating (all less than reference)	Bottom 1–9 (less than reference), increasing until 500–1999	Peak 10–99 (only 1–9 significantly less than reference)	Peak 10–96 (only 1–9 significantly less than reference)
Relationship with management	Peak 1–9, bottom 100–199 (not significant)	Peak 1–9, decreasing	Not applicable	Not applicable
Work recognition	Peak 1–9, bottom 100–199	Peak 1–9, decreasing until 500–1999 (not significant)	Not applicable	Not applicable
Interest in politics	Increasing	No differences	Increasing (more than reference)	No clear pattern
Involvement in (local) politics	Peak 1–9, rest no differences	Not available	Increasing (more than reference)	Not available
SPD/Republican vs. Democrat	Increasing until 200–1999	Increasing (not significant)	Bottom 1–9 (less than reference)	Decreasing (less than reference)
CDU	Bottom 10–99	Not applicable	Peak 10–99 (more than reference)	Not applicable
FDP	Bottom 100–199	Not applicable	Increasing (more than reference)	Not applicable
Private vs. State	Peak 100–199	Peak 10–99 and 100–499 (not significant)	Decreasing (less than reference)	Bottom 10–96 (all less than reference)

Zooming out of the detailed findings, we identify broader patterns in four stylized facts. Focusing on how work-related dimensions vary across employees of different firm sizes, first, we confirm existing research (e.g., Hollister 2004; Kalleberg and Van Buren 1996) regarding the objective rewards that large firms can offer their employees. In both Germany and the US, when moving from smaller to larger companies, we observe increasing job-related social prestige, greater job stability, higher wages, a higher likelihood of receiving a company pension, and union protection. It is interesting to note, however, that these objective privileges of employees in large firms do not always translate into subjectively perceived benefits. While higher income and a company pension do indeed lead to higher financial satisfaction and satisfaction with fringe benefits, respectively, it is the smallest companies, with 1–9 employees, that are associated with the highest job satisfaction. This category of small firms usually operate on a local non-export basis and are predominantly found in the crafts, construction, real-estate, and hospitality industries (Runst et al. 2021). These are also the environments characterized by the most harmonious relational dynamics between employees and employers. On the only objective dimension where working in a larger company is detrimental, namely overwork, small companies are both objectively and subjectively the best places to work, signaling a lower tendency to exploit workers than in other firms.

This, second, points to a peculiar non-linearity in the effect of firm size: Between the subjectively harmonious world of small firms and the objectively rewarding world of large firms, workers in medium-sized firms seem to be "betwixt and between," where objective pay is at an average level while subjective and relational well-being is lower than elsewhere. This is consistently the case in Germany, where workers in companies with 100-199 employees have the lowest job satisfaction, the greatest job insecurity, the greatest sense of time pressure, and the least recognition from supervisors. In the US, the picture is somewhat more nuanced: Again, it is the mid-sized companies with 100-499 employees where employee job satisfaction is lowest. However, it is somewhat larger companies, with 500-1999 employees, that have the lowest scores for both objective and subjective employee overload and supervisor recognition of work. In other words, even though the definition of their size differs in Germany and the US, medium-sized companies in both countries are not large enough to enjoy the economies of scope that could allow large companies to provide important material rewards to their employees, while at the same time they are not small enough to be characterized by personal relationships between employees and management that create a pleasant work environment that can even compensate for the lack of objective benefits.

If we go back a few decades, Daniel Bell (1976) masterfully illustrated the cultural contradictions of capitalism that require citizens to be motivated workers and consumers at the same time. A few decades later, Boltanski and Chiapello (1999) identified self-realization at work as the crucial means by which capitalists managed to create both engaged workers during working hours and ludically oriented consumers outside of working hours. Our first stylized facts allow us to nuance Boltanski and Chiapello's conclusion. First, we show that self-realization in the workplace does not appear to have been achieved to the

same *quantitative* extent in all companies, with medium-sized firms in particular still lagging behind small and large firms. Second, we also show that self-realization in the workplace is achieved in *qualitatively* different ways in small and large companies. Small companies achieve it by providing an enjoyable *intrinsic* workplace experience, while large companies are better able to motivate employees through *extrinsic* benefits that are socially valued, for example in the form of job prestige or wealth.

Third, when we consider how the workplace affects the way workers interpret and interact with the political world, we also find significant differences between workers in companies of different sizes. While there are no significant differences in interest in politics by firm size in the US, we observe an increasing interest in general political affairs by firm size in Germany. This greater involvement in general political affairs in large firms is accompanied by the opposite pattern when we focus on involvement in (local) political affairs (measured only in Germany), which is highest among employees in the smallest firms. While these differences are smaller than the differences we found on most work-related dimensions, as we control for various personal characteristics (especially education) and economic sector, this can be interpreted as either a causal effect of firm size or a sign of self-selection of individuals with certain profiles into certain types of firms. On the one hand, the greater involvement of small business employees in political affairs may be due to a selection effect among individuals who are strongly connected to the local area and therefore more likely to choose to work in small businesses. On the other, the embeddedness of such a business in local life may in itself increase a worker's involvement in local affairs. Similar selection or causal effects can also be invoked for the higher level of political interest among German workers in large firms. Since self-selection in this case is likely related to unobservable personality traits, we are not able to provide definitive evidence on whether these differences are due to selection or causal effects. Regarding political orientation, we observe a slightly increasing tendency toward a left-leaning political orientation by firm size in both countries. In terms of policy preferences, state interventionism is preferred to market forces in both countries, especially among workers in mid-sized firms. Consistent with this finding, the same category of workers is least likely to support the market-liberal FDP. As for the dimensions of political engagement, these are modest empirical patterns that can be attributed to either selection or causal effects of firm size.

This pattern of political orientation can be reconciled, on the one hand, with highly skilled professionals (self-)selecting mainly into high-paying large companies and, on the other, with the changing policy offer of the (New) Left. Indeed, one of the key changes in the class struggle associated with partisan preferences is the embourgeoisement of the Left, with affluent highly skilled workers increasingly attracted to the policy package offered by the New Left, which combines economic liberalism with culturally progressive values (Beramendi and Rehm 2015; Piketty 2017).

Finally, we find a polarization of employees vis-à-vis the employers they work for: Focusing on employers, we find a much stronger correspondence between objective and subjec-

tive occupational outcomes than for employees. In both countries, the best occupational situation is observed among large employers. In Germany, the owners of medium-sized firms with 10–99 employees have the highest social prestige, job satisfaction, and objective and subjective job stability. They are also the most satisfied with their income and most likely to feel time pressure, while owners of larger companies have objectively more financial resources and are more affected by overtime. The pattern is similar in the US, although some privileges are more biased toward employers of the largest firms (97 employees or more) that we can empirically capture. These employers clearly enjoy the highest social prestige, are the most satisfied with their jobs, and have the highest incomes. However, employers of slightly smaller firms, with 10–96 employees, are more satisfied with their income. They also have the objectively and subjectively highest job stability, while at the same time they are most likely to be affected by and perceive overwork.

Looking at employers' political attitudes by company size, we do not see a pattern in the US that distinguishes employers in terms of political engagement, but we do observe a very consistent pattern in which more conservative views increase in larger companies, with owners of large companies most likely to be hostile to unions, supportive of Republicans, and to favor market solutions over government intervention. In Germany, both general and political engagement increases with company size (and at levels far above any employee category). The picture we observe in terms of party affiliation is more diverse. As expected, preference for the FDP's liberal market policies and, more generally, for market-based solutions over government measures increases with company size. Support for the SPD is significantly lower among employers of small and medium-sized firms (especially those with 1–9 employees) than among their employees, while owners of the largest firms do not differ significantly from their employees in this respect. The same owners of large companies also show a similar inclination to support the CDU as their employees, while there is a much stronger preference for this conservative party among the owners of smaller companies (especially those with 10–99 employees).

The polarization becomes evident when we compare this sociological profile of employers with the respective employees: Despite belonging to the same work environment, they do not experience and evaluate their work and political environment in the same way. This is perhaps trivial when it comes to issues of salary or material benefits, but it is more revealing when it comes to perceptions of one's objective situation and political views. On these two subjective domains, there is a clear dividing line between employees and owners in general and by company size in particular. This divide in worldviews between "capital and labor" exists between workers and owners of all company sizes, but also between those of companies of the same size. While size generally matters, the social role occupied in a company does also. Looking at the work-related dimensions, large companies are the best option for employees when it comes to objective outcomes, and this tends to be true for employers as well (especially income). On the subjective dimensions, however, small companies appear to be the most satisfying environment for workers, but not necessarily for employers. Medium-sized companies, while offering average objective benefits, are clearly less able to provide a subjectively appealing

work environment for their employees. At the same time, the owners of these companies have some of the best (if not the best) career outcomes. This is particularly true for German mid-size companies, which enjoy a significant advantage in terms of general social prestige, also reflected in a high level of personal satisfaction with their economic role. Overall, this is particularly surprising for medium-sized companies, for which the functioning operational integration and the relationship of trust between employer and employee in the "family business" is often emphasized. But it could also be the "great divide" (Godechot et al. 2020), i.e., the observed trend toward increasing segregation in the workplace, with members of different income groups, let alone wealth groups, interacting less and less (Mijs and Roe 2021). A similar split between employees and employers with divergent patterns among firms is also observed in political attitudes, with decreasing/increasing political engagement and decreasing/increasing preference for conservative market solutions with increasing firm size among employees/employers. These political effects are also much stronger among owners than among employees, which may suggest that the firm is a stronger identity marker for them and owning a firm is more a way of life than simply having a job in a firm.

6 Brave new Mittelstand? Conclusion

We presented the two countries in our focus as "most dissimilar cases." Since they are very different in terms of both labor market and political institutions, we argued that, despite the contextual differences between Germany and the US, we should find similar empirical patterns if firm size plays a crucial role in occupational and political outcomes. From the large body of empirical findings we have described, it appears that firm size is important in almost all outcome dimensions, for both workers and firm owners, and in a remarkably similar way in both countries.

Nevertheless, we also identified some differences between the two countries, which we can link to key contextual variables. First, while the benefits of a large firm are visible in both countries, they are more pronounced in the US for both employees and employers. This can be related to the greater prevalence and development of the big corporation in US capitalism (Thelen forthcoming), and thus the associated economies of scope. Second, the coordinated market economy vs. liberal market economy dichotomy is reflected in the fact that larger firms guarantee higher stability in both countries, but it translates into higher subjective job security only in Germany, while in the US no subjective differences between workers of different firm sizes are apparent. This is related to the much more flexible approach to job security in the US, which makes everyone potentially "fireable" and thus means that no worker takes their job for granted. It is also interesting to note that the higher likelihood of being a union member in large companies in the US does not translate into greater support for unions by these same workers, which can be explained by the different industrial relations systems that distinguish Eu-

rope and North America. While in Europe union membership is mainly voluntary and there is thus a consistency between employees' attitudes toward unions and their union membership status, union membership in the USA is mainly determined by majoritarian practices in the workplace. A non-negligible proportion of union members are thus members even though they do not have a positive attitude toward unions (Hadziabdic and Frangi 2022). Another interesting difference is that there is no strong polarization of political views among workers by firm size in the US, while it is clearly present in Germany. Given that politics in the US is so clearly polarized in so many areas of life (DellaPosta, Shi, and Macy 2015), it is surprising to see that companies of different sizes are an exception. An explanation may be the stronger voluntarist tradition of American citizens emphasized in the classical literature (Almond and Verba 1965; Tocqueville [1840] 2016), which makes the workplace a less central site of political socialization than in Germany. The coordinated system in which German workers are embedded, in contrast to the much more liberal system in the US, could also explain the weaker links between workplaces and political attitudes.

In addition to these differences derived from secondary patterns, the harmonious small firm vs. objectively rewarding firm divide we described from the workers' perspective implicitly led us to identify medium-sized businesses as the locus of the strongest contradictory patterns between workers' and employers' professional and political experiences. The pattern in Germany is more consistent and stronger because Mittelstand firms play a stronger objective economic and public and political role. While in the US this polarization occurs only in subjective dimensions, in Germany it is also visible in material, objective outcomes and extends to political attitudes. There is a discrepancy here between the social image that these companies have built around themselves in Germany, the positive image that the owners have of themselves, and the perceptions of their employees. This is the main difference in the German-American comparison. The Mittelstand owners in Germany are clearly the most privileged group, both objectively and subjectively, and the most entrenched in local politics. In the US, the pattern is upward in some dimensions (prestige, job satisfaction, income) compared with mid-sized firms peaking in others (tenure, job security, income satisfaction), which may reflect the different economic structures in the two countries, but also the prestige associated with the Mittelstand in both. The specificity of the mid-sized firms also means that the classic grouping of small and medium-sized enterprises is not justified in many respects, since the two types of enterprise represent markedly different environments from the point of view of both employees and employers, not only in terms of objective aspects but also, and above all, subjective ones.

From a methodological perspective, it is worth emphasizing that we were able to identify the specificity of small, medium, and large firms primarily because we operationalized it as an ordinal variable, as opposed to a numerical variable as used in previous research. This was crucial for us not only to be able to show the non-linearity of the effects of firm size, which has already been emphasized in previous research, but also to flesh out the specificities of firms of different size as independent social units that have

thus far been neglected as self-selection and socialization loci. However, in describing these empirical patterns, we cautioned the reader that, because of the cross-sectional design we used, we cannot provide definitive evidence on the extent to which differences across firms are related to the attraction of workers with profiles specific to firms of different sizes and/or to causal effects of the different organizational structures and dynamics that characterize firms of different sizes. Although there are reasons to believe that both processes play a role for workers and employers alike, only a longitudinal design focusing on switchers could disentangle the importance of selection and causal effects. We could not take this route for reasons of statistical power and external validity related to the particular characteristics of switchers.

Moreover, we focused only on the average treatment effects by considering firm size as the main source of heterogeneous effects. Future research could benefit from examining in more detail how the effects of firm size interact with other variables. For example, it might be interesting to examine how the effects of firm size vary by age or tenure. Assuming that older employees and employees with longer tenure are less susceptible to socialization effects, this could also be used as a tentative test for socialization effects. In addition, it would be interesting to examine whether some of the effects we found, particularly those related to political attitudes, vary by level of education. If individuals with low qualifications experience stronger effects, this could also be interpreted as evidence for the educational role of workplace size. In order to delve deeper into the polarization we have identified of attitudes between employees and employers, it would be interesting to examine a finer classification of employees based on their hierarchical role. While different hierarchical roles have been shown to influence individual attitudes (Kitschelt and Rehm 2014), we are not aware of any study that has examined how the influence of such roles varies by firm size. Our findings suggest that hierarchical boundaries may be less relevant and more subtle in smaller firms. It might also be worth investigating whether heterogeneous effects occur over time. If capitalism shows a tendency toward a higher concentration of wage earners in large firms, one might expect historical adjustments in firms of different sizes. In particular, our results suggest that large firms have learned to manage employee satisfaction better than medium-sized firms.

Finally, we have matched the patterns of employees with those of employers in firms of similar size by highlighting the different perceptions they have of their work environment and their different political views. A more empirically grounded analysis on this topic, however, would require linked data between employees and employers (Villemez and Bridges 1988), but such data rarely contain the extensive attitudinal dimensions on which we focused. Although we take two very different cases, both Germany and the US are at an advanced stage of their capitalist development. It would be interesting to see what empirical patterns emerge in economies that are at a different stage of development and where appearement between workers and capitalist forces has not yet reached the level we observe in the West. As before in the West, the workplace in those economies may be an even more important site than it is today in the West for workers' professional and political socialization, since economic and political spheres are still explicitly linked and working hours are much higher.

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