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THE POLITICAL ECONOMY OF THE PRUSSIAN THREE-CLASS FRANCHISE

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The Political Economy
of the
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Abstract

Did the Prussian three-class franchise, which politically over-represented the economic elite, affect policy-making? Combining MP-level political orientation, derived from all roll call votes in the Prussian parliament (1867–1903), with constituency characteristics, we analyze how local vote inequality, determined by tax payments, affected policy-making during Prussia's period of rapid industrialization. Contrary to the predominant view that the franchise system produced a conservative parliament, higher vote inequality is associated with more *liberal* voting, especially in regions with large-scale industry. We argue that industrialists preferred self-serving liberal policies and were able to coordinate on suitable MPs when vote inequality was high.

Keywords: Inequality, Political Economy, Three-class Franchise, Elites, Prussia
JEL Classification: D72, N43, N93, P26

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1 Introduction

Economic development is strongly influenced by the institutional framework (see, e.g., North, 1991). Suffrage institutions historically excluded large parts of society from political influence and arguably affected long-run development through biased tax systems and public goods provision (Engerman and Sokoloff, 2005). Concentration of political power in the hands of a small economic elite alongside a vast majority of the population without effective rights has been associated with the adoption of policies that mainly benefit the elite (Acemoglu et al., 2001, 2002).

On the eve of WWI, Prussia was the last major country in the industrialized world to maintain a franchise that was unequal, non-secret, and indirect. Since 1850, members of the Prussian parliament were elected under the so-called three-class franchise system, which translated tax payments into voting weights. Voters were grouped into three classes (*Abteilungen*) by total direct taxes paid. Each of the three classes represented one third of the total direct tax revenue and received the same number of votes. Classes were filled with voters ranked according to their tax payments, starting from the highest, adding taxpayers until one third of the total tax base was reached, thereby allocating less than 5% of voters into the first class, on average.

By providing economic elites, i.e. the landed nobility and industrialists, with more voting power, the system arguably produced policies tailored to fit this electorate (see Gerschenkron, 1966).[1] German economic historians widely agree that the franchise system was designed to "generate Conservative votes",[2] and thereby produced (socio-) economic policies favored by agrarian elites (see, e.g. Nipperdey, 1992, p. 86 and Burhop, 2011, p. 23). Kühne (1994a, p. 25) stresses that the system was "the bulwark of reactionary Prussianism par excellence."[3] Several attempts to introduce an equal voting system were blocked by MPs representing voting districts were the landed elite was concentrated (Ziblatt, 2008). Despite this univocal assessment, the question whether the unequal distribution of voting rights in Prussia indeed produced conservative policies is ultimately an empirical one and has not been answered thus far.

Our paper fills this gap and investigates whether the three class franchise contributed to the adoption of conservative (socio-)economic policies by the Prussian parliament. Using newly digitized data from Prussian parliamentary minutes and voting censuses, we estimate the relationship between vote inequality across electoral constituencies

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[1]For example, Hallerberg (2002) argues that the electoral system was set up in a way that allowed parliament to amend the tax code to reduce the burden for large landowners.

[2]See Geheimes Staatsarchiv, Preussischer Kulturbesitz, I HA Rep90 Staatsministerium St. M 9317, Berlin, May 7, 1849, as cited in Ziblatt (2008, p. 621).

[3]"[...] sein über zwei Generationen hinweg bis in den Weltkrieg hinein währender Bestand machte aus ihm *das* Bollwerk des reaktionären Preußentums schlechthin und gab dem Hegemonialstaat des Deutschen Reichs eine im nationalen wie im internationalen Vergleich einzigartige Ausnahmestellung."

and the political orientation of MPs. Our analysis of political orientation is based on all 329 roll call votes (RCVs) that took place in a period of more than 35 years during 1867–1903 (i.e. election periods 10 to 19).[4] This dataset allows us to capture the political economy during a period that is characterized by the industrialization of the economy and the secularization of society in Prussia and the German Empire more broadly.[5] Our research design allows us to analyze econometrically whether Prussia's three-class voting system systematically favored the adoption of certain types of (socio-)economic policies.

We find that MPs from constituencies with higher inequality, i.e., where a small number of affluent voters holds a large share of the political power, vote significantly more for *liberal* policies. We first show that a higher vote inequality is associated with a higher probability to vote for liberal positions in a selection of RCVs about taxation and public goods provision that had important implications for the Prussian economy. In our main analysis, where we use the universe of RCVs, we then relate vote inequality to an aggregate measure of MP-level political orientation and show that higher vote inequality is significantly associated with a more liberal orientation. While the three-class franchise may have resulted in a conservative parliament on average, our econometric evidence suggests that, *within* the Prussian parliament, vote inequality did not bias voting behavior of MPs into a conservative direction.

The results are robust to the inclusion of a sizable set of constituency-level control variables capturing regional development and thereby the political preferences of the median citizen. The set of controls includes a measure of landownership inequality, which itself generates more conservative voting. Complementing the analysis with biographical information for all MPs, we also inspect whether voting was biased toward MPs' personal agendas, potentially reflecting elite preferences. The inclusion of both sets of variables does not change our main qualitative findings. Furthermore, although we find that party affiliation naturally captures a lot of the variation in political orientation of MPs, there is sufficient within-party variation in political orientation so that our main results hold conditional on party fixed effects.[6]

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[4]The starting point is chosen because in January 1867 Prussia reached its maximum extension after incorporating Schleswig-Holstein. The choice of the end year is due to the fact that, from election period 20, there was a change in the procedure to elect MPs, and in 1906 a range of constituencies were split.

[5]The period coincides with the transition from agriculture to industry (see, e.g., Becker et al., 2011), the move from liberalism to protectionism (see, e.g., Lehmann, 2010b), the secularization of society (see, e.g., Becker and Woessmann, 2013; Becker et al., 2017), the introduction of a welfare state (see, e.g., Bauernschuster et al., forthcoming; Lehmann-Hasemeyer and Streb, 2017), and the demographic transition (see, e.g., Becker et al., 2010).

[6]Our main specification pools the voting behavior of MPs over election periods. Shifting majorities and the famous conservative turn in German politics during the 1880s may raise the concern that our results are driven by votes cast during the liberal period until 1880. Thus, we estimate the relationship of interest by election period to examine changes over time. Consistent with the notion of a largely stable policy arena during the entire period, results show substantial stability over time. Major economic changes that took place during the period seem to be not reflected in the political economy of voting in the Prussian Parliament.

To rationalize our results, we argue that the elite prefers policies which are in their own interest. Among the elite, large landowners prefer conservative policies that maintain their social and economic status whereas large industrialists prefer liberal policies that allow them to reap the benefits of increasing economic activity in the industrial sector. The rise of large-scale industry in late 19th-century Prussia increased earnings and tax contributions of industrialists. This development resulted in a stronger income dispersion and therefore in higher vote inequality in industrial regions than in agricultural regions where the income of landowners remained largely unchanged (Kuznets, 1955). As a consequence, the highly unequal distribution of individuals across voting classes in industrial regions, created a small and homogeneous first class in which industrial elites could coordinate on MPs who supported liberal policies. Indeed, we provide evidence that vote inequality is associated with more liberal MPs only in regions with a high share of large industrial firms.

To measure political orientation of MPs, we digitized the universe of RCVs from the Prussian House of Representatives in the period 1867-1903. We use Poole's (2000) optimal classification (OC) method to compute 'ideal points' that locate more than 1,900 MPs in a multi-dimensional policy space according to their voting behavior in multiple RCVs across election periods. We discuss details of the method below, but would like to note here that the OC method resembles a factor analysis and follows a standard approach to gauge political preferences, summarized by Clinton (2012), that is used by political scientists but also by economists and economic historians.[7] The agnostic OC algorithm correctly predicts ca. 95% of MP voting behavior using a two-dimensional policy space. Based on knowledge about historical party platforms, we interpret these dimensions to reflect an economic "liberal-conservative" and a cultural "secular-religious" orientation. In the main econometric analysis, we separately regress each of the two ideal-point coordinates on our measure of vote inequality, which is a Gini coefficient computed from data on the constituency-level distribution of voters across the three voting classes.

We expect only the "liberal-conservative" dimension to be influenced by vote inequality and use the "secular-religious" dimension in a placebo test, because we do not expect it to respond to vote inequality. Conflicts between Protestants and Catholics that culminated in the secularist policies of the *Kulturkampf* ('culture struggle') era in the 1870s transcended class structures and should not be reflected in the distribution of voting power. Indeed, we find that vote inequality does not predict for which type of cultural policies MPs vote. Instead, the cultural orientation of MPs can almost exclusively be explained by the religious and ethnic heterogeneity of the electoral constituencies.

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[7]The OC procedure is related to the W-NOMINATE method (for applications in this journal, see Heckelman and Dougherty, 2013 or Perlman and Sprick Schuster, 2016), but is more adequate for multi-party systems like the Prussian one.

We aim to mitigate endogeneity concerns in the relationship between political orientation and vote inequality using the share of voters in the first class as an instrumental variable. The allocation of voters to the first class reflects a *local* threshold between terciles of the tax base that are arbitrary from a national perspective, as we will explain in more detail below. In locations with a large number of high income earners, voters with high incomes are more likely to be allocated to lower classes than elsewhere. After conditioning on average tax payments, the remaining variation thus reflects arbitrary differences in the number of voters in the first class across districts. Resulting IV estimates confirm the link between vote inequality and liberal orientation.

Our findings are in line with a recent literature debating the role of elites in the process of modernization and democratization. This literature presents results that are broadly consistent with the idea that elites prefer 'liberal' policies if in their own interest.[8] For example Ashraf et al. (2017) argue that capital-owning elites in industrializing Prussia granted more freedom to the masses to incentivize their labor effort. In Tsarist Russia, liberal nobles cooperated with the peasantry to expand public goods provision (see Nafziger, 2011). In 19th-century Sweden, a suffrage reform shifted voting power from landed elites to industrialists, resulting in higher investments in railways and structural change (see Hinnerich et al., 2017). In Revolutionary France, the enlightened elite supported more 'liberal' education policies (see Squicciarini and Voigtländer, 2016).

We also contribute to a large literature that uses RCVs to study the orientation of historical parliaments (see e.g. Schonhardt-Bailey, 1998; Rosenthal and Voeten, 2004; Heckelman and Dougherty, 2013). We are not aware of work that systematically analyzes RCVs from the Prussian House of Representatives. However, inspecting a period that strongly overlaps with ours, Häge (2018) provides a descriptive analysis of the policy space across different Reichstag legislatures during the Bismarck era in the German Empire.[9] While their orientation shows similarities, the two parliaments differ in their franchise system. Thus, discrepancies in dimensionality and party affiliation maybe the outcome of a fundamentally different political process. In addition, our paper focuses on explaining rather than describing the orientation of parliament.

Earlier work that tried to explain voting behavior in the Prussian House of Representatives has typically focused on selected RCVs debating important issues. Ziblatt (2008) analyzed one RCV seeking to abolish the three-class franchise in 1912 and finds higher landownership inequality but not income inequality to be associated with voting in favor

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[8]The competing hypothesis holds that elites adopt policies in favor of the lower classes because of a prevailing threat of revolution by the masses (see Acemoglu and Robinson, 2000; Aidt and Franck, 2015). On the other hand, Aidt and Jensen (2017) argues that the introduction of the secret ballot in the U.S. and Europe came as a byproduct of the process of modernization due to the decline of social control and vote buying.

[9]The dimensionalities of the Reichstag during the later Weimar period and the earlier Frankfurt National Assembly are depicted by Hansen and Debus (2012) and Herrmann and Sieberer (forthcoming), respectively.

of preserving the three-class system.[10] Mares and Queralt (2014) analyze one RCV on the introduction of a Prussian income tax system in 1891, showing that higher landownership inequality is associated with voting for the adoption of an income tax that disproportionately burdened the industrialists.[11]

We go beyond previous work by using the universe of RCVs in the Prussian House of Representatives during 1867-1903, allowing us to characterize the political economy of Prussia in this crucial period of economic development.

The remainder of the paper is structured as follows. Section 2 elaborates on the institutional context of the Prussian three-class franchise, roll call voting in parliament, and the political landscape. In Section 3, we derive a conceptual framework to explain our main findings. Section 4 introduces the regression framework and the data which we use to estimate the relationship between vote inequality and political orientation. Section 5 introduces our measure of political orientation based on Poole's (2000) optimal classification method and its application to the Prussian House of Representatives. Section 6 presents the results and our interpretation. Section 7 concludes.

2   Historical context

In 1848/49, Prussia introduced a bicameral parliament, with an appointed House of Lords (*Herrenhaus*) and an elected House of Representatives (*Abgeordnetenhaus*). The constitution, imposed by the King, stipulated that the lower chamber was elected by male citizens aged 24 or older who had paid taxes in the preceding year. Voters were allocated to three classes reflecting terciles of the total direct tax base. Votes were effectively weighted in proportion to payments of direct taxes (class-tax, classified income tax, real estate and property tax, and business tax): the upper tercile of tax payments had as many votes as the middle tercile and the lower tercile. On average, first-class voters had about 17.5 times the number of votes of third-class voters, obscuring even stronger inequality at the local ward (*Urwahlbezirk*) level. In the extreme, a single taxpayer who paid a third or more of direct taxes in a ward would have as many votes as all of the taxpayers in the lower tercile combined.[12]

The thresholds for allocating voters into the three classes according to their tax

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[10]Lehmann-Hasemeyer et al. (2014) show that the Berlin Stock Exchange reacted negatively to the extension of the franchise in Saxony in 1896 and 1909.

[11]Debus and Hansen (2014) use several Weimar Republic roll calls to study the voting behavior of women in parliament. Lehmann (2010a) analyzes several RCVs from the Reichstag during the Weimar Republic to analyze how coalitions formed between MPs of different parties.

[12]The most prominent example was the industrialist Alfred Krupp who was the only voter in the first class in his ward. However, the pattern can also be found in rural wards where the income distribution was dominated by a local noble estate owner.

payments were determined at the municipality level.[13] Municipalities with more than 1,750 inhabitants were subdivided into wards but maintained the municipality-level tax thresholds. The mayor was responsible for the division into wards, frequently leading to gerrymandering (Kühne, 1994a; Richter, 2017). In cases where social stratification led to sorting into city quarters, the first and second class remained unpopulated in poorer wards, whereas the first class was populated by many voters in richer wards, reducing individual voting power in wealthy city quarters.[14]

Elections proceeded in two stages: in stage one, the primary elections (*Urwahlen*), voters elected electoral delegates (*Wahlmänner*). In stage two, the electoral delegates elected the members of the House of Representatives. Stage one was voting by a show of hands, i.e. non-secret, and took place at the level of wards.[15] Each class in a ward elected the same number of delegates, ranging between 3 and 6 per ward, one per 250 inhabitants (according to the last census). At the second stage, electoral delegates from all wards in an electoral constituency met to elect between one and three MPs, depending on its population size. Electoral constituencies comprised at least one, but typically several (administrative) counties (*Kreise*). Put differently, the approximately 500 Prussian counties are nested in 252 electoral constituencies, allowing us to map aggregated county-level census data to MPs representing these constituencies.[16] The three-class franchise was frequently disputed but persisted in parallel with the equal voting system of the Imperial Diet, the Reichstag, until 1913.

2.1 Roll call voting

The Prussian constitution of 1850 stipulates in article 64 that the King and each of the chambers have the right to introduce bills. In the House of Representatives, legislative proposals can be introduced by the President of the chamber or by groups of at least 10 MPs. Proposals introduced by the King or the other chamber are voted on by absolute

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[13]In cases when several smaller municipalities were combined into one ward, thresholds were determined at the ward level.

[14]The tax reform of 1891 and the subsequent voting reform for the 1893 election introduced classification of voters according to ward-level thresholds. This led to the arbitrary upgrading of low income voters into the first and second class in poor quarters and downgrading of high income voters into the second and third class in wealthy quarters. According to the most prominent example, the Chancellor of the German Empire, Bernhard von Bülow, was required to vote in the third class in 1903, because he lived in the Reich Chancellery which was located within the ward with the highest tax base in Berlin.

[15]Because voting in primary elections was not secret, voters in the upper tercile, who often were employers of those in the lower terciles, held coercive power. Thus, even if we had information on voting behavior by the third class in primary elections, they would not necessarily reveal true preferences. Intimidating behavior by industrial employers, rural landlords, and public officials has been documented for elections to other contemporary German parliaments including the Reichstag and the Prussian House of Representatives (see Kühne, 1994a; Mares, 2015; Ziblatt, 2009).

[16]Unfortunately, since MPs do not represent a county, we cannot match MPs to specific counties, even though our data is available at this level.

majority. To vote, the majority of members of a chamber must be present. To adopt a law, all three sides (King and both chambers) must agree, so they are fully equal in the legislative process.

Voting in the House of Representatives took several forms. When the majority on an issue was clear-cut, a count based on standing or sitting MPs established the result. RCVs were triggered in one of two ways: first, upon request of at least 50 MPs (see Plate, 1903, p. 187; §61 GO). Second, with a majority of less than 15 votes, a roll call could be requested without further support/signatures (see Plate, 1903, p. 187; §58 GO). From 13th February 1875, roll call votes were replaced by a division of the assembly (*Hammelsprung*).[17] This reform likely explains why the number of roll call votes declined after 1875 (see Table B.1). The absolute majority decided on all votes. Abstentions were typically not included in the calculation of the majority.[18]

Since RCVs were only called on close and/or contentious issues, they are likely to be quite selective (see Carrubba et al., 2006). This has advantages and disadvantages: RCVs are associated with highly important issues, which is a clear upside for our analysis. On the other hand, party cohesion is likely to be higher in RCVs (see Yordanova and Mühlböck, 2015). This implies that if we could observe all votes in parliament, the actual variation in political orientation across MPs would likely be larger than what we observe using only RCVs. Against this backdrop, the fact that we do find substantial variation in political orientation, above and beyond what is predicted by party membership, is striking and makes us confident that we are measuring relevant information.

2.2 The political landscape

The Prussian party landscape stabilized during the early periods of our analysis. Political fractions and parties formed during the 1860s, and gained relevance after the German Reichstag was established in 1871.

Drawing on biographical information from Kühne (1994b), we report the party affiliation of MPs in Table 1.[19] The table depicts an aggregate number of 3,658 MP-by-period observations of party affiliation between 1867 and 1903. A range of smaller factions were represented in parliament. We classify members of smaller factions into larger party groups as indicated in columns 2 and 3. This leaves us with six main parties which were active

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[17]In the German context, MPs would (re-)enter the House via different doors to facilitate counting.

[18]In our analysis period, there were 4 exceptional cases where abstentions were, however, included in the count (Plate, 1903, p. 180).

[19]In some cases when party affiliation was uncertain, we used the most likely party affiliation given in Kühne (1994b). In cases of changes in party affiliation *within* a legislature, we use the initial party affiliation. Party changes within legislature are extremely rare and affect well below 1% of MPs. In the pooled analysis, in cases when MPs changed party affiliations *between* legislatures, we assigned the party for which the most roll call votes were cast.

during our period of analysis (and the residual category 'Other' is mainly populated by liberal MPs).

Parties and their members strongly overlap with the German Reichstag.[20] Platforms covered a spectrum of left and right wing policies. However, due to the inequalities embedded in the franchise system, platforms addressing social issues and redistribution such as the Socialist Workers' Party did not manage to obtain any seats in parliament until 1908.[21] Parties are clearly distinguishable in their religious views as well as in their support of the Imperial Government, in particular the political agenda of chancellor Otto von Bismarck (see Treue, 1975).

K Conservatives: nobility-dominated group of Protestants representing agrarian interests. Divided over the *Kulturkampf* in the 1870s and supported Bismarck's return to protectionism in the 1880s.

R Free Conservatives: Protestant conservatives representing industrial interests. Consistent supporters of Bismarck's policies.

N National Liberals: represent urban interests of burghers and businessmen. Supported the *Kulturkampf*, ideas of economic liberalization, and free trade. Shifted to supporting industrial tariffs, agrarian protectionism, and guild protection from 1885.

F Left Liberals: members of the German Progress Party (*Deutsche Fortschrittspartei*) and its spin-offs and successors. Supported democracy, equality before the law, economic liberalism, and secularization during the early *Kulturkampf* but opposed Bismarck and large government.

Z Centre Party: represents position of Catholic Church and Catholic population, especially in western Prussia. Opposed secularization in the *Kulturkampf* but did not develop a comprehensive program beyond religious issues.

M Minorities: Catholic Polish MPs from Slavic regions often aligned with the Centre Party, Protestant Danish MPs from Schleswig and Guelph MPs from Hanover opposed the government and the *Kulturkampf*.

For a more detailed summary of party platforms, see Appendix 2.2. For a summary of key debates that provides further context to the political landscape of the period, see Appendix B.2 and especially Table B.2.

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[20]More than 30% of Prussian MPs were members of both parliaments at some point in time. Concerns that MPs who belonged to both parliaments were systematically different can be addressed with a dummy variable for dual membership. In unreported regressions, we find that adding such a control variable does not change our results.

[21]In that sense, the Prussian Parliament as a whole was a conservative one. But as argued before, our interest is in the link between vote inequality and political orientation *within* the three-class franchise.

3   Conceptual framework

To better understand how vote inequality affects the political orientation of MPs, this section discusses the determinants of variation in vote inequality. The three class franchise was created at a time when industrialization was still in its infancy and income inequality was relatively low. In the absence of large-scale industry, large landowners paid a sufficient amount of taxes to populate the first two classes, despite the fact that they enjoyed a range of tax exemptions and paid little taxes on land—their main source of income. Due to the rapid rise of large-scale industry in the second half of the century, industrialists started to obtain high returns to capital investment and incurred an increasing share of the total tax base. In industrializing regions, this development lifted the new industrial elites into the first two classes, where they crowded out parts of the traditional elites. Thus, the rise of industry created an unforeseen regional concentration of high incomes and thereby a higher level of vote inequality in industrializing regions while vote inequality in agricultural regions was less affected. This description is in line with the developments observed by Kuznets (1955) who also relied on Prussian income data (also see Grant, 2002).

Under the assumption that owners of large firms favor liberal policies that allow them to explore economic opportunities, the new concentration of industrialists at the top of the income distribution led to the creation of a small first (and likely second) class with liberal preferences. Furthermore, under the assumption that landowners favor policies that protect their (socio-)economic status, in rural regions with little competition over entry into the upper classes, political preferences in the first and second class remained conservative. Next to these polar cases, the growth of industry in agricultural regions may have increased heterogeneity in political preferences and thereby resulted in coordination issues within the first class leading to the election of less conservative MPs. These plausible assumptions can explain how variation in vote inequality arose and why higher vote inequality may be associated with the election of more liberal MPs, especially in districts with large-scale industry.[22]

The assumption that industrial elites prefer liberal policies is supported by the fact that, among the three types of liberties—individual, economic and political—liberal parties in late 19th-century Prussia are most strongly associated with economic liberalism (see Mork, 1971). Parties self-identifying as 'liberal' in their name propagated liberal economic policies, stressed the need for (domestic) competition, and supported the separation of church and state. Considering the dynamism of Prussia's second phase of industrialization

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[22]The famous 'Marriage of Iron and Rye' according to which industrial elites and large landowners in the German Empire agreed on the introduction of protectionist tariffs in 1879 shows that industrialists may not exclusively prefer conservative policies and form a coalition with the landed elite whenever beneficial (see Schonhardt-Bailey, 1998; Lehmann, 2010b). Note, however, that this describes a coalition in the German Reichstag with its equal voting system, and not in the Prussian Parliament.

(see Becker et al., 2011), we expect industrialists to be particularly keen to grasp arising economic opportunities. On the other hand, higher levels of landownership concentration may reflect higher demand for social control due to a higher risk of expropriation for the elite (Weber, 1917; de Tocqueville, 1856). Since landowners rely on an immobile factor of production, they prefer conservative policies that sustain inequality (Acemoglu and Robinson, 2000; Boix, 2003). As shown by Ziblatt (2008), MPs from Prussian regions with higher landownership inequality voted to preserve the three-class franchise. Our empirical results, derived from RCVs, will indeed show that MPs belonging to liberal and conservative parties are systematically sorted over a spectrum of voting behaviors from liberal to conservative.[23]

The assumption that a stronger concentration of elites in the first class facilitates co-ordination on a suitable MP is supported by qualitative evidence about the functioning of the two-stage election system. First, contemporary sources suggest that electoral delegates often served multiple times in a row and gained some importance as *de facto* "electoral delegate patricians" (see Kühne, 1994a, p. 52).[24] A more concentrated economic elite will find it easier to influence electoral delegates,[25] and in extension local MPs.[26] Second, industrial elites were able to coordinate on candidates more easily because of higher population density and lower information costs in urban areas (see Kühne, 1994a, p. 51–52). In fact, urban areas had better infrastructure which made it more likely for urban elites to interact and to be able to meet electoral delegates and local MPs and thereby to influence their selection and roll call voting behavior. To the extent that urban elites are industrial elites, both of these mechanisms lead us to expect a stronger link between vote inequality and liberal voting in areas with industrial elites.[27]

Furthermore, during the second phase of industrialization, industrial elites may have formed a strategic coalition with the third class to support policies that are mutually beneficial for capitalists and workers (also see Galor and Moav, 2006; Doepke and Zilibotti, 2008; Llavador and Oxoby, 2005). Mutual benefits – e.g. from voting in favor of institutions that promote freedom of occupational choice and generate a more skilled labor force – cre-

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[23]This argument is by no means circular: liberal parties stress economically liberal policies in their party programs and their collective roll call voting behavior is consistent with these purported policy aims.

[24]The two-stage election process with electoral delegates resembles the US context. Interestingly, research for modern-day US finds, using measures of state party positions, that low-income preferences are under-represented already in parties' campaign appeals, i.e. at a very early stage in the policymaking process. This effect is more pronounced in states with greater economic inequality (see Rigby and Wright, 2013).

[25]This is supported by Kuehne who suggests that MPs regularly met with electoral delegates as intermediaries between the electorate and MPs.

[26]An additional contributing factor shown in modern-day cross- country data is that higher levels of income inequality depress political interest and participation in elections among all but the most affluent citizens (Solt, 2008). This is not the case in our Prussian data, where there is no statistically significant link between vote inequality and turnout of the third class.

[27]It is also interesting to note that liberal parties have higher shares of MPs that are industrialists, as we discuss in Section 4.2.

ate a strategic complementary between the first and third classes at the cost of conservative voters. Such a complementary between capital and labor likely matters more for owners of large firms that particularly benefit from division of labor between specialized workers.

4 Model and data

To estimate the relationship between the political orientation of MPs and the vote inequality in their electoral constituency, we generate a dataset in which the unit of observation is an MP, or more precisely, MP-by-constituency. The reason for the subtle distinction is that a small number of MPs (104 cases) represent different constituencies over their career.[28] Our results are robust to dropping such MPs altogether and instead to only using MPs who represent the same district throughout all of their career.

We employ the following standard OLS framework:

$$\textbf{PolId}_{ic} = \alpha + \beta \, \textbf{VoteIneq}_c + \gamma \, \mathbf{X}'_c + \zeta \, \mathbf{Z}'_i + \epsilon_{ic} \tag{1}$$

where $PolId_{ic}$ constitutes a measure of political orientation of an MP i in constituency c. The political orientation of an MP will be measured in two ways: a) using the 'yea/nay' vote of a single RCV or b) using aggregate scores derived using the optimal classification algorithm described in Section 5 that locates the voting behavior of MPs across all RCVs into a multi-dimensional policy space. Our main analysis will be based upon the two scores that constitute the ideal points of each MP in policy space.[29] $VoteIneq_c$ is our measure of vote inequality, calculated from the distribution of voters across the three classes. $\mathbf{X}'_c$ is a vector of constituency-level characteristics, $\mathbf{Z}'_i$ is a vector of individual-level MP characteristics.

Constituency-level control variables include standard measures of (land-ownership) inequality and development as used in the literature (see below). These can be aggregated from county level data. Characteristics varying at the level of individual MPs are personal characteristics, such as age, religion and occupation, but also electoral turnout and margin of victory in the election in which the MP was elected, and party affiliation. The latter is not a regressor like any other: by virtue of parties' ability to draw like-minded representatives

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[28]MPs switching constituencies throughout their career may be a highly selected group that strategically ran in various electoral constituencies. In (unreported) regressions we find their voting behavior to not respond to local constituency characteristics.

[29]When simply swapping the two scores as dependent variables, we assume that the standard errors are uncorrelated across equations. In fact, since the correlation between the two dimensions is approximately 2%, this seems reasonable. However, using the potentially more efficient seemingly unrelated regression (SUR) method that allows standard errors to be correlated, we find very similar results.

to stand for them, we expect party dummies to absorb a substantial part of the variation in OC scores.

4.1 Constituency characteristics

Table A.1 in Appendix A presents summary statistics for the constituency-level variables. Most variables are drawn from county-level data provided by Galloway (2007) and iPEHD (Becker et al., 2014). As constituencies combine up to three individual counties, we aggregate county level data to the constituency level.

Figure 2 depicts the spatial variation in vote inequality with darker colors reflecting higher inequality. Vote inequality is a Gini coefficient calculated from newly digitized county-level distribution of voters across the three classes.[30] Using the fact that each class contributed exactly one third to the tax base, we calculate the Gini coefficient based on the number of voters in each class. Notice that vote inequality assigns the same power to each voter in the same class so that we do require information about the complete tax contributions in a constituency.[31] Our main analysis will use the distribution of voters across classes from the election of 1893 reported in Königlich Preußisches Statistisches Bureau (1864–1905, vol. 17), the first time such data was published for Prussia in its post-1866 borders.[32]

Following the literature (Lehmann, 2010b; Mares and Queralt, 2014; Ziblatt, 2008), we include a set of standard explanatory variables for MP voting behavior in the Prussian House of Representatives in our vector of constituency characteristics. To compare the impact of vote inequality with other forms of inequality, we include landownership inequality as a measure of immobile wealth inequality in our estimations.[33] We expect this variable to correspond to a more conservative orientation. Other control variables include the industrial employment share, the urbanization rate, the share of Protestants, the linguistic fractionalization, the share of the population that lives in their municipality of birth, as well as the literacy rate to capture heterogeneity in the available stock of human capital.[34] These indicators measure differences in development, cultural heterogeneity, and structural differences across regions.

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[30]We aggregate county-level data to the constituency-level before calculating the Gini.

[31]Different from a measure of income inequality, vote inequality ignores within-class variation in income. Most likely vote inequality is correlated with income inequality because variation between income groups is a substantial part of the overall variation in incomes. Since this paper is interested in the franchise system, we use the vote inequality Gini that exactly captures the different degree of representation enjoyed by the three classes.

[32]Our analysis will also test robustness of the results using the distribution of voters across classes from the election of 1861. These data are less prone to potential reverse causality but are unavailable for the new provinces annexed by Prussia after 1866, i.e. we lose more than 350 MPs.

[33]The correlation between vote inequality and landownership inequality is approximately 69%.

[34]For further information see Appendix A.

The period under analysis is a critical juncture in the transition from agriculture to industry. At the beginning of the period, slightly less than half of the population was based in agriculture. At the end, agricultural employment made up merely one third of the labor force. However, these structural changes may be an outcome of the political process and therefore prone to concerns of reverse causality. Thus, in our regressions we include variables that are measured closest to the starting point of our analysis in 1867.[35]

If an MP represents the average individual in his constituency, we expect local conditions to explain a large part of the variation of MPs' voting behavior. However, if MPs represent the local elite but also act in their own interest, individual characteristics may explain a lot of the variation. We can probe this by also controlling for MP characteristics.

4.2 MP characteristics

Tables A.2 and A.3 in Appendix A present summary statistics of MP characteristics drawn from Kühne (1994b) in the pooled sample and across election periods. These can be broadly divided into biographic characteristics and political characteristics.

Biographic characteristics of MPs

MP characteristics include the occupation of an MP as reported in the parliamentary minutes. We coded occupations to match the following six categories: public administration, clergy, industry, agriculture, education, and services.[36] Roughly one-third (789) of the MPs in the (pooled) data set report agriculture, i.e., landownership, as their main occupation. Landowners have a higher probability of being affiliated with conservative parties.[37] On the other hand, industrialists predominantly select into liberal parties.[38] However, MPs are twice as likely to report an industrial occupation over time, reflecting structural change during this period of rapid industrialization.

The denominational distribution of MPs roughly reflects the distribution within the population. In 1880, the population of the average Prussian constituency was composed of 67.2% Protestants, 31.4% Catholics, and 1.1% Jews. Protestants are slightly over-represented in parliament, while Catholics and Jews are slightly under-represented.[39] Two thirds of the

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[35]Using initial differences excludes some (but not all) of the most pressing endogeneity concerns, which is why in Table D.1 in the Appendix, we show that results also hold in the smaller sample of Prussia in its pre-1867 borders, where we can use control variables from the censuses in 1849 and 1861.

[36]Note that MPs might have multiple occupations and can be captured in several categories.

[37]Within the Conservative party ca. 55% of the MPs are landowners; 38% of the Free Conservatives are landowners, but only 21% of National Liberals and 24% of Left Liberals report such an occupation.

[38]Left Liberals: 19%, National Liberals: 18%, Other Liberals: 15%, Conservatives 3%, Free Conservatives: 8%, Centre Party: 9%.

[39]This pattern remains largely stable over time, once MPs from the early election periods, where denomination is often unknown, drop out of parliament.

Catholic MPs are affiliated with the Centre party and the Polish minority party. We expect them to lean towards policies that support a strong position of the church.

Additional attributes that are available from MP biographies include nobility status, academic titles, residence in the electoral constituency, and retirement status.[40]

Political characteristics of MPs

Four variables broadly account for the political characteristics of MPs and their relationship with their constituency. RCV participation measures the share of the total RCVs in a period the MP participated in. This variable may be related to both representation and political orientation. Electoral margin arguably captures the strength of the mandate and whether the MP seat was strongly contested. The literature (see e.g. Fowler, 2005; Fowler and Smirnov, 2005) argues that MPs are more likely to enforce extreme versions of their political agenda if the margin of victory is large. Table A.3 in the Appendix shows an increasing average margin across periods, reflecting incumbency effects and an increasingly static policy arena around the turn of the century.

Electoral turnout is argued to increase in the level of representation across electoral systems and thus may affect our estimates (see, e.g. Jackman, 1987). Importantly, our turnout measure reflects participation of electoral delegates (*Wahlmänner*) in the second stage of the electoral process and not the turnout of voters in the primary elections (*Urwahl*).[41] The number of MPs reflects so-called multi-member constituencies that have been argued to foster electoral competition and broader coalition building, leading to more redistributive policies (Persson and Tabellini, 2004).

5   Measuring political orientation using Optimal Classification

To understand whether the franchise biased parliamentary voting patterns, we inspect MPs' overall voting behavior instead of voting in single roll calls or changes in voting behavior over time.[42] This requires us to classify all votes into categories that reflect a political orientation. Manually classifying votes from 329 roll calls into liberal and conservative (or

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[40]The variable 'noble title' is unity if the affix of an MP includes the term *Freiherr, Graf, Baron, Edler Herr, Prinz, von, vom, am, aus dem, de, du, van*, or *zur*. The variable 'academic title' is unity if the title of an MP includes the term *Dr.* or *Dipl. Ing.*

[41]The turnout in this second stage is about 90% on average and remains stable across periods. For the smaller sample of constituencies in the pre-1867 borders, we also have information on the turnout in the primary elections by class. As expected, turnout increases in the level of representation (first class: 57%, second class 44%, third class 24%. However, neither of these measures is significantly related to political orientation.

[42]Since the franchise system was not subject to change during our period under investigation, we do not expect major changes in voting behavior over time. Neither procedural rules on roll call voting nor on plenary agenda setting experienced fundamental changes during the period.

into secular and religious) leanings is a task that would be prone to many arbitrary decisions.

Simply reading minutes of parliamentary debates preceding RCVs, we could gain a nuanced impression of speakers positions but still incorrectly classify MP positions because debates do not reveal underlying rationales of voting choices. Furthermore, classification requires the strong assumption that all MPs perceive the political dimension underlying a vote in the same way. Even a selected subset of RCVs may lead to erroneous classification. Suppose we selected a set of RCVs that evolve around secular-religious motives during the *Kulturkampf*, including a vote on a bill that exempts priests from punishment for reading mass and administering the sacrament. It will be hard for us to classify whether an MP's vote is motivated by his allegiance to the Pope, his support of Bismarck, or his liberal orientation that rejects state intervention. Votes may indeed reflect multiple motives and dimensions that are obscured. Manually determining how to code 'yea' or 'nay' votes in any RCV requires us to make assumptions about the position of all MPs relative to the matter.

To avoid the pitfalls of 'manual' classification, political science has developed scaling methods that are widely used in the analysis of parliamentary voting. In our main approach, we follow this literature and analyze RCVs using the non-parametric optimal classification (OC) method introduced by Poole (2000).[43] Similar to a principal component analysis, the OC method extracts one or more latent variables from the votes that are fed into the algorithm. This approach is superior to a researcher's classification because decisions will not be biased by prior knowledge (and interpretation) of the content of the RCVs or the party affiliation of MPs. The algorithm does not rely on an ex ante classification but will allow an ex post interpretation of the latent dimensions it uncovers.

OC is a non-parametric scaling procedure that classifies a matrix of yea and nay votes.[44] After generating an 'agreement matrix' between MPs, the algorithm extracts coordinates that locate MPs within a policy space using a pre-specified number of dimension. For simplicity, suppose that voting in parliament is exclusively driven by one dimension – liberal or conservative motives. The OC method interprets votes of MPs as revealed preferences from a choice between a proposed policy and the status quo. The underlying assumptions are that legislators have Euclidean preferences defined over the policy space and that they vote sincerely for the alternative closest to their 'ideal point'.[45] Since neither

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[43]This methodology is related to the W-NOMINATE method that is frequently used in economics and has been adopted by the media when discussing the U.S. parliament. According to Rosenthal and Voeten (2004), the OC method is superior to parametric methods such as W-NOMINATE, when analyzing a multi-party setting such as ours.

[44]For a more technical discussion, see Poole (2000).

[45]In fact, following Hix and Noury (2016) we should call these 'revealed positions' rather than 'ideal points' to acknowledge that their position is not solely driven by personal preferences but also by institutional factors

the exact position of the proposed policy nor the status quo is known, we only observe two positions reflecting 'yea' or 'nay' votes. These two positions can be intersected by a cutting line separating groups of legislators with different positions. To illustrate this procedure, we discuss the policy space and the cutting lines for two selected RCVs in Appendix Section C. Using a larger number of RCVs allows to estimate MP positions more precisely due to varying distances between ideal points, proposal, and the status quo. The OC algorithm will produce a rank ordering of MPs and vectors of relative distances that constitute the latent dimensions.

5.1 OC results for the Prussian parliament

Our main analysis pools all 329 RCVs across ten election periods providing us with substantial variation in political orientation within parties. Each MP representing the same constituency during one or several election periods constitutes one observation, similar to the 'fixed career model' as described in Asmussen and Jo (2016). The various issues voted upon over this long period are likely such that party discipline cannot be always imposed, giving us substantial within-party variation in political orientation. Pooling across periods also reduces the impact of outliers, and the resulting ideal points are more likely to represent an unbiased measure of constituency-level policy preferences. Furthermore, some variation derives from the fact that MPs switched their party affiliation over time. We assign party affiliation based on the party for which an MP casts the highest number of votes. In an extension, we show that findings are qualitatively similar when inspecting election periods separately, thus allowing for party switching and relaxing restrictions on legislators' ability to move within the policy space.

We identified roll calls by working through the universe of parliamentary minutes. For all RCVs, minutes list the name of MPs and record 'yea' and 'nay' votes as well as abstentions and absence.[46] We coded these votes and matched MPs by name and period of activity to the Kühne (1994b) dataset that provides us with biographical information and constituency identifiers. The quality of the match was manually checked using all available historical sources.

Table 2 presents descriptive information generated when scaling the RCV data with the OC method for the ten election periods. The analysis is limited to legislators who voted

such as the electoral system. The Prussian parliament is akin to a presidential system in which the political leader (i.e. Bismarck) builds issue-by-issue coalitions. Consequently, in line with models of spatial voting behavior, we can assume that the Prussian parliament resembles a floor agenda model without restrictions to agenda setting (Hix and Noury, 2016).

[46]We are confident that we identified all RCVs in the period because the voting sequence of MPs systematically rotates over the alphabet restarting with the letter A after each election or recess. This procedure helped us ensure that we are not overlooking any RCVs. From 1883, RCVs are also listed in the index of the parliamentary minutes.

in at least 15 RCVs and excludes extremely lop-sided votes where the minority consisted of less than 2.5% of MPs. These criteria apply to 328 of the 329 RCVs and to 1903 of 2291 MPs, amounting to a total of 107,282 individual votes (58,540 yea and 48,742 nay).[47] Abstentions and absence during an RCV are coded as missing values. Similar to Häge (2018) who analyzes the Reichstag during the Bismarck era, we find abstentions to be rare (487 votes) but absenteeism to be substantial.

Table 2 also provides information on the correct classification of votes (columns 5 and 7), the Average Proportional Reduction in Error (APRE) (columns 6 and 8), and eigenvalues (columns 9 to 11) comparing a one-dimensional and a two-dimensional case. We correctly classify 89.4% of votes when assuming one dimension and can increase the accuracy of classification to 96% adding a second dimension in the pooled sample. Similarly, the two-dimensional approach substantially increases the correct prediction of votes in most of the individual election periods. Comparing APREs, we find that two-dimensional scaling substantially improves the error reduction by approximately 17 percentage points in the pooled sample and by more than 10 percentage points in all periods, except periods 10, 12, and 13. Similarly, eigenvalues fall off quickly in these periods suggesting that parliamentary debates during periods 10, 12, and 13 may be sufficiently described as developing alongside a single dimension, whereas all other periods are two-dimensional.[48] [49]

5.2 The policy space for the Prussian parliament

The graphical results of the optimal classification approach for our pooled dataset are presented in Figure 1a. Assuming a two-dimensional policy space, the OC procedure generates two coordinates that reveal the position of each MP within a unit circle, i.e. coordinates assume values between −1 and +1. Colors and letters indicate party membership as presented in Table 1. We find that MPs belonging to the same party are spatially clustered,

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[47]Changing the minimum vote requirements comes with a trade-off between the precise estimation of ideal points and the number of MPs who cast a sufficient number of votes. In one case, in election period 13, when only 15 RCVs took place, the number of MPs who participated in all 15 RCVs is too small to generate a meaningful policy space. Based on post-estimation inspections of the policy space for period 13, we reduce the minimum value to 12 votes, which provides sufficient information to grant the characteristic clustering of Prussian MPs into parties.

[48]Eigenvalues are computed on the basis of the so-called agreement matrix between representatives (in election period t), i.e. the square matrix where entry (i, j) is the fraction of roll call votes where representatives i and j vote the same way (in election period t). The faster the eigenvalues fall off, the stronger the evidence that only a small number of dimensions is required to describe systematic variation in voting patterns.

[49]Figure D.1 in the Appendix shows 11 corresponding "scree plots" following Cattell (1966). Figure D.2 in the Appendix shows the cutting lines for the pooled sample and by election period. The criss-crossing lines show how different roll calls bring together different groups of representatives on the Yea or Nay sides of the cutting lines. The angle of the crossing lines with respect to the horizontal axis gives us an indication of whether the issues voted on are more divided along the first dimension or along the second dimension. Another way to present the same information is by virtue of Figure D.3 in the Appendix which shows a histogram of cutting line angles in the pooled sample and by election period.

reflecting the fact parties are groups of like-minded representatives. Since the OC algorithm is agnostic about the spatial orientation of its output, we anchor the policy space using leaders of the Conservative and Centre parties.[50]

Using information about the political landscape in Prussia outlined in Section 2.2 we interpret these dimensions as a liberal-conservative and a secular-religious dimension, reflecting the main cleavages between parties in parliament. Even though parliament did not capture the full spectrum of political views (remember the absence of Social Democrats), it included parties advocating economic liberalism of the Manchester type and parties advocating conservative views with preferences for a strong monarchy and adherence to the feudal class structure. On the other hand, parliament included parties advocated conflicting views about secularization and preservation of the church's power.

To guarantee that the two dimensions and the corresponding MP-level positions exactly reflect liberal-conservative and secular-religious cleavages, we rotate the policy space to align the centroid of the Conservative Party with the horizontal axis and the centroid of the Centre Party with the vertical axis. Rotating the policy space does not affect the political orientation of MPs within parties or the relative position of MPs to each other. Instead, rotating the policy space is a common practice that eases comparison of parliaments across election periods, especially when positions of parties are well-known and do not vary substantially over time (see e.g Häge, 2018).[51]

After fixing the centroid of the Conservative Party to the horizontal axis, Figure 1b shows parties aligning along the liberal-conservative spectrum. Left Liberals (yellow F) and National Liberals (green N) are almost exclusively located in the western regions of this axis. Free Conservatives (grey R) and Conservatives (blue K) are positioned in the eastern part of the policy space. Members of the Centre Party (red Z) and of minority groups (brown M) are divided between liberal and conservative positions but many lean toward moderate conservative positions.

Furthermore, these MPs are almost exclusively located in the northern part of the policy space, opening up a second dimension. This resonates with the fact that the Centre Party is largely composed of Catholic MPs whose agenda was to defend the power of the

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[50]Our choice of the anchors in each dimension is guided by the research question (MPs standing for a certain 'orientation'), the length of tenure in parliament, and the number of votes cast in roll calls (for representativeness and stability of estimation). In the pooled analysis of all election periods from 1867 to 1903, we use one MP from the Conservative Party (Friedrich von Wedell-Malchow) to define a "conservative" orientation of the policy space, and one MP from the Centre Party (Ludwig Windthorst) to define the "religious" orientation of the policy space. In the election period-specific analysis, we use Wedell-Malchow and Windthorst for election periods 10 to 16, but for election periods 17 to 19 we use Friedrich Wilhelm Graf zu Limburg-Stirum as the "conservative" anchor and Clemens August Freiherr von Heereman von Zuydwyck as the "religious" anchor, because Wedell-Malchow and Windthorst died. All anchors were also members of the Reichstag.

[51]To compare dimensionality in the German Reichstag across election periods during the Bismarck era, Häge (2018) rotates the policy space to align the Conservative Party with the 45 degree line arguing that legislators held stable conservative positions in both dimensions.

Catholic Church during the *Kulturkampf*. To ensure that we indeed capture the secular-religious orientation, which will be used in a placebo test, we fix the centroid of the Centre Party to the vertical axis. Comparing Figures 1b and 1c, the policy space rotates only slightly. While Centre Party MPs exclusively locate on the religious side of the secular-religious axis, MPs from the National Liberals and Free Conservatives can be found in the secular southern region. However, since the Conservative Party was divided over secularization and orthodox-Protestant MPs sympathized with the position of the Centre Party, we find considerable variation across liberal and conservative parties. Similarly, while many free liberal MPs reveal positions that support secularization, we find the majority to be neutral in this dimension neither favoring church nor state involvement in matters of education and civil society.[52]

We confirm the graphical observations of a clear ranking of parties along the liberal-conservative spectrum in OLS regressions presented in column 1 of Table 3. Here, we regress MP's position in the liberal-conservative dimension on their party affiliation, using the Conservative Party as omitted category. The results thus depict the relative position of all other parties. As expected, the coefficient on Left Liberals reveals the largest distance to MPs from the Conservative Party, followed by the National Liberals. Similarly, in column 2, coefficients on Free Conservatives and National Liberals reveal the largest distance to the (omitted) Centre Party along the secular-religious dimension. As expected, the mostly Catholic and pro-religious members of minority parties hold positions that are closely aligned with the Centre Party in this dimension.[53]

To test their relationship with the franchise, the rotated ideal points serve as dependent variables in the regression framework described in Section 4.

6 Results and interpretation

This section presents results from regressions of the econometric model described in Section 4. We will first show results based on voting in selected RCVs, then results based on the ideal points derived from the OC method (displayed in Figure 1) using the full universe of RCVs across election periods 10-19 (1867–1903), and finally results based on ideal points generated for an election-period-specific analysis. In all specifications we cluster standard errors at the level of constituencies.[54]

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[52]To address the concern that the distribution of MPs across the policy space in the pooled sample is driven by specific periods that constitute outliers, we executed a 'jackknife' analysis, i.e. consecutively dropping each period to probe sensitivity. Results of this procedure are presented in Figure D.4 in the Appendix.

[53]Results are similar when comparing election periods over time. Corresponding policy spaces, regression results, and methodological considerations are described in Appendix B.3.

[54]Remember that standard errors barely change using seemingly unrelated regressions as the correlation between the residuals in the two dimensions is very low.

6.1 Results from selected RCVs

Before analyzing the effect of vote inequality on our aggregate measures of political orientation, it may be helpful to show that vote inequality affected voting behavior of MPs in specific, economically relevant roll calls. For this analysis, we selected five individual RCVs that could be unambiguously classified as liberal or conservative from four different legislative periods. Given the space limitations, we cannot provide a detailed summary of the parliamentary discussion surrounding each RCV. Note, however, that these roll calls are votes on important bills or amendments for which the divides in parliament became salient.

Table 4 presents estimates from a variant of the baseline model in Equation 1 that regresses a binary vote outcome (yea/nay) from a single roll call on a Gini index of vote inequality and other constituency-level control variables. Results reflect a linear probability model where vote inequality affects the probability to vote 'yea'. Despite the potential classification errors described in Section 5 above, we determine whether 'yea' is a conservative or liberal position, as indicated in the lower part of the table, by the fact that the majority of MPs from conservative or liberal parties voted for the position. Across all 5 roll calls, we find that MPs from districts with a higher vote inequality have a significantly higher probability of voting for the liberal position.

Column 1 shows results from a RCV about the charging of tuition fees. Article 25, sentence 3 of the Prussian constitution stipulated that public primary schooling was free of tuition fees. Since 1850 municipalities were required to finance schooling from local sources or taxation. In 1869, the King proposed a bill to revoke this sentence. The RCV was a vote on the King's bill.

Column 2 shows results from a RCV within the debate about a major administrative reform (*Kreisordnung*). The amendment to the bill, introduced by a liberal MP, proposed that the newly introduced role of a public official (*Amtshauptmann*) should be filled following a selection by the local administration instead of an appointment by the King. It is essentially a vote about centralization vs decentralization of power.

Column 3 shows results from a RCV about the nationalization of railroads. It is essentially a vote on section 1 of the bill introduced by the Trade Ministry that determined whether the state should buy railroad companies.

Column 4 shows results from a RCV in the context of the debate about the famous income tax reform of 1891 (see Hill, 1892). MPs voted on an amendment to section 16 of the bill regarding the taxation of income from investment in joint stock companies (e.g. dividends). This conservative amendment requested a 3.5 percent deduction whereas a competing liberal amendment requested a 4 percent deduction.

Column 5 shows results from a RCV on a proposal to construct the Dortmund-

Rhine segment of a canal connecting the rivers Rhine and Elbe, introduced by the Kaiser. Conservatives opposed the canal construction because it would be detrimental to agrarian interest and would foster the import of cheap grain from the United States.

The findings allow us to discuss a thought experiment, in which we can understand how policies would have changed, if vote inequality had been different (ceteris paribus). The results imply that when increasing vote inequality by one standard deviation (i.e., 0.039 Gini points), the probability of voting for the liberal position increases by 7 to 19 percent. In two out of five RCVs such a change in inequality would have tipped the balance towards adopting the more liberal policy, in two cases the liberal majority would have been even larger, and in one case the conservative majority would have been substantially reduced.

6.2   Results when pooling RCVs across all election periods

Tables 5 and 6 present results from two independent OLS regressions as given in Equation 1, using as dependent variables the ideal points that reflect the two dimensions.

The liberal-conservative dimension

Column 1 in Table 5 presents the most parsimonious model explaining liberal-conservative political orientation with two measures of inequality — vote inequality and landownership inequality. We find MPs from constituencies with a more unequal distribution of voters across classes to vote significantly more for liberal policies. In line with previous work, we also find MPs from constituencies with a more unequal distribution of landownership to have a more conservative orientation.

Subsequent columns add control variables that potentially affect the political orientation of MPs. By including them, we try to rule out that the effect of vote inequality is driven by economic development. Furthermore, we include several measures of cultural heterogeneity that are expected to correspond to secular-religious voting much more than liberal-conservative voting.[55]

Columns 2 and 3 add the industrial employment share and the urbanization share to capture structural differences in the economic development of regions. More industrialized and urbanized constituencies are expected to be more progressive and thus prefer more liberal politics. Both variables are negatively associated with political orientation -

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[55]While cultural factors such as religion and linguistic fractionalization are slow moving indicators that change only in the long run, development indicators such as urbanization and the size of the industrial sector can adjust more quickly and may therefore be endogenous to the political process. That being said, we are aware of the fact that some of our control variables are measured concurrent to political orientation and may be considered 'bad controls.' To address this issue, in Table D.1 in the Appendix, we show that results also hold in the smaller sample of Prussia in its pre-1867 borders, where we can use control variables from the censuses in 1849 and 1861, which pre-date our outcome variables.

i.e. predict that the local MP indeed supports more liberal policies. The coefficient on vote inequality is reduced but remains highly significant.

Columns 4-6 sequentially add the share of Protestants, the linguistic fractionalization, and the share of non-migrants to the model. Religious denomination and language heterogeneity pick up differences between the political orientation of Catholic regions in the West, the central Protestant regions, and the Slavic regions in the East. Since Protestant regions are more developed than Catholic regions, conditional on industrialization and urbanization, this variable may predict a more liberal orientation. Linguistic fractionalization is highest in the Slavic regions of Prussia that may oppose the national-conservative policies of Bismarck. A higher share of the population that lives in their municipality of birth is expected to reflect lower levels of openness and a more conservative orientation. However, these factors do not seem to play an important role in affecting liberal-conservative voting once a variable accounting for the literacy rate is included in column 7. The literacy rate is a significant predictor of conservative voting. This finding may be explained by the fact that conservative parties appealed to a more literate Protestant electorate. The literacy seems to capture conservative Protestants better than the overall share of Protestants which becomes significantly negative upon joint inclusion.[56]

Across all specifications, we find vote inequality to be systematically associated with more liberal voting. In terms of magnitude, the coefficient on vote inequality in column 7 means that a one standard deviation increase in the Gini index is associated with a 0.18 standard deviation decrease in conservative orientation.[57] In other words, moving an MP from a constituency at the 10th percentile (~ 0.47) of the vote inequality distribution to the 90th percentile (~ 0.58), he will shift his orientation by 19.7% toward the liberal maximum.

The secular-religious dimension

In Table 6, we find that the relationship between vote inequality and secular-religious orientation is entirely spurious. While vote inequality predicts more secular voting behavior in initial columns, the coefficient is close to zero, once the share of Protestants of the constituency is accounted for. Not surprisingly, the share of Protestants is itself a strong predictor of secular voting behavior. This finding reflects the strong cleavage between Centre party MPs elected in the Catholic regions and MPs from Protestant regions that strongly favored a separation of church and state.

Furthermore, higher linguistic fractionalization is associated with more secular voting. In this dimension, linguistically more heterogenous regions encompass a larger share

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[56]This relates to the reasoning by Boppart et al. (2013) who find that differences in educational outcomes between Protestants and Catholics in late 19th century Switzerland are most pronounced in conservative milieus.

[57]Vote inequality has a standard deviation of 0.039, liberal-conservative political orientation has a standard deviation of 0.395. Using the coefficient reported in column 7, the magnitude can be calculated as $\frac{0.039 \cdot 1.793}{0.395} = 0.177$.

of minorities that may indeed favor policies that restrict a church that caters only to one religious denomination. Given the fact that more heterogenous regions usually host a predominantly Catholic Slavic minority which suffered from Bismarck's Germanization policies during the *Kulturkampf*, this is a surprising finding. In sum, this placebo test finds that the secular-religious orientation, which arguably transcended economic heterogeneity, is unrelated to vote inequality.

6.3 Robustness tests

This section tests the robustness of our findings against potential alternative explanations and confounding factors. Robustness tests are presented in Table 7, where Panel A displays results for the liberal-conservative orientation and Panel B displays results for the secular-religious orientation. For the sake of clarity in presentation, this table does not show coefficients of the control variables. We will mention them when needed below and will particularly focus on Panel A.

Column 1 repeats the baseline specification (column 7 from Table 5) before adding a control for per capita income tax payments to the model in column 2. By doing so, we address the concern that vote inequality is a mere proxy for the average income in an electoral constituency.[58] Results on vote inequality remain qualitatively unchanged but coefficients are slightly larger.

Column 3 adds a control for social uprisings that took place in a constituency between 1815 and 1867. This measure captures a threat of socially motivated unrest that loomed strongly during this period. The socialist-worker movement boomed during the 1870s, leading to the ban on socialist gatherings in Germany from 1878. While the individual members of the Social Democratic Party were not banned from the Imperial Parliament (*Reichstag*), they were excluded from forming a faction and faced several other repercussions until 1888. Social Democrats did not gain seats in the Prussian Parliament until 1908, arguably due to the characteristics of the three class franchise. Nevertheless, the threat of social democracy may have pushed MPs from electoral constituencies with higher vote inequality toward more liberal voting. While we indeed find that MPs from constituencies with more protests vote slightly more liberal, our main result remains unchanged.[59]

After focussing on the local conditions of the constituencies, we would like to understand whether the results may be driven by observable characteristics of the individual MPs. If the peculiarities of the franchise system selected a certain type of MP into office,

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[58]Unfortunately, data on income tax payments are unavailable for constituencies that consisted only of one city (*Stadtkreise* = urban counties), which is why we lose these observations. The finding is robust to using a pre-1866 measure of income tax per capita which is observed for all constituencies, but not for the provinces annexed after 1866.

[59]This finding is unaltered by using protests from the period 1867 to 1903 as the control variable.

this would constitute a mechanism through which vote inequality might affect political orientation. However, if MP characteristics reflect characteristics (and preferences) of the local elite, these may determine both inequality and political orientation and present a threat to identification.

Occupations in public administration and agriculture are associated with a more conservative orientation. Similarly, noble status and Catholic denomination are strong predictors of conservative voting behavior that explain a large share of the variation as measured by the R-squared. Interestingly, one of the few variables that predict more liberal voting is the dummy for MPs who do not reside in their own constituency. While electoral turnout is not related to voting behavior, a higher margin of victory predicts conservative orientation. MPs that participated in more roll calls vote more liberally, likely reflecting a more active role of liberal MPs in parliament, challenging the status quo. In sum, controlling for individual-level characteristics, the coefficients on vote inequality and landownership inequality are substantially reduced but the results remain qualitatively unchanged.

Regression results displayed in column 5 show that adding 35 administrative-district (*Regierungsbezirk*) fixed effects leaves the relationship of interest barely affected. Thus, broad regional disparities between the agricultural east and the industrial west do not explain the relationship between vote inequality and political orientation.

Above, we have shown that party affiliation is a strong predictor of voting behavior. Our subsequent empirical framework has exploited variation across parties ignoring affiliation. Indeed, we think that party affiliation reflects much of the differences in political orientation that we are actually interested in. Controlling for party affiliation thus only allows us to exploit within party variation in political orientation which, by definition, is much more limited. Nevertheless, column 6 shows that, even conditional on party affiliation, MPs vote significantly more for liberal policies when elected in a constituency with a higher vote inequality.

The earliest available measure of vote inequality for all constituencies of post-1866 Prussia is from 1893. The data was collected just after the 1891 tax reform changed the distribution of voters across classes in the three-class franchise. We test robustness of the results using a Gini index of vote inequality from 1861 for a subset of constituencies reflecting the contemporary Prussian borders. Column 7 re-estimates the model with individual-level controls in the smaller sample of 1861 constituencies. Column 8 shows that results are barely different from the findings in column 7 when using the 1861 measure of vote inequality.

Columns 1-8 in Panel B repeat the above regressions for the secular-religious (placebo) dimension. Well in line with our interpretation of this dimension, constituency characteristics capturing cultural factors (share Protestants, linguistic fractionalization and literacy

rates) affect voting across all specifications. Among the individual-level controls in column 4, the only occupation significantly associated with religious policies is landownership, the only MP-level denomination that predicts religious voting is Catholic. MPs holding a noble title vote more pro-religiously, MPs holding an academic title vote more secularly. However, this does not change the relationship between vote inequality and secular-religious orientation. Similarly, adding administrative-district fixed effects, party affiliation, or replacing vote inequality with its 1861 measure does not affect the qualitative findings.

6.4 Mitigating potential endogeneity concerns

The coefficients estimated in the previous sections may be biased if unobserved variables correlate with both the distribution of voters across classes and the political orientation of the MP. However, there are reasons to believe that the local classification of voters into three classes is to some degree arbitrary. An individual did not qualify for the first class by crossing a certain *national* income threshold but one that was determined by last year's *local* tax payments of all voters in a municipality. Therefore, the classification of voters is strongly affected by the individual with the highest income in a municipality, leading to extreme heterogeneity in the threshold one needed to cross to be included in the first class. Two examples may clarify the arbitrary nature of classification as discussed by contemporaries (Königlich Preußisches Statistisches Bureau, 1861–1904, vol. 2, p. 109). In the election of 1861, in a ward in the county Schleiden (province Rheinland) the three voters with the highest tax contributions paid 270 thalers each.[60] Two of them were allocated to the first class whereas the third was allocated to the second class,[61] where he had to share his vote with ten other tax payers who jointly paid only 260 thalers in taxes. In a ward in the county Belgard (province Pomerania) the first class was populated by two voters paying 364 and 237 thalers in taxes respectively, the second class was populated by another two voters paying 213 and 189 thalers in taxes, while the third class was populated by 160 voters with one paying 102 thalers and the remaining 159 voters together paying 396 thalers in total. These examples show that the local economic elite did not, per definition, end up being eligible for voting in the first class. Put differently, small differences in income at the top could move individuals across income classes, with substantial consequences for individual voting weights and power.

Across Prussia, on average, the threshold for a first class vote was a payment of 56 thalers in taxes. However, regional variation was extreme: the minimum threshold was 7 and the maximum threshold was 12,496 thalers. If an individual tax payer contributed

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[60]Based on the classified income tax of 3 percent at the time, their income must have been 9,000 thalers.

[61]The source does not clarify how one of the three voters with identical tax contribution of 270 thalers was selected to go into the second class, as ties were not regulated in the electoral law.

more than half of the total local tax base, the second class even remained unpopulated. Given that the local distribution of incomes was decisive, variation in residential location of high-income earners led to huge heterogeneity, especially in urban areas. Before a reform in 1891, municipalities first determined tax payment thresholds based on the city-wide population of voters, before subsequently breaking the electorate into wards. In wards with many high income voters, the first class was crowded, leading to a relative devaluation of a vote. In poor wards, the first and sometimes even the second class remained empty if none of the voters crossed the city-wide threshold. In many cases, but not in all cities, if a class remained unpopulated, voters were reclassified according to the ward level tax base, leading to a decrease of the minimum tax payments required to be allocated to the first class.

The above examples imply that there is strong heterogeneity in the distribution of voters across classes and that the allocation into the first class is beyond the power of the individual. In our standard regression framework, we aim at excluding systematic heterogeneity by including a substantial set of control variables to reduce endogeneity concerns. However, to further address concerns regarding the endogeneity of vote inequality, we exploit variation in the share of voters in the first class in an instrumental variable approach. We do so because the exact number of voters in the first class is arguably exogenous to local conditions. The argument here is not that such an approach is similar to randomly assigning votes to individuals but rather similar to arbitrarily changing voting power within the economic elite.

The exclusion restriction requires that the share of voters in the first class affects the political orientation of MPs only indirectly, through vote inequality. We argue that this assumption is not violated because it seems plausible that the share of individuals endowed with higher voting power because of the local tax distribution can only affect MP voting patterns via the inherent features of the three-class franchise.[62] Consider a hypothetical example of two constituencies with an identical number of tax payers. In both constituency A and B, the top two tax payers pay 200 and 100 thalers of tax, respectively. Due to the distribution of tax payments of all other tax payers outside the top 2, in constituency A, the top tax payer (paying 200 thalers) is the only member of the first class, whereas in constituency B, the top two tax payers are both members of the second class. In other words, the share of tax payers in the first class is twice as high in constituency B than in constituency A. The exclusion restriction amounts to saying that the one and only first-class voter in constituency A affects political outcomes in his constituency only by virtue of the fact that the resulting vote inequality inherent in the three-class franchise gives him more power, but *not* because his position in the income distribution per se has an effect on

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[62]Plausibility can be further improved by conditioning on our set of control variables.

RCV outcomes. Since the distribution of top incomes is identical in constituencies A and B, this strikes us as a reasonable assumption.

Table 8 presents results comparing OLS results to a 2SLS approach using the share of voters in the first class as an instrument for vote inequality in 1861.[63] We find the coefficient on vote inequality to be marginally smaller when comparing our baseline findings on the liberal-conservative orientation in column 1 to the findings in column 3. The qualitative findings however remain unchanged, even when controlling for individual MP characteristics and party affiliation. The results for the secular-religious orientation are close to zero in the 2SLS regression, again confirming the earlier findings of a lack of a relationship with vote inequality.

6.5   Discussing the mechanism

In this section, we explore our hypothesis (see Section 3) that industrialization created a level of income inequality that allowed large-scale industrialists to elect MPs who provided liberal policies that were conducive to industrialists. Therefore, we expect the effect of vote inequality on liberal voting to be amplified in areas with a higher share of large firms. For this exercise, we digitized data on the number of large and small firms in a Prussian county, from the 1875 Census of Industrial Firms. In the census, large firms are defined as firms with at least 5 employees.

To probe the hypothesis, we define a dummy for the upper quartile of the distribution of the *share* of large firms.[64] Table 9 shows the result from this exercise. In column 1, we add the main effect of being in the upper quartile in terms of share of large firms as a regressor. The variable by itself does not affect voting behavior. In column 2, we estimate an interaction term between vote inequality and the large firms dummy. We find that vote inequality has a stronger effect on liberal voting in regions with a higher share of large firms, confirming our hypothesis.[65] Note that our set of controls includes the industrial employment share, thus holding the general level of industrialization fixed. Finally, columns 3 and 4 show that the concentration of large-scale industry does not matter for voting along the secular-religious placebo dimension.

We interpret these findings as evidence that voters were better able to coordinate on liberal policies when the electoral elite was small and uniformly benefited from a liberal economy. While we do not observe the characteristics of the electoral elite in our data, we think it is conceivable that in some regions industrialization created a level of income inequality that allowed large-scale industrialists to use the political power provided by the

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[63]Results are qualitatively similar when using 1893 vote inequality. Results are also similar when using the share of voters in the first *and* second class as an instrument.

[64]Alternatively, we can base quartiles on the *number* of large firms in a county and find very similar results.

[65]Table D.4 shows similar results across election periods.

franchise system to commission a self-serving liberal agenda.

6.6 Results comparing election periods

In this section, we estimate models based on Equation 1 using the political orientation of MPs estimated separately from RCVs for each election period. By doing so, we can inspect the stability of the relationship between political orientation and vote inequality over time. Given changes in party composition and coalitions in Parliament during the 1870s, a stable relationship would be corroborating evidence of vote inequality as an important (and stable) driver of political ideology. Indeed, results when comparing the relationship across election periods broadly confirm the patterns established in the pooled sample. However, due to lower number of RCVs that take place in a single election period compared to the pooled period, estimates of ideal points are less precise and have much more measurement error. Most likely this explains the variation of coefficient magnitudes across election periods and the larger standard errors compared to the model that pools all RCVs.

Results showing the relationship between liberal-conservative orientation and vote inequality, conditional on constituency characteristics, are presented in Table 10. We subdivide election periods between a *Kulturkampf*-period, a *Protectionism*-period, and a *post-Bismarck*-period, reflecting political life of Bismarck and our discussion of key debates in Appendix B.2. Across election periods, we find the same indicators to consistently predict liberal-conservative voting behavior. For all election periods, we confirm earlier findings that higher vote inequality predicts more liberal voting behavior. Similarly, we find landownership inequality to be positively associated with conservative voting behavior throughout all election periods. Furthermore, MPs in constituencies with higher shares of industrial workers and urban dwellers lean towards liberal voting.

Results for the secular-religious orientation, are presented in Table 11. We find that vote inequality is significantly related to pro-religious orientation in two periods (10 and 14). In all other periods the relationship remains statistically indistinguishable from zero. Interestingly, we find landownership inequality to show the opposite sign to vote inequality and to switch signs correspondingly. The only variable that significantly predicts voting behavior in this dimension throughout all election periods is the share of Protestants. Linguistic fractionalization and industrial employment show a stable negatively association with support for the church, while there is no stable pattern for other variables.

All findings are confirmed when controlling for individual MP characteristics in Tables D.2 and D.3 in the Appendix.

7 Conclusion

This paper challenges the predominant portrayal that the inherent inequality of the Prussian three class franchise system produced a conservative parliament. Exploiting the voting behavior of MPs in 329 roll call votes to predict political orientation using the optimal classification method Poole (2000), we find that higher vote inequality across the three franchise classes is associated with a more liberal orientation. This finding contrasts with the historical narrative arguing that the system of franchise produced more conservative votes by providing the landed elites with all the political power. Additional evidence shows that the results are driven by constituencies with a high concentration of large industrial firms, corroborating our interpretation that large-scale industrialists were able to take advantage of the franchise system and elected delegates who voted for liberal policies. This finding also lends support to the view that historically, economic elites were not a monolithic group and some may have favored liberalization and modernization for self-serving reasons.

Furthermore, this paper is the first to present a comprehensive picture of the Prussian policy space over a period of ten election periods (1867-1903), covering a crucial period in the structural transformation of the German Empire from an agricultural to an industrial economy. Despite the finding that vote inequality was not responsible for a conservative orientation of MPs, the stability of the policy space over time is consistent with the idea that the system produced a parliament that was able to avoid substantial changes to the franchise until WWI.

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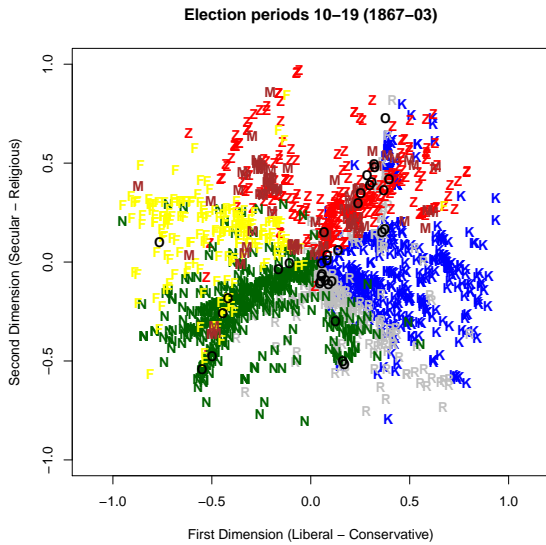
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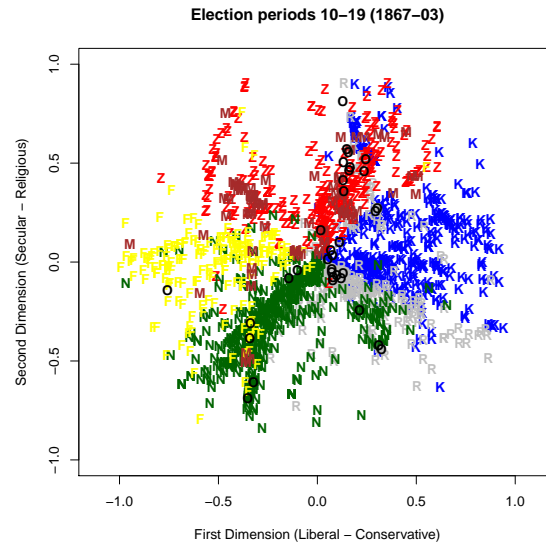
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Election periods 10–19 (1867–03)

(a) No adjustment

Election periods 10–19 (1867–03)
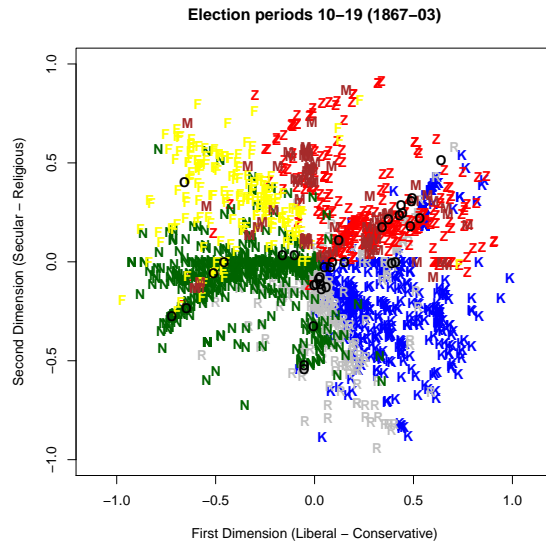
Election periods 10–19 (1867–03)

(b) Conservative Party fixed to horizontal axis

(c) Centre Party fixed to vertical axis

Figure 1: The Prussian policy space pooling election periods 10–19

Positions of MPs in the Prussian House of Representatives. Each shape represents the political orientation of an MP based on his voting behavior during all roll calls in the period 1867-1903. Figure (b) is rotated to fix the centroid of the Conservative Party (K) to the horizontal axis. Figure (c) is rotated to fix the centroid of the Centre Party (Z) to the vertical axis.
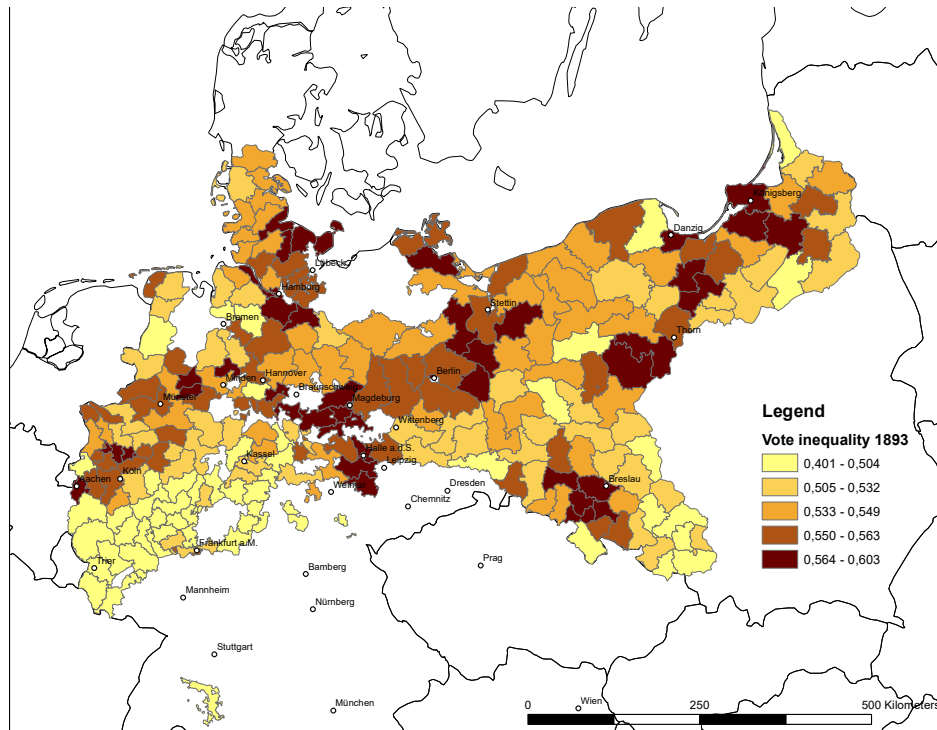
Figure 2: Vote inequality 1893.

The figure shows the spatial distribution of vote inequality. Vote inequality is a gini coefficient calculated using the county-level number of voters in each class in the three-class franchise system of 1893 assuming that the tax burden of each class amounts to exactly one third.

Table 1: MPs and party affiliation frequency

Party	Classification	Indicator	Freq.	in %
Altliberale	Other	O	31	0.85
Antisemiten	Other	O	1	0.03
Bund der Landwirte	Other	O	1	0.03
Dänen	Minority	M	4	0.11
Deutsche Fortschrittspartei (and successors)	Left Liberal	F	350	9.57
Demokraten	Left Liberal	F	1	0.03
Freisinnige Vereinigung (1893-1910)	Left Liberal	F	12	0.33
Freisinnige Volkspartei (1893-1910)	Left Liberal	F	28	0.77
Deutsch-Schleswig-Holsteinische Partei	Minority	M	3	0.08
Administrators (no party affiliation)	Other	O	5	0.14
Konservative, Deutschkonservative since 1876)	Conservative	K	873	23.87
Altkonservative (during the 1870s)	Conservative	K	1	0.03
Konservative Litauer	Conservative	K	1	0.03
Neukonservative (during the 1870s)	Conservative	K	49	1.34
Liberale (not captured by other Liberal Parties)	Other	O	11	0.30
Linkes Zentrum	Zentrum	Z	26	0.71
Liberale Partei Schleswig-Holsteins	Left Liberal	F	6	0.16
Liberale Vereinigung (1880-1884)	Left Liberal	F	19	0.52
Nationalliberale	National Liberal	N	943	25.79
Polen	Minority	M	123	3.36
Freikonservative (Deutsche Reichspartei)	Free Conservative	R	466	12.74
Welfen	Minority	M	13	0.36
Zentrum (bis 1870: Katholisches Zentrum, Katholiken)	Zentrum	Z	690	18.87

Notes: This table reports the party affiliation of all 3658 MP-by-period observations whose votes were scalable. Column *Party* depicts the original party assignment according to Kühne (1994b). Cases in which party affiliation was uncertain were coded according to the most likely party affiliation. Column *Classification* consolidates smaller parties with similar platforms. Column *Indicator* lists a party code used in graphical presentation of the policy space. Columns *Freq.* and *in %* show the frequency and share of party affiliation in the pooled sample.

Table 2: Prediction of voting behavior

Ele. period	Scaled RCVs	Total MPs (ever voted)	Scaled MPs (≥ 15 votes)*	1 Dimension		2 Dimensions		Eigenvalues		
				Correctly class. votes	APRE	Correctly class. votes	APRE	1	2	3
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Pooling RCVs across legislative periods										
10-19	328	2291	1906	89.4%	73.0%	96.0%	89.9%	56.90	53.30	44.40
RCVs across individual legislative periods										
10	67	512	455	95.1%	89.3%	97.0%	93.3%	77.73	8.46	6.61
11	47	491	424	90.0%	73.0%	96.4%	90.2%	40.38	20.68	5.97
12	38	475	419	95.2%	86.1%	97.8%	93.7%	58.32	6.93	3.69
13	15	470	306	96.2%	91.0%	98.6%	96.7%	51.74	4.21	2.80
14	26	466	392	90.3%	74.9%	99.0%	97.5%	39.70	29.25	9.17
15	34	464	412	87.2%	68.6%	97.6%	94.1%	38.43	30.73	6.96
16	26	472	334	94.3%	84.6%	99.1%	97.5%	44.84	16.18	7.70
17	29	529	344	91.7%	73.9%	97.6%	92.4%	58.32	6.93	3.69
18	23	496	283	94.4%	85.9%	98.4%	96.0%	41.71	11.74	6.64
19	23	503	289	89.6%	74.1%	98.3%	95.7%	29.72	19.64	6.07

Notes: This table reports descriptive statistics of voting behavior across election periods. Column 1 lists the election periods. Column 2 lists the number of scaled RCVs. Column 3 lists the number of MPs that actively cast at least one vote during the election period. Column 4 lists the number of scaled MPs with a minimum requirement of 15 votes. *(Due to the low number of RCVs in period 13, the minimum required votes was reduced to 12 to allow scalability of MPs.) Columns 5 and 6 list the percentage of correctly classified yea and nay votes and the Average Proportion Reductions in Error (APRE) predicted by the optimal classification process for the one-dimensional case. Columns 7 and 8 list the same for the two-dimensional case. Columns 9-11 list the eigenvalues for the first three dimensions. The bottom row show results when using the pooled sample.

Table 3: Party affiliation and political orientation in the **pooled** sample

	Liberal-conservative dimension	Secular-religious dimension
	(1)	(2)
Left Liberal (F)	-0.880***	-0.376***
	(0.017)	(0.019)
National Lib. (N)	-0.689***	-0.634***
	(0.014)	(0.017)
Minority (M)	-0.451***	-0.090***
	(0.034)	(0.024)
Zentrum (Z)	-0.293***	
	(0.019)	
Free Conserv. (R)	-0.210***	-0.419***
	(0.017)	(0.022)
Conservative (K)		-0.208***
		(0.016)
Other (O)	-0.327***	-0.254***
	(0.053)	(0.064)
Observations	1903	1903
R-squared	0.62	0.47

Notes: This table reports results of OLS regressions of political orientation on party dummies in the pooled sample. *Column 1* - Positive values of the dependent variable are interpreted to reflect higher levels of conservative orientation; negative values reflect liberal orientation. *Column 2* - Positive values of the dependent variable are interpreted to reflect higher levels of adherence to the church; negative values reflect secular orientation. Standard errors, clustered at the constituency level, in parentheses. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level.

Table 4: Results for selected roll call votes

	10 (44) School tuition (1)	10 (65) County reforms (2)	14 (01) Railroad nationalization (3)	17 (10) Income taxation (4)	19 (06) Canal construction (5)
Vote inequality (sd)	-0.099*	0.185***	-0.070*	-0.106**	0.085**
	(0.060)	(0.057)	(0.037)	(0.054)	(0.038)
Baseline controls	Yes	Yes	Yes	Yes	Yes
Yea	134 (C)	185 (L)	226 (C)	184 (C)	209 (L)
Nay	202 (L)	164 (C)	155 (L)	160 (L)	212 (C)
Observations	336	349	380	343	420
R-squared	0.12	0.13	0.46	0.14	0.39

Notes: This table reports results from linear probability models estimated for five individual RCVs. The binary dependent variable assumes the value 1 for yea and the value 0 for nay votes. Vote inequality (sd) is standardized with zero mean and a standard deviation of one. We denote the conservative (C) and liberal (L) position at the bottom of the table. A position is coded as conservative if the majority of MPs from the conservative parties voted for it, and vice versa. Standard errors, clustered at the constituency level, in parentheses. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level.

Table 5: Vote inequality and liberal-conservative orientation in the **pooled** sample

	Inequality	Industrial share	Urban share	Protestant share	Ethno-linguisitic heterogeneity	Non-migrant share	Literacy rate
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Vote inequality	-2.864***	-1.845***	-1.313**	-1.272**	-1.779***	-1.469**	-1.793***
	(0.562)	(0.529)	(0.543)	(0.551)	(0.583)	(0.604)	(0.657)
Landownership inequality	0.878***	0.574***	0.661***	0.666***	0.950***	1.047***	1.232***
	(0.193)	(0.200)	(0.216)	(0.218)	(0.243)	(0.249)	(0.276)
Indu. employment (share)		-1.136***	-0.430	-0.439	-0.689**	-0.723**	-0.946***
		(0.332)	(0.329)	(0.330)	(0.339)	(0.340)	(0.362)
Urbanization (share)			-0.356***	-0.356***	-0.350***	-0.331***	-0.360***
			(0.093)	(0.092)	(0.092)	(0.094)	(0.102)
Protestants (share)				-0.014	-0.064	-0.049	-0.094**
				(0.039)	(0.041)	(0.043)	(0.046)
Linguistic frac. (Herfindahl)					-0.299***	-0.247***	-0.111
					(0.088)	(0.092)	(0.106)
Never migrated (share)						0.290	0.142
						(0.183)	(0.208)
Literacy rate							0.470**
							(0.225)
Constant	0.888***	0.714***	0.388**	0.373*	0.526***	0.103	-0.138
	(0.237)	(0.201)	(0.189)	(0.192)	(0.200)	(0.333)	(0.343)
Observations	1903	1903	1903	1903	1903	1903	1903
R-squared	0.04	0.07	0.09	0.09	0.10	0.10	0.11

Notes: This table reports results of OLS regressions in the pooled sample. Positive values of the dependent variable are interpreted to reflect higher levels of conservative orientation; negative values reflect liberal orientation. Standard errors, clustered at the constituency level, in parentheses. Column 8 has lower number of observations due to missing information for city counties. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level.

Table 6: Vote inequality and secular-religious orientation in the **pooled** sample

	Inequality	Industrial share	Urban share	Protestant share	Ethno-linguisitic heterogeneity	Non-migrant share	Literacy rate
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Vote inequality	-1.388***	-0.939*	-0.850*	0.086	-0.248	-0.302	-0.222
	(0.447)	(0.495)	(0.509)	(0.421)	(0.437)	(0.470)	(0.488)
Landownership inequality	-0.027	-0.161	-0.146	-0.040	0.147	0.130	0.085
	(0.167)	(0.177)	(0.180)	(0.154)	(0.167)	(0.172)	(0.184)
Indu. employment (share)		-0.501*	-0.383	-0.584***	-0.748***	-0.742***	-0.687***
		(0.259)	(0.298)	(0.218)	(0.220)	(0.220)	(0.230)
Urbanization (share)			-0.060	-0.063	-0.058	-0.062	-0.055
			(0.078)	(0.065)	(0.066)	(0.065)	(0.065)
Protestants (share)				-0.329***	-0.362***	-0.364***	-0.353***
				(0.028)	(0.032)	(0.033)	(0.037)
Linguistic frac. (Herfindahl)					-0.197**	-0.206***	-0.240***
					(0.076)	(0.078)	(0.088)
Never migrated (share)						-0.050	-0.014
						(0.123)	(0.136)
Literacy rate							-0.116
							(0.155)
Constant	0.770***	0.693***	0.639***	0.298*	0.399**	0.472*	0.532**
	(0.179)	(0.180)	(0.191)	(0.152)	(0.157)	(0.252)	(0.252)
Observations	1903	1903	1903	1903	1903	1903	1903
R-squared	0.03	0.04	0.04	0.16	0.16	0.16	0.16

Notes: This table reports results of OLS regressions in the pooled sample. Positive values of the dependent variable are interpreted to reflect higher levels of adherence to the church; negative values reflect secular orientation. Standard errors, clustered at the constituency level, in parentheses. Column 8 has lower number of observations due to missing information for city counties. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level.

Table 7: Robustness checks in the **pooled** sample

	Baseline spec.	Income tax	Social uprisings	MP controls	Admin. district FE	Party controls	1861 sample	1861 vote inequality
Panel A: Liberal-conservative orientation								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Vote inequality	-1.793***	-1.932***	-2.095***	-1.197**	-1.072*	-0.606**	-1.333**	
	(0.657)	(0.718)	(0.630)	(0.550)	(0.551)	(0.279)	(0.658)	
Vote inequality 1861								-1.580***
								(0.594)
Landownership inequality	1.232***	1.542***	1.283***	0.676***	0.267	0.305***	0.496**	0.464**
	(0.276)	(0.252)	(0.259)	(0.216)	(0.187)	(0.100)	(0.226)	(0.218)
Baseline controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual controls	No	No	No	Yes	Yes	Yes	Yes	Yes
District FE	No	No	No	No	Yes	No	No	No
Party controls	No	No	No	No	No	Yes	No	No
Observations	1903	1781	1903	1895	1895	1895	1538	1538
R-squared	0.11	0.08	0.12	0.30	0.36	0.64	0.29	0.29
Panel B: Secular-religious orientation								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Vote inequality	-0.222	-0.049	-0.006	-0.067	0.050	0.175	0.331	
	(0.488)	(0.523)	(0.494)	(0.400)	(0.395)	(0.281)	(0.475)	
Vote inequality 1861								0.393
								(0.428)
Landownership inequality	0.085	0.157	0.048	-0.170	-0.225	-0.248**	-0.372**	-0.364**
	(0.184)	(0.198)	(0.188)	(0.156)	(0.146)	(0.103)	(0.159)	(0.145)
Baseline controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual controls	No	No	No	Yes	Yes	Yes	Yes	Yes
District FE	No	No	No	No	Yes	No	No	No
Party controls	No	No	No	No	No	Yes	No	No
Observations	1903	1781	1903	1895	1895	1895	1538	1538
R-squared	0.16	0.17	0.17	0.29	0.34	0.49	0.27	0.27

Notes: This table reports results of OLS regressions in the pooled sample. *Panel A* - Positive values of the dependent variable are interpreted to reflect higher levels of conservative orientation; negative values reflect liberal orientation. *Panel B* - Positive values of the dependent variable are interpreted to reflect higher levels of adherence to the church; negative values reflect secular orientation. Column 1 *Baseline spec.* repeats results from column 7 in tables 5 and 6. Column 2 *Income tax* adds a control for the average per-capita tax payments in a constituency in 1878. The lower number of observations is due to missing values for city counties. Column 3 *Social uprisings* adds a control for the number of violent protests in a constituency during the 1816-1867 time period. Column 4 *MP controls* adds the full set of MP controls as shown in table A.2. The lower number of observations is due to missing values for electoral margin and turnout. Column 5 *District dummies* adds a full set of 35 administrative district (*Regierungsbezirk*) fixed effects. Column 6 *Party controls* add a set of party affiliation controls, defined as the share of active election periods a MP was affiliated with each of the parties. Column 7 *1861 sample* is estimated in a sample of regions that were part of Prussia prior to 1866. Column 8 *1861 vote inequality* test robustness to substituting the vote inequality measured in 1893 with a 1861 measure which is only available in the smaller sample. Standard errors, clustered at the constituency level, in parentheses. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level.

Table 8: Mitigating endogeneity concerns in the **pooled** sample

	Liberal-conservative					Secular-religious				
	Baseline	First stage	Baseline	MP controls	Party controls	Baseline	First stage	Baseline	MP controls	Party controls
	OLS			2SLS		OLS			2SLS	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Vote inequality 1861	-1.809**		-1.790**	-1.669***	-0.750**	0.377		-0.024	0.030	0.237
	(0.719)		(0.754)	(0.623)	(0.351)	(0.509)		(0.545)	(0.458)	(0.332)
Share of voters in class 1		-2.553***					-2.553***			
		(0.085)					(0.085)			
Individual controls	No	No	No	Yes	Yes	No	No	No	Yes	Yes
Party controls	No	No	No	No	Yes	No	No	No	No	Yes
Observations	1544	1544	1544	1538	1538	1544	1544	1544	1538	1538
R-Squared	0.14		0.14	0.29	0.63	0.14		0.14	0.27	0.46
Kleibergen-Paap *F* statistic			894.73	835.56	810.03			894.73	835.56	810.03

Notes: This table reports results of OLS and 2SLS regressions in the pooled sample. *Columns 1 and 3-5*: Positive values of the dependent variable are interpreted to reflect higher levels of conservative orientation; negative values reflect liberal orientation. *Column 6 and 8-10*: Positive values of the dependent variable are interpreted to reflect higher levels of adherence to the church; negative values reflect secular orientation. Columns *1 and 6* repeat baseline results in the 1861 sample. Columns *2-3 and 7-8* report the first and second stages of a 2SLS approach using the share of voters in the first class as an instrument for vote inequality. Columns *4 and 9* add the full set of MP controls. Columns *5 and 10* add a set of party affiliation controls, defined as the share of active election periods a MP was affiliated with each of the parties. Standard errors, clustered at the constituency level, in parentheses. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level.

Table 9: Vote inequality and industrial elites

	Liberal-conservative orientation		Secular-religious orientation	
	(1)	(2)	(3)	(4)
Vote inequality	-0.992*	-0.662	-0.003	0.064
	(0.553)	(0.570)	(0.405)	(0.441)
Landownership inequality	0.605***	0.602***	-0.176	-0.176
	(0.230)	(0.230)	(0.159)	(0.159)
$\mathbb{1}$ (% Large firms $\geq q_{75}$)	-0.048	0.910**	-0.007	0.187
	(0.037)	(0.425)	(0.028)	(0.306)
Vote inequality $\times$ $\mathbb{1}$ (% Large firms $\geq q_{75}$)		-1.775**		-0.360
		(0.802)		(0.574)
Baseline controls	Yes	Yes	Yes	Yes
Individual controls	Yes	Yes	Yes	Yes
Observations	1895	1895	1895	1895
R-squared	0.27	0.28	0.29	0.29

Notes: This table reports results of OLS regressions in the pooled sample. *Columns 1 and 2*: Positive values of the dependent variable are interpreted to reflect higher levels of conservative orientation; negative values reflect liberal orientation. *Column 3 and 4*: Positive values of the dependent variable are interpreted to reflect higher levels of adherence to the church; negative values reflect secular orientation. $\mathbb{1}$ *(% Large firms $\geq q_{75}$)* is equal to one if the constituency-level share of firms with more than 5 employees is in the highest quartile. Standard errors, clustered at the constituency level, in parentheses. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level.

Table 10: Vote inequality and liberal-conservative orientation across periods

Election period	10	(Kulturkampf) 11	12	13	(Protectionism) 14	15	16	(Post-Bismarck) 17	18	19
Years	1867-70	1870-73	1873-76	1877-79	1879-82	1882-85	1886-88	1889-93	1894-98	1899-03
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Vote inequality	-5.441***	-1.994*	-0.659	-1.648	-3.290***	-0.312	-0.687	-1.985**	-0.962	-2.687**
	(1.596)	(1.050)	(0.668)	(1.008)	(1.043)	(0.785)	(0.742)	(0.898)	(0.685)	(1.181)
Landownership inequality	1.716***	1.320***	1.285***	1.442***	2.198***	0.607*	0.541*	1.557***	1.476***	2.625***
	(0.628)	(0.463)	(0.275)	(0.383)	(0.418)	(0.337)	(0.319)	(0.370)	(0.271)	(0.487)
Indu. employment (share)	-0.728	-0.829	-0.547	-0.129	-0.231	-0.681	-0.246	-0.887*	-0.601	-1.177*
	(0.879)	(0.580)	(0.425)	(0.640)	(0.519)	(0.473)	(0.457)	(0.537)	(0.418)	(0.679)
Urbanization (share)	-0.401*	-0.280*	-0.263**	-0.140	-0.627***	-0.388***	-0.349**	-0.507***	-0.450***	-0.789***
	(0.210)	(0.159)	(0.126)	(0.173)	(0.160)	(0.144)	(0.170)	(0.155)	(0.123)	(0.178)
Protestants (share)	0.145	0.099	0.080	0.361***	0.385***	0.371***	0.500***	0.127*	0.350***	0.028
	(0.121)	(0.080)	(0.053)	(0.067)	(0.079)	(0.051)	(0.053)	(0.073)	(0.056)	(0.091)
Linguistic frac. (Herfindahl)	-0.007	-0.057	0.056	0.184	-0.016	-0.109	-0.047	-0.215	0.141	-0.303
	(0.288)	(0.198)	(0.147)	(0.209)	(0.214)	(0.132)	(0.148)	(0.198)	(0.156)	(0.220)
Never migrated (share)	-0.287	0.293	0.383*	0.374	0.623*	0.669**	0.128	0.201	-0.023	-0.067
	(0.539)	(0.344)	(0.231)	(0.299)	(0.344)	(0.280)	(0.251)	(0.332)	(0.274)	(0.419)
Literacy rate	0.633	0.462	0.741***	0.463	0.354	-0.249	-0.145	0.311	0.559*	0.641
	(0.593)	(0.358)	(0.254)	(0.374)	(0.374)	(0.277)	(0.341)	(0.374)	(0.292)	(0.414)
Constant	1.381	-0.365	-1.374***	-1.023*	-0.617	-0.521	-0.146	-0.300	-1.203***	-0.642
	(0.906)	(0.579)	(0.362)	(0.533)	(0.601)	(0.480)	(0.423)	(0.510)	(0.429)	(0.608)
Observations	455	424	419	305	391	411	332	344	282	289
R-squared	0.12	0.11	0.18	0.26	0.30	0.26	0.38	0.21	0.44	0.27

Notes: This table reports results of OLS regressions by election period. Positive values of the dependent variable are interpreted to reflect higher levels of conservative orientation; negative values reflect liberal orientation. Standard errors, clustered at the constituency level, in parentheses. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level.

Table 11: Vote inequality and secular-religious orientation across periods

Election period	10	(Kulturkampf)			(Protectionism)			(Post-Bismarck)		
	10	11	12	13	14	15	16	17	18	19
Years	1867-70	1870-73	1873-76	1877-79	1879-82	1882-85	1886-88	1889-93	1894-98	1899-03
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Vote inequality	4.610***	1.065	1.064	1.549	2.257***	0.235	-0.005	0.999	0.283	-0.436
	(1.390)	(1.025)	(0.748)	(1.199)	(0.749)	(0.821)	(1.039)	(1.077)	(0.619)	(1.093)
Landownership inequality	-1.188**	-0.182	-0.531*	-1.523***	-1.022***	-0.218	0.240	-0.216	-0.886***	0.288
	(0.522)	(0.347)	(0.294)	(0.438)	(0.254)	(0.261)	(0.360)	(0.323)	(0.247)	(0.361)
Indu. employment (share)	0.692	-0.398	-0.281	0.033	-0.647	-0.782*	-0.754	-1.222**	0.214	-0.842*
	(0.861)	(0.569)	(0.362)	(0.719)	(0.397)	(0.413)	(0.555)	(0.617)	(0.341)	(0.485)
Urbanization (share)	0.296	-0.022	0.059	0.177	0.296***	0.234**	0.172	0.185	0.339***	0.273*
	(0.210)	(0.133)	(0.105)	(0.209)	(0.111)	(0.098)	(0.175)	(0.163)	(0.098)	(0.156)
Protestants (share)	-0.249**	-0.595***	-0.563***	-0.450***	-0.700***	-0.766***	-0.828***	-0.825***	-0.559***	-0.924***
	(0.108)	(0.071)	(0.051)	(0.080)	(0.045)	(0.044)	(0.060)	(0.058)	(0.046)	(0.061)
Linguistic frac. (Herfindahl)	-0.147	-0.558***	-0.164	-0.291	-0.182	-0.186	-0.188	-0.002	-0.255*	-0.349*
	(0.252)	(0.174)	(0.162)	(0.257)	(0.139)	(0.130)	(0.184)	(0.167)	(0.144)	(0.206)
Never migrated (share)	0.056	0.220	0.213	-0.399	-0.008	-0.031	0.002	0.289	0.006	0.022
	(0.478)	(0.275)	(0.208)	(0.334)	(0.211)	(0.232)	(0.297)	(0.297)	(0.224)	(0.306)
Literacy rate	-0.521	-0.918***	-0.357	-0.662	-0.184	0.060	0.339	0.537*	-0.295	0.243
	(0.526)	(0.311)	(0.244)	(0.444)	(0.248)	(0.265)	(0.395)	(0.325)	(0.250)	(0.378)
Constant	-1.127	0.723	0.347	1.391**	0.275	0.575	0.075	-0.323	1.144***	0.481
	(0.836)	(0.544)	(0.415)	(0.651)	(0.427)	(0.419)	(0.569)	(0.554)	(0.369)	(0.594)
Observations	455	424	419	305	391	411	332	344	282	289
R-squared	0.14	0.35	0.45	0.28	0.57	0.56	0.49	0.49	0.59	0.53

Notes: This table reports results of OLS regressions by election period. Positive values of the dependent variable are interpreted to reflect higher levels of adherence to the church; negative values reflect secular orientation. Standard errors, clustered at the constituency level, in parentheses. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level.

Appendices

A   Variable definitions and data sources

A.1   Constituency-level variables

The following variables were either part of the Galloway database (see Galloway, 2007), the iPEHD database (see Becker et al., 2014) or specifically digitized for this paper. The corresponding original sources are indicated below.

Vote inequality. Gini coefficient, calculated using the number of voters in each class in the three-class franchise system of 1893 assuming that the tax burden of each class amounts to exactly one third, constructed using county-level data reported by Königlich Preußisches Statistisches Bureau (1864–1905, vol. 17).

Vote inequality 1861. Gini coefficient, calculated using the number of voters in each class in the three-class franchise system of 1861 assuming that the tax burden of each class amounts to exactly one third, constructed using county-level data reported by Königlich Preußisches Statistisches Bureau (1861–1904, vol. 2).

Landownership inequality Gini coefficient, calculated using using the number of farms in 6 size groups in 1882. Farms with arable land up to 1 hectare, 1 to 2 ha, 2 to 10 ha, 10 to 50 ha, 50 to 100 ha, and more than 100 ha. Constructed using county-level data reported by the Königlich Preußisches Statistisches Bureau (1861–1934, vol. 76c).

Indu. employment (share). The total number of a county's inhabitants employed in mining and industry in 1882 divided by the county's population in 1880, constructed using county-level data reported by the Königlich Preußisches Statistisches Bureau (1861–1934, vol. 76b).

Urbanization (share). The total number of inhabitants across cities that held city rights in a county in 1875, divided by the county's population in 1875, constructed using city- and county-level data reported by Königlich Preußisches Statistisches Bureau (1861–1934, vol. 42).

Protestants (share). The number of a county's inhabitants that belonged to the Protestant religious denomination in 1871, divided by the county's population in 1871, constructed using county-level data reported by Königlich Preußisches Statistisches Bureau (1861–1934, vol. 30).

Never migrated (share). The number of a county's inhabitants that live in the same municipality in which they were born in 1871, divided by the county's population in 1871, constructed using county-level data reported by Königlich Preußisches Statistisches Bureau (1861–1934, vol. 30).

Linguistic frac. (Herfindahl). The Herfindahl index of (ethno-)linguistic diversity calculated using the number of a county c's inhabitants whose mother tongue was German or any of the $k = 20$ other languages p. Constructed using the following equation $1 - \sum\limits_{k=1}^{K} p_{kc}^2$ based on county-level data reported by Königlich Preußisches Statistisches Bureau (1861–1934, vol. 177c).

Literacy rate. The number of a county's inhabitants aged 10 and above that were able to read and write in 1871, divided by the county's population aged 10 and above in 1871, constructed using county-level data reported by the Königlich Preußisches Statistisches Bureau (1874).

Total tax (per capita). The total amount of direct taxes, including class tax (*Klassensteuer*), classified income tax (*classifizierte Einkommensteuer*), land and property tax, and trade tax collected in a county for the budget year 1877/1878 (ranging from April 1877 to March 1878) divided by the county's population in 1875, constructed using county-level data reported by the Königlich Preußisches Statistisches Bureau (1864–1905, vol. 7). These data are not available for the 26 city counties.

Number of uprisings 1816-67. The number of violent protests, each involving at least 20 participants, in a county during the 1816-1867 time period, constructed using data reported by Tilly (1990) on the location and timing of such protests.

Large firms (dummy). Dummy is equal to one if constituency belongs to the upper quartile of the distribution of the share of firms with at least 5 employees according to the firm census of 1875. Constructed using county-level data reported by Königlich Preußisches Statistisches Bureau (1861–1934, vol. 40).

A.2   MP-level variables

The following variables were taken from a TUSTEP dataset kindly share by Thomas Kühne. The corresponding source is Kühne (1994b).

Publ. admin. Unity (by-period analysis) / the share of election periods (pooled analysis), if a MP reported an occupation in the public administration, public service, public judiciary, or military.

Agriculture. Unity (by-period analysis) / the share of election periods (pooled analysis), if a MP reported to landownership or peasantry as main occupation.

Industry. Unity (by-period analysis) / the share of election periods (pooled analysis), if a MP reported to be occupied in manufacturing or industrial production, to be a merchant, banker, or shipmanager.

Service. Unity (by-period analysis) / the share of election periods (pooled analysis), if a MP reported to be a lawyer, physician, architect, apothecary, writer or similar.

Clergy. Unity (by-period analysis) / the share of election periods (pooled analysis), if a MP reported to be a priest or similar.

Education. Unity (by-period analysis) / the share of election periods (pooled analysis), if a MP reported to be a teacher, professor or similar.

Protestant denom. Unity (by-period analysis) / the share of election periods (pooled analysis), if a MP reported to be of Protestant faith.

Catholic denom. Unity (by-period analysis) / the share of election periods (pooled analysis), if a MP reported to be of Catholic faith.

Jewish denom. Unity (by-period analysis) / the share of election periods (pooled analysis), if a MP reported to be of Jewish faith.

Unknown denom. Unity (by-period analysis) / the share of election periods (pooled analysis), if the faith of an MP was not reported.

Non-resident. Unity (by-period analysis) / the share of election periods (pooled analysis), if the MP's place of residence was not located in his constituency.

Noble title. Unity (by-period analysis) / the share of election periods (pooled analysis), if a MP's name includes the term Freiherr, Graf, Baron, Edler Herr, Prinz, von, vom, am, aus dem, de, du, van, or zur.

Academic title. Unity (by-period analysis) / the share of election periods (pooled analysis), if a MP's name is preceded by the title Dr. or Dipl. Ing.

Retired. Unity (by-period analysis) / the share of election periods (pooled analysis), if a MP was listed as retired from his occupation.

MP in Reichstag. Unity if MP was als MP in the Reichstag at any point in time before 1903.

RCV part. (share). The number of roll call votes in which the MP voted Yea, Nay or abstained, divided by the number of roll calls in the election period (in the pooled analysis the period is 1867-1903).

Elec. margin. The margin of victory, defined as the share of votes the MP received in the second stage of voting where the electoral delegates elect the members of the Prussian House of Representatives (in the pooled analysis, we use the mean margin of victory across election periods).

Elec. turnout. The share of electoral delegates that voted in the election for the members of the Prussian House of Representatives, divided by the total number of electoral delegates (in the pooled analysis, we use the mean turnout across election periods).

No. of MPs. The total number of MPs elected to the Prussian House of Representatives from the constituency.

Table A.1: Constituency-level summary statistics

Variable	Mean	SD	Min	Max	Obs.
Vote inequality	0.532	(0.040)	0.401	0.603	252
Vote inequality 1861	0.511	(0.036)	0.413	0.616	171
Landownership inequality	0.741	(0.106)	0.415	0.933	252
Indu. employment (share)	0.121	(0.055)	0.032	0.301	252
Urbanization (share)	0.295	(0.218)	0.000	1.000	252
Protestants (share)	0.678	(0.357)	0.004	0.999	252
Linguistic frac. (Herfindahl)	0.103	(0.173)	0.001	0.690	252
Never migrated (share)	0.589	(0.118)	0.338	0.926	252
Literacy rate	0.885	(0.121)	0.422	0.991	252
Total tax (per capita)	4.573	(1.689)	0.411	12.074	238
Large firms (dummy)	0.274	(0.447)	0.000	1.000	252

Notes: Descriptive statistics for variables measured at the constituency level

Table A.2: MP summary statistics for the pooled sample

Variable	Mean	SD	Min	Max	Obs.
Political orientation					
Liberal-conservative	0.025	(0.375)	-0.934	0.977	1903
Secular-religious	0.006	(0.324)	-0.834	0.956	1903
District characteristics					
Vote inequality	0.534	(0.039)	0.401	0.603	1903
Vote inequality 1861	0.512	(0.035)	0.413	0.616	1544
Landownership inequality	0.753	(0.103)	0.415	0.933	1903
Indu. employment (share)	0.124	(0.060)	0.032	0.301	1903
Urbanization (share)	0.313	(0.225)	0.000	1.000	1903
Protestants (share)	0.646	(0.362)	0.004	0.999	1903
Linguistic frac. (Herfindahl)	0.119	(0.184)	0.001	0.690	1903
Never migrated (share)	0.574	(0.115)	0.338	0.926	1903
Literacy rate	0.870	(0.127)	0.422	0.991	1903
Income tax (per capita)	1.894	(0.681)	0.206	4.593	1781
Large firms (dummy)	0.281	(0.449)	0.000	1.000	1903
MP occupation					
Publ. admin	0.413	(0.487)	0.000	1.000	1903
Church	0.037	(0.189)	0.000	1.000	1903
Industry	0.101	(0.297)	0.000	1.000	1903
Agriculture	0.357	(0.475)	0.000	1.000	1903
Education	0.037	(0.186)	0.000	1.000	1903
Service	0.113	(0.312)	0.000	1.000	1903
MP religious denomination					
Unknown denom.	0.139	(0.346)	0.000	1.000	1903
Protestant denom.	0.628	(0.483)	0.000	1.000	1903
Catholic denom.	0.227	(0.419)	0.000	1.000	1903
Jewish denom.	0.006	(0.076)	0.000	1.000	1903
No denom.	0.000	(0.000)	0.000	0.000	1903
MP biographic information					
Non-resident	0.245	(0.428)	0.000	1.000	1903
Academic title	0.170	(0.376)	0.000	1.000	1903
Noble title	0.306	(0.461)	0.000	1.000	1903
Retired	0.080	(0.263)	0.000	1.000	1903
MP RCV and election results					
RCV part. (share)	0.166	(0.121)	0.046	0.848	1903
Elec. margin	0.728	(0.153)	0.500	1.000	1898
Elec. turnout	0.903	(0.090)	0.377	1.000	1896
No. of MPs	1.945	(0.642)	1.000	3.000	1903

Notes: Descriptive statistics for the pooled sample

Table A.3: MP summary statistics by period

	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Publ. admin	0.48	0.43	0.40	0.42	0.39	0.40	0.43	0.38	0.37	0.29
	(0.50)	(0.50)	(0.49)	(0.49)	(0.49)	(0.49)	(0.50)	(0.48)	(0.48)	(0.45)
Agriculture	0.32	0.35	0.29	0.26	0.37	0.39	0.35	0.44	0.45	0.42
	(0.47)	(0.48)	(0.45)	(0.44)	(0.48)	(0.49)	(0.48)	(0.50)	(0.50)	(0.49)
Industry	0.08	0.08	0.09	0.10	0.10	0.10	0.14	0.12	0.12	0.13
	(0.27)	(0.27)	(0.29)	(0.30)	(0.30)	(0.31)	(0.35)	(0.33)	(0.32)	(0.33)
Service	0.09	0.08	0.15	0.17	0.11	0.11	0.11	0.10	0.10	0.15
	(0.29)	(0.28)	(0.36)	(0.38)	(0.32)	(0.31)	(0.32)	(0.31)	(0.29)	(0.36)
Church	0.02	0.04	0.04	0.05	0.05	0.03	0.02	0.01	0.03	0.04
	(0.15)	(0.20)	(0.20)	(0.21)	(0.22)	(0.18)	(0.15)	(0.12)	(0.18)	(0.19)
Education	0.04	0.04	0.05	0.04	0.03	0.04	0.02	0.03	0.03	0.05
	(0.20)	(0.20)	(0.23)	(0.20)	(0.17)	(0.20)	(0.14)	(0.17)	(0.17)	(0.22)
Protestant denom.	0.49	0.56	0.65	0.68	0.69	0.69	0.71	0.72	0.72	0.70
	(0.50)	(0.50)	(0.48)	(0.47)	(0.46)	(0.46)	(0.45)	(0.45)	(0.45)	(0.46)
Catholic denom.	0.13	0.20	0.27	0.26	0.28	0.28	0.28	0.26	0.27	0.29
	(0.34)	(0.40)	(0.44)	(0.44)	(0.45)	(0.45)	(0.45)	(0.44)	(0.45)	(0.45)
Jewish denom.	0.01	0.00	0.00	0.02	0.01	0.01	0.00	0.00	0.00	0.01
	(0.09)	(0.07)	(0.07)	(0.15)	(0.09)	(0.09)	(0.00)	(0.00)	(0.00)	(0.08)
Unknown denom.	0.37	0.24	0.08	0.03	0.02	0.02	0.01	0.02	0.01	0.01
	(0.48)	(0.43)	(0.27)	(0.18)	(0.13)	(0.13)	(0.08)	(0.13)	(0.08)	(0.10)
Noble title	0.36	0.33	0.21	0.19	0.35	0.33	0.32	0.35	0.34	0.27
	(0.48)	(0.47)	(0.40)	(0.40)	(0.48)	(0.47)	(0.47)	(0.48)	(0.47)	(0.45)
Academic title	0.19	0.17	0.21	0.21	0.16	0.17	0.16	0.14	0.17	0.19
	(0.40)	(0.38)	(0.41)	(0.41)	(0.36)	(0.38)	(0.37)	(0.35)	(0.38)	(0.39)
Non resident	0.28	0.24	0.27	0.23	0.24	0.25	0.26	0.23	0.18	0.16
	(0.45)	(0.43)	(0.45)	(0.42)	(0.43)	(0.44)	(0.44)	(0.42)	(0.39)	(0.37)
Retired	0.07	0.08	0.09	0.10	0.11	0.10	0.09	0.10	0.09	0.08
	(0.26)	(0.27)	(0.28)	(0.30)	(0.32)	(0.30)	(0.29)	(0.29)	(0.28)	(0.27)
Elec. turnout	0.86	0.89	0.94	0.95	0.94	0.94	0.92	0.91	0.91	0.92
	(0.11)	(0.10)	(0.07)	(0.07)	(0.07)	(0.08)	(0.09)	(0.09)	(0.09)	(0.09)
Elec. margin	0.69	0.70	0.72	0.71	0.72	0.73	0.79	0.79	0.80	0.82
	(0.15)	(0.15)	(0.15)	(0.15)	(0.16)	(0.16)	(0.17)	(0.18)	(0.17)	(0.18)
Observations	455	424	419	306	392	412	333	344	283	289

Notes: Descriptive statistics for variables measured at the individual MP level, based on biographical information as provided by Kühne (1994b). Assignment to occupation is not unique and MPs may be assigned to more than one occupation category. The number of observations deviate for Year of birth, Elec. turnout, and Elec. margin due to missing values. The year of birth is measured in 1,000. Electoral turnout and margin refer to the election by electoral delegates in the 'second stage' of the election to parliament.

B Further historical background and the policy space across election period

B.1 The political landscape

This section extends the description of the political landscape and the political parties provided in the main article in Section 2.2. The Prussian political landscape stabilized during the early periods of our analysis. Political factions and parties formed during the 1860s, and became even more important after the German Reichstag was established in 1871.

Drawing on biographical information from Kühne (1994b), we report the party affiliation of MPs in Table 1.[66] The table depicts an aggregate number of 3,658 MP-by-period observations of party affiliation between 1867 and 1903. A range of smaller factions were represented in parliament. We classify members of smaller factions into larger party groups as indicated in columns 2 and 3. This leaves us with six main parties which were active during the period under analysis (and the residual category 'Other' mainly populated by liberal MPs).

Parties and their members strongly overlap with the German Reichstag. One reason why MPs were members of both parliaments is the fact that the Reichstag did not reimburse its MPs for (travel) expenses whereas the Prussian House of Representatives did.[67] Platforms covered a spectrum of left and right wing policies. However, due to the inequalities embedded in the franchise system, platforms addressing social issues and redistribution such as the Socialist Workers' Party did not manage to obtain any seats in the Prussian Parliament until 1908.[68] Parties were additionally distinguishable in their religious views as well as in their support of the Imperial Government, in particular the political agenda of chancellor Otto von Bismarck. For a summary of the key debates that provides further context to the political landscape of our period under analysis, we would like to refer the reader to Appendix B.2 and especially Table B.2.

The Conservative Party (K) was a nobility-dominated group of Protestants representing agrarian interests. They formed a natural alliance with the Free Conservative Party

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[66]In some cases when party affiliation was uncertain, we used the most likely party affiliation given in Kühne (1994b). In cases of changes in party affiliation *within* a legislature, we use the initial party affiliation. Party changes within legislature are extremely rare and affect well below 1% of MPs, on average. In the pooled analysis, in cases when MPs changed party affiliations *between* legislatures, we assigned the party for which the most roll call votes were cast.

[67]More than 30% of Prussian MPs were members of both parliaments at some point in time. Concerns that MPs who belonged to both parliaments were systematically different can be addressed with a dummy variable for dual membership. In unreported regressions, we find that adding this control variable does not change our results.

[68]In that sense, the Prussian Parliament as a whole was a conservative one. But as argued before, our interest is in the link between vote inequality and political orientation *within* the three-class franchise.

(R) and had shifting alliances with the National Liberal Party (N) and the Centre Party (Z). The Conservative Party was conservative in all dimensions, aimed at retaining the feudal structure, the monarchy, and opposed the unification of the German Empire in favor of a strong Prussian state. Conservatives were strongly in favor of agrarian protectionism, and weakly in favor of industrial protection and guilds. They were divided over the *Kulturkampf* in the 1870s, but rallied behind Bismarck after his 'conservative turn' in 1879, and supported the return to protectionism in the 1880s. The Free Conservatives (R), consisted of Protestant conservatives representing industrial interests. Free Conservatives are consistent supporters of Bismarck's policies. Thus, different from the Conservative Party, they were in favor of the *Kulturkampf* but favored the development of domestic industry through protective tariffs.

The National Liberal Party (N) was dominated by burghers and businessmen. National Liberals constituted the largest faction in parliament during the *Kulturkampf* period for which they supported Bismarck's policies. They had a natural alliance with the Left Liberal Party (F) with which they shared similar views on economic liberalization and free trade, but they were split between left- and right-leaning groups. From 1879 to 1885 they opposed Bismarck's 'conservative turn' but moved to the right afterwards when they strongly supported industrial tariffs and were partly in favor of agrarian protectionism and guild protection. The Left Liberals (F) consisted of members of the German Progress Party (*Deutsche Fortschrittspartei*) and its spin-offs and successors. Members usually opposed Bismarck and large government, whereas they supported democracy, equality before the law, and economic liberalism (Treue, 1975). In line with their ideals, Free Liberals were supportive of Bismarck's strive for secularization during the early *Kulturkampf*.

The Centre Party (Z), became highly successful with the Catholic population when opposing secularization during the *Kulturkampf* and defending the position of the Catholic Church. Subsequently, it maintained its electorate and strengthened its dominance in the western regions of Prussia. The party is generally categorized as conservative but did not develop a comprehensive program beyond religious issues. This made the Centre Party a crucial ally with shifting allegiances in many important topics (Treue, 1975). During 1879 to 1885, after the *Kulturkampf* period, Bismarck convinced the Centre Party to ally with Conservative parties to support his protectionist policies.

Minority parties (M) include mostly ethnic minorities in Prussia: Polish MPs from the Slavic regions, Danish MPs from the Schleswig region, and Guelph/Welf MPs from Hanover. Some Danish MPs refused to accept the constitution and were consequently barred from parliament and roll call voting. Polish MPs (mostly Catholic) supported the Centre Party during the *Kulturkampf*. Guelph Party MPs favored Hanoverian independence from Prussia, opposed the government and supported the Centre Party during the *Kulturkampf*. We assigned remaining MPs to the category Other (O) that captures mostly

liberal members that are neither left liberals nor national liberals and MPs from the Bund der Landwirte, an economic association which leaned predominantly toward right-wing conservative policies.

This description shows that liberal parties of the time did by no means stand for extreme economic liberal views as one might find in some Western Democracies of the 20th and 21st century. Liberal parties were more liberal in comparison to a conservative spectrum that aimed at retaining the feudal structure, the monarchy, and even opposed the unification of the German Empire. It is important to keep this in mind when we talk about liberal-conservative policies and MPs.

B.2   Key debates in the period 1867-1903

Our empirical analysis starts in 1867, after Prussia won the Austro-Prussian War of 1866, and annexed the Kingdoms of Hanover, the Electorate of Hesse, and the Duchy of Nassau to reach its maximum extension which it kept until WW1. From 1867, i.e. election period 10, the new provinces of Hanover, Hesse-Nassau and Schleswig-Holstein were part of Prussia and elected members to the Prussian House of Representatives. Election periods initially lasted three years and, after 1888, five years. Table B.1 shows the dates of primary elections (column 1), of the election of MPs by the electoral delegates (column 2), and the start and end dates of the legislatures (columns 3 and 4). Column 5 lists the number of RCVs that took place in each election period. We end our analysis in 1903 due to a range of changes in the electoral system and the division of constituencies thereafter.

Table B.2 presents a systematic overview over the content of all RCVs comparing the ten election periods.[69] A fundamental issue looming throughout the entire period under analysis is the social conflict arising between advocates of economic liberalism and advocates of a social policies. This conflict did not arise in the Prussian parliament due to the lack of representation of socialist parties and was eased by the introduction of Bismarck's system of social insurances from the 1880s.

The entire period 1867-1903 can be roughly subdivided into three subperiods each of which may be associated with the political life of Otto von Bismarck, Chancellor of the German Empire and Foreign Minister of Prussia. This excludes election period 10 (1867–1870), that preceded the foundation of the German Empire and the Reichstag. Political parties were not yet fully developed and the preceding election periods were dominated by a constitutional conflict between the Emperor and Parliament which had power over

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[69]The categories in this table roughly correspond to the ministries of the Prussian government. Due to the small number of votes on foreign affairs (mostly a Reichstag matter), this category was combined with interior affairs. Due to the high frequency of budgetary issues and procedural issues, these items form a separate category. RCVs were first itemized by keywords according to the original parliamentary minutes before keywords were assigned to a category.

the budget. The conflict, although officially resolved in 1866, continued in election period 10, which stands out as a period mainly concerned with budgetary issues (budgetary allocation to different ministries).

The following three election periods 11 to 13, covering the years 1870 to 1879, are dominated by the struggle between the Prussian state and the Roman Catholic Church (ca. 1871–1878, and finally diplomatically settled in 1887). During this period, labeled as *Kulturkampf*, a large share of RCVs are directly related to debates about the so called May Laws (*Maigesetze*) designed to bring education, marriage, etc. under the control of the state. We will see that this has implications for our estimation of political orientation by ideal points. The debates about the separation of church and state do not follow a classical liberal-conservative divide, but define a separate political dimension relevant to explaining voting patterns. Apart from the *Kulturkampf*, a range of RCVs can be found in the category Interior and Foreign that are concerned with administrative reforms of the counties. The county reform was heatedly debated as it also determined the fiscal responsibilities for welfare benefits.

We use the label *Protectionism* for a second subperiod to characterize the three election periods 14 to 16 covering the years 1879-1888. Following his so-called 'conservative turn' in 1879, Bismarck broke with the National Liberal Party and tended towards more nationalist-conservative policies. It is important to note that, given the subsidiarity of the Prussian House of Representatives to the German Reichstag, some policy issues, especially those related to external affairs, were debated primarily in the Reichstag. For instance, the turn from liberalism to protectionism and the "Marriage of Iron and Rye" (see Schonhardt-Bailey, 1998; Lehmann, 2010b) were issues mainly debated in the Reichstag.[70] However, nationalization of railways, a Prussian matter, has a similar flavor in terms of beliefs in free markets vs state, and is the topic of a substantial number of RCVs in period 14 (see category Commerce). Similarly, resonating with the findings by Cinnirella and Schueler (2018), some RCVs were concerned with the introduction of German as main language of instruction in regions with Slavic majority (see category Culture in election period 15) and the promotion of German interests and settlement in eastern Prussia (see category Interior and Foreign in election period 16). Although the *Kulturkampf* was largely settled, we find many RCVs related to church and state in election periods 14 to 16. These are predominantly concerned with mitigating the impact of the May Laws, e.g. pardoning of wrongdoing according to these laws and sorting out remaining issues related to education.

Finally, we use the label *post-Bismarck* for a third subperiod that combines the final three election periods 17 to 19 (1888-1903). With the elections in 1888, legislatures move

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[70]Agricultural tariffs were the matter of four RCVs in the Prussian House of Representatives. One in election period 15, one in 16, and two in 19, but – in line with subsidiarity – voting was concerned with submission to the Reichstag.

from three-year duration to five-year duration. During the debate over new anti-socialist laws and the conflict with the new King, Bismarck resigned in 1890 and died soon after. While an increasing number of social-democratic MPs were voted into the Reichstag, such change did not occur in the Prussian House of Representatives, arguably due to three-class franchise favoring elite voters and discounting votes of the working poor. Major debates, as captured by a high share of RCVs, concerned fundamental changes in income taxation (see also Hill, 1892; Mares and Queralt, 2014) and corresponding changes in the allocation of voters to classes in the primary elections (see categories Treasury and Procedures in election period 17). Finally, in election period 19 RCVs were mainly concerned with the building of the Mittelland Canal, linking the river Rhine and river Elbe. The canal was seen as a threat to the nobility in East Elbia because they feared a penetration of cheap goods from the west via the canal and the Elbe (see category Commerce).

B.3 The policy space - comparing across election periods

While not at the core of our research question, we can compare regression results over time. Such an analysis may however be complicated if topics debated in parliament change considerably across election periods such that some periods might be dominated by the *Kulturkampf* whereas other periods are more dominated by economic issues. Since the optimal classification algorithm is agnostic about the content of debates and corresponding RCVs, the two dimensions may be rotating. The first dimension will always load on the dominant cleavage between political parties in each individual election period. Thus, we expect to find switches in the ranking of dimensions across periods when the dominance of certain topics changes and parliamentary front-lines shift. A regression analysis comparing individual election periods however rests on the assumption that the dimensions can be interpreted in the same way across periods. We resolve this issue by rotating each individual policy space to fix the centroid of the Conservative Party to the horizontal axis to generate the ideal points for the first dimension. We then rotate the policy space to fix the centroid of the Centre Party to the vertical axis to generate ideal points for the second dimension.

Further comparability issues will arise if the content of RCVs shifts to topics that do not relate to the two dimensions of interest. This cannot be judged from inspecting the frequency of RCVs by topic discussed in Section B.2, as even seemingly unrelated issues can be dominated by the two dimensions.[71] Since we cannot ensure that the two dimensions load on the same content of debates over time, we resort to inspecting the graphic representation of the policy spaces, and to regression results using party dummies.

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[71]For instance, an RCV on hunting rights might, at first sight, seem unrelated to both liberal-conservative as well as secular-religious cleavages. In reality, roll call voting might still be dominated by those two dimensions.

Figure B.1 presents the policy spaces for each individual election period from 1867 to 1903 rotated to fix the centroid of the Conservative Party to the horizontal axis. Comparing the plotted policy spaces, we find the same patterns as in the pooled sample. Fellow party MPs cluster along party lines on the one hand, but also display significant *within-party* heterogeneity in *both* dimensions in almost all election periods. With the exception of period 13, when only 15 roll calls were cast, we find election periods to provide enough variation in voting behavior to even allow for a period-specific econometric analysis below. The plots show a clear divide between liberal and conservative parties on the horizontal axis and a clear divide between secular and religious parties on the vertical axis.[72] The distribution of parties within the policy space confirms the assumption that the two dimensions show considerable stability over time.[73]

We test the accuracy of the rotation for the purpose of our research question, by regressing ideal points capturing the first dimension on party dummies in Table B.3. Again, the pattern of results reflects a clear sorting of parties by their orientation in the policy space. The findings indicate that, during each election period, the average MPs from all parties have significantly lower scores in the liberal-conservative dimension compared to reference MPs from the Conservative Party. Moreover, in almost all periods we find the difference in political orientation to be the smallest with respect to the Free Conservatives and largest with respect to the Left Liberals, again confirming the expected sorting from liberal to conservative. However, we observe some changes in the sorting that are in line with the historical narrative. The National Liberal Party frequently formed alliances with conservative parties in support of Bismarck's policies. In these periods, they deserted their liberal ideologies and converged with conservative views. Election period 14, which coincided with Bismarck's conservative turn and Germany's turn to more protectionist trade policies, shows a significant increase in the wedge between the conservative parties and liberal parties. Indeed, the alliance of conservative parties with the National Liberals was replaced by a 'blue-black alliance' with the Centre Party due to their support of Bismarck and protectionist policies from 1880.

Similarly, Table B.4 presents results from regressions of ideal points capturing the secular-religious dimension on party dummies. The pattern of results depicts a sorting of parties along this dimension. When comparing across election periods, we find a considerable wedge between the Centre Party and most other parties arising from election period

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[72]Although we rely on the exact same MPs as anchors across the majority of periods, when inspecting the pre-rotation policy spaces in Figure D.5 in Appendix D, we indeed find that the first dimension and second dimensions are switching over time. In some election periods, the first dimension loads more heavily on secular-religious debates whereas the second dimension loads on liberal-conservative debates and vice versa. Furthermore, in many periods, RCVs seem to load on both dimensions and parties seem to align with a diagonal orientation.

[73]Figure D.6 in Appendix D presents the policy spaces when rotated to fix the centroid of the Centre Party to the vertical axis. Similar to the pooled case, this will result in a negligible rotation of the policy space.

11, when the *Kulturkampf* debate unfolded. Except for minority MPs, all parties show significantly lower average scores than the Centre Party. As expected, minority MPs, who are predominantly Polish Catholics but also anti-secularization Guelphs, show scores that are closely aligned with the voting behavior of Centre Party MPs. Parties most strongly in favor of secularization, i.e. Free Conservatives and National Liberals, show the largest distance in average ideal points. Interestingly, the Protestant Conservative Party that was divided over secularization, civil marriage, and state control of education has both low average scores and high standard deviations during the culmination of the *Kulturkampf* in periods 11 to 13.
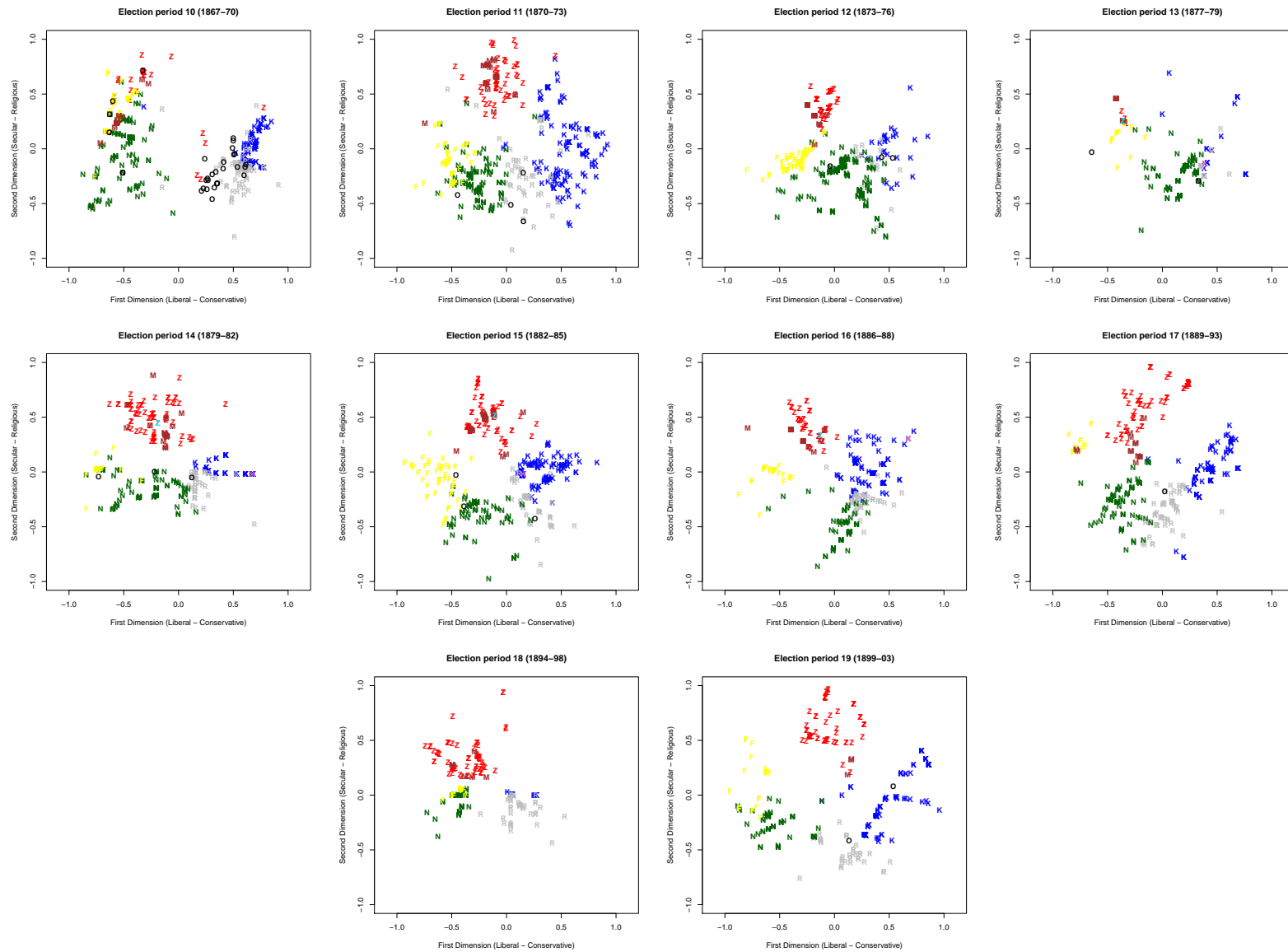
Figure B.1: The Prussian policy space (rotated) – election periods 10–19

Positions of MPs in the Prussian House of Representatives. Each shape represents the political orientation of an MPs during one of the election periods according to voting behavior in roll calls during that period. Each shape is rotated to fix the centroid of the Conservative Party (K) to the horizontal axis.

Table B.1: Election periods and roll call frequency

Election period	Primary election (1)	Election of MPs (2)	Legislature start (3)	Legislature end (4)	No. roll calls (5)
10	30.10.1867	07.11.1867	15.11.1867	12.02.1870	67
11	09.11.1870	16.11.1870	14.12.1870	20.05.1873	47
12	28.10.1873	04.11.1873	12.11.1873	30.06.1876	39
13	20.10.1876	27.10.1876	12.01.1877	21.02.1879	15
14	30.09.1879	07.10.1879	28.10.1879	11.05.1882	26
15	19.10.1882	26.10.1882	14.11.1882	09.05.1885	34
16	29.10.1885	05.11.1885	14.01.1886	28.06.1888	26
17	30.10.1888	09.11.1888	14.01.1889	05.07.1893	29
18	31.10.1893	07.11.1893	16.01.1894	18.05.1898	23
19	27.10.1898	03.11.1898	16.01.1899	01.07.1903	23

Notes: This table reports the key dates of election periods and the corresponding frequency of roll calls covered in our analysis. Note that election period 13 ended prematurely in February 1879 after the Prussian King dissolved the House of Representatives.

Table B.2: Content of roll call votes

Election period	10	(Kulturkampf)			(Protectionism)			(Post-Bismarck)		
	10	11	12	13	14	15	16	17	18	19
Years	1867-70	1870-73	1873-76	1877-79	1879-82	1882-85	1886-88	1889-93	1894-98	1899-03
Agriculture (in %)	6.0	4.3	0.0	0.0	3.8	11.8	0.0	10.3	13.0	0.0
Commerce (in %)	0.0	2.1	10.3	20.0	19.2	2.9	3.8	13.8	13.0	34.8
Treasury (in %)	1.5	10.6	2.6	0.0	7.7	5.9	0.0	31.0	13.0	0.0
Justice (in %)	6.0	0.0	0.0	33.3	0.0	2.9	3.8	0.0	26.1	17.4
Interior and Foreign (in %)	17.9	25.5	20.5	6.7	34.6	17.6	23.1	13.8	17.4	0.0
Culture (in %)	6.0	40.4	41.0	6.7	26.9	26.5	46.2	6.9	17.4	4.3
Budget (in %)	53.7	17.0	10.3	13.3	3.8	29.4	7.7	10.3	0.0	43.5
Procedures (in %)	9.0	0.0	15.4	20.0	3.8	2.9	15.4	13.8	0.0	0.0
Total RCVs	67	47	39	15	26	34	26	29	23	23

Notes: This table reports the content and frequency of roll call votes by category and election period. Categories roughly correspond to the ministries of the Prussian government. Due to the rare occasion of votes on foreign affairs, this category was combined with interior affairs. Due to the high frequency of budgetary issues and statutory issues, these items received a separate category. RCVs were first itemized by keywords according to the original parliamentary minutes before keywords were assigned to a category.

Table B.3: Party affiliation and liberal-conservative orientation

			(Kulturkampf)			(Protectionism)			(Post-Bismarck)	
Election period	10	11	12	13	14	15	16	17	18	19
Years	1867-70	1870-73	1873-76	1877-79	1879-82	1882-85	1886-88	1889-93	1894-98	1899-03
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Free Conserv. (R)	-0.169***	-0.363***	-0.200***	-0.127***	-0.368***	-0.111***	-0.060***	-0.409***	-0.116***	-0.463***
	(0.037)	(0.035)	(0.032)	(0.039)	(0.023)	(0.023)	(0.022)	(0.024)	(0.025)	(0.039)
Zentrum (Z)	-1.044***	-0.605***	-0.630***	-0.843***	-0.803***	-0.510***	-0.584***	-0.490***	-0.619***	-0.630***
	(0.051)	(0.024)	(0.028)	(0.036)	(0.023)	(0.020)	(0.020)	(0.031)	(0.024)	(0.034)
National Lib. (N)	-1.197***	-0.805***	-0.395***	-0.285***	-0.856***	-0.581***	-0.261***	-0.788***	-0.690***	-1.104***
	(0.018)	(0.021)	(0.031)	(0.038)	(0.031)	(0.027)	(0.024)	(0.021)	(0.012)	(0.038)
Left Liberal (F)	-1.208***	-1.036***	-0.852***	-0.834***	-1.276***	-0.953***	-0.896***	-1.200***	-0.688***	-1.313***
	(0.015)	(0.025)	(0.032)	(0.036)	(0.020)	(0.022)	(0.026)	(0.018)	(0.021)	(0.033)
Minority (M)	-1.213***	-0.699***	-0.691***	-0.864***	-0.714***	-0.537***	-0.644***	-0.756***	-0.618***	-0.421***
	(0.025)	(0.038)	(0.029)	(0.037)	(0.032)	(0.027)	(0.046)	(0.059)	(0.052)	(0.026)
Other (O)	-0.465***	-0.557***	-0.195	-0.640*	-0.831***	-0.537***		-0.409***		-0.229
	(0.069)	(0.126)	(0.147)	(0.351)	(0.204)	(0.189)		(0.014)		(0.146)
Constant	0.677***	0.533***	0.503***	0.483***	0.556***	0.340***	0.321***	0.430***	0.240***	0.565***
	(0.009)	(0.018)	(0.027)	(0.036)	(0.014)	(0.015)	(0.015)	(0.014)	(0.008)	(0.025)
Observations	455	424	419	306	392	412	333	344	283	289
R-squared	0.89	0.85	0.73	0.88	0.84	0.83	0.86	0.83	0.88	0.85

Notes: This table reports results of OLS regressions of liberal-conservative orientation on party dummies by election period. Positive values of the dependent variable are interpreted to reflect higher levels of conservative orientation; negative values reflect liberal orientation. Omitted Party = Conservative Party (K). Standard errors, clustered at the constituency level, in parentheses. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level.

Table B.4: Party affiliation and secular-religious orientation

		(Kulturkampf)			(Protectionism)			(Post-Bismarck)		
Election period	10	11	12	13	14	15	16	17	18	19
Years	1867-70	1870-73	1873-76	1877-79	1879-82	1882-85	1886-88	1889-93	1894-98	1899-03
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Conservative (K)	-1.000***	-0.693***	-0.574***	-0.835***	-0.802***	-0.633***	-0.657***	-0.700***	-0.694***	-0.691***
	(0.049)	(0.038)	(0.036)	(0.052)	(0.017)	(0.017)	(0.020)	(0.028)	(0.020)	(0.035)
Free Conserv. (R)	-1.026***	-0.856***	-0.723***	-0.834***	-0.752***	-0.878***	-0.859***	-1.034***	-0.702***	-1.155***
	(0.060)	(0.054)	(0.039)	(0.018)	(0.022)	(0.030)	(0.020)	(0.028)	(0.030)	(0.028)
National Lib. (N)	-0.206***	-0.914***	-0.740***	-0.738***	-0.556***	-0.829***	-0.949***	-0.910***	-0.219***	-0.849***
	(0.052)	(0.027)	(0.018)	(0.012)	(0.024)	(0.025)	(0.025)	(0.030)	(0.021)	(0.028)
Left Liberal (F)	0.090*	-0.705***	-0.409***	-0.034***	-0.219***	-0.399***	-0.187***	-0.343***	-0.176***	-0.465***
	(0.050)	(0.029)	(0.012)	(0.009)	(0.020)	(0.028)	(0.022)	(0.025)	(0.021)	(0.066)
Minority (M)	0.027	0.041	-0.076***	0.057**	-0.130***	-0.049	-0.034	-0.403***	-0.074*	-0.369***
	(0.049)	(0.035)	(0.026)	(0.028)	(0.039)	(0.030)	(0.037)	(0.038)	(0.041)	(0.044)
Other (O)	-0.782***	-1.081***	-0.617***	-0.409	-0.457***	-0.701***		-0.835***		-0.832***
	(0.080)	(0.085)	(0.026)	(0.338)	(0.094)	(0.146)		(0.021)		(0.164)
Constant	0.543***	0.633***	0.423***	0.443***	0.555***	0.523***	0.483***	0.661***	0.519***	0.632***
	(0.048)	(0.021)	(0.010)	(0.003)	(0.014)	(0.014)	(0.015)	(0.021)	(0.019)	(0.021)
Observations	455	424	419	306	392	412	333	344	283	289
R-squared	0.83	0.67	0.79	0.91	0.84	0.84	0.90	0.83	0.90	0.82

Notes: This table reports results of OLS regressions of secular-religious orientation on party dummies by election period. Positive values of the dependent variable are interpreted to reflect higher levels of adherence to the church; negative values reflect secular orientation. Omitted Party = Zentrum (Z). Standard errors, clustered at the constituency level, in parentheses. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level.

C Voting behavior in individual roll calls

To illustrate how we operationalize political orientation using the two-dimensional policy space, we select two specific RCVs, one on financing of poor relief (vote 6 in the election period 11, 1870-73) and one on church autonomy under state supervision (vote 29 in the same election period). Figure C.1 presents the ideal points of MPs calculated across *all* RCVs during the 11th election period. Furthermore, each graph includes the cutting line separating between the votes in the two selected RCVs.

Roll call 6 was a vote on a proposition to change the financing of poor relief, the burden of which was previously shared equally between rural municipalities (peasant villages) and estate municipalities (former feudal estates). The bill introduced by noble estate owner and Centre Party member Schorlemer-Alst, proposed to allocate poor relief based on the class-tax, the classified income tax, but only *half of the land tax*, the property tax, and the trade tax instead of basing it on all direct taxes equally. We interpret the proposal as aiming at reducing redistribution and favoring conservative agrarian elites. The bill was narrowly defeated by 175 to 180. Not surprisingly, the upper graph shows the cutting line dividing MPs along the first dimension with Conservatives, the Centre Party and minority MPs in the conservative spectrum and all liberal parties in the liberal spectrum. We find members of the Free Conservative Party on both sides of the cutting line, reflecting MPs allegiances to both industrial and agrarian conservatives and indicating their decisive role for such bills.

Roll call 29 on church autonomy under state supervision was part of the May Laws (*Maigesetze*) of 1873 and aimed at giving responsibility for training and appointment of clergy to the state.[74] During the debate, Rudolf Virchow first used the word *Kulturkampf* in parliament. We interpret the proposal to be in favor of secularist ideas. The bill passed by 262 to 117 votes. As one consequence, half of all seminaries closed by 1878. Not surprisingly, the lower graph shows the cutting line dividing along the secular-religious dimension. Members of the Centre Party and the minority parties (predominantly Polish (Catholic) MPs) are located north of the cutting line. As argued above, some MPs from the Conservative Party opposed secularization and voted against the secular proposal, providing us with *within-party variation* in views on religious matters.

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[74]Formally, the roll call aimed at amending Article 15 of the Prussian Constitution of 1850 which specified that the Protestant and Roman Catholic churches, as well as all other religious societies, should regulate their own affairs in an independent manner. It was introduced by a group of MPs, led by the president of the National Liberal Party, Rudolf von Bennigsen.
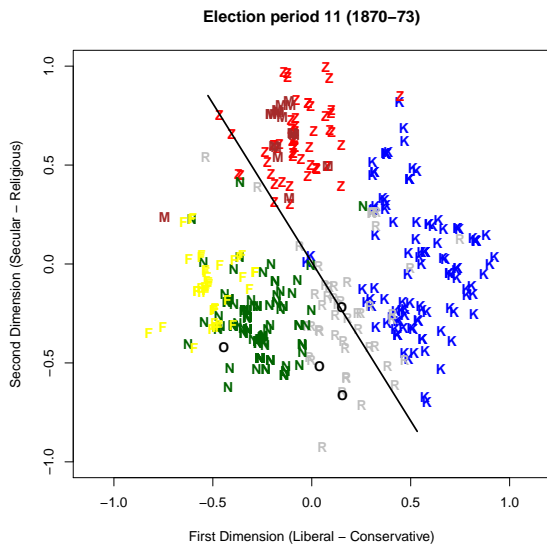
(a) Roll call 6 on poor relief
in election period 11 (Feb. 11, 1871)
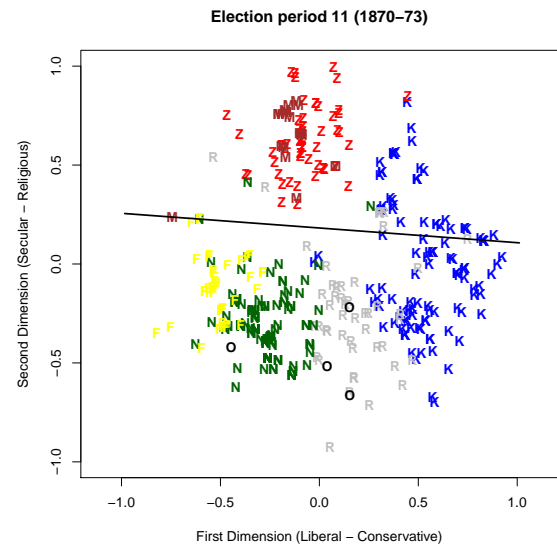
(b) Roll call 29 on church autonomy
in election period 11 (Jan. 31, 1873)

Figure C.1: Voting behavior in selected roll calls

Positions of MPs in the Prussian House of Representatives. Each shape represents the orientation of an MP according to his votes during the full election period. The cutting line separates between yea and nay votes in the specified RCV.
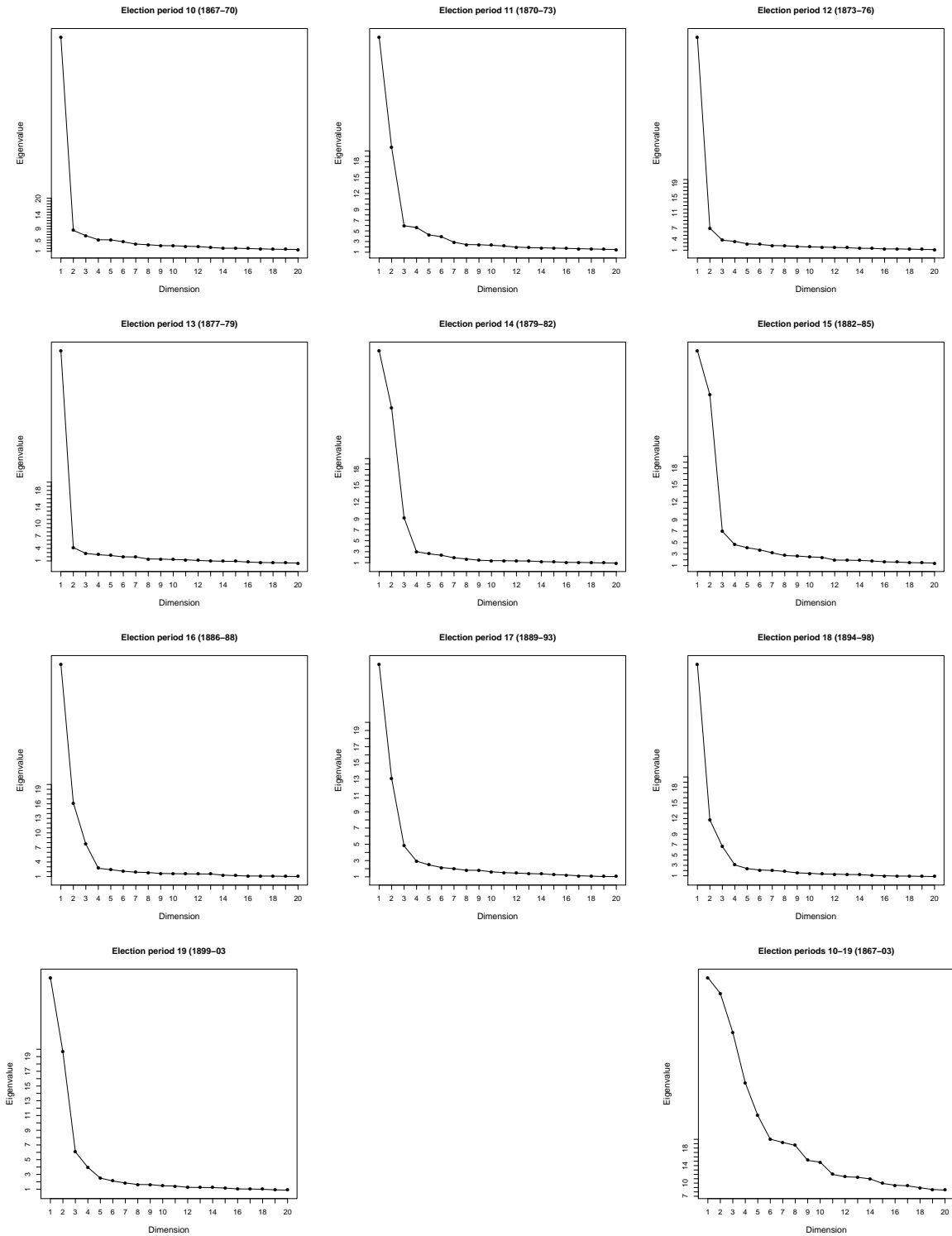
D   Supplementary results

Figure D.1: Scree plots – election periods 10–19

eigenvalues computed on the basis of the agreement matrix between representatives. The faster the eigenvalues fall off, the stronger the evidence that only a small number of dimensions is required to describe systematic variation in voting patterns.
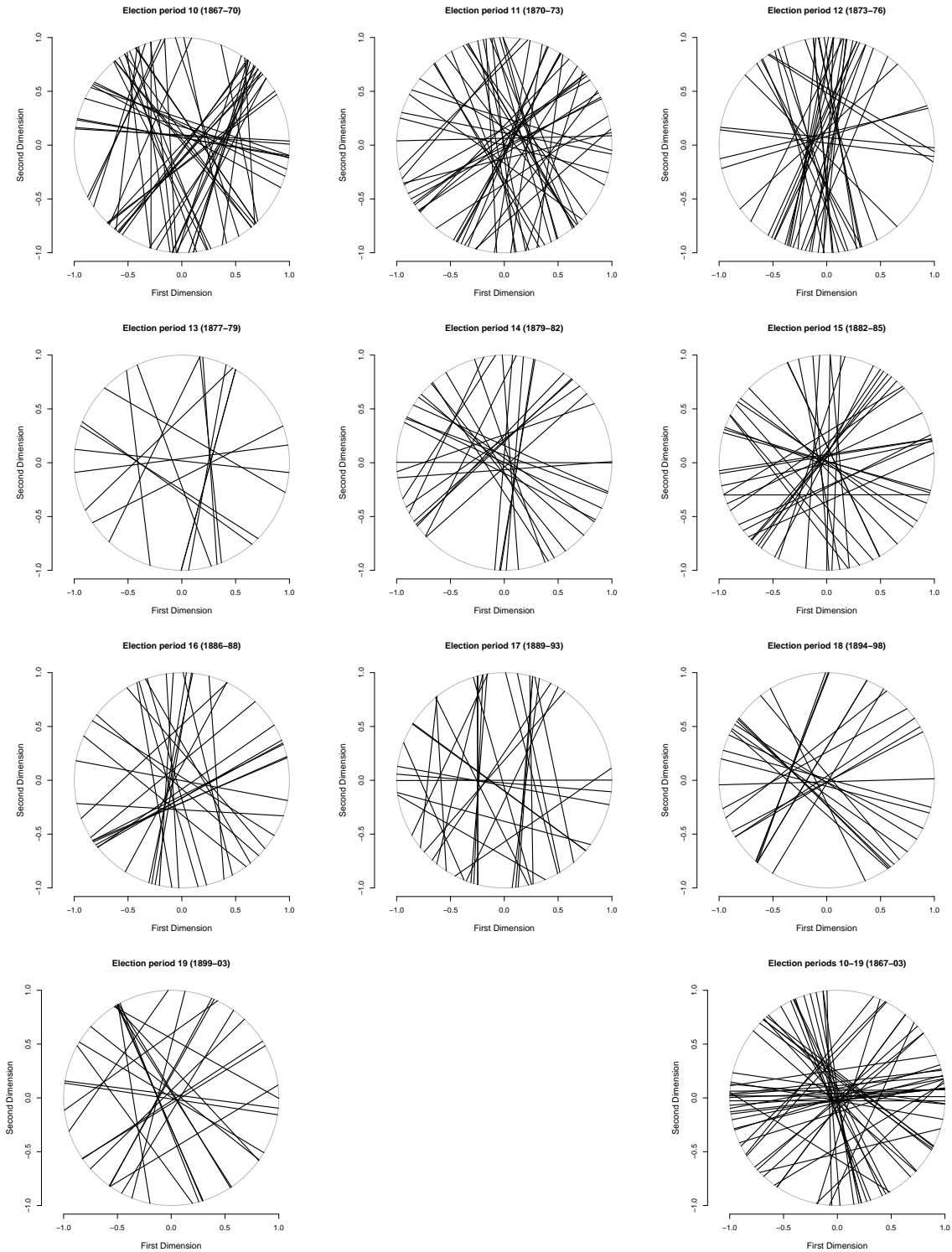
Figure D.2: Cutting lines – election periods 10–19

Lines separate between MPs voting yea and nay during roll calls. The angle of the lines indicates dimensionality of the content of the vote.
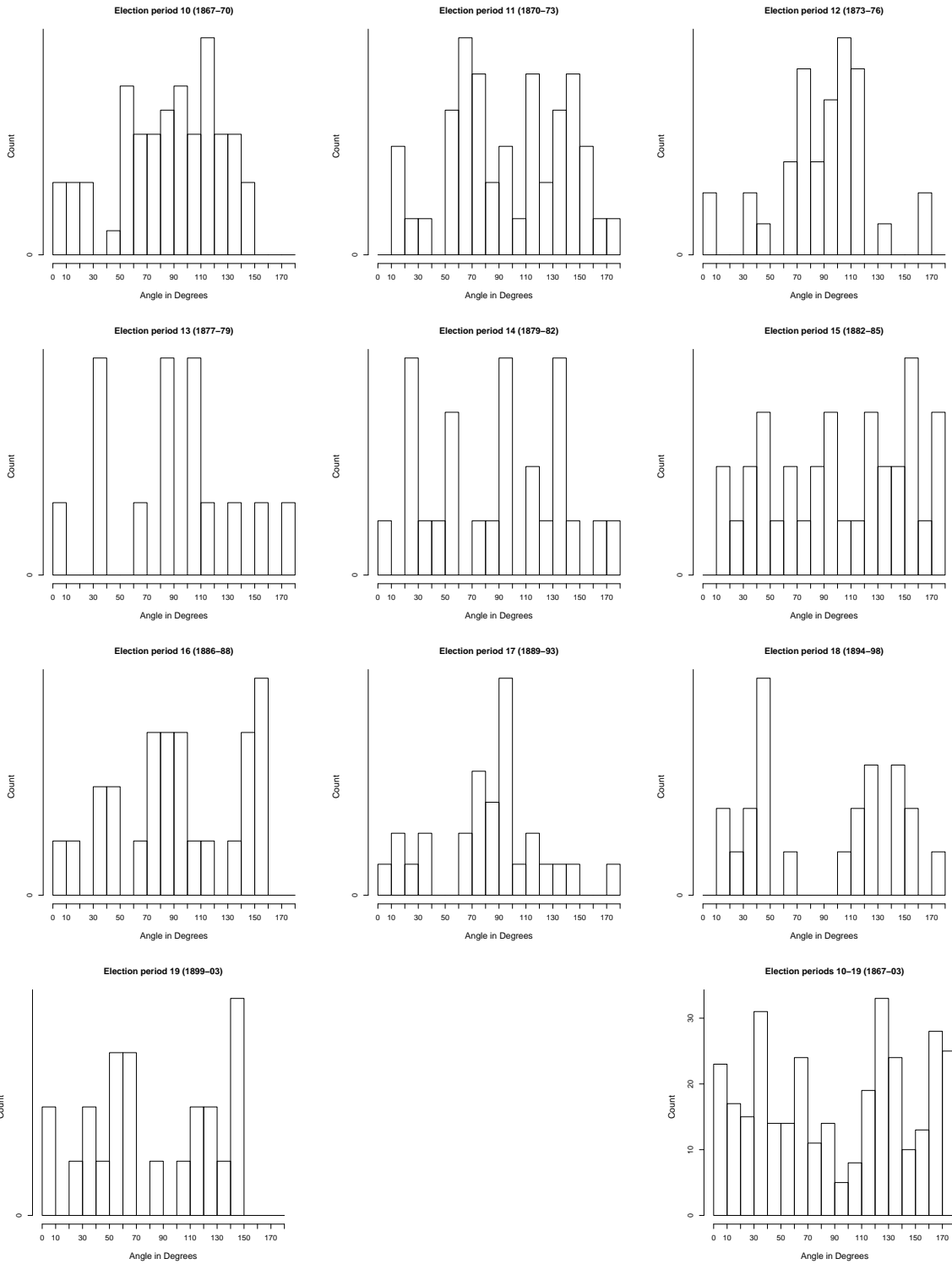
Figure D.3: Angles - election periods 10–19

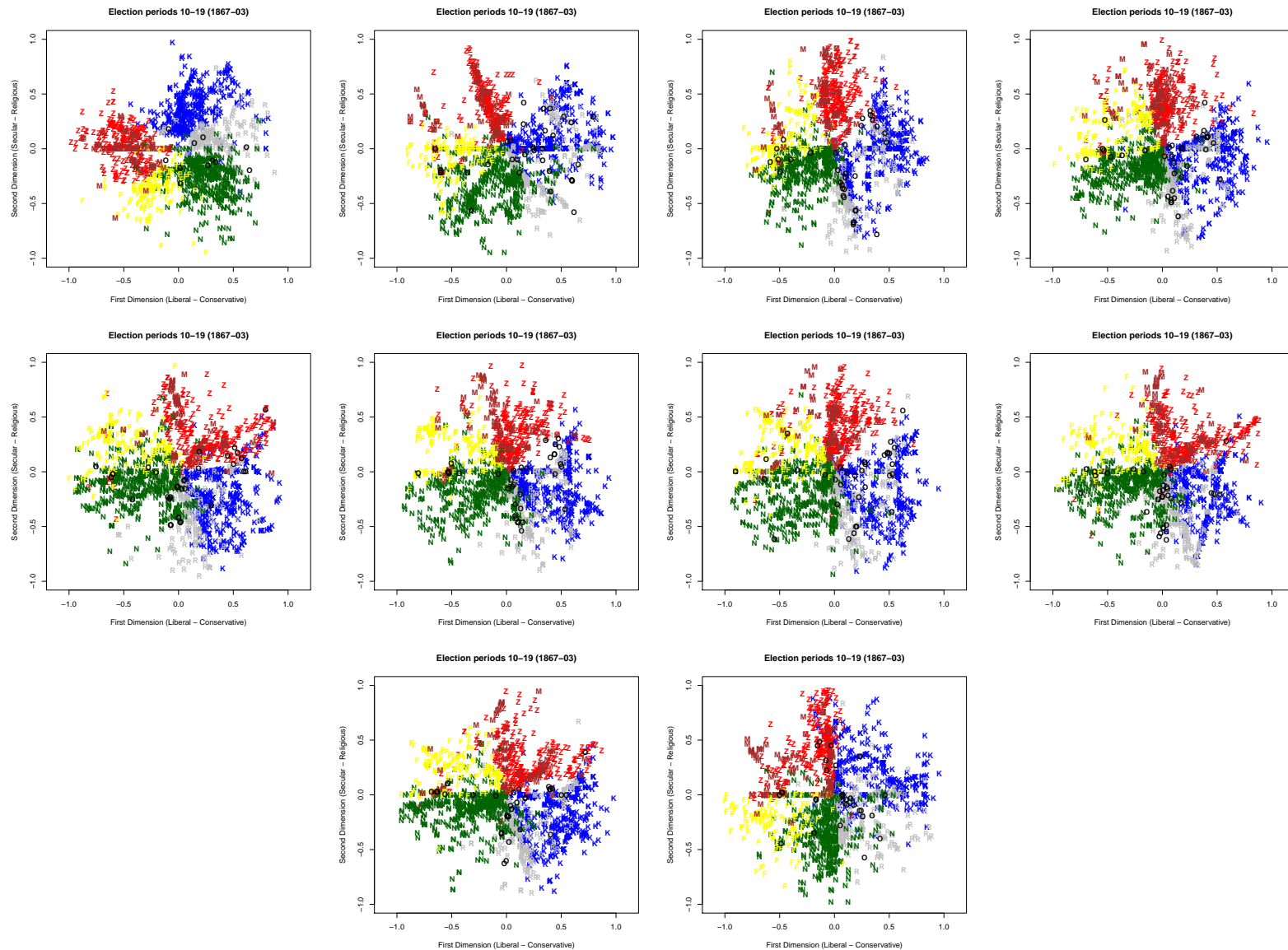*Angles show a histogram of cutting line angles as presented in Figure D.2*

Figure D.4: The Prussian policy space pooling election periods 10–19, sequentially dropping individual periods

Positions of MPs in the Prussian House of Representatives. Each shape represents the political orientation of an MP based on his voting behavior during roll calls in the period 1867-1903. In each shape, we dropped RCVs for one election period, starting with period 10 in the upper left panel.
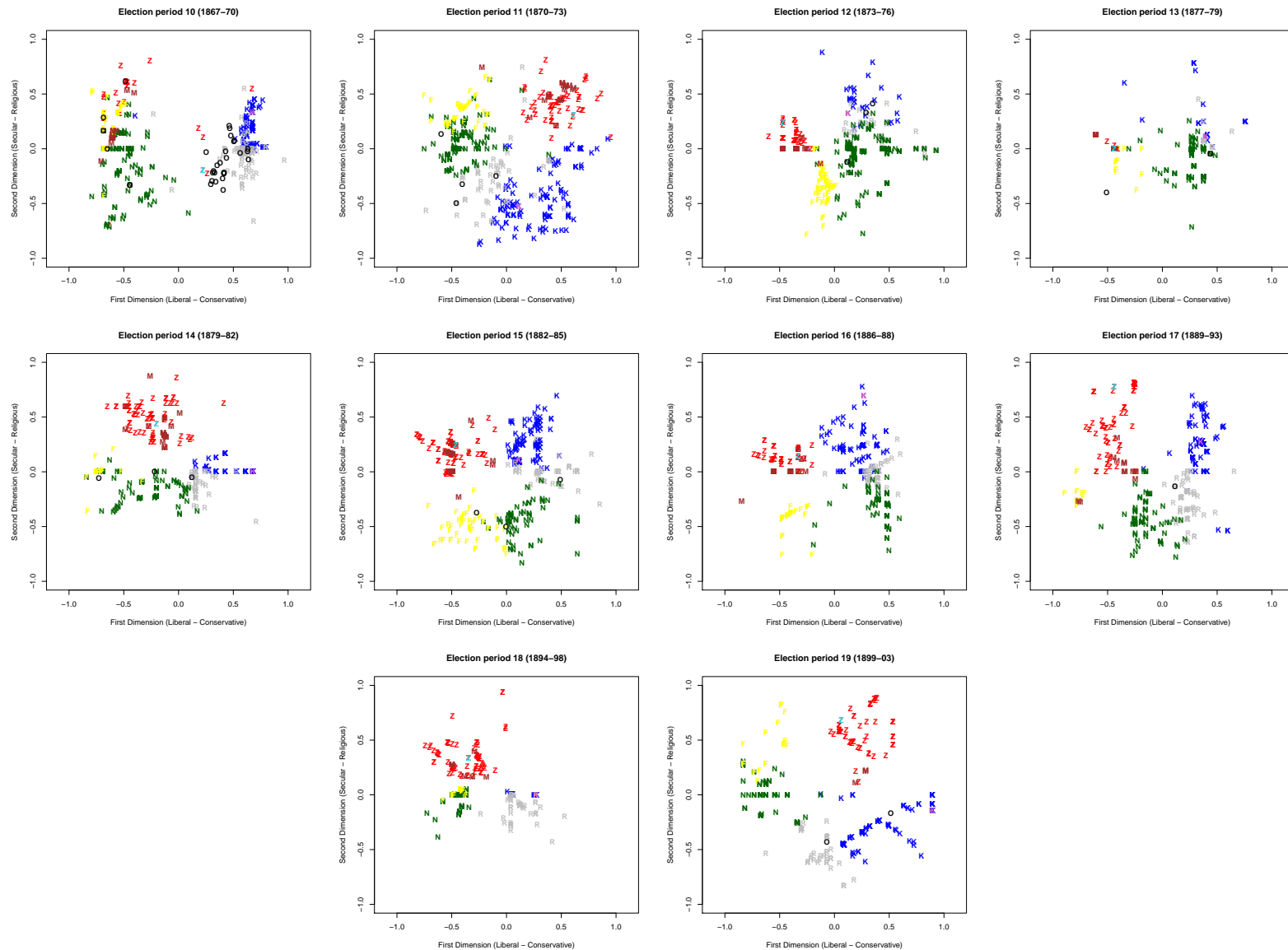
Figure D.5: The Prussian policy space – election periods 10–19

Positions of MPs in the Prussian House of Representatives. Each shape represents the political orientation of an MPs during one of the election periods according to voting behavior in roll calls during that period. Shapes are not rotated.
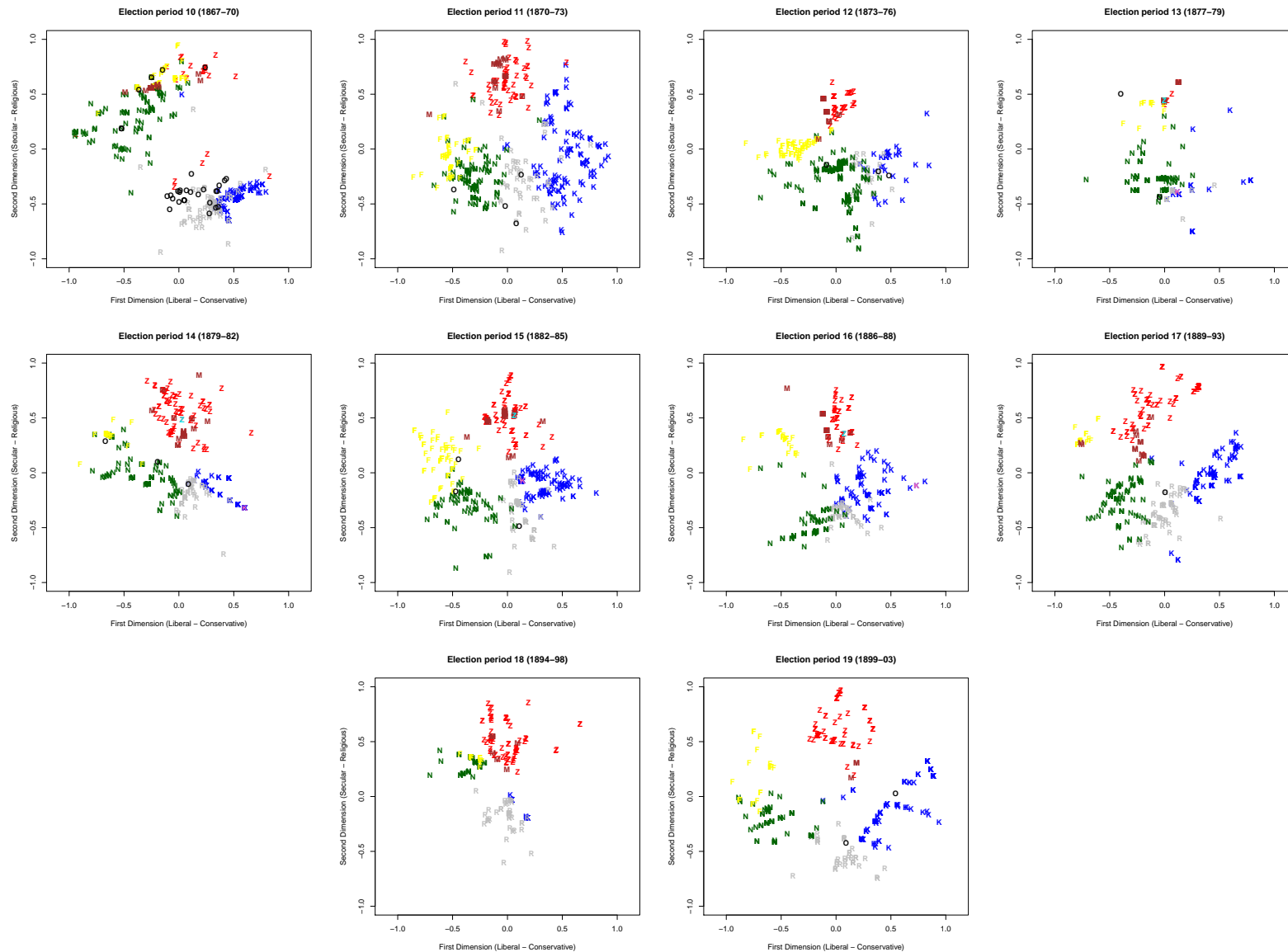
Figure D.6: The Prussian policy space (rotated) – election periods 10–19

Positions of MPs in the Prussian House of Representatives. Each shape represents the political orientation of an MPs during one of the election periods according to voting behavior in roll calls during that period. Each shape is rotated to fix the centroid of the Centre Party (Z) to the vertical axis.

Table D.1: Pre-treatment controls only

	Liberal-conservative orientation			Secular-religious orientation		
	Pre-treatment	Geo coord.	District FE	Pre-treatment	Geo coord.	District FE
	(1)	(2)	(3)	(4)	(5)	(6)
Vote inequality 1861	-1.069*	-1.349**	-1.518***	0.184	-0.109	-0.222
	(0.553)	(0.518)	(0.564)	(0.472)	(0.438)	(0.438)
Landownership inequality 1849	0.265	0.270	-0.262	-0.353***	-0.306***	-0.333***
	(0.216)	(0.249)	(0.164)	(0.101)	(0.116)	(0.094)
Indu. employment (share) 1849	-2.172***	-1.776**	-0.591	-0.989**	-0.533	-0.488
	(0.763)	(0.785)	(0.591)	(0.401)	(0.384)	(0.447)
Urbanization (share) 1849	-0.282*	-0.236	-0.428***	-0.310***	-0.270**	-0.182*
	(0.165)	(0.163)	(0.162)	(0.106)	(0.107)	(0.105)
Protestants (share) 1849	0.091**	0.015	-0.141*	-0.264***	-0.339***	-0.501***
	(0.036)	(0.064)	(0.074)	(0.028)	(0.049)	(0.067)
Non-German language speakers (share) 1861	-0.099	-0.155*	-0.147*	-0.098*	-0.119*	-0.025
	(0.065)	(0.082)	(0.088)	(0.052)	(0.060)	(0.068)
Primary school enrollment (share) 1849	0.521***	0.695***	0.675***	0.105	0.284	0.199
	(0.165)	(0.211)	(0.219)	(0.114)	(0.175)	(0.162)
Longitude and latitude	No	Yes	Yes	No	Yes	Yes
District FE	No	No	Yes	No	No	Yes
Observations	1497	1497	1497	1497	1497	1497
R-squared	0.09	0.09	0.19	0.15	0.15	0.21

This table reports results of OLS regressions in the pooled sample. *Columns 1–3*: Positive values of the dependent variable are interpreted to reflect higher levels of conservative orientation; negative values reflect liberal orientation. *Columns 4–6*: Positive values of the dependent variable are interpreted to reflect higher levels of adherence to the church; negative values reflect secular orientation. Standard errors, clustered at the constituency level, in parentheses. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level.

Table D.2: Liberal-conservative orientation - accounting for MP characteristics across periods

		(Kulturkampf)			(Protectionism)			(Post-Bismarck)		
Election period	10	11	12	13	14	15	16	17	18	19
Years	1867-70	1870-73	1873-76	1877-79	1879-82	1882-85	1886-88	1889-93	1894-98	1899-03
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Vote inequality	-4.481***	-1.476*	-0.335	-0.796	-2.999***	-0.236	0.191	-1.276	-0.513	-2.201**
	(1.305)	(0.875)	(0.607)	(0.820)	(0.924)	(0.677)	(0.673)	(0.866)	(0.623)	(0.992)
Landownership inequality	1.212**	0.821**	1.020***	1.068***	1.606***	0.289	0.036	0.772**	0.983***	1.714***
	(0.480)	(0.365)	(0.255)	(0.345)	(0.398)	(0.303)	(0.290)	(0.356)	(0.295)	(0.450)
Indu. employment (share)	0.013	-0.155	-0.357	-0.168	0.208	0.263	0.289	-0.127	-0.181	0.163
	(0.748)	(0.462)	(0.411)	(0.598)	(0.438)	(0.393)	(0.376)	(0.484)	(0.420)	(0.627)
Urbanization (share)	-0.349**	-0.204	-0.271**	-0.168	-0.526***	-0.404***	-0.358**	-0.423***	-0.262**	-0.632***
	(0.158)	(0.126)	(0.116)	(0.151)	(0.124)	(0.116)	(0.148)	(0.146)	(0.121)	(0.169)
Protestants (share)	0.200*	0.111	-0.068	-0.009	0.234*	0.399***	0.430***	0.299***	0.239***	0.326**
	(0.113)	(0.078)	(0.065)	(0.104)	(0.124)	(0.082)	(0.080)	(0.088)	(0.081)	(0.131)
Linguistic frac. (Herfindahl)	-0.133	-0.031	-0.014	0.095	-0.122	-0.135	-0.046	-0.167	0.119	-0.203
	(0.236)	(0.184)	(0.135)	(0.163)	(0.190)	(0.119)	(0.138)	(0.173)	(0.153)	(0.176)
Never migrated (share)	-0.388	0.403	0.425*	0.468*	0.356	0.472*	0.191	0.104	0.195	-0.033
	(0.423)	(0.272)	(0.221)	(0.263)	(0.290)	(0.247)	(0.235)	(0.280)	(0.260)	(0.358)
Literacy rate	0.526	0.364	0.752***	0.452	0.373	-0.308	-0.446	0.118	0.293	-0.094
	(0.503)	(0.311)	(0.227)	(0.299)	(0.349)	(0.256)	(0.305)	(0.344)	(0.278)	(0.360)
Individual controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	443	413	419	305	391	411	332	344	282	289
R-squared	0.39	0.39	0.31	0.45	0.46	0.41	0.49	0.38	0.54	0.45

Notes: This table reports results of OLS regressions by election period. Positive values of the dependent variable are interpreted to reflect higher levels of conservative orientation; negative values reflect liberal orientation. Standard errors, clustered at the constituency level, in parentheses. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level.

Table D.3: Secular-religious orientation - accounting for MP characteristics across periods

		(Kulturkampf)			(Protectionism)			(Post-Bismarck)		
Election period	10	11	12	13	14	15	16	17	18	19
Years	1867-70	1870-73	1873-76	1877-79	1879-82	1882-85	1886-88	1889-93	1894-98	1899-03
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Vote inequality	3.614***	0.592	0.509	0.764	1.858***	0.012	-0.343	0.098	-0.191	-0.346
	(1.243)	(0.872)	(0.562)	(0.966)	(0.619)	(0.597)	(0.878)	(0.945)	(0.510)	(0.812)
Landownership inequality	-0.852**	-0.167	-0.430*	-1.240***	-0.811***	-0.240	0.381	0.095	-0.522**	-0.029
	(0.410)	(0.310)	(0.236)	(0.398)	(0.237)	(0.234)	(0.329)	(0.309)	(0.255)	(0.340)
Indu. employment (share)	0.150	-0.513	-0.197	0.206	-0.344	-0.552*	-0.656	-1.084**	-0.110	-0.306
	(0.789)	(0.480)	(0.355)	(0.670)	(0.283)	(0.323)	(0.467)	(0.526)	(0.318)	(0.384)
Urbanization (share)	0.244	-0.002	0.103	0.196	0.235***	0.285***	0.219	0.231	0.200**	0.288**
	(0.170)	(0.104)	(0.095)	(0.179)	(0.085)	(0.083)	(0.156)	(0.148)	(0.091)	(0.138)
Protestants (share)	-0.220**	-0.369***	-0.157**	0.035	-0.297***	-0.335***	-0.440***	-0.413***	-0.294***	-0.302**
	(0.100)	(0.079)	(0.069)	(0.123)	(0.091)	(0.095)	(0.099)	(0.121)	(0.069)	(0.131)
Linguistic frac. (Herfindahl)	-0.071	-0.456***	-0.051	-0.141	-0.060	-0.085	-0.102	0.058	-0.154	-0.276
	(0.215)	(0.165)	(0.136)	(0.195)	(0.127)	(0.097)	(0.160)	(0.153)	(0.130)	(0.167)
Never migrated (share)	0.059	0.142	-0.013	-0.586**	-0.055	-0.098	-0.169	0.091	-0.278	-0.012
	(0.390)	(0.228)	(0.194)	(0.294)	(0.175)	(0.183)	(0.260)	(0.252)	(0.204)	(0.257)
Literacy rate	-0.394	-0.658**	-0.320	-0.606*	-0.192	0.029	0.437	0.620**	-0.030	-0.248
	(0.452)	(0.287)	(0.202)	(0.341)	(0.232)	(0.195)	(0.317)	(0.279)	(0.226)	(0.307)
Individual controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	443	413	419	305	391	411	332	344	282	289
R-squared	0.36	0.46	0.59	0.46	0.67	0.66	0.58	0.57	0.69	0.66

Notes: This table reports results of OLS regressions by election period. Positive values of the dependent variable are interpreted to reflect higher levels of adherence to the church; negative values reflect secular orientation. Standard errors, clustered at the constituency level, in parentheses. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level.

Table D.4: Industrial elites across periods

	10	(Kulturkampf)			(Protectionism)			(Post-Bismarck)		
Election period	10	11	12	13	14	15	16	17	18	19
Years	1867-70	1870-73	1873-76	1877-79	1879-82	1882-85	1886-88	1889-93	1894-98	1899-03
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Vote inequality	-5.061***	-1.092	-0.263	-1.292	-2.388**	0.451	-0.155	-1.073	-0.452	-1.933*
	(1.566)	(1.046)	(0.698)	(1.043)	(0.989)	(0.733)	(0.778)	(0.884)	(0.678)	(1.148)
$\mathbb{1}$ (% Large firms $\geq q_{75}$)	0.472	1.997***	0.992*	1.088	2.066**	2.114***	1.728**	2.907***	1.457**	1.966**
	(1.127)	(0.756)	(0.562)	(0.820)	(0.842)	(0.768)	(0.812)	(0.959)	(0.698)	(0.987)
Vote inequality $\times \mathbb{1}$ (% Large firms $\geq q_{75}$)	-1.190	-4.026***	-1.881*	-2.041	-4.066**	-4.011***	-3.197**	-5.414***	-2.792**	-3.648**
	(2.064)	(1.388)	(1.022)	(1.493)	(1.567)	(1.439)	(1.485)	(1.729)	(1.293)	(1.836)
Observations	455	424	419	305	391	411	332	344	282	289
R-squared	0.14	0.16	0.19	0.27	0.33	0.29	0.39	0.25	0.45	0.29

Notes: This table reports results of OLS in the pooled sample.Positive values of the dependent variable are interpreted to reflect higher levels of conservative orientation; negative values reflect liberal orientation. $\mathbb{1}$ *(% Large firms $\geq q_{75}$)* is equal to one if the constituency-level share of firms with more than 5 employees is in the highest quartile. Standard errors, clustered at the constituency level, in parentheses. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level.