Add sources for Bundesrat. Protokolle uber die Verhandlungen des bundesrathes. 1903. Berlin: Reichsdruckerei Protokoll der siebenten Sitzung, 12 february 1903. Paragraph 123.

Der geheime rat Dr. Borner berichtete names des X und VI ausschusses mundlich uber die Vorlage vom 21 januar 1903 betreffend abanderung des reglements zur ausfuhrung des wahlfesetzes – Nr 14 der drucksachen – sowie uber den vom recishtag angenommenen entwurf eines gesetzes betreffend abanderung des wahlgesetzes – anlage V zum protokoll vom 7 mai 1902

Im verfolg des 78 der protokolle von diesem jahre wuder die abanderung beschlossen.

CHAPTER 5

Electoral reforms

The previous three chapters have demonstrated the existence of pervasive intimidation in German national elections to the *Reichstag*. While he electoral law mandated universal, direct, secret and equal suffrage, it provided insufficient protections for voters to cast their vote freely, separated freedom of the vote. As a result the core principles of the electoral laws were systematically violated in everyday electoral practices. As Heinrich Rickert, one of the German politicians that relentlessly pushed for the adoption of additional electoral reforms argued: "The freedom of the votes is a guarantee of one of the most important constitutional provisions in Germany. It is the foundation of our constitutional life. If we do not provide sufficient guarantees of the latter, then our public life will be based on hypocrisy, on pressure and on force and this has never led to a good outcome" (Stenographische Berichte des Deutschen Reichstages, January 15 1896).

This violation of this cornerstone of German constitutional life, to which Rickert referred resulted, in turn, from two distinct factors. The first were imperfections in voting technology. As the previous chapters have demonstrated, imperfections in the design of the ballot and of the urn allowed representatives of political parties to 'pierce' the secrecy of the vote and observe the electoral choices made by voters. Secondly, economic inequalities that increased the dependency of voters amplified the consequences of these irregularities in voting technology. These economic conditions lowered the costs of electoral repression faced by employers and increased the credibility of the threat exerted by the latter to punish harshly voters that made the incorrect electoral choice. These conditions of economic dependence, on the other hand, undermined the willingness of individual voters to risk their economic livelihood and slip a different ballot than been handed to them by their employer in the urn.

This combination of institutional imperfections of the electoral code and economic inequalities in the labor market explains the persistence of electoral pressure in German elections.

The goal of this chapter is to examine political efforts to reform electoral institutions and ensure greater protection of electoral secrecy. In practical terms, these reforms attempted to provide a better protection of the secrecy of the vote and ensure that the vote cast represented, in fact, the true intention of the voter (Stenographische Berichte des Deutschen Reichstages, 29 January 1896). The reforms aided, first and foremost, the most vulnerable voters. A better protection at the voting place also minimized possibilities of post-electoral reprisals.

Where did demand for the democratization of electoral practices originate? What factors explain support for electoral reforms that attempted to increase the political autonomy of voters? In this chapter, I examine these questions through an analysis of co-sponsorship of legislative proposals to reduce opportunities for electoral intimidation that were discussed by the German *Reichstag* during the period between 1870 and 1912. The main goal of the analysis is to uncover the economic and political factors that influenced the motivations of politicians to support reforms that provided a stronger protection of voters at the time of elections and identify the electoral coalitions in the German *Reichstag* that supported or opposed a better protection of voters against intimidation. The central hypothesis of the chapter is that demand for electoral reforms originated with politicians that faced relatively higher costs of electoral intimidation and, thus, could not take advantage of the opportunities for harassment of voters that were opened up by the imperfections in the design of the electoral system. By contrast, politicians that encountered relatively low economic and political costs of electoral intimidation in their district were likely to support the policy status quo and oppose reforms of electoral institutions.

The remaining part of the chapter will proceed as follows. To set the background for the political hypotheses, I begin by presenting the most significant attempts to reform the electoral institutions that were considered by the German *Reichstag* beginning with the adoption of the electoral law in 1869. The discussion of these deliberations seeks to identify both the normative but also the practical arguments that were formulated by supporters and opponents of electoral reforms. I begin with a discussion of the unsuccessful efforts of politicians on the right to abolish the electoral law and replace the latter by a legislation premised on open voting. Next, I turn to a discussion of reforms of the existing electoral law with the aim of providing a better protection of the secrecy of the vote. This section will focus on the three dimensions of the electoral reform, which attempted to improve the protection of electoral secrecy by introducing ballot envelopes, an isolating room (*Isolierraum*) and by improving the design of the urn. The following section will present the central hypotheses about the economic and political factors that account for the demand for these electoral reforms. The central hypothesis is that demand for electoral reforms originated with politicians facing relatively higher costs of electoral intimidation. Building the analysis developed in chapter 2, I unpack this variable and explore the how economic and political conditions in a district enhance or lower the latter. The final section of this chapter tests these hypotheses using a novel dataset of the co-sponsorship of all electoral bills recommending a

better protection of the secrecy of the vote that have been considered by the German parliament during the period between 1870 and 1912. This allows me to explore systematically the effect of district level characteristics, political partisanship and electoral competition on the calculations made by individual politicians about protection of voters against intimidation.

Just like the quantitative analysis presented in chapter 2, I explicitly address theoretical predictions coming from three prominent recent literatures on the determinants of democratization. The first is the debate about endogenous democratization (Przeworski and Limongi, 1997; Boix and Stokes, 2003). In a recent extension of this line of analysis, Susan Stokes argued that the growth in the size of the industrial labor force has been the crucial factor that has spurred political incentives for reforms that limit electoral corruption in Imperial Britain (Stokes, 2011). Secondly, I subject the proposition of the recent literature on democratization according to which inequalities in the distribution of land affect calculations made by elites during democratic transitions to an empirical test and examine the effect of inequalities in landownership on support for electoral secrecy (Acemoglu and Robinson, 2000; Acemoglu and Robinson, 2006; Boix, 2003, Ziblatt 2008). Finally, I test empirical predictions coming from the more recent 'varieties of capitalism' perspective, according to which differences in the skill composition of a workforce affect political demand for the adoption of democratic institutions (Cusack, Iversen and Soskice, 2010). By employing very precise measures of economic conditions and of the skill composition of the labor force, this chapter provides the first test of the relative importance of human capital endowments on democratic reforms.

THE AGENDA OF REFORM [THIS SECTION WILL DISCUSS THE IMPEFECTIONS IN THE DESIGN OF ELECTORAL INSTITUTIONS]

The process of electoral reform that resulted in an improved protection of the secrecy of the vote for elections of the Reichstag was long and arduous. The first proposals for reform were, in fact, formulated at the time the legislation for national elections was adopted. At the time, a number of prominent politicians considered that the electoral law provided an insufficient protection to voters against intimidation. To remedy this shortcoming, Anton Sombart, a National Liberal politician, recommended to amend the electoral law and introduce ballot envelopes. While the initial Sombart bill was defeated, some of its proposals established the blueprint for proposals for electoral reforms that were discussed during the 1890s.

The investigation of electoral practices by the electoral commission of the *Reichstag* revealed the existence of ample electoral irregularities that had been perpetuated both by private actors and by public election officials. Reports of voters being driven like a flocks of sheep to urns, being forced to enter the voting area while holding ballots in their right hand over their heads and of post-electoral punishments of voters amply demonstrated that the guarantees for the protection of electoral secrecy provided by the electoral law were only

nominal. As such, proposals for a reform of the electoral system were placed on the agenda of the *Reichstag* beginning with 1875. Beginning with 1875, such proposals for a better protection of the act of voting were on the agenda of the Reichstag in nearly every legislative period. During the late 1890's, members of the Reichstag voted with a large majority to adopt reforms that protected the secrecy of the vote by introducing electoral urns and isolating spaces. The proposal lingered, however, for a number of additional years in Germany's upper house, the Bundesrat. The decision of the latter came only in 1903 and was announced by Chancellor Bülow on January 21, 1903 (Stenographische Berichte des Reichstages 1903: 7431). The new provisions came into effect for the first time during the elections held in June, 1903. As chapter 7 will demonstrate, these changes in voting technology had decisive political consequences. By reducing the observability of the votes cast by individual voters and the credibility of the threats of post-electoral punishments of employers, this legislation had a dramatic effect on the increase in the electoral strength of the Social Democratic Party. During the 1903 election, the first election when the provisions of the Rickert law were in place, the number of Social Democratic voters increased by 900,000 voters, slightly exceeding the 3 million mark.

In this section, I will review the most important arguments in favor or opposition to electoral reforms that were present in the German debate during the five decades in which questions about the protection of voters against electoral intimidation were debated. I will present these arguments in two stages. First, I begin by discussing over-arching opposition of parties on the political right against the fundamental principle of electoral secrecy that was the cornerstone of the electoral system for national elections. Next, I will turn to a discussion of the three concrete proposals for reform that were considered during these political deliberations. These included the adoption of ballot envelopes, isolating spaces and uniform provisions for the design of the urn.

OPPOSITION TO SECRET VOTING

Politicians opposing the adoption of legislation that sought to introduce additional protections of voters against electoral intimidation did not shy away from expressing their open, unabashed disapproval of the existing electoral law. While sharing with reformers the diagnosis that electoral practices in Imperial Germany were highly imperfect, they proposed a fundamentally different solution. For German politicians on the political right, the proposed alternative consisted in elimination of the existing legislation premised on open voting and the replacement of the latter by secret voting. The intention to replace secret with open voting was announced by prominent conservative politicians, ministers and amply discussed in the conservative press during this period. While the magnitude and political credibility of this threat declined over time, this staunch opposition to the existing electoral rule contributed to the delay in the adoption of legislation protecting electoral secrecy.

In 1899, during a parliamentary discussion of electoral reform, Stumm, a member of

the Free Conservative party representing Trier's 6th district (otherwise known as *Saarabia*) conceded to opponents that the existing electoral law exhibited serious weaknesses in its implementation. None of these problems, Stumm argued, could be resolved through a piecemeal reform of the existing electoral law but only through a replacement of the latter by a legislation premised on open voting. Open voting was preferable as the secret vote was incompatible with the "manly honor (*Manneswürde* of the German *Volk*" (Stenographische Berichte des Deutschen Reichstages 1899).

Stumm's recommendation to adopt a legislation premised on open voting was shared in broader conservative circles. Former Prussian ministers von Puttkammer and von Rauchhaupt had expressed their opinion that they were ready to "lend a hand" to eliminate secret voting in Germany (Stenographische Berichte des Deutschen Reichstages 1895). Graf Mirbach, another conservative politician representing Sensburg-Ortelsberg, a district in East Prussia argued "that if the decision to establish a new electoral law would be welcomed in all rural districts and beyond with euphoria" (Stenographsiche Berichte des Deutschen Reichstages, March 28, 1895).

While many conservative politicians considered the return to the secret method of voting, they disagreed on the method by which the existing electoral law could be abolished. This disagreement on the strategy of reform may, I part explain, why the desire of von Rauchhaupt and von Puttkammer to abolish the existing electoral law never materialized. One possible strategy of reform was to use the existing parliamentary channels and to wait for a favorable parliamentary majority. This strategy was announced in the *Reichstag* in 1899. "A law mandating the change of the electoral law for the *Reichstag* has already been drafted in the previous summer. There is no doubt that it will be submitted to the Reichstag as soon as we have a chamber that is willing to adopt it ("ein bewillungslustiger Reichstag") (Stenographische Berichte des Reichstages Feb 1 1899, page 586)

From the perspective of conservatives, a second possibility to change the electoral system was by avoiding parliamentary means, but rather relying on a coup. Conservative politicians did not shy from using threats of coups to signal both their dissatisfaction with the policy status quo and to pre-empt reformers for pushing for additional changes in electoral institutions. In a meeting on March 30th 1985, Graf von Frankenberg invoked the 'sword' as the method by which the constitution could be reformed in the desired directions. Frankenberg demanded an immediate dissolution of the Reichstag. While such threats were invoked with particular frequency during the 1890's, they declined in intensity over time. With each submission of the proposals that aimed at the protection of the political autonomy of voters, the political coalition supporting these reforms grew in size (Stenographische Berichte des Deutschen Reichstages XX, page XX).

BALLOT ENVELOPES

One of the defining characteristics of the proposals for the protection of electoral

secrecy considered by the German *Reichstag* was the recommendation to introduce ballot envelopes. The goal of ballot envelopes was to preempt candidates from different parties from manipulating the color or shape of the ballots and from keeping a tally of how individual voters cast their ballots. As Auer, a Social Democratic politician argued in the *Reichstag*, the existence of wide differences in the design of ballots eliminated voting secrecy altogether. "It is not today that we see for the first time ballots of different sizes. Rather these are old experiences. We know that there are ballots as large as of half of a sheet of paper and also ballots of the size of stamps, we know that especially in the Western industrial areas candidates issues clear indications to distribute at certain times ballots of particular sizes, shape and made out of paper with different levels of thickness. We have seen here ballots printed on cardboard paper and ballots printed on the thinnest transparent paper" (Stenographische Berichte des Reichstages, February 1st, 1899).

Other widely reported irregularities in ballot design consisted in the use of ballots that were crumpled up. Given that the ballots were handed out to voters shortly before entering the voting area, it was impossible for the latter to un-crumple the ballot and pencil in the name of a different candidate. Replacing the ballot by a different out would also single out the particular voter as a dissenter. Consider the discussion of electoral irregularities in Oels Wartenberg, a district in Silesia: "In Oels Wartenberg the ballots have been so crumpled up by the factory inspectors that the fingers of voters can not take unpack these. One cannot expect that a worker, a simple person will have the hands the delicate and smooth hands that will allow him the fold up the ballot in the same way after unfolding it in the first place (Stenographische Berichte des Deutschen Reichstages, January 29, 1896, page 609).

The electoral commission of the *Reichstag* lacked a clear procedure to address irregularities that resulted from the use of ballots of different shapes. Reports of the latter led to countless haggles whether in that particular case the provision of the electoral law that ballots had to be printed on white paper only had been violated. As one politician noted, "color-blindness seemed to be acute among members of the commission, when asked to identify the color of the ballot [...] Undoubtedly, the legislation prescribes that ballots have to be printed on white paper, but the opinions diverge as to what counts as white paper. The more senior colleagues in this chamber may still recall the investigation of the election of Graf von Saldern- Ahlimp, where the differences among the color of the ballots played a decisive role. All of us, who, at the time were a minority regretted that the majority at the time was afflicted by color blindness. A majority of this chamber decided that ballots that were printed on light green paper were, in fact, white (Stenographische Berichte des Deutschen Reichstages, 1 februray 1899, page 584).

The introduction of ballot envelopes attempted to resolve the problem of the control of the choices of voters through the use of ballots of different kind. Once ballot envelopes were in place, questions about possible electoral irregularities that could be attributed to differently shaped or differently colored ballots became moot. This was the argument for the adoption of ballot envelopes used by the advocates of these reforms. As Grober, a politician of the *Zentrum* and one of the most significant advocates of electoral reforms explained the justification for the introduction of ballot envelopes: "The question whether a ballot is white

or not entirely white whether it has a blue, grey, yellow or red shade will no longer be a valid question after the introduction of ballot envelopes. In conjunction with isolating spaces, the voters will have the opportunity to introduce the envelopes in the urn. If our proposal is accepted, a future control of votes by controlling the color of the ballot will no longer be possible" (Stenographische Berichte des Deutschen Reichstages, 29 January 1896, page 609)

Opponents of electoral reforms invoked a number of procedural objections to the proposals to introduce ballot envelopes. There was no guarantee, critics argued, that the ballot envelopes themselves were marked by exterior signs or pressed together (*eingekniffen*), just like individual ballots. Another objection raised by opponents was that ballot envelopes might slow down the voting process. One such argument, used by conservative politicians on many occasions, was that "placing the ballots in envelopes was not an easy thing for many voters" (Stenographische Berichte des Deutschen Reichstages 15 January 1890). Other criticisms of the bill invoked some difficulties ballot envelopes experienced at the subnational level by Lander that had adopted the latter. Württemberg had introduced ballot envelopes in 1882, but decided to eliminate the latter after a few years (Stenographische Berichte des Deutschen Reichstags, Jan 15, 1890). The decision to eliminate the latter was based on considerations that envelopes slowed down the voting process and increased the number of cases of contested elections (Statement by deputy Haug in the Württemberg parliament cited in Stenographische Berichte des Deutschen Reichstages, January 15, 1890).

ISOLATING SPACES

In addition to ballot envelopes, a second component of the reforms recommended the adoption of "isolating spaces" (*Isolierraum*). The justification for the introduction of these areas guaranteeing the privacy of voters at the time the latter cast their ballot presented by Rickert, the architect of these electoral reforms, was that the latter could ensure "that the vote expressed the true conviction of the voter and not the opinion of the minster, of *Landräte*, policemen or employers" (Stenographische Berichte des Deutschen Reichstages, Jan 15 1890). Isolating spaces were a complement to the ballot envelopes. Ballot envelopes by themselves could not entirely provide the fullest necessary guarantees to voters. They had to be complemented by other institutions that gave voters the opportunity to "be alone and unobserved for a few seconds, so that voters could insert in the envelope the ballot that corresponded to their true conviction" (Stenographische Berichte des Deutschen Reichstages, Jan 15 1890, page 1015) Other politicians expressed similar justifications. "The isolating space is not a dangerous institution. Quite the contrary, it will allow voters that are pressured from all directions reflect in silence before casting their vote" (Stenographische Berichte des Deutschen Reichstages, Deutschen Reichstages, Feb 1 1899, page 1099).

The idea of the isolating space encountered significant opposition among parties on the political right, most notably conservatives and free conservatives. The latter pursued two strategies to discredit the proposal. The first of these strategies was one of ridiculization. The isolating space had a "comical feeling", conservative politicians argued (Stenographische Berichte des Deutschen Reichstages, May 15 1895). Prominent National Liberal publications – such as the *Kölnische Zeitung* referred to the isolating room as a 'room of fear' (*Angstkammer*). Isolating spaces had to be kept dark at all times, so that no one could observe the fear of voters " (*Kölnische Zeitung* 3 November 1889). Other critics referred to the isolating room as the "camera obscura" (Stenographische Berichte des Deutschen Reichstages, 15 January 1890, page 1023) Conservatives quipped the isolating space as the Klosettraum, a label that stuck when opponents referred to the bill (Das Klosettgesetz, Deutsche Tageszeitung, March 9, 1903, Nochmals das Klosettgesetz, Deutsche Tageszeitung, March 13, 1903).

In addition to the strategy premised on ridiculization, opponents of the improvement in the protection of electoral secrecy raised a number of procedural objections against the introduction of isolating spaces. A first such objection invoked difficulties in manufacturing such an isolating space. On repeated occasions, conservatives argued that they lacked the means to construct such isolating spaces in all voting districts of the "flat land" of the East (Stenographische Berichte des Deutschen Reichstages, May 15 1895) Georg Müller, a deputy of the Imperial Party representing the district of Marienwerder argued that in Germany's Eastern regions there is no single space that can meet the demands of the Rickert proposal (Stenographische Berichte des Deutschen Reichstages, January 15 1890, page 1021). It was relatively easy to counter such arguments as an exaggeration. As one politician responded to the objection of impossibility of creating such institutions, "one can find carpenters everywhere, and if there are no carpenter, then one can find cabinet-makers. If there are no cabinet-makers, then one can find others who can build with very little effort a structure in the form of a large fire screen and place a curtain around the latter so that the voting table is protected and nobody can peak through. Objections of this kind cannot be taken seriously" (Stenographische Berichte des Reichstages 29 January 1902)

A second objection to the introduction of isolating spaces was that the latter could slow down the voting process and create opportunities for additional electoral irregularities. One such objection was that a representative of one party could occupy the isolating space for a long period of time, in an effort to prevent voters favorable to other candidates from exercising their right to vote. Such objection was raised among others by Bassermann, a prominent National Liberal politician and a supporter of other aspects of the reform, such as ballot envelopes or changes in the design of the urn (May 15 1895, 2287). Altogether, this line of argumentation implied that the high administrative costs associated with the introduction of isolating spaces might not be offset by significant gains that could come in the form of a reduction in the number of contested elections

THE DESIGN OF THE URN

The 1869 electoral code did not include specific regulations for the design of the

electoral urn and left choices concerning the size and shape of the urn to the discretion of local election officials. Contemporary account of electoral practices documented the wide variety of objects used as electoral urns (Siegfried 1903). In many East Prussian districts, soup bowls were used as electoral urns (Saul 1975: 198). Other possible objects included "cigar boxes, drawers, suitcases, hat boxes, cooking pots, earthen bowls, beer mugs, plates and wash tubs [...]." (Siegfried 1903) Voting urns of small shape were particularly conducive to the violation of electoral secrecy. As Brett Fairbairn, a historian of the period noted:

"ballots would fall in such a way that they lay flat directly on top of each other in the exact order in which they were dropped in. This would allow a vengeful official to compare the stack with a list of the order in which people had voted and arranged for a punishment for those that had voted the wrong way (Fairbairn 1990: 818)

The Rickert bill that was adopted in 1903 introduced both isolating spaces and ballot envelopes, but mandated no changes in the design of the urn. Following the adoption of the latter, reformers pressed for additional changes in electoral institutions to "said good bye to the use of soup bowls and cigarette boxes as electoral urns" (Stenographische Berichte des Deutschen Reichstags, April 16 1913). Just like in the case of the changes in the other electoral institutions, disagreement persisted about the magnitude of the persistent violation of electoral secrecy and whether the adoption of legislation mandating standardized urns was, in fact, necessary. On the one hand, a number of actors argued that the Rickert law had in fact worsened the protection of electoral secrecy (Stenographische Berichte des Deutschen Reichstags, 25 February 1907). Siegfried, an advocate of the adoption of a uniform urn argued that "the adoption of ballot envelopes had contributed to a significant deterioration of the protection of voting secrecy" (Bundesarchiv, Berlin Lichtenberg, R1501/114695, Page 735). After the introduction of ballot envelopes the latter urns became to narrow, leading to the stacking up of ballots. "The stacking of the ballots goes hand in hand with the creation of a counterlist (Gegenlist) which records voters in the order in which the latter have voted. Once the stack of ballots is reversed, it is very easy to determine how each individual voted with the use of this list" (Bundesarchiv, Berlin Lichtenberg, R1501/114695, Page 735). On the floor of the Reichstag, a number of opposition politicians shared Siegfried's concern about the continuation of the control of voters through "parallel lists" that recorded the order of votes. A politician representing the Guelphs in district 10 Hannover reported a conversation with an election official that had announced that his ability to control how voters had cast their ballots had improved (Stenographische Berichte des Deutschen Reichstages, 27 March 1908).

Siegfried was a manufacturer of urns who had an eye on a lucrative deal with the Ministry of Interior and was not entirely unbiased in depicting the worsening of electoral conditions. Conservative politicians and members of the Ministry of Interior who took the opposite position and argued that the number of irregularities that could be attributed to the imperfect design of the urns was vastly exaggerated. To support this argument, officials of the ministry of interior conducted a comprehensive study of electoral irregularities during the 1903 and 1907 elections (Wahlurnen, Bundesarchiv Berlin Lichtenberg R1501/114475). This study investigated the type of urns used in over 60,000 electoral precincts during these two

elections. The Election Commission considered 156 cases of irregularities that involved complaints about the stacking of ballots, but concluded that irregularities had affected the outcome of elections in only 2 cases, both occurring during the 1903 elections (Wahlurnen, Bundesarchiv Berlin Lichtenberg R1501/114475)

Bureaucratic opposition of the Ministry of Interior succeeded in delaying the adoption of the urn. As Basserman, one of the politicians that co-sponsored legislation mandating the adoption of uniform urns argued, the political delays were due to the "shameful dependence of the government on the Prussian ministry of interior" and due to the resistance of Prussian minister of interior von Dallwitz to the introduction of urns (Stenographische Berichte des Deutschen Reichstages, April 16 1913). The strategy premised on delays and procrastination succeded in delaying the adoption of a final set of provisions protecting voters against intimidation. The legislation adopting a uniform regulation of the design of the urn was only adopted in 1914.

The remaining part of the chapter will develop and test a number of hypotheses about the determinants for support of changes in electoral institutions that provide a greater protection of electoral secrecy. Who were the politicians that demanded the introduction of greater guarantees for the secrecy of the ballot ? What were the economic and political factors that explain the willingness of the latter to push for greater electoral reforms? How can we account for cleavages and political coalitions that emerged during the process of reform of electoral institutions protecting electoral secrecy ?

THE ECONOMIC AND POLITICAL DETERMINANTS OF ELECTORAL REFORM

While electoral intimidation was a permissive feature of electoral politics in Imperial Germany, the previous chapters have shown that the incentives of public election officials and private actors to engage in the electoral intimidation of voters varied systematically across districts and over time. In chapter 2, I have developed and tested a number of hypotheses about the factors that were likely to increase or reduce the costs of electoral intimidation and, thus, predict the incidence of electoral irregularities across German districts

The central hypothesis of this chapter is that demand for electoral reform originated with politicians that faced relatively high costs of electoral intimidation and could not take advantage of the opportunities for intimidation that had been established by the existing electoral system. By contrast, I hypothesize that politicians who faced low costs of electoral repression were likely to support the existing status quo. This implies that the same district level conditions that predict the incidence of electoral intimidation are likely to predict demand for electoral reform but that the sign of these variables is likely to be reversed. Both economic and political conditions in a district that increase the probability of a presence of electoral irregularities are likely to be negatively associated with demand for electoral reform.

As discussed in chapter 2, both economic and political variables in a district affect the

costs of electoral repression. The calculations of politicians about the use of electoral intimidation and the intensity of the latter are influenced by political factors. By contrast, economic conditions in a district are likely to affect the calculations of private actors about political intimidation perpetuated against workers. Building on the propositions developed in Chapter 2 and on the empirical findings of the last three chapters, we can now formulate a number of propositions about the determinants of demand for electoral reform.

Let us consider first the consequences of economic factors on the incentives of actors to engage in electoral intimidation and on preferences for electoral reforms. The previous chapters have demonstrated that the economic concentration of a district is a powerful predictor of the costs of electoral intimidation encountered by private actors. Economic concentration is, in turn, the result of two variables: the number of firms in a district and the number of occupations. Electoral intimidation by private actors is relatively costless in districts where the economic concentration in high. Here private actors face negligible economic costs in engaging in electoral harassment or intimidation of their workers. By contrast, the costs of electoral intimidation are likely to increase as the economic heterogeneity of a district increases.

Politicians from districts characterized by low levels of occupational concentration (or high levels of occupational heterogeneity) face thus relatively higher costs of electoral repression and are more likely to support the adoption of legislation protecting electoral secrecy. Thus, we predict a negative relationship between the employment concentration in a district and support for electoral reforms that attempt to bring about a greater protection of the autonomy of voters.

A second economic variable in a district that is likely to affect the costs of electoral repression of employers and, thus, demand for electoral reform is the skill composition of a district. Skills, more specifically skills imparted by the vocational training system, are the central theoretical variable for the 'Varieties of Capitalism' perspective (Cusack, Iversen and Soskice 2010). According to this perspective, the presence of 'co-specific' investments in skills are likely to increase the costs of electoral intimidation of employers but also enhance the likelihood of cooperative relations between workers and employers in a district. The implication of this hypothesis is the percentage of skilled workers in a district should be a powerful predictor of support for electoral reforms and that demand for electoral reforms should be higher in districts with a higher percentage of skilled workers.

I will examine below the relationship between the skill profile of a district and political support for electoral reforms by using a variety of measures of the skill composition of a district discussed in Chapter 2. Let us recall, however, that the empirical tests of the varieties of capitalism explanation presented in previous chapters of the book have not confirmed key expectations of the theory. The quantitative analysis presented in chapter 2 has shown that the presence of high levels of skills in a district does not reduce the incidence of electoral fraud. Furthermore, chapter 4 has demonstrated that the epicenter of private electoral intimidation was located in the industrial centers of the Ruhr regions, which enjoyed some of the highest levels of skills of Germany. 'Vocational skills', it appears, did not act as a

powerful constraint on the electoral behavior of German employers at the times of elections.

This chapter also examines the effects of rural inequality on demand for electoral reform. The empirical analysis presented in this chapter seeks to test one of the most salient propositions of the democratization literature, according to high levels of landholding inequality increase political opposition to democratizing reforms (Acemoglu and Robinson 2000). In this chapter, I test this proposition using the standard measure of rural inequality used in contemporary scholarship, a measure of inequality in the distribution of farms. In the following chapter, which examines the determinants of electoral reforms in Prussia, I further disaggregate rural inequality and examine the consequences of inequalities in the distribution of land and inequalities in the distribution of employment on demand for electoral reform.

In addition to economic factors in a district, support for electoral reforms is likely to be affected by political factors. My over-arching hypothesis about the political factors that predict support for changes in electoral rules and the introduction of a greater protection of electoral secrecy parallel the economic hypotheses about support for greater electoral secrecy. I hypothesize that politicians that encounter relatively high political costs of electoral repression are more likely to support the adoption of legislation that provides a greater protection of electoral secrecy. By contrast, political variables that lower the costs of electoral repression are likely to be associated with opposition to electoral reforms and higher levels of support for the political status quo.

In chapter 2, I have hypothesized that high levels of electoral fragmentation among right wing parties is likely to increase the political costs of repression and lower the incidence of electoral intimidation. The anticipation of runoffs, I hypothesized, constrained the incentives of politicians on the right to turn to their political allies in a district and use the latter as agents of electoral intimidation. Chapter 2 has found mixed support for the hypothesis that the fragmentation on the political right is associated with lower levels of electoral repression, as the variable did not retain statistical significance across all specifications presented in the analysis. In analyzing the most significant factors that affect the reliance on officials of the state as agents of electoral intimidation, Chapter 3 has presented qualitative evidence that documented the effects of an increase in the political fragmentation among parties on the right contributed on the change in the political strategy pursued by bureaucrats of the Ministry of Interior. I have shown that officials of the Ministry of Interior altered their electoral strategy and recommended reliance on "noiseless political intervention" after the stable electoral cartel among parties of the right eroded.

I hypothesize that politicians from districts characterized by high levels of electoral fragmentation among right wing parties are more likely to support changes in electoral institutions and the protection of electoral secrecy. Given that these politicians faced higher political costs of electoral intimidation than politicians from districts with a unified political right, they were less likely to take advantage of the opportunities for electoral intimidation created by imperfections in voting technology. Thus, right wing political fragmentation is expected to be positively associated with support for electoral reforms.

The theoretical hypotheses about the effects of other measures of electoral competition

on demand for electoral secrecy are less clear. Consider the effect of the competitiveness of a race on the demand for the adoption of electoral reforms that provide a greater protection against intimidation. If we assume risk aversion, we expect that politicians elected in tight races will be more likely to support the status quo in the design of voting technology. But if the politician perceives that the tightness of the race is a consequence of the use of electoral intimidation by his political opponent, then this consideration might offset the effect of risk aversion and lead to support for reforms leading to a greater protection of electoral secrecy. We will try to assess these hypotheses empirically, by examining both the effect of competition on support for electoral secrecy and conditional models that explore interactions between electoral competition and the partisan orientation of a politician.

In addition to economic and political factors in a district, I will explore the effects of partisanship on demand for electoral reforms. As the above presentation of the parliamentary debates surrounding the adoption of these electoral reforms has demonstrated, we find strong partisan cleavages over these electoral reforms. Partisan positions over the reforms of electoral institutions can be, in part, endogenized, by considering the ties held by the respective politicians to the economic actors that had the means to engage in electoral intimidation. This implies that the costs of electoral intimidation are likely to vary systematically across parties and not just across politicians of the same party. In the political context of Imperial Germany, the Kartellparteien - National Liberals, Conservatives and Imperial Party – had the closest political connections to industrial and agricultural 'breadlords'. These ties remained relatively stable throughout the Imperial Period. As such, these parties faced relatively lower costs of electoral repression and were more likely to support the status quo in electoral design. By contrast, Free Liberals and Social Democrats lacked these ties and were more likely to have fewer political opportunities to engage in electoral repression. Due to these differential costs of electoral intimidation, we expect these parties to show stronger support for changes in electoral institutions guaranteeing a protection of electoral secrecy.

Table 6.1

Summary of hypotheses about determinants of political support for greater protection against electoral intimidation

Determinants of political support	Variable	Predicted effect on support for electoral reforms
	Occupational heterogeneity	-

Economic determinants	Skill composition	+
	Rural inequality	-
	Economic development	+
	Right-wing electoral	_
Political determinants	fragmentation	
	Margin	?
	Parties with ties to powerful	-
Doutioon determinents	economic actors	
Partisan determinants	(Conservatives, National	
	Liberals, Free	
	Conservatives)	
	Parties lacking ties to	+
	powerful economic actors	
	(Free Liberals, Social	
	Democrats, Zentrum)	

Table 6.1. summarizes the main hypotheses about support for changes in electoral institutions that sought to protect voters against electoral intimidation. The underlying theoretical hypothesis is that politicians that face relatively higher costs of electoral intimidation are more likely to support changes in electoral institutions. The above discussion has disaggregated the costs of electoral intimidation and examined the effects of economic, political and partisan variables in a district on the latter.

EMPIRICAL ANALYSIS

The dependent variable in this chapter includes all bills that have been submitted to the *Reichstag* during the period between 1870 and 1912 demanding a higher protection of voters against electoral intimidation¹. Table 6.2. presents the full list of legislative proposals,

¹ In our analysis, we have started from a comprehensive list of all proposals for changes in the electoral laws that have considered by the German *Reichstag* during the period between 1870 and 1912. We have excluded from the latter bills that do not pertain to the protection of voters against intimidation, but pertain to other issues, such as changes in the electoral formula and the adoption of proportional representation, the extension of suffrage for women and redistricting. The bills that remain in our sample

the date of their submission the name of the politician (or group of politicians that initiated the proposal) alongside with some brief discussion of the main area of reform of reform under discussion. Proposals recommending changes improvements in electoral technology were on the agenda of the *Reichstag* during eight of the thirteen legislative sessions of the Imperial period.

As the analysis of the parliamentary debates in the *Reichstag* has illustrated, the content of these reforms varied systematically over time. During the first legislative periods, the main objective of the reforms focused on the adoption of ballot envelopes and isolating spaces. Following the adoption of the Rickert law in 1903, the objectives of reformers changed and focused on the modification of the design of urns.

pertain only to changes in electoral legislation and voting technology that provides a better protection of voters against intimidation.

Table 6.2.

Proposals for electoral reform that sought to protect the autonomy of voters submitted to the German Reichstag during the period between 1870 and 1912

	Document		
Year	Nr.	Proposal for Reform	Initiating Politician
1875	52	Electoral List	Voelk (NL)
1878	66	Ballot envelopes	Blos, Most (SPD)
1878	119	Ballot envelopes	Liebknecht (SPD)
1881	66	Ballot design	Woelfel (NL)
		Ballot design and ballot	Barth (DFP) and Rickert
1889	26	envelopes	(NL)
1890	139	Ballot design	Groeber
			Barth (DFP) and Rickert
1892	30	Ballot envelopes	(NL)
1892	35	Ballot envelopes	Groeber
1894	20	Ballot envelopes and secret urn	Groeber, von Heereman,
			Lieber, Rintelen, Schaedler,
			Spahn, Wenzel
1894	21	Ballot envelopes	Rickert (NL)
1895	25	Ballot design and secret urn	Rickert (NL)
1899	22	Ballot design and secret urn	Rickert (NL)
1900	33	Ballot envelopes and secret urn	Groeber (Z)
			Hompesch, Schadler, Spahn
1907	112	Electoral urn	(Z)
1909	47	Protection of electoral secrecy	Ablass (FVP)
1909	91	Electoral urn	Bassermann (NL)
1910	214	Electoral urn (shaking of urn)	von Hertling (Z)
1911	816	Electoral urn	Ablass (FVP)

Source: Stenographische Berichte des Deutschen Reichstages (various years).

A quantitative analysis of co-sponsorship for electoral reforms.

Explanatory Variables: economic concentration

We have hypothesized that a key determinant of the costs of electoral intimidation of

private actors is the economic concentration of a district and that demand for electoral secrecy is higher for politicians in districts with lower levels of economic concentration. To test for this hypothesis, we take advantage of the information collected by the German statistical agency as part of its occupational census ("Betriebszählung") in 1895 and 1905 (Kaiserliches Statistisches Amt 1898, 1907). Both Chapter 2 and Appendix 1 present this data extensively. The occupational census presents precise measures of the employment shares in over 180 occupations across over 1000 communes. We digitized this source (which totals over 400,000 lines of information for each census) to develop very precise measures of the Germany's occupational landscape at the time. We aggregate these variables to the 397 electoral districts, using the mapping of localities into districts reported in Reibel (2007). As discussed above, Germany experienced no redistricting for the elections to the national parliament, which makes the mapping of localities to districts relatively straightforward.

To test for the effect of economic concentration on demand for electoral reform, we use the Herfindahl-Hirschman Index (HHI) measure of employment concentration that has been also used in Chapter 2 as a predictor of the incidence of electoral fraud. As conventionally used in the industrial organization literature, the Herfindahl-Hirschman index is defined as the sum of the squares of employment shares of all occupations in a particular district. More specifically, we use

$$\text{HHI} = \sum_{i=1}^{n} S_i^2$$

where S_i stands for the employment share of each occupation found in the district, while i=1..182 denote the different occupations. Higher values of the HHI indicate more concentrated economic districts, while lower values represent more districts with lower levels of concentration.

The proposals to change electoral law we analyze span a time period from 1875 to 1911. The disaggregated occupational data is available only for the 1895 and 1905 censuses. We use a conservative approach to interpolate data for the years before and after measurements. We use the 1895 values for proposal submitted before 1895 and we use the 1905 measure for those that were introduced after 1905. For proposals in between the two censuses we use a weighted average (based on time from/to the next/last census). The emerging patterns are flat-steep-flat such that the measures are constant between 1875 and 1895, they can be growing or falling for the time between the two measures, and they remain stable after 1905.

One problem of the existing data is the lack of information on the total number of agricultural employees in a district across both censuses. One can recover this information for the 1895 census, using two different publications of the Statistical Office. Appendix 2 presents more specific information about this problem. Unfortunately, the German statistical authorities did not collect disaggregated information on *all* workers employed in agriculture only as part of the last census of the period, the 1905 census. In this second census, this information is collected only at a higher level of aggregation. This poses a significant constraint on the effort to measure of occupational heterogeneity. A time-varying measure of

occupational heterogeneity lacks information on the total number of agricultural workers. By contrast, one can construct a measure with detailed information for all workers but the latter is time-invariant and only covers the 1895 census. In the analysis, we employ both measures of occupational heterogeneity to test for the robustness of our results to alternative measures. We present a second set of models that uses the time-invariant measures of occupational heterogeneity (1895 census only) but that includes information for all agricultural employee. This variable is named HHI_with agriculture.

4.2 Explanatory Variables: Skill Profile of Districts

In recent years, 'varieties of capitalism' explanations of political development have argued that the distribution of skills is an important predictor of political support for variation in political reforms across the 19th century (Cusack, Iversen, and Soskice 2007, 2009). Despite this theoretical emphasis on human capital, none of these studies have provided direct empirical measures of the distribution of skills in 19th century European economies. Empirical evidence comes in the form of qualitative assessments of cross-national differences in the strength of guilds, rural cooperatives and national level associations of employers (Thelen, 2004; Cusack, Iversen, and Soskice 2011 based on Katzenstein 1984 and Crouch 1993). Even the most recent publication by Cusack, Iversen and Soskice that seeks to predict subnational variation in the development of electoral institutions across German regions relies only on qualitative assessments of the level of skills in these regions (Cusack Iversen and Soskice 2011). As discussed in Chapter 2 and the appendix, such assessment base their inferences about the distribution of skills in the nineteenth century on twentieth century outcomes and are, as such inaccurate.

I have developed the first empirical measures of the variation in human capital across German localities, which will be hopefully of broader use to scholars examining other political outcomes of the period. I discuss the measure here only briefly and refer the reader to Chapter 2 and Appendix 2 for additional details. In 1895, the German statistical office collected information on the ratio between skilled and unskilled workers in 183 occupations (Kaiserliches Statistisches Amt 1899: 73). I use this table in conjunction with the 1895 occupational census to estimate the ratio of skilled to unskilled industrial workers across all occupations and for all German localities.

The German Statistical Office did not collect similar data measuring the ratio of skilled to unskilled workers for each occupation as part of its 1905 census. The only information that exists in the 1905 census is a comparative table on the number of apprentices (*Lehrlinge*) for each occupation, which compares the 1895 and 1905 census. This table reveals, however, that the overtime changes in skill formation are very small. As a result, one can assume that the skill ratio remains constant over time for each occupation. What changes, however, is the occupational make-up of a district. This requires us to recalculate the skill ratio using the information collected as part of the 1905 census of the Imperial period. We use the same procedure as in the calculation of the skill ratios for 1895, using this time the information on the distribution of workers across occupations that is presented in the 1905

occupational census (Statistik des Deutschen Reiches 1909: volumes 218 and 219).

We construct two variables that measure the skill composition of a district. The difference among these variables is the denominator. For the first measure of skills, the denominator is the total number of workers in a district employed in non-agricultural occupations. For the second measure, the denominator is the total number of employees in a district which includes also all agricultural employees. Given that we lack a precise measure of the total employees in a locality for both the 1895 and 1905 census, the second measure of skill is time invariant.

4.3. Additional economic controls

Both classic studies of German democratization and contemporary work on democratic transitions regard inequality in the distribution of land as an impediment to democratic transitions. To test this hypothesis, we employ a measure of the Gini of landholding inequality that has been computed by Daniel Ziblatt based on the 1895 German agricultural census (Ziblatt, 2009). This variable measures deviation from a perfect distribution of land among landholders.

To test predictions of the literature on endogenous democratization stressing the effects of economic development on the adoption of policies that reduce opportunities for electoral intimidation, we control for the level of economic development of a district. To measure economic development, we use the share of the population that is not employed in agriculture (*Nonagricultural Workforce*) constructed by Ziblatt based on data in Reibel (Ziblatt 2008, Reibel 2007).

4.4. Political and partisan controls

As discussed above, political factors affect the costs of economic intimidation of voters and hence demand for electoral secrecy. We have hypothesized that the higher fragmentation among parties on the right increases the costs of electoral repression in a district, raising thus demand for electoral secrecy. To test for this hypothesis, we construct a measure of the effective number of candidates on the political right in a district (*Right Electoral Fragmentation*). The latter variable is computed as the squared sum of votes received by various candidates on the right during the first electoral round. The source of this variable is the ICPSR dataset on Imperial Germany (ICPSR, 1984).

We include a battery of additional controls measuring electoral competition in a district. The first variable is the margin of victory (*Margin*). Given Germany's runoff elections, we compute margin as the difference in electoral victory between the winner and runner-up in the decisive electoral round, using the ICPSR data on Imperial Germany's elections. To ease the interpretation of the results, we have reversed the sign of this variable so that higher values represent more competitive elections. We also control for the decisive round of the election (*Second Round*), by including a variable, which takes the value 1 if the election is determined in the second round. As discussed above, the theoretical expectations about the competitiveness of a race and support for the adoption of the secret ballot are ambiguous. An additional measure of electoral competition is the effective number of candidates in the first electoral round (*Effective # of Candidates*). I also control for the level of

electoral turnout and the percentage of Catholics in the district. The source of both variables is the ICPSR dataset (ICPSR, 1984).

All models also include controls for the partisan affiliation of the politicians. I have hypothesized that politicians representing parties with stronger ties to private actors face lower costs of electoral intimidation and are thus more likely to oppose changes in electoral laws. By contrast, politicians from parties lacking these ties – Free Liberals, Catholics and Social Democrats – are likely to face higher costs of electoral intimidation and are likely to support changes in electoral laws.

RESULTS

I estimate several models that test the above hypotheses and their robustness to alternative specifications. The outcome variable is whether a member of the *Reichstag* was a co-signer of a proposal recommending changes to the electoral law and estimate whether our variables of interest increase or decrease the probability for a politician from a certain district to co-sign an electoral reform bill or not. Because we have unobserved heterogeneity over time (eight legislative periods), space (electoral districts), and subject (proposals) we estimate a non-nested binary model in which we incorporate random effects (Gelman and Hill, 2007).² To control for potential unobserved regional effects, we add fixed effects for all major regions in Imperial Germany (Bavaria, Saxony, Württenberg, Baden, Hessen and Prussia denoted β_{0r}).

The explanatory variables (X_{dp}) vary over districts and periods. Given that our dataset includes several proposals (*i*) per legislative period (*p*) and we include random effects for districts (α_d) and proposals (α_i).

$$P(y_{id} = 1) = logit^{-1}[\beta_{0r} + \beta X_{dp} + \alpha_d + \alpha_i]$$

$$\alpha_d = N(0, \sigma_{district})$$

$$\alpha_d = N(0, \sigma_{proposal})$$

In Tables 3 and 4, I present the estimation results that use different measures of economic heterogeneity. We have three different model specifications (Models 1, 2 and 3) that use the two different measures of economic concentration. As mentioned above, in measuring the occupational heterogeneity of a district, we encounter a trade-off between temporal and occupational coverage. The time varying measure of economic concentration that includes agricultural workers. We can construct a measure of economic concentration that includes all employed persons in a district only for the 1895 census. To overcome this constraint data-availability, we present models that include both the time-varying and time-

² We estimate these models in R 2.14.1 using packages "arm", "Ime4", "blme", "foreign", "aod", "memsic" and "Imtest". Altogether we have 7146 observations, 397 districts, and 8 different legislative periods.

invariant measures of occupational heterogeneity. The models presented in Table XXX use the time-varying measure of occupational heterogeneity, while the models presented in Table 4 use the time-invariant measure that has a broader occupational coverage. An additional difference between the models presented in Table XX and XX is the denominator used in the calculation of the measure of the skill profile of a district. For the models presented in Table XX, the denominator is the labor force employed in industry. Moreover, these models use time-varying measures of skills. By contrast, the models presented in Table XX use a second measure of skills in which the denominator is the total workforce in a district that includes all agricultural employees.

Model 1 in Table 3 presents our baseline specification. It tests the above hypotheses concerning economic, political and partisan demand for electoral reforms. With respect to economic controls, the models use the time-varying measure of occupational heterogeneity and the measure of skill for which the denominator in the non-agricultural labor force in a district. Overall, the results lend support to many of the hypotheses discussed above. Consider first the economic hypotheses. Consistent with our prediction, we find that demand for electoral secrecy is higher in districts with lower occupational heterogeneity where private economic actors face higher costs of intimidation. Similarly, demand for electoral reforms is higher among politicians with a more skilled workforce. Our findings in this model also support the propositions of the literature on endogenous democratization, according to which higher levels of economic development (measured by a higher share of a non-agricultural workforce) increase demand for electoral reform. We find, however, no empirical support for the hypothesis that higher levels of landholding inequality contribute to opposition to electoral reforms.

Let us consider now our political hypotheses about the demand for the adoption of electoral secrecy. Consistent with our argument that right fragmentation limits the ability of politicians to rely on electoral intimidation (through the anticipated need of cooperation in a potential future runoff), we find support for our hypothesis that politicians in districts where the right is more fragmented are more likely to support electoral reforms. Recall that I did not have a clear theoretical prediction about the effects of the tightness of a race on support for electoral reforms. Empirically, we find that politicians that won in more secure races were more likely to support electoral reforms.

The models also include a battery of variables indicating the party affiliation of the legislators. We use Conservatives as the baseline category and include dummy variables for the other major party groups. Members of *Zentrum*, Free Liberals, National Liberals, and Minorities are more likely to support ballot secrecy than Conservatives. The two parties exhibiting the highest level of support for electoral reform - *Zentrum* and the Free Liberals -- are also significantly more likely to support ballot secrecy than the National Liberals. The test statistic for National Liberals versus Free Liberals is -3.91 and its p-value is 0.000, the test statistic for National Liberals versus *Zentrum* is -6.34 and its p-value is also 0.000. While the Social Democratic affiliation of a candidate has the predicted positive sign, the variable does not reach statistical significance at conventional levels. For National Liberals, I had hypothesized opposition to the adoption of these electoral reforms, due to the strong ties between members of this party and large German firms in highly industrialized areas. We

find, by contrast, that National Liberal politicians were supporters of the legislation protecting electoral secrecy.

In model 2, I add an additional variable measuring changes in economic concentration. This provides a second additional test of the economic hypothesis linking economic concentration and demand for electoral reforms. Here, I examine whether the change in the occupational concentration of a district creates additional economic incentives for the politician to support electoral secrecy. This variable has no effect on the adoption of electoral secrecy. We measure economic concentration at an interval of a decade only, which might be too short of an interval to test a dynamic version of the economic argument, according to which long-term changes in the economic concentration contribute to the adoption of democratic reforms.

In all of the above models, we have found that politicians elected in more secure races are more likely to support the adoption of electoral secrecy. In Model 3, I examine an additional political hypothesis that explores whether these electoral considerations (i.e. the margin of victory) increases political support of representatives from parties that already favor the protection of electoral secrecy. To test for this hypothesis, we include an interaction for the competitiveness measure (margin) and a partisan variable (which is labeled progressive) that takes the values of 1 for *Zentrum* and Free Liberals politicians and '0' for others. The net effect of margin for members of the progressive parties is then $\beta_{margin} + \beta_{margin*progressive}$ and the effect for non-progressives is just β_{margin} . To assess whether the net effect is significant, the standard error of the net effect for progressives, can be computed based on the variance and covariance of the two components (β_{margin} , $\beta_{progressive}$). These calculations yield that the net effect of margin for representatives of these two parties is -0.72 and is not significant (p-value of 0.469). This suggests that the closeness of a race did not affect the levels of support of members of the two "progressive" parties on these questions.³

[INSERT TABLE 4 HERE]

In table 4, we repeat the specifications of the models in Table 3, using two different measures for our economic variables. First, I now use a time-invariant measure of occupational concentration (measured in the 1895 census) that now includes also all agricultural employees in the district. (See Appendix for the construction of the latter measure). The measure of skills used in this specification is also time-invariant and uses all employees in the district as the denominator. All the results reported in the previous table remain unchanged, with one exception. In this specification, we find no support for the hypothesis according to which the human capital composition in a district affects demand for electoral secrecy. While the direction of the skill coefficient is consistent with the theoretical prediction, the standard error is of about the same magnitude as the estimates. Hence, empirical support for the hypothesis according to which the skill composition of the skill composition of the

³ We use the term "progressive" to refer to members of *Zentrum* or Free Liberals, two of the parties that have exhibited the strongest support for the protection of electoral secrecy throughout the period. Model 2 does not include the variable "progressive" since adding that variable leads to perfect collinearity with the parties. We also estimate model 3 with the variable "progressive" taking value of 1 only for Free Liberals, but the results remain unchanged.

workforce affects demand for electoral secrecy depends on the measurement of this variable.

		Model 1	Model 2	Model 3
	Economic			
Economic	Concentration	-5.766**	-5.635**	-5.516**
		(2.120)	(2.110)	(2.071)
	Landholding			
Economic	Inequality	-0.148	-0.157	-0.027
		(0.795)	(0.796)	(0.787)
	Nonagricultural			
Economic	Workforce	0.016**	0.016**	0.015**
		(0.006)	(0.006)	(0.005)
Economic	Skill Level	2.668***	2.645***	2.669***
		(0.528)	(0.529)	(0.526)
	Effect. # of Right			
Political costs	Parties	3.924***	3.971***	3.814**
of repression		(1.183)	(1.184)	(1.184)
Parties	Social Democrats	0.256	0.256	0.188
		(0.263)	(0.263)	(0.262)
Parties	Zentrum	2.066***	2.055***	1.741***
		(0.259)	(0.259)	(0.286)
Parties	Minorities	0.929***	0.925***	0.997***
		(0.248)	(0.248)	(0.248)
Parties	Free Liberals	1.271***	1.270***	0.994***
		(0.185)	(0.185)	(0.213)
Parties	National Liberals	0.560**	0.551**	0.548**
		(0.196)	(0.197)	(0.196)
Parties	Other Party	2.326***	2.309***	2.090**
		(0.681)	(0.681)	(0.687)
Competitiveness	Margin	-1.174***	-1.175***	-2.011***
		(0.316)	(0.316)	(0.478)
Competitiveness	Second Round	0.365*	0.359*	0.286
		(0.144)	(0.144)	(0.147)
Competitiveness	Effect. # of Parties	-4.198***	-4.244***	-4.041***
		(1.203)	(1.204)	(1.205)
Competitiveness	Electoral Turnout	-0.014*	-0.014*	-0.014**
_		(0.005)	(0.005)	(0.005)
	Share of Catholics	-0.006	-0.006	-0.007*
		(0.003)	(0.003)	(0.003)
Temporal	Increase in Econ.	,		· · · ·
change	Conc.		-0.117	
<u> </u>			(0.134)	

Table 3: Determinants of political support for legislation protecting voters against intimidation

Interaction	Margin x			
Terms	Progressive			1.327*
				(0.534)
	Constant	-3.102***	-3.059***	-2.962**
		(0.922)	(0.924)	(0.914)
Variance				
	sigma^2_district	0.705	0.707	0.671
	sigma^2_bill	0.563	0.565	0.552
	Regional Fixed			
	Effects	YES	YES	YES
	Ν	7146	7146	7146
	Log-likelihood	-2039.531	-2039.159	-2036.329
	AIĊ	4129.061	4130.318	4124.659
	BIC	4300.919	4309.050	4303.391
statute 0.4		~ ~		

*** p<0.001, ** p<0.01, * p<0.05

		Model 4	Model 5	Model 6
	_			
	Economic			
Economic	Concentration	-2.560***	-2.589***	-2.468***
	(with			
	agriculture)	(0.666)	(0.668)	(0.657)
	Landholding			
Economic	Inequality	-0.619	-0.613	-0.519
		(0.835)	(0.835)	(0.824)
	Nonagricultural			
Economic	Workforce	0.007	0.008	0.007
		(0.006)	(0.006)	(0.006)
Economic	Skill Level	0.894	0.812	1.026
	(with			
	agriculture)	(0.865)	(0.871)	(0.855)
	Eff. # of Right			
Political costs	Parties	6.374***	6.405***	6.291***
of repression		(1.285)	(1.285)	(1.286)
	Social			
Parties	Democrats	0.308	0.306	0.238
		(0.264)	(0.264)	(0.263)
Parties	Zentrum	1.999***	1.987***	1.655***
		(0.258)	(0.259)	(0.286)
Parties	Minorities	0.830***	0.824***	0.906***
		(0.249)	(0.249)	(0.249)
Parties	Free Liberals	1.201***	1.200***	0.908***
		(0.186)	(0.187)	(0.214)
	National			
Parties	Liberals	0.445*	0.434*	0.437*
		(0.198)	(0.199)	(0.198)
Parties	Other Party	2.052**	2.034**	1.802**
		(0.686)	(0.685)	(0.692)
Competitiveness	Margin	-1.035**	-1.038**	-1.907***
		(0.317)	(0.317)	(0.476)
Competitiveness	Second Round	0.302*	0.296*	0.222
_		(0.144)	(0.144)	(0.147)
	Effect. # of			
Competitiveness	Parties	-6.663***	-6.694***	-6.531***
*		(1.310)	(1.310)	(1.310)

Table 4: Determinants of political support for legislation protecting voters against intimidation

	Electoral			
Competitiveness	Turnout	-0.011	-0.011	-0.011*
		(0.006)	(0.006)	(0.005)
	Share of			
	Catholics	-0.008*	-0.007*	-0.009**
		(0.003)	(0.003)	(0.003)
Interaction				
Terms	Increase in Econ.	Conc.	-0.143	
			(0.136)	
Interaction				
Terms	Margin x Progressive			1.390**
				(0.531)
	Constant	-0.852	-0.779	-0.748
		(1.076)	(1.078)	(1.065)
Variance				
	sigma^2_district	0.741	0.740	0.699
	sigma^2_bill	0.892	0.893	0.882
	Regional Fixed			
	Effects	YES	YES	YES
	Ν	7146	7146	7146
	Log-likelihood	-2037.619	-2037.084	-2034.074
	AIC	4125.237	4126.167	4120.148
	BIC	4297.095	4304.899	4298.880

*** p<0.001, ** p<0.01, * p<0.05

5.1 Interpretation of the empirical results

To illustrate the effect of skills and economic concentration on the propensity to cosign a proposal, we can examine the changes in predicted probability for a specific unit. Let us examine a specific district such as the district *Memel-Heydekrug* (district # 1) and study the predicted behavior of the district's parliamentarian for a particular bill. We examine the von Hertling proposal that was introduced in 1910 and recommended to change the design of the urns to prevent the stacking of the ballots and guarantee electoral secrecy.

Memel-Heydekrug, a district that had been won by National Liberals in 1907 had a below average level of skills and an above average degree of economic concentration. We use the estimated coefficients and the variance-covariance matrix from Model 3 together with the estimated random effects for both levels and generate 10,000 simulated predictions.⁴ Based on the theoretical argument, we would not expect to see this district supporting the proposal and

⁴ Note, the uncertainty is fully captured in the variance-covariance of the fixed effects. For a more general exposition of this informal Bayesian approach see chapter 7 in Gelman and Hill (2007).

this is also what the predictions yield: the likelihood of co-signing is only 9.7%. The dark area in Figure 4 shows the simulated density for the district.



Next, we ask what would happen if this district would remain in the hands of the National Liberals but had a higher skill level and lower economic concentration (holding all other covariates constant). We use a high level of average skills (70%) and a low degree of economic concentration (0). The lighter-colored density shows the simulated predicted probabilities and we see that the mean is higher. In fact, the predicted probability of co-signing is more than twice as big (19,7%). The empirical 99% confidence interval for the difference in the two predicted probabilities is [0.04, 0.19] and therefore the difference is significant⁵.

Our empirical analysis lends support to our theoretical hypotheses of the determinants of electoral secrecy. In line with our theoretical argument, we find that economic and political conditions in a district that increase the costs of electoral intimidation of politicians are also likely to increase support for changes in electoral institutions and the adoption of electoral secrecy. In line with our theoretical predictions, politicians from districts where right wing parties are politically divided are more likely to support the introduction of the secret ballot. We also find that the economic concentration of a district affects the level of support for electoral reforms, even when a full set of political and partisan controls is in place. This is surprising since the measures of economic concentration exhibit to a certain degree some

⁵ The larger variance in the predicted probabilities for the high-skill and low-concentration case (which has dark density) is due to lower compression (see Berry et al. 2010).

noisiness. Noisiness pushes coefficients back to 0 and finding significant effects is harder. We do not find strong support for the hypothesis according to which the skill composition of the workforce affects demand for changes in electoral institutions. The effect of this variable depends on measurement. The measure of economic development of a district does not achieve statistical significance that is robust across specifications.

Finally, in sharp contrast to the theoretical predictions of the hypothesis stressing the importance of rural inequality as a barrier to democratic reforms, we find no effect of this economic variable as a predictor of political positions towards electoral reforms. In the following chapter – which will analyze political support for the introduction of electoral reforms in Prussia, Germany's largest state – we will subject the rural inequality explanation to a number of additional tests. In an effort to disaggregate rural inequality, I will provide a range of additional measures of rural inequality – that distinguish among inequality in the distribution of land and inequality in the distribution of employment and explore the effects of each of these different dimensions of inequality on political support for electoral reform of members of the Prussian lower house.

CONCLUSION

Electoral reforms that improve the secrecy of the vote and remove opportunities of electoral intimidation of voters that exist at the moment of voting are an important component of the process of democratization. These reforms often involve changes in electoral technology such as the design of the ballot, its shape and color, the size of urns and their location in electoral precincts. They concern details of the electoral process such as the shaking of urns prior to the counting of the ballots or the place where electoral urns should be located. These micro-level details are the object of intense political contestation. They matter to politicians, as these micro-details of the organization of the electoral process have consequences for their ability to win office.

In this chapter, I have explored the economic and political determinants of demand for the adoption of secret ballot reform. Using a novel dataset on co-sponsorship of political proposals that recommended changes in electoral secrecy, I have shown that political demand for electoral secrecy originated with politicians that faced relatively higher costs of electoral intimidation and that could not take advantage of opportunities for electoral intimidation. I have unpacked theoretically and empirically the latter variable, showing how specific economic and political conditions in the district affect the ability of public and private actors to engage in electoral intimidation and thus affect electoral support for changes in electoral institutions. I have found that low level of electoral coordination among candidates on the right constrained electoral intimidation, while, at the same time, raising demand for the protection of electoral secrecy. Chapters 3 and 4 have shown that the costs of electoral intimidation of private actors were lower in districts with higher levels of economic concentration. The corrolary of this finding for the demand of electoral reforms is that political support for reforms that protect electoral secrecy should originate with politicians from districts with high levels of economic heterogeneity. The empirical findings confirm this hypothesis.

The findings of this chapter also contribute to ongoing debates about the economic determinants of demands for democratization. The results speak to findings from two related literatures. First, the findings of this chapter address the proposition that inequalities in the distribution of land predict demand for and opposition to democratic reform. Rural inequality, we find, does not explain political cleavages over the adoption of electoral secrecy. This result is puzzling given the importance of rural inequality in classic explanations explanations of Germany's failed democratization that go back to Max Weber, Gerschenkron and Moore. The following chapter will provide a richer examination of the various mechanisms by which rural inequality affects political outcomes and will provide an explanation for the absence of political consequences of inequality in landholding. To anticipate the results, I will show that landholding inequality did not translate into a higher capacity of landlords to mobilize rural workers, as the large farms in the districts characterized by high levels of rural inequality were often unpopulated. Our results underscore that labor-based of employment concentration rather than land-based measures of inequality act as a strong predictor of preferences over electoral reforms. Our findings echo the results of Baland and Robinson in the Chilean context but disagree with the explanation put forward by Ziblatt who stresses the importance of rural inequality.

Finally, the findings of this chapter also speak to a related set of prominent arguments in the literature on democratization, which stresses the effects of modernization for democratic transitions. Modernization is, however, a catch-all term that affects political outcomes through a host of different potential mechanisms, such as higher levels of wealth, higher levels of education and so on. Our central explanatory variable, the degree of economic concentration of a district identifies one specific mechanism by which economic development affects political outcomes: the occupational diversification of a district. I have shown that economic concentration is conducive to electoral repression by private actors and inimical to demands for electoral reforms. By contrast, economic diversification lowers the ability of employers to engage in electoral repression and increases demand for electoral reforms. As Gary Herrigel and Charles Sabel have demonstrated, economic modernization leads to both concentrated and diversified districts. As such, on the basis of the specific mechanism tested in this chapter, there is no unambiguous positive relationship between economic development and demand for democratic reform. Economic development leads to demand for democratic reforms only through the intervening mechanism of economic diversification.

Finally, this chapter has shown that an explanation of political demand for electoral secrecy has both economic but also political determinant. The costs of electoral intimidation of individual politicians and their preferences for a reform of electoral institutions are affected by a combination of economic and political factors. While the most recent literature has made important progress in attempting to identify the economic determinants of democratic reforms, this chapters underscores the importance to political factors and of the need to specify the interrelation between political and economic variables.