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Appeldorn, Niels H.; Fortunato, David

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Legislative Capacity in Germany's Parliaments

Niels H. Appeldorn

Texas A&M University

nappeldorn@tamu.edu

David Fortunato

University of California, San Diego

Copenhagen Business School

dfortunato@ucsd.edu

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Abstract

Legislative scholars have learned much from the comparison of legislatures within federal systems, but this scholarship has overwhelmingly been limited to the United States. We present new data on the legislative capacity (or professionalism) of Germany's national and subnational parliaments including legislator salary, informational expenditures, and counts of committee and plenary sessions. We describe these data and aggregate them into a summary measure modeled after the Squire Index as well as a measure derived from factor analytic decomposition. The internal validity of these measures is assessed in a case study of recent parliamentary reforms in Baden-Württemberg and the external validity is assessed via comparison to electoral turnover. We conclude with suggestions for future research and hope that our colleagues will both make use of these data to study the causes and consequences of legislative capacity in Germany and also be motivated to collect and disseminate similar data for new contexts.

We present new data on the legislative capacity of 17 German legislatures — the Landtage, which are the unicameral parliaments of the 16 German Bundesländer,¹ or states, and the Bundestag, the popularly elected lower house of federal parliament. The raw data on legislator compensation, staff expenditures, and time devoted to both plenary and committee sittings show that there is substantial variability on these parameters both across chambers and over time. A discussion of recent parliamentary reforms made in Baden-Württemberg to increase legislative capacity and pre- post-reform comparison of the raw data provide internal validity for using these factors to measure legislative capacity. We then present two summary measures of legislative capacity in Germany’s parliaments — one built on the industry-standard Squire Index (1992; 2007; 2017) — a measure cited or applied in nearly 1500 scientific publications — and one derived from a factor analytic decomposition of the data. The external validity of the data is assessed in a simple analysis of electoral turnover in the parliaments. Taken together, the data, analysis, and discussion suggest that the Landtage present a rich new testing ground for political economic theories involving legislative capacity. We conclude with several suggestions for future research, emphasizing how the institutional context (parliamentary rather than presidential governmental designs) changes what we can and cannot learn from these data relative to the original Squire Index of the United States’ state legislatures. It is our hope that our colleagues will be both motivated to use these data in their own research and collect and disseminate similar data from *within* other federalist countries, following Squire (1992) and this manuscript, or *across* other groups of national parliaments.

Research on legislative capacity

The capacity to distill policy preferences into policy proposals and practice meaningful oversight of the executive varies widely across legislatures. Legislative scholars typically think of this capacity as the product of the time and resources available to the chamber as

¹The English, or common names of the Länder are: Baden-Württemberg, Bavaria, Berlin, Brandenburg, Bremen, Hamburg, Hesse, Lower Saxony, Mecklenburg-Vorpommern, North Rhine-Westphalia, Rhineland-Palatinate, Saarland, Saxony, Saxony-Anhalt, Schleswig-Holstein, and Thuringia.

well as individual legislators' willingness and ability to invest in expertise (Squire 1992). As such, recent research has found that higher capacity legislatures are better able to discover and react to voters' changing policy preferences and therefore more likely to deliver the policy outcomes that voters prefer (Maestas 2000; Lax and Phillips 2012). Of course, the consequences of capacity are much broader than just responsiveness. Over the past few decades, we have learned that capacity may impact member partisanship and diversity (Squire 1992; Fiorina 1994), coattail effects and reelection rates (Berry, Berkman and Schneiderman 2000; Carey, Niemi and Powell 2000), the legislature's control of the bureaucracy (Boehmke and Shipan 2015), and even states' ability to access the bond market (Fortunato and Turner 2018).

Notably, all of these articles have used the state legislatures of the United States to test their hypotheses and this is no doubt in part because subnational legislatures offer an excellent opportunity to study the causes and consequences of capacity. They operate under similar constitutional constraints, with similar party systems, in similar cultural contexts, and can therefore provide a naturally controlled laboratory. Of course, it goes without saying that these legislatures are important in their own right as many policies that have profound impact on local populations are crafted in and enacted by subnational legislatures. For example, in the United States, 21% of all government spending is administered by state legislatures. This figure is roughly 30% in Nigeria and over 50% in Germany. However, apart from a few notable exceptions on legislative effort (Bundi, Eberli and Bütikofer 2017), turnover (Heinsohn and Freitag 2012; Heinsohn 2014), and institutionalization (Opalo 2019), the study of legislative capacity, or legislative professionalism, has primarily been confined to the state legislatures of the United States. This is despite the fact that many countries — Australia, Brazil, India, Mexico, Sudan, and Switzerland, to name just one representative from each continent — have powerful and institutionally diverse provincial legislatures, and, of course, every democracy has a national legislature.

This is all the more vexing given just how uncommon the United States' institutional structures are. The American states are two-party presidential systems, with exceptionally strong bicameral legislatures that enjoy a monopoly on proposal power. In the global context,

this is a vanishingly rare mix of factors.

Given the utility of this kind of research, why has it been confined to the United States and its unusual institutional structure? We believe that, at least in part, data availability issues have hindered the development of a vibrant research agenda on legislative capacity outside of the United States. That is, when [Squire \(1992\)](#) developed his summary measure of legislative professionalism, he not only tested the discrete hypotheses at hand, but also delivered an extraordinarily valuable public good to legislative scholars, one that Squire would generously update regularly thereafter ([Squire 2007, 2017](#)) and, as a result, one that has become the workhorse data source in the field.

To begin to overcome this issue, we introduce the data necessary to create a version of the Squire Index for the 17 state and federal parliaments of Germany. Constructed to capture “the capacity of both individual members and the organization as a whole to generate and digest information in the policymaking process” ([Squire 2007, 211](#)), the Squire Index, which is conceptually bound $[0, 1]$, assumes that the US Congress is “the archetypal professional legislature” (212) and is meant to capture the degree to which a (state’s) legislature resembles the US Congress’s ability to “generate and digest information” by tracking their endowments on three dimensions: member salary, staff support, and legislative session length. Following suit, we have collected data on legislators’ salaries, staff expenditures, and legislative session days for the German parliaments. We present one summary measure of capacity modeled directly after the Squire Index, as well as a factor analytic alternative we call “AF Scores.”

Why Germany? First, the Landtage are multi-party, unicameral parliamentary legislatures, making them much more representative of legislatures around the world — most classification schemes would suggest that this the world’s most common democratic legislature. Of course, this representativeness means that research on the Landtage is more likely to “travel,” or, that findings from this research are more likely to manifest in other contexts than findings from the (much less common) American case (indeed parliamentary systems outnumber presidential systems at a rate of more than three to one). Second, while Germany is no doubt a stable democracy, it is still a young democracy. The federal parliament

and ten Landtage of the West German states were (re)born following World War II and the six formerly East German Landtage are barely three decades old.² This youth presents the opportunity to study institutionalization and change in real-time as the parliaments mature in a context that is free of the type of existential threats (collapse, revolution, etc.) that may endanger other young parliaments. Third, as noted, about half of total government spending is administered by the Länder, meaning that the choices made inside Landtage bear substantial financial implications and affect the lives of over 80 million Germans and their European neighbors. These are but a few of the many reasons to study Germany's parliaments.

We hope that these German data are only a first step and that this effort will spark renewed interest in subnational parliaments, inspiring our colleagues to study the Landtage directly, but also bring similar data to bear on national legislatures and the subnational legislatures of other countries.

The data

We collected data on several characteristics of the parliaments of all sixteen German states as well as the German national parliament. We present complete coverage for 2000 through 2019, however, most data go back to Reunification and we make those publicly available as well.³ The overall timespan is similar to the range presented by [Squire \(2007\)](#), but our data are collected annually rather than every 7 to 10 years. The data include elected member salary, total spending on legislative staff, and a count of all plenary and committee

²Some states, like Baden-Württemberg and Rhineland-Palatinate, were formed after the war and few states' borders were unaffected by it.

³Germany does not have a version of the US's "Book of the States," nor does the federal government make data on the Landtage available on its archives as the US Census does for American state legislatures. We are therefore constrained by the data archives maintained by each of the Länder which made finding the data onerous, particularly for legislative staff expenditures where we are missing an average of five years of data per Land. However, with the exception of seven missing years of committee session observations for Hamburg and one each for Berlin and Hesse, we have full coverage on the other three variables back to Reunification.

session days. Each of these categories has specific implications for legislators and legislatures alike. Higher salaries free legislators from the burden of having to generate other income streams and also create incentives for legislators to serve, allowing them to spend more time on legislative activities and (presumably) leading to longer tenures, which, in turn, increases institutional memory. Greater staff resources increase the amount of information that legislators have on hand (or can access) to craft high-quality policy instruments or oversee the bureaucracy. Session days set the upper bound of time at the legislators' disposal to engage in legislative activities like writing and scrutinizing policies, practicing oversight, etc. We believe that these factors will capture legislative capacity in the German case for the same reason that they do in the American case: time and expertise are central to legislating as they are essential to any other problem-solving endeavor. The world is a complicated place and once a goal is identified, it takes time and expertise to design an appropriate strategy for achieving it.

We have rescaled member salary to be given in monthly 2015 Euros and this figure ranges from a low of €2575 in Hamburg (2012) to a high of €9281 in North Rhine-Westphalia (2005).⁴ To measure the legislators' informational resources, we collected data on the annual personnel expenditure of each legislature and subtracted the total spent on members of parliament (MP), leaving us with total staff spending (again, in 2015 Euros), following [Bowen and Greene \(2014\)](#). To account for the large differences in the size of the legislatures (Saarland has 51 MPs and North Rhine-Westphalia's parliament has an average of 217 MPs)⁵ we divide staff spending by the total number of MPs and this figure ranges from a low of €25866 in Bremen (2015) to a high of €264756 in Thuringia (2019).⁶ We follow [Bowen and Greene's \(2014\)](#) suggestion and use expenditures over counts of total staff because we

⁴Almost all parliaments have the changes in the compensation of members of parliament go into effect either on January 1 or July 1 of a given year with the vast majority of parliaments doing this in the summertime. Thus, the average monthly salary of an elected member was calculated by weighting the salary before and after the change by the percentage of months a member was entitled to a given wage.

⁵The Landtage augment their sizes slightly in response to electoral returns in order to increase proportionality (as given by their electoral laws) just as the Bundestag does.

⁶For context, the California State Legislature spent nearly \$6,000,000 per legislator in 2019, but the New Hampshire General Court spent less than \$80,000 per legislator that same year.

believe it is a better measure. Counting the number of staff ignores full or part-time status, experience, and competence which may vary substantially across contexts. These differences become substantially less meaningful if one is willing to assume (as we are) that better staff are more expensive, and use staff spending rather than staff counts as the measure.

On our third measure, we depart a bit from both [Squire \(1992\)](#) and [Bowen and Greene \(2014\)](#). In the American measures, session lengths are given as the total number of days the chamber is open for legislative business (often, but not always, calculated by examining constitutional session day maxima). The Landtage archives differentiate between plenary and committee meetings and we embrace this distinction, recording both separately. Committee meetings, of course, are devoted to legislative oversight and legislative scrutiny, including readings, expert testimony, outcome forecasting, proposing and considering amendments, etc. Plenary sessions are divided between oversight, typically in form of ministerial questions, and other actions of the chamber as a whole, most notably debate and amendment and final passage voting. Reasonable people can disagree over whether one or another is more important to overall legislative capacity (though our position would be that committee meetings are more important). We can all agree, however, that there are occasions in which scholars would find one or the other more useful for future applications and we want to accommodate that possibility. Committee sessions range from an annual low of 63 in Saxony (2019) to a high of 446 in Lower Saxony (2006).⁷ Plenary sessions range from a low of 11 in Saarland (2010 and 2013-15) to a high of 36 in Hesse and Lower Saxony (2000, 2010, respectively).⁸

Figure 1 plots each of these four values, for all 17 chambers over our sample period identifying the Bundestag separately (in black) from the Landtage. The figure makes clear that there is a dramatic separation between the Bundestag and the Landtage on staff sup-

⁷Note that we count committee sessions individually, such that, if both the Finance and Education Committees meet on the same day, we count that as two meetings.

⁸We note that, in some cases, parliamentary archives tracked committee and plenary sessions by legislative period, rather than actual calendar day. This means that we are forced to calculate an average number of committee and plenary sessions across the years falling into a legislative period. This issue does not occur with the salary or staff expenditures variables.

port — this difference dwarfs all others. The Bundestag is also an outlier — though to a much lesser degree — on committee meetings and plenary sessions, but not particularly on salary. For 10 of 20 years, MPs in North Rhine-Westphalia earned a greater salary than their Federal counterparts, thanks to a substantial increase in 2004. Indeed, there are several clear, large increases in compensation, but, interestingly, these do not seem to be accompanied by commiserate increases in session lengths or staff support (there is also a large staff expenditure increase in Bavaria in 2009, but it does not have a commiserate salary increase). Importantly, the figure shows that there is substantial variation both across and within units over time. This is very promising for researchers interested in the causes and consequences of legislative capacity. The figure also makes clear that legislative activity, particularly plenary sessions, declines steeply in election years. This is most noticeable in the dips in the Bundestag line in 2005, 2009, 2013, etc. Of course, if one is using an index following Squire, these dips in Bundestag activity would manufacture artificial peaks in Landtage capacity, because the Squire Index is a relative measure, calibrated to the federal legislature. For this reason, scholars may choose to smooth the counts over a number of years, or, model out the impact of elections on session activity. Because of this, we have included information on elections in our data release.

A reform in Baden-Württemberg

Are these data on compensation, staff spending, and committee and plenary sessions appropriate for measuring legislative capacity? We assess this by considering how a series of reforms made for the explicit purpose of increasing legislative capacity affected these four factors. Following Germany’s reunification in 1990, three states have reformed their parliaments in efforts to increase capacity: Baden-Württemberg in 2011, Berlin in 2020, and Hamburg in 1997. Here, we discuss reform of the Landtag von Baden-Württemberg (LBW), the only one that falls entirely within our sample period, in order to illustrate that the data we have gathered correlate to a real conscious effort to increase capacity and provide a measure of internal validity.

In July 2007, barely a year into the LBW’s 14th legislative period, all four parties

represented in the chamber jointly sponsored a motion for parliamentary reform in an effort increase the chamber’s collective legislative capacity, or, to “make work in the parliament livelier” (Weber and Häuser 2008, 48). Among other items, the parliamentary reform imposed prohibitions on moonlighting by civil servants to reduce the number of members “confronted by an exhausting triple existence: work in parliament, in their constituency and in their profession” (Weber and Häuser 2008, 48) — a change that should increase capacity, but is not part of our data — as well increasing in MP compensation and session days (Landtag von Baden-Württemberg 2007) — items that are directly captured in our capacity measure. The proposed reforms were passed April 2008 with a unanimous vote of approval (Landtag von Baden-Württemberg 2008).

The changes were staged, with most going into effect in the next legislative period in 2011. Some components, however, were delayed until the 16th legislative period in 2016, including the imposition of regulations forbidding MPs from moonlighting in other state occupations. Between 2010, the year before the reform’s implementation, and 2012, the first full year of operation under the new endowment, MP salary increased by 35%, the single largest increase in any three-year span in any state to that point, and staff spending increased by 31%. Session lengths had already been increasing in the years leading to the reform, however, prior to the reform, the LBW held an annual average of 22 plenary sessions and 107 committee sessions, and following the reform, the LBW had, on average, 25 plenary sessions and 121 committee sessions a year. This is a statistically differentiable ($p=0.08$ and $p<0.01$, respectively) increase.

In Figure 2, we plot the raw data for each of our four items with LOWESS lines tracing the pre- post-reform pattern. We also include a pre-post difference of means $t - test$ statistic in the lower right-hand corner of each pane. In all but one case, there is a stark jump at the reform period. Compensation increases substantially and trends upward in the post-reform period, despite being more or less fixed in the pre-reform period. The same pattern is manifest for spending on staff support. The break is a bit less stark, but still quite clear for committee sessions, and, although plenary sessions are greater on average in the post-reform period, the effect is smallest here.

Recall that the point of this discussion is not tautology, but to drive home that when Baden-Württemberg wanted to increase its parliament’s capacity, its ability to serve its electorate, it chose to increase the endowments that compose our measure. This is an indication of internal validity, or, “convergent validity” following [McMann et al. \(2016\)](#). Of course, as mentioned, not all aspects of the reform are directly measured by these four factors (we do not include moonlighting prohibitions, for example), but the overall effect of the reform package *is* captured in our data — each of the four indicators changes positively and significantly in the post-reform period. Importantly, this endowment increase facilitated an increase in observable legislative activities. For example the average number of debates (Aktuelle Debatte) has more than doubled and ministers’ questioning (Regierungsbefragung) increased from 0 to 19 to 41 sessions over the 13th (pre-reform), 14th (reform period), and 15th (post-reform) legislative periods. This is important because debate is part of the legislative scrutiny process and question times are integral to the legislature’s ability to practice meaningful oversight of the executive — precisely the type of activity that enables legislatures to map preferences to outcomes.

Creating a summary measure

Together, the four indicators we have collected — MP salary, staff expenditures, committee sessions, and plenary sessions — compose our German version of the Squire Index. Following Squire, for each chamber year, each component is scaled to the Bundestag value and then weighted and summed. Departing from Squire, our session length variable is derived from separate counts of committee and plenary sessions, which we weight equally:

$$\begin{aligned} \text{Capacity}_i = & 1/3 * (\text{MP Salary}_i / \text{Federal MP Salary}) + \\ & 1/3 * (\text{Staff Expenditures}_i / \text{Federal Staff Expenditures}) + \\ & 1/6 * (\text{Plenary Sessions}_i / \text{Federal Plenary Sessions}) + \\ & 1/6 * (\text{Committee Sessions}_i / \text{Federal Committee Sessions}) \end{aligned}$$

We also provide a data-driven version of the index by scaling the four values together

using the mixed-data factor analytic model described by Quinn (2004). This model has several advantages. First, its output allows us to assess the degree to which these four observable characteristics conform to a single latent dimension. Second, the model allows the data to determine, for themselves, which aspects are more informative in describing relative degrees of similarity and difference on these measures across chambers and over time. Third, these estimates are relative in that omitting a state or a year would change the cardinality of the estimates, but they are not *deterministically* dependent on the Bundestag in each year, such that a dip in Bundestag activity will necessarily create a peak in the Landtage estimates for that year, which Squire (2007) notes can be especially onerous for dynamic analysis. Fourth, the model provides uncertainty estimates, which are useful in accounting for potential measurement error in applied analysis. Finally, the scaling model is robust to missingness in the data: it imputes and allows the missingness to inform its uncertainty estimates, rather than applying listwise deletion. The model estimates of each item (mean and standard deviation in parentheses) are given in Table 1, which reveals that all items are load positively (and quite strongly) onto a single dimension. These strongly positive estimates suggest that all measures can be considered stimuli responses on a single, underlying latent dimension which we interpret to be legislative capacity. The suggested interpretation of the estimated variance column would be that one minus the estimate is the amount of variability in the four factors can be attributed to the single latent dimension (Quinn 2004) and the estimates show that latent dimension is capturing a great deal of the variation in our data.

In Figure 3, we plot both, the Squire-modeled score and the factor analytic AF Scores over time, in the top two panes, for the Landtage and Bundestag. In the bottom-left pane, we plot the correlation of the two measures for the Landtage only (the outlying Bundestag estimate obscure the relationship between the two measures for Landtage observations) and in the bottom right pane, we display the uncertainty estimates for measures, indicating the 1st quartile, median, and 3rd quartile point estimates.

The top two panes show that there is a very large separation between the Bundestag and the Landtage, but also show that there is substantial across- and within-unit variation

apart from the Bundestag’s separation. These top panes also clearly show the potential issues with calibrating to the Bundestag without accounting for election years in some way — year-over-year fluctuations in the Bundestag’s activity manifest in the Landtage scores. For example, all states display a peak in 2017 because the Bundestag had a much smaller plenary session count that year. One potential solution is to aggregate the data without using an explicit comparison observation (as the AF Scores do — note there is no uniform peak in 2017, but rather a Bundestag dip). Alternatively, the researcher may choose to smooth the data or model out election year variability as we noted above. We think it best for the researcher to take the approach they believe is appropriate to their specific application.

The lower-left pane makes clear that both versions of this measure are very strongly correlated (Pearson = 0.84), as we would expect. The difference between the two is simply the anchor point and the relative weights attached to each component (but all weights are strictly positive). The bottom-right pane gives a sense of the uncertainty surrounding the estimates from the factor analytic model producing the AF Scores. Given that these are fairly intangible values (or, at least, unfamiliar values relative to, for example, standard errors from a linear regression model), perhaps the best way to describe this uncertainty is with relative statements. For example, the plots show that the 1st quartile point estimate is lesser than the lower bound of roughly one-third of the data and that the 3rd quartile point estimate is greater than the upper bound of roughly one-third of the data. Alternatively, we could examine the stability of the values across posterior draws. Taking two draws and random and comparing the values across those draws reveals that the average Pearson (covariance) correlation between the two is 0.92 ($p = 0.00$) and the average Spearman (rank-ordering) correlation is 0.69 ($p = 0.00$). Thus, while the error estimates may look quite large in the figure, there is a substantial amount of relative stability across the posterior draws.

An application

To assess external validity, we present a simple application. Several studies have shown that higher capacity chambers tend to have lower electoral turnover. The most common rationale for the relationship is that, because the benefits of holding office are greater, members

expend more effort toward reelection are therefore more likely to be reelected.⁹ This relationship has been demonstrated in the United States (Squire 1992; Berry, Berkman and Schneiderman 2000; Carey, Niemi and Powell 2000) and also tested in Germany by Heinsohn (2014), who, lacking the data we have gathered here, simply compared the “part-time” parliaments — at that point, Berlin, Bremen, Hamburg, and Rhineland Palatinate (prior to 1988) — to the remaining “full-time” parliaments. The distinction between the two is simply whether or not MPs are allowed to maintain a private market job outside of parliament while serving. Importantly, Heinsohn (2014) specifically cites data availability as the motivation for using the part/full-time indicator, rather than a more detailed measure. Of course, using this indicator makes within-unit comparison impossible, save the single case of Rhineland Palatinate, which transitioned from part to full-time in 1988. Further, comparing our measure to this binary indicator, there are several instances in which part-time chambers have higher capacity estimates than full-time chambers.

We present the results of a simple two-way fixed effects model that regresses turnover rates (the portion of MPs that are not reelected) on the AF Scores. This design allows us to assess the effect of within-unit changes (Länder fixed effects) in capacity on legislative turnover while also modeling time trends and factors associated with particular years, such as changes in economic fortunes (year fixed effects). This is not meant to be a perfectly specified model, rather it is simply meant to show that the measure behaves as theory and previous research suggests it should in application. We use AF Scores (rather than the Squire-modeled index) in this case, as its robustness to missing values allows us to extend the data back to Reunification, yielding a sample of all 120 Federal and Länder elections between 1990 and 2019. The results are reported in Table 2 and show the expected relationship — increases in legislative capacity are correlated with decreases in electoral turnover ($p = 0.01$), or, increases in capacity are associated with increases in reelection probability, just as research on the American case has found.

⁹Some have also argued that better-resourced legislators are better able to learn what their constituents want, and give it to them, or perform constituency service.

Future research and conclusion

What can be learned with these data, which allow scholars to investigate the causes and consequences of legislative capacity in a new, parliamentary context? The most obvious place to start is to reexamine what we have learned about capacity from the United States. In addition to reelection, these questions include the impact of capacity on roll call participation (Wright 2007; Fortunato and Provins 2017), government responsiveness (Lax and Phillips 2012; Fortunato and Turner 2018), among others. Learning whether or not these previous findings “travel” to new institutional contexts would help to improve our knowledge of capacity more generally, as well as improve our understanding of how parliamentary and presidential government structures influence the role and function of legislatures.

We noted above that the Landtage are a much more representative sample of global legislatures than the American state legislatures. Given this, a potentially fruitful and interesting avenue for research would embrace the institutional structure and use the Landtage as laboratories to better understand legislative organization and behavior under parliamentarism. That is, we should build research designs that take advantage the Landtage’s naturally controlled environment for comparison (holding constant development, electoral and party systems, cultural considerations, etc.) to assess the degree to which capacity influences more common legislative activities within the parliamentary context. For example, one of the principal functions of legislatures under multiparty parliamentarism is to help ameliorate information asymmetries and power imbalances between ministers with portfolio and their partners in coalition cabinets. The canonical work in this area, Martin and Vanberg (2011), differentiates between strong and weak parliaments according to the structure of their committee system and associated powers for legislative review. Our capacity measures are orthogonal to that understanding of parliamentary strength, meaning that, even within a collection of strong (or weak) parliaments, there may be substantial variation in the degree to which coalition members are able to use the legislature to ameliorate power imbalances as a function of variability in capacity.

Discovering which actors fill power vacuums left by low capacity legislatures is also important. In presidential systems, we often infer that the chief executive becomes more

powerful when the legislature is weak (but see [Kousser and Phillips 2012](#)). It is unclear what happens in parliamentary systems with low capacity legislatures. Do cabinet ministers become more powerful, or, is it the permanent civil service who is able to assume that policy influence? Cabinet ministers are, after all, drawn from the parliament in nearly all contexts and it may be the case that high and low capacity chambers attract or develop systematically different types of members that may make more or less effective ministers. These questions are important to answer, because if the cabinet (or legislature) cannot assert control over the career civil service that makes up the bureaucracy, then democratic accountability and responsiveness is at peril.

The data should also help studying questions regarding the unique institutional context of Germany. For example, as in the United States, Landtage service is a common stepping-stone to service in the Federal Parliament. Unlike the United States, however, the majority of members are (typically) drawn from the central party list. This allows researchers an alternative mechanism to assess the value of legislative capacity for the development of competent legislators. If higher capacity Landtage lead to better development, for example in terms of oversight and scrutiny, then we would expect party lists to prioritize legislators who have served in higher capacity Landtage by giving them higher list placements. These are just a few avenues of future research using this data.

Given that we know have capacity data for two countries over a reasonably long period of time, one of the largest opportunities in the literature (from our perspective) is for a theoretical model of the capacity choice that these data may be used to test. That is, in both Germany and the US (and effectively all other democracies),¹⁰ legislatures may choose the institutional endowments that define their capacity, whether or not they will possess a device to “efficiently translate policy preferences into policy outcomes” ([Fortunato and Turner 2018](#), 625). In making this choice, the majority must weigh not only its expectations for losing control of that device following subsequent elections, and therefore potentially incurring substantial policy loss as new majorities employ the device for their own ends,

¹⁰There are some idiosyncratic hurdles from place to place. For example in the US state of Arizona, legislator salary increases must be ratified via popular referendum.

but also the broader political economic implications of that choice. While there is historical narrative of these choices being made for legislatures (e.g., [Squire 2012](#)) and there is excellent theoretical research on this choice for administrative capacity — i.e., the ability of the state to coerce behavior, for example, collect tax revenue or protect its monopoly on violence — assuming the state as a *unitary* actor (e.g., [North 1981](#)), we presently lack a theoretical model of this choice for legislatures, relaxing the assumption of the unified state, where elected representatives must compete with unelected agents for policy influence. Of course, this would also force legislative scholars to contend with this selection process in empirical research as appropriate.

In sum, we wish for these data to represent a step forward in the study of legislative capacity. By providing a Squire-modeled measure, as well as a dynamically estimated, unbounded measure for Germany’s 17 parliaments, we hope to kickstart the study of legislative capacity in Germany in particular, but also inspire our colleagues to collect and disseminate similar data for national and subnational legislatures to broaden our collective scope of study.

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Figure 1: Description of the raw data over time.

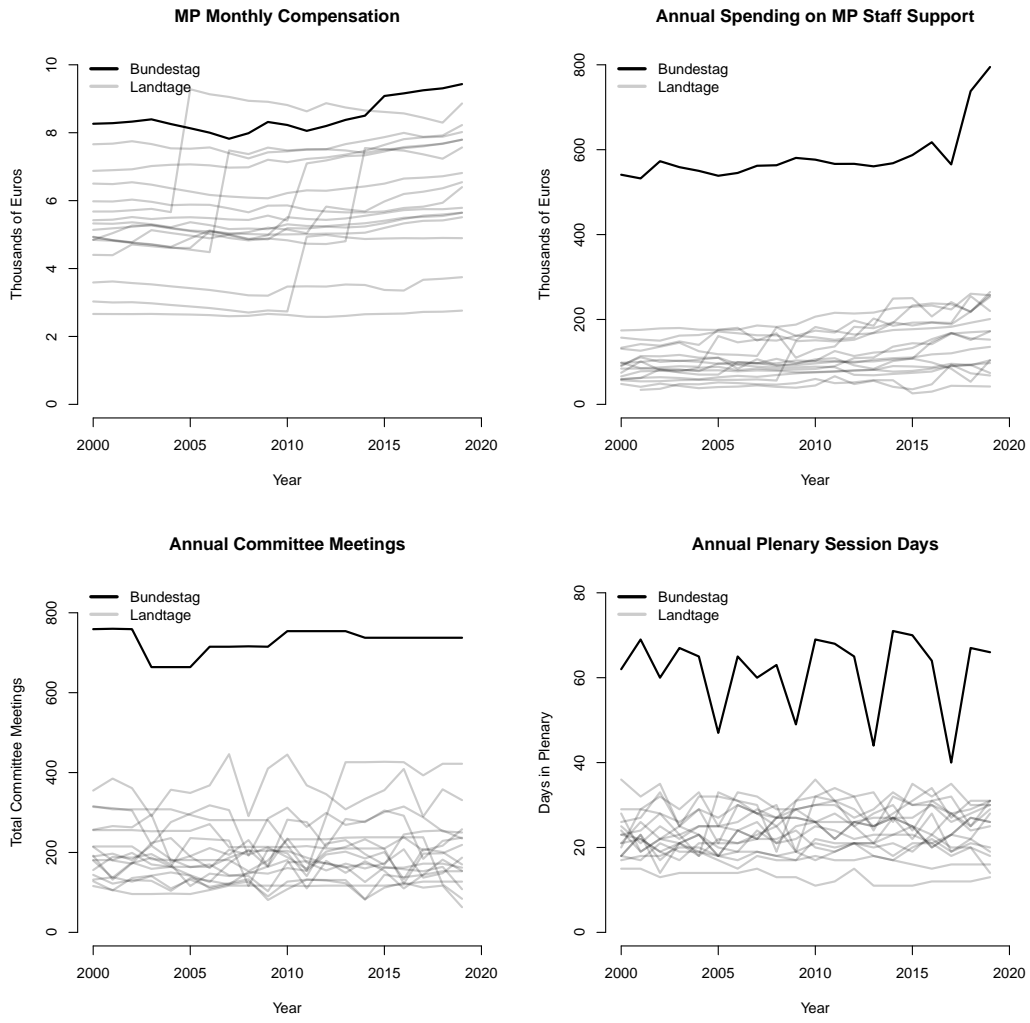


Table 1: Factor analytic model summary

Variable	Loading	Variance
Salary	0.569 (0.051)	0.682 (0.053)
Staff	0.883 (0.041)	0.233 (0.025)
Committee Meetings	0.898 (0.043)	0.207 (0.025)
Plenary Sessions	0.902 (0.041)	0.198 (0.025)

Table 2: Modeling the effect of legislative capacity on electoral turnover in Landtage between 1990 and 2019.

Variable	Parameter
AF Score	-0.174 (0.066)
Constant	0.559 (0.105)
Land FE	✓
Year FE	✓
Observations	120
R ²	0.737

Figure 2: Capacity trends in Baden-Württemberg.

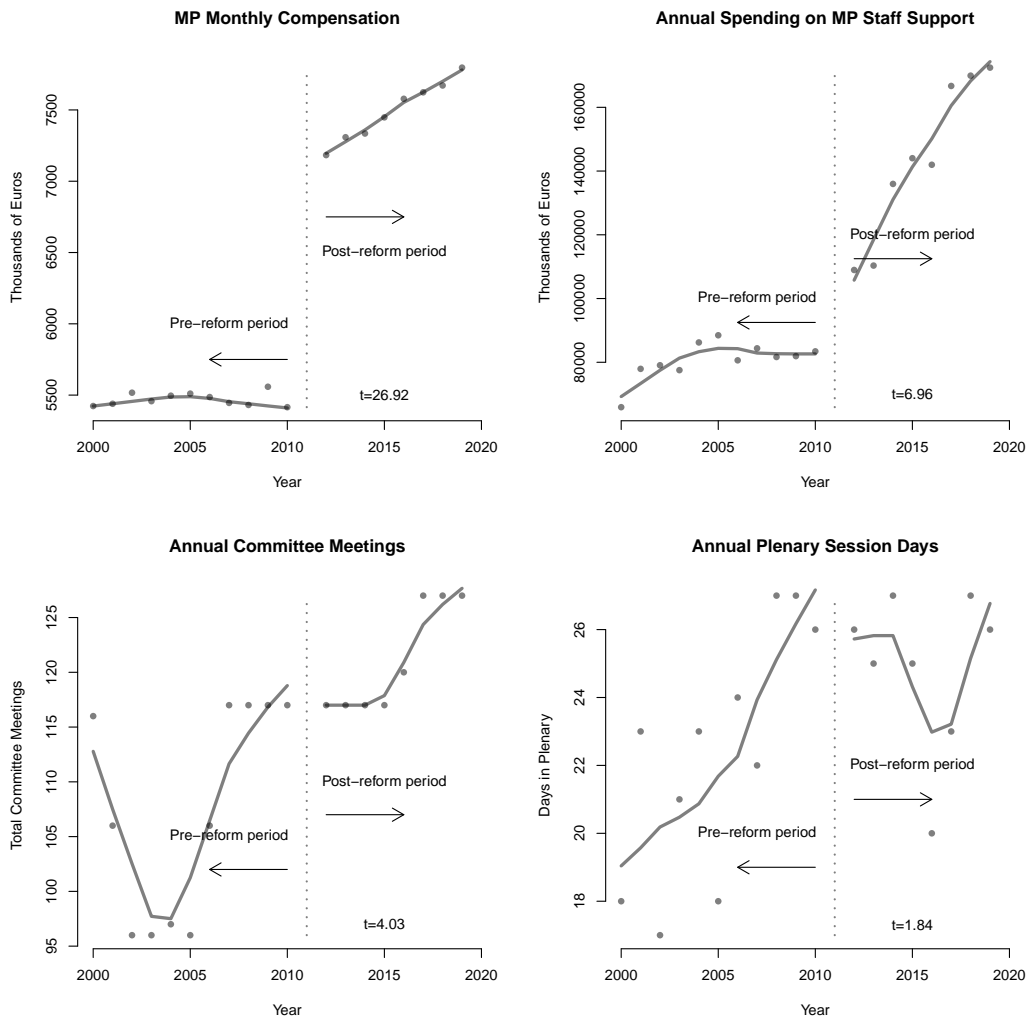


Figure 3: Summary of capacity measures over time and relative to one another.

