Ideology or What? Legislative behavior in Multiparty Presidential Settings*

Cesar Zucco Jr.
CSDP — Woodrow Wilson School
Princeton University
zucco@princeton.edu

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Supplemental materials are available at www.princeton.edu/~zucco/jm/jmp1appendix.pdf

While Latin American parties can be arrayed along a left-right scale based on reputation or platform like parties elsewhere, legislative voting is determined as much by whether or not the legislator receives tangible benefits from the president as it is by ideology. This fact, which finds both anecdotal and scholarly support, has important implications for the analysis of politics in general, and executive-legislative relations in particular. It also determines the kinds of measures that can reasonably be used analyze politics. To truly understand how legislatures and executives interact in a context in which the presidents have substantial control of state resources, it cannot be assumed that the behavior of legislators reveals sincere ideological leanings and/or policy preferences. It is important to recognize and to deal with the fact that measures of behavior — such as Nominate scores — reflect a mixture of ideology and votes “sold” for material goods.

In this paper, I use an example from Brazil to explore the differences between legislators’ ideology and their manifest behavior in the legislature. I develop a new measure of legislators’ ideology. I then analyze the patterns in which legislative behavior - as revealed by the analysis of roll call votes in the lower house - deviates from what would have been predicted by ideology. The measure of ideology shows that parties in Brazil are clearly ordered ideologically and that this ordering is relatively stable over time. Roll call analysis, however, reveals a government vs. opposition cleavage that does not match the ideological alignment of parties. A comparison between the two - ideology and behavior

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- supports the claim that deliberate actions by the executive, such as the distribution of pork and nominations to cabinet positions, contribute alongside ideology to determining how legislators behave. Not only does ideology not fully explain the patterns of legislative behavior observed, but the effect of ideology has declined over time - contrary to what might have been expected as the party system in a new democracy became consolidated.

While this paper dwells on evidence from Brazil, the framework it proposes should be applicable to other cases where one finds an elected executive alongside a multiparty legislature, and where the former has a monopoly or near monopoly over the distribution of political resources that are important to the latter’s future political careers. These distributional resources are especially relevant where the bureaucracy is accountable to the president instead of to the legislature. The executive creates, rearranges, and extinguishes agencies and departments, makes decisions regarding political appointments, and decides the time, manner, and even place of government expenditures regardless of whether Congress has voted to fund particular programs.

The paper proceeds as follows. Section 1 follows an inductive path towards analyzing the difference between legislative ideology and behavior, using examples from Brazil. In Section 2, I present and apply a method to estimate ideology that relies on survey data. Section 3 presents a multivariate analysis of how legislative behavior departs from ideology. In Section 4, I explore implications of the empirical findings, and in Section 5, I summarize the main arguments and their contribution to the literature.

1 The Mechanics of Legislative Politics

Most depictions of Brazilian party politics stress the extremely low levels of party identification in the electorate, the fuzziness of the policies defended by most parties, the wide variation in political culture and coalition patterns across states, and the frequent and pervasive party switching by politicians at all levels. While there is much accuracy to these observations, Brazilian politics displays a much more nuanced combination of volatility and stability than they would suggest.

The seminal work of Figueiredo & Limongi (1999), for instance, has shed light on the inner workings of the Brazilian legislature, showing that parties behave much more coherently than the casual observer would think, at least within parliament. While the electoral system is extremely permissive, institutions within congress help routinize and structure political practices in the legislature.

Structure, however, can also be found elsewhere in Brazilian politics. Most specialists — domestic and foreign — agree on the basic ordering of parties on a standard left-right dimension, even though
Table 1: Approximate Ideological Ordering of Brazilian Parties

<table>
<thead>
<tr>
<th>Left of Center</th>
<th>Center</th>
<th>Right of Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCdoB</td>
<td>PSDB</td>
<td>PL</td>
</tr>
<tr>
<td>PSTU</td>
<td>PMDB</td>
<td>PDS</td>
</tr>
<tr>
<td>PCB</td>
<td>PDT</td>
<td>PFL</td>
</tr>
<tr>
<td>PSOL</td>
<td>PSB</td>
<td>PRN</td>
</tr>
</tbody>
</table>

Notes: Classification is based on studies cited in the text. Since they are not completely up to date, it does not include all parties now in parliament, and not all parties listed still exist. The PCB is currently called PPS. The PDS, through name changes and merger with smaller parties, has become PPR, PPB and finally PP.

ideology should be just an afterthought in such a “volatile” political environment. Moreover, this ordering, roughly summarized in Table 1, appears to be quite stable over time.

To mention just a few examples, Mainwaring & Pérez-Liñán (1997), using data from Kinzo (1993), constructed a scale that captured the ideological positioning of parties during the Constitutional Assembly of 1988. A similar ordering emerges from Figueiredo & Limongi’s (1999) analysis of the functioning of the legislature during the 90’s, from Coppedge’s (1997) “expert” based classification that has served as the benchmark for much work done on Latin American party systems, and from Rosas (2005) treatment of answers to the surveys of the Latin American political Elites project (Alcántara 1994-2000).¹

If parties behave in a structured way within the legislature, and ideology can apparently be quite consensually identified, does it follow that party behavior in a way that is structured along ideological lines? In other words, what role does this mostly consensual ideological structure play in executive-legislative relations, and consequently in the functioning of the legislative branch?

I begin addressing these questions by analyzing the observed behavior of legislators in the form of roll call votes. Figure 1 shows one-dimensional W-Nominate estimates (Poole & Rosenthal 1991),² by party, for the last five legislatures in Brazil.³ For the 48th and 49th Legislatures, this snapshot of legislative behavior reflects quite well the perceived ideological ordering of parties. From the 50th Legislature onwards, however, the PFL (center-right) and the PSDB (center-left) — the core of former President Cardoso’s coalition and today the core of the opposition to President Lula’s government — appear clustered at the right end of the scale, greatly overstating the ideological distance based on reputation, between the PSDB and Lula’s party, the leftist PT. Up to this point, one could interpret

¹Rosas found the PMDB to the right of the PFL, but acknowledged that his results were driven by idiosyncrasies in his data.
³Estimates were obtained using the W-Nominate for R, implemented by Keith Poole, Jeff Lewis, James Lo and Royce Carroll on data provided by Figueiredo & Limongy and the Câmara de Deputados.
this new ordering simply as the product of PSDB’s “move to the right,” since in general terms other parties considered leftist still appear on the left of the scale, and vice-versa. However, the image of the 52nd legislature, which coincides with Lula’s first term in office, is mind-boggling. How can one explain that the PSDB and the PFL are isolated in the far right of the scale, the leftist PDT and PPS appear on the right, while rightist PP and PTB are on the left, close to the communist PCdoB?

The first thing to note is that W-Nominate estimates ideal points based on the similarity of voting patterns. Though the first dimension that emerges from this estimation is commonly interpreted as the traditional left-right ideological dimension, the actual meaning of this dimension is entirely subjective. Additionally, W-Nominate cannot distinguish sides of the scale, so the polarity of the votes is also an arbitrary decision. In the graphs shown above, I have called the side the PT is on as “left,” as is conventional, but this is not an entirely obvious decision, for reasons to which I now turn.

1.1 The ideology conundrum

The analysis of actual policy proposals raises further doubt about the correspondence between W-Nominate’s first dimension and the ideological structure of the Brazilian party system.

The last few governments in Brazil seem to have shared the same stable position on core issues such as taxes, interest rates, inflation, and minimum wage, irrespective of the nominal ideological inclinations of the incumbent president. For instance, Lula’s government has pushed for measures his party, the leftist PT, had fought against during its entire previous history (such as taxing retirement benefits) and, conversely, the center-right party currently in opposition has often defended policies it had opposed when in government. Even the arguments used by either side have shifted, and seem more an attribute of the role (either government or opposition) than of the actor that plays the role: governments point to budget constraints, while the opposition highlights the “need” of beneficiaries and the “fairness” of proposed policies.\(^4\)

As an example of these “role contingent preferences,” I present a brief analysis of the legislative debates on minimum wage bills in 2000 — the second year of Cardoso’s second term leading a center-right coalition — and 2004 — the second year of Lula’s first term in office. Some characteristics of a minimum wage bill make it an interesting case study. First, it is debated regularly,\(^5\) thus allowing for comparisons over time. Second, much of the debate is about the nominal monthly value of the wage,

\(^4\)This dynamic is mostly true regarding measures that create or modify expenditure and revenue, which include most relevant policies. Nonetheless, there are some policies on which the positions have not changed, such as affirmative action and privatization. Further research will have to pin down exactly the extent of these “role contingent preferences” of political parties.

\(^5\)Since its creation by Vargas in the 1930’s, the value of minimum wage has usually been adjusted in May of every year.
Figure 1: Distribution of Legislators’ Ideal Points by Legislative Session and Party

Notes: Ideal points in one dimension were estimated using W-Nominate for R on roll call data provided by Limongi & Figueredo, Fabiano Santos, and the Câmara de Deputados. Median estimate for each party is shown under the party label, and parties are ordered from left to right by this value. Estimates for 48th Legislature rely only on 1989 and 1990 data.
Table 2: Final votes on the minimum wage bill (2000 and 2004)

<table>
<thead>
<tr>
<th>W-Nominate</th>
<th>2000</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>(P-value)</td>
<td>(&lt;0.01)</td>
<td>(&lt;0.01)</td>
</tr>
<tr>
<td>Intercept</td>
<td>-0.07</td>
<td>-0.05</td>
</tr>
<tr>
<td>(P-value)</td>
<td>(0.442)</td>
<td>(0.492)</td>
</tr>
</tbody>
</table>

Notes: Table shows probit estimates. Dependent variable was coded 1 if legislator voted with the president. Independent variable is the legislators’ W-Nominate ideal point in 1-dimension for the respective legislature. The two roll calls used are identified as 2000108 and 2004055 in the Limongi & Figueiredo database.

which facilitates the comparisons of the revealed preferences of politicians. Finally, there are clear expectations in terms of preferences. Strictly in ideological terms the “left” should prefer a higher minimum wage than the “right.” Complicating matters, in Brazil, however, a large portion of the benefits paid by Social Security is indexed by the minimum wage, so any increase in its value has great impact on government accounts. For this reason, the competing role-contingent expectation is that the government will prefer a lower minimum wage than the opposition, regardless of ideology. The minimum wage example, thus, allows us to pit role contingent preferences against the ideological preferences.

In February 2000, Cardoso preemptively sent congress a bill setting the minimum wage at R$ 151. After weeks of political maneuvering the government eventually managed to avoid split in its ranks, part of which had threatened to unite with opposition in support of an increase to R$ 177. The new minimum wage was passed on May 10th, backed by 306 out of 490 votes in the lower house, and 48 out of 69 in the Senate.

Four years later, in late April 2004, the Lula government announced a bill that raised the value of the minimum wage by R$ 20, bringing it to R$ 260, or just about US$ 83 per month. The president’s proposal made it through the lower house, but on June 17th the Senate voted a larger rise, triggering a crisis for the government, which claimed it could not afford such an increase. The bill returned to the house on June 21st for a final decision on the value of the wage, and on June 23rd the government rallied its legislators and by the sizeable margin of 272 to 172 rejected the changes made by the Senate.

In 2000, higher W-Nominate ideal points were associated with greater probability of voting with the government for a smaller increase in the minimum wage, while in 2004 this relationship was reversed (Table 2). Up to this point the results are compatible with an ideologically driven story: in 2000, those to the right of the scale (higher W-nominate positions) voted with the center-right government, and in 2004 those to the left of the scale (lower W-nominate positions) voted with the center-left government.
However, if one looks at the content of each side’s positions, it is clear that there is something besides ideology at work. While in 2000, the center-right government’s proposal was for a lower minimum wage than the opposition’s, as ideology would predict, in 2004 the center-left government’s proposal was also for a lower minimum wage than the opposition’s. In other words, after coming to power, the “same” PT which had fought to raise the minimum wage beyond what government had proposed in the past, has had to fight attempts by the center-right opposition to raise the minimum wage beyond its own government’s proposals.

One can argue that when the matter reaches the final vote, legislators can be coerced or induced by the government and party leadership to vote a certain way, even if this is contrary to their own beliefs. During the earlier stages of the legislative process, however, there is a lot of space for cheap talk and position taking, that while innocuous to the final result of the bill, can help legislators save face with their constituents. For this reason, examination of the amendments presented to the minimum wage bills in each year can reveal some more information about the preferences of legislators.

A total of 55 amendments were presented to the government’s minimum wage proposal in 2000, and 79 in 2004. Not all of these amendments proposed an actual value to the minimum wage, some were subscribed to by more than one legislator, some legislators made more than one proposal, and most were dismissed at early stages of the legislative process. With all these caveats in mind, the analysis of these amendments shows that in 2000, legislators with lower ideal points (those on the left) proposed higher wages, behaving as ideologically motivated legislators should, but in 2004 the opposite holds, though not with statistical significance.

This does not imply that the PT is comfortable with its new task: by 2004, its left-most faction had already split from the party to form the PSOL, eight of the party’s remaining legislators subscribed to amendments that proposed increases, and at least nine voted against the government on May 10th. But, bluntly put, if one accepts that the position on the value of the minimum wage is an indicator of ideological preferences, and believes that the W-Nominate estimates reveal the ideological left-right dimension, it would follow that the W-Nominate picture for 2004 shown in Figure 1 is inverted. This is not to say that PT is a rightist party, but rather that ideology is not the main force driving the legislative votes.

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6If a legislator presented or subscribed to more than one amendment, I took his proposal to be the average across all amendments subscribed to. I dropped amendments that did not set a value to the minimum wage, and the few amendments presented by Senators. When proposals called for staggered raises or more complicated formulas I computed the average value of the proposal for the twelve month period starting on May 1st of the relevant year.
Table 3: Amendments proposals to the Minimum Wage Bill

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation</td>
<td>-0.56</td>
<td>0.13</td>
</tr>
<tr>
<td>(P-value)</td>
<td>(0.02)</td>
<td>(0.15)</td>
</tr>
<tr>
<td>N</td>
<td>17</td>
<td>46</td>
</tr>
</tbody>
</table>

Notes: Table shows the correlation between the value of amendments presented to the minimum wage bill and the one dimensional W-Nominate estimates of the ideal point of the proponent of the amendment. N is the number of legislators (deputies only) subscribing to amendments that proposed a value for the minimum wage. Data on amendments was provided by the Senate Archives (SARQ/SEATEN).

1.2 The Government vs. Opposition dimension

Granted, legislators need not be voting sincerely. The opposition, knowing it will be defeated, might simply be taking the more popular position, while the government, ultimately responsible for economic outcomes, can prefer a higher wage but know it is infeasible. These concerns might very well determine how legislators and government interact, but in any case they are not ideology.

These two alternative interpretations of the underlying dimension of conflict in Brazilian politics (left vs. right or government vs. opposition) were for a long time observationally equivalent. While presidents were consistently from the center-right, the pragmatic strategic behavior of parties matched the conventional wisdom about how parties arrayed on the left-right ideological scale. This can explain, for example, why Figueiredo & Limongi (1999) analyzed roll calls for the 1989–1994 period and found that behavior was consistent with ideology. It was only after 2002, with the election of a nominally left-of-center president, that we have been able to disentangle the two dynamics and notice the existence of role-specific policy preferences.

Further evidence of this dynamic can be seen through analysis of the positions of specific parties. Take the case of the PDT, for instance, conventionally thought of as on the left, and its position relative to the PT. Despite differences of style, both parties historically displayed similar parliamentary behavior, had similar ideological orientations, and had entered into many electoral alliances in the past. In the 2002 elections, the PDT endorsed Ciro Gomes (then PPS, a former communist party turned social-democrat) in the first round of the presidential election, but supported Lula in the second round and was an early ally of the newly elected government. The PDT was also one of the first parties to break with the government at the end of 2003. Though Figure 1 suggests that the PDT moved to the right of Lula’s PT, most observers would agree that after leaving the government coalition, the PDT occupied the space of opposition to the government from the left throughout the

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7W-Nominate estimates for previous legislatures positioned the PT and the PDT very close together on the “left” of the scale.
remainder of Lula’s first term in office.

Even clearer is the situation of the PSOL. Commanded by Senator Heloísa Helena, the PSOL was formed by the legislators that split or were expelled from the PT for voting against the government’s pension reform. There is absolutely no doubt that the PSOL is the extreme left of the ideological spectrum in Brazil. Though not shown in Figure 1, the ideal point estimate of the median legislator in the PSOL in the 52nd legislature is 0.29. This would place it well to the right of the PT and much closer to Cardoso’s center-right PSDB, even though the only thing the PSOL and the PSDB have in common is opposition to the Lula government.

This reinforces the idea that W-Nominate is retrieving a government vs. opposition dimension, which is the most relevant political cleavage in the Brazilian political system. My argument here has nothing to do with roll call analysis in itself. Rather, I claim that it is not (simply) ideology that drives the behavior of parties in the legislature, so the underlying dimension of conflict retrieved by W-Nominate estimates cannot be an ideological one. Therefore, one needs to look elsewhere to find ideology.

1.3 Analytical Framework

There are two reasons why W-Nominate estimates do not reveal the ideological structure of the Brazilian party system. First, there is the issue of “role-specific” preferences, as discussed in Section 1.1. More important, perhaps, is that legislators’ behavior — which roll call voting provides information about — reflects both their ex-ante inclinations towards any given issue and the side payments and/or threats delivered by the executive and/or party leadership.

Few would argue that politicians in general, and legislators in specific, behave solely in ideological terms. In fact, many studies have argued, and shown, that politicians pursue a varied set of goals, which include besides policies in line with their ideology, obtaining office and maximizing votes (Strøm & Müller 1999). In the specific case of executive-legislative relations in Brazil, the importance of side-payments made by the executive has also been documented (Pereira 2002).

The problem, thus, is to pin down the respective roles of ideology and of other side payments, and to avoid taking legislative behavior as a direct indicator for ideology. An example of such confusion can be found in Alston & Mueller (2006), for instance, who present a model that is structured in terms of “policy positions,” but who then rely on W-Nominate scores as estimates of the “ideological position of each legislator and the president” (p.110). In general terms, the picture we see by examining

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*Leoni (2002), perhaps the first paper that employed Nominate in the analysis of data from Brazil, had already hinted at this finding.
legislative behavior is what emerges after all political exchanges have been made. Granted, the word after can be misleading, as the “giving-and-receiving” is, in reality, a continuous process. Nonetheless, conceptually the W-Nominate estimated ideal points are the additive result of the president’s distribution of resources and underlying ex-ante preferences.

Figure 2 is a schematic depiction of what I refer to as the “mechanics of legislative politics” in multiparty presidential settings. The upper portion of the Figure represents the ex ante positions of four hypothetical heterogeneous parties relative to the president. The president then transfers politically valuable resources to parties, inducing recipients to take on a more pro-president stance, displayed in the lower portion of the Figure.

W-Nominate estimates correspond to the bottom part of this Figure. Obviously, to truly understand the role of ideology in the voting behavior of legislators it is necessary to have an empirical assessment of the ex-ante distance from the president (upper portion of Figure 2) and to develop a theoretical account of how the distribution of resources from the president to other political players works (central portion of the Figure 2). In the next section I turn to the first of these tasks, and assume that the ex-ante distance from the president reflects the ideological preferences of the players involved.
2 A Measure of Ideology

In the framework I propose, the ideological inclination of legislators cannot be inferred from their legislative voting records, as these are “contaminated” by the president’s distribution of resources. In this sense, surveys can be useful tool for obtaining an image that corresponds to the upper portion of Figure 2, even though they are usually expensive and/or troublesome to run and frequently only offer a snapshot for a single point in time. Fortunately, Prof. Timothy Power conducted essentially the same survey in the Brazilian legislature for 1990, 1993, 1997, 2001 and 2005, which puts us in a privileged position to analyze ideological patterns, both statically and as they shift (or not) over time.

Of particular importance to the task at hand are the questions in these surveys that asked legislators to place themselves and all other main parties in the legislature on a left to right continuum.\(^9\) One important issue to consider is that placement questions such these capture actual perceptual differences among respondents, but also pick up undesired variation in response to the scale itself. To deal with this problem, in Section 2.1 I use the legislators’ placement of all parties to estimate individual scale distortion effects. I then use these estimates to transform each legislator’s reported self placement, which produces a rescaled ideological placement that takes into account idiosyncratic responses to the original ten-point scale.\(^10\) After applying this procedure separately to each survey, I then deal with the related issue of making these estimates comparable across time in Section 2.2.

2.1 The basic spatial model

Each survey yields a matrix of party placements and a vector of individual self placements on a left-right ideological scale. Formally, let \( P_{ij} \in [1, 10] \) be the placement in any of the surveys, of party \( j \) \((j = 1, \ldots, M)\) by legislator \( i \) \((i = 1, \ldots, N)\). The spatial model I use is simply

\[
P_{ij} = \alpha_i + \beta_i \pi_j + \epsilon_{ij}
\]  

(1)

where \( \pi_j \) is the “true” position of each party, \( \alpha_i \) and \( \beta_i \) are legislator specific “shift” and “stretch” rescaling factors, and \( \epsilon_{ij} \) is a disturbance term.

Next, define \( P_{ii} \in [1, 10] \) as the self-placement of legislators. Assuming that each legislator uses the same scale to place himself as he used to place all the other parties on the scale, each legislator’s placement onto the common scale \( (\pi_i) \) is defined as a simple linear transformation of the raw answer

\(^9\)The complete questionnaires of the surveys can be found in Power (2000).

\(^10\)Note this is not a procedure to estimate legislator’s positions directly from the data. Rather, here I estimate legislators’ individual scaling effects and apply them to their self reported placements.
to the self-placement question \((P_i)\), as follows:

\[
\pi_i = \frac{P_i - \alpha_i}{\beta_i}
\]  

(2)

It is straightforward to calculate \(\pi_i\), once the parameters in Eq. 1 are estimated. The problem, however, is how to estimate this equation. Note that since \(\pi_j\) is not observed, it must also, along with \(\alpha_i\)’s and \(\beta_i\)’s, be estimated from the data. This problem is akin to a regression without an independent variable, and consequently cannot be estimated directly by OLS.

I approach the problem through a Maximum Likelihood framework.\(^{11}\) Assuming the disturbance term is standard normally distributed, the probability of any observation is

\[
Pr(P_{ij}) = \phi \left( \frac{P_{ij} - \alpha_i - \beta_j}{\sigma} \right) \frac{1}{\sigma}
\]  

(3)

where \(\phi\) is the standard normal density. The log-likelihood function to be maximized is

\[
\mathcal{L}(\alpha, \beta, \sigma) = \sum_{i=1}^{i} \sum_{j=1}^{j} \log \left[ \phi \left( \frac{P_{ij} - \alpha_i - \beta_j}{\sigma} \right) \right] - \log(\sigma)
\]  

(4)

which after transformations to improve computational speed becomes:

\[
\mathcal{L} = \sum_{i=1}^{i} \sum_{j=1}^{j} -\log(\sigma) - \frac{1}{2\sigma^2} (P_{ij} - \alpha_i - \beta_j \pi_j)^2
\]  

(5)

A few estimates of respondents positions took extreme values, which was generally caused by unusual patterns in the responses. This was dealt with by the inclusion of priors, and in extreme cases by truncation of the estimates. A discussion of these issues, as well as the treatment of missing data, are available online as supplemental material.\(^{12}\)

The estimation procedure was conducted for each of the five surveys individually, and the comparison between the raw answers to the self placement question in the survey and the rescaled placements are shown in Figure 3. The most conspicuous pattern is that the raw answers exhibit a distinctive leftward skew, with a long tail to the right, while the distribution of rescaled placements is much more symmetric. This suggests that legislators tend to overstate their “leftism,” a finding that is consistent with the fact that in Brazil very few would openly label themselves as “conservative” or “right-wing.”

\(^{11}\)Alternatively, one could adopt a singular value decomposition procedure (Aldrich & McKelvey 1977, Poole 1996, Poole 2005), which yields the exact same estimates (up to a linear transformation), but I believe MLE is more transparent, and easier to follow.

\(^{12}\)Please refer to \url{www.princeton.edu/~zucco/jm/jmplappendix.pdf}.
Table 4: Rank Ordering of Parties from Left to Right

<table>
<thead>
<tr>
<th></th>
<th>PCdoB</th>
<th>PT</th>
<th>PCB</th>
<th>PSB</th>
<th>PDT</th>
<th>PSDB</th>
<th>PMDB</th>
<th>PTB</th>
<th>PL</th>
<th>PDC</th>
<th>PRN</th>
<th>PFL</th>
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</tr>
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<tr>
<td>1990</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>1993</td>
<td>PCdoB</td>
<td>PT</td>
<td>PSTU</td>
<td>PSB</td>
<td>PPS</td>
<td>PDT</td>
<td>PSDB</td>
<td>PMDB</td>
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<td>PTB</td>
<td>PL</td>
<td>PPL</td>
<td>PP</td>
<td>PFL</td>
<td>PPB</td>
</tr>
<tr>
<td>2001</td>
<td>PCdoB</td>
<td>PT</td>
<td>PSB</td>
<td>PPS</td>
<td>PPS</td>
<td>PMDB</td>
<td>PSDB</td>
<td>PL</td>
<td>PTB</td>
<td>PL</td>
<td>PFL</td>
<td>PPB</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>PCdoB</td>
<td>PSB</td>
<td>PT</td>
<td>PPS</td>
<td>PDT</td>
<td>PMDB</td>
<td>PSDB</td>
<td>PTB</td>
<td>PL</td>
<td>PPL</td>
<td>PFL</td>
<td>PP</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Stacked parties, in any given year, indicate that the differences between their respective estimated positions are not significant at the 0.05 level. The significance test of the differences between all other adjacent parties has a p-value of < 0.05.

Though the comparability of legislators and party rescaled placement across surveys requires further analysis (Section 2.2), it is already possible to compare the relative placement of parties within each survey. Table 4 is based on significance tests for the difference between the estimates for adjacent parties and shows that in most cases one can be confident that adjacent parties are, in fact, different.

Table 4 reveals that there were few changes in the ordering of parties over time. The PPS (formerly PCB) moved gradually to the right, changing positions with the PSB in 1993 and then with the PDT in 2001, though this last move was undone in 2005. The PSDB today is to the right of the PMDB, and the PTB and the PL have switched positions twice, and today are indistinguishable from each other. In addition, the dyads PT/PSB, and PFL/PP (formerly PDS and PPR) have also become indistinguishable.

2.2 Recovering year effects: An extension of the spatial model

While it might be tempting to compare actual party estimates across each survey, these values are not directly comparable. Recall that the rescaled placements are relative measures (within that year’s respondents), and there is no intrinsic metric to this scale. Therefore, we could only compare estimates across surveys if there were fixed points in which to anchor them.

In this respect, only legislators who answered more than one survey convey any information on how each year’s scales relate to each other. The surveys, however, were all anonymous. So even

---

13 Since one legislator is always arbitrarily fixed, covariance in the estimates might actually imply that regular confidence intervals understate our capacity to differentiate parties’ locations. If the estimates of two parties co-vary positively, one can more easily distinguish the difference between two party’s estimates than standard errors would suggest.
Figure 3: Raw and Rescaled Self Placements — All Surveys

(a) 1990 Survey

(b) 1993 Survey

(c) 1997 Survey

(d) 2001 Survey

(e) 2005 Survey
though many legislators must have answered more than one survey, their names were not recorded. I dealt with this problem by using additional information in the survey to identify respondents. An automated algorithm based on respondents’ previous party affiliations, political careers, terms in office and age permitted a preliminary identification and matching of legislators across surveys. This was followed by a very labor-intensive case-by-case analysis, after which about 40% of respondents were identified in each survey. 85 of these answered more than one survey, making for a total of 182 observations in the final data-set of overlapping respondents.

This data set consists of a matrix of legislators’ placements \( \pi_{it} \) and a matrix of party estimates \( \pi_{jt} \), where \( i \) and \( j \) are defined as before, and \( t = (1, \ldots, T) \).\(^{14}\) Recall that the estimation described in the previous section yielded party and individual estimates for each survey, hence the need for subscript \( t \). With this dataset, I follow Groseclose, Levitt & Snyder Jr (1999), and estimate a “mean preference parameter” across all years (\( \hat{\pi}_i \)). As in the previous estimation, I assume that this \( \hat{\pi}_i \) is shifted (\( \gamma_t \)) and stretched (\( \delta_t \)) each year to produce the observed positions \( \pi_{it} \). This implies that all legislators are subject to the same yearly shocks, and can be formally stated as:

\[
\pi_{it} = \gamma_t + \delta_t \hat{\pi}_i + \varepsilon_{it}
\]  

The estimates of the year effects \( \gamma_t \) and \( \delta_t \) can then be used to map both legislator (\( \pi_{it} \)) and party (\( \pi_{jt} \)) position estimates in each survey into a “common space,” using the linear transformations

\[
\pi_{it}^* = \frac{\pi_{it} - \gamma_t}{\delta_t} \quad \text{and} \quad \pi_{jt}^* = \frac{\pi_{jt} - \gamma_t}{\delta_t}
\]

where the superscript * denotes the new “common space” estimates.

Equation 6, like Eq. 1 in the previous Section, resembles a regression without independent variables, and analogously, can be estimated by maximizing the following log-likelihood function:

\[
\mathcal{L}^* = \sum_i \sum_t -\log(\sigma) - 0.5 \sigma^{-2} (\pi_{it} - \gamma_t - \delta_t \hat{\pi}_i)^2
\]

Year effects estimates are shown in Table 5, and were obtained after setting 1990 as the base year, with \( \gamma_1 = 0 \) and \( \delta_1 = 1 \).\(^{15}\) Estimates for \( \delta_t \), which represents the stretch factor, are always statistically

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\(^{14}\)Until now, I have used Greek letters to represent parameters to be estimated, and arabic letters for data. Even though \( \pi_{ij} \) and \( \pi_{it} \) are treated as data in this section, I maintain retain the Greek letters for consistency with the previous section.

\(^{15}\)Note that this model still requires the estimation of \( t-1 \) \( \gamma \)'s, \( t-1 \) \( \delta \)'s, \( \sigma \), and \( N \hat{\pi}_i \)'s, which in the present case means estimating 94 parameters using 182 observations. Different numeric techniques were used to protect against instability of results, and local minima in the optimization process.
significant, but those for $\gamma$ — the shift factor — are not. Still, the overall picture is that the scale does in fact vary across years, as it is “stretched” or “compressed” by respondents. Therefore, inference about polarization should only be made after year effects are taken into accounted.

The transformed estimates in Figure 4 show that the median legislator in the legislature has shifted slightly (and non-monotonically) to the left over the course of the past 15 years. This is consistent with the fact that the share of seats controlled by “leftist” parties has increased considerably during this period.

More interesting, though, is to observe the estimates for the positions of the PT and the PSDB, two of the most important parties in the period analyzed. In the first survey, which comprises the first post-authoritarian legislature (1987-1990), while considerably apart, both the PSDB and the PT were clearly left of center, a situation that continued during the Collor/Franco years (1990-1994).
figure indicates that in 1993 these two parties were as close as ever on this ideology scale. The Franco period was, in fact, the period in which an alliance between he PSDB and the PT came closest to ever happening. Franco brought the PSDB to the center of Brazilian politics by appointing Cardoso as his finance minister, but he also invited the PT to join the cabinet. The PT at the time rejected the offer, but later regretted it.

Between 1993 and 2001 the PSDB took a sharp turn to the right. This coincides with the period in which the party won the presidency and began to govern. Once in office, it secured the country’s economic stabilization, and then became the promoter and defender of neoliberal reform. At the same time, the PT established itself as the main opposition party. With Lula’s victory in the 2002 elections, the PT began to exhibit a much more centrist character.

The conventional wisdom regarding the PT is that the party gradually moved to the center over the years. Figure 4, however, suggests that this movement was not incremental. While in opposition to Cardoso, the PT was perceived and perceived itself as, at a minimum, standing its leftist ground. In short, the general trend is that both parties moved markedly to the right while in government, and tended to move to the left while in opposition. Today, while the PSDB and PT have become closer in ideological terms, they have also established themselves as the main forces in either side of political “center.” While an alliance between these two parties would not be ideologically difficult, it is all but impossible due to electoral rivalry.

Figure 5 shows that after an increase in polarization between 1990 and 2001, politics in Brazil has become more moderate, as both parties on the right and parties on the left moved toward the center between 2001 and 2005. Parties on the right have wavered back and forth within a small range, and seem, on average, to be around where they started in 1990. Parties on the left and center left, in contrast, are today significantly more to the right than they originally were, with the most conspicuous cases being the PT, PPS and PSDB.

In a nutshell, the story told here is one of relatively stable ideological structure in the Brazilian party system. There has been a slight decrease in polarization in recent years, caused mainly by the rightward drift of leftist parties, and it has become slightly harder to distinguish between adjacent pairs of parties. Still, overall the main observation is that the left-right ordering of parties has been fairly persistent through time.
Figure 5: Comparable party position estimates, for all years

Notes: The five estimates for each party are chronologically ordered from top to bottom. As noted in Section 2, these confidence intervals overstate the uncertainty regarding the ordering of parties and our capacity to discriminate between adjacent ones.

3 Ideology and Legislative Behavior

These estimates make it possible to observe how ideology relates to legislative behavior and, more interestingly, whether one deviates from the other in any significant way. The working hypothesis is that the ideological alignment of parties is “scrambled” by the executive’s distribution of resources, and for this reason the two measures do not match perfectly.

Figure 6 shows simple comparisons of the estimates of parties’ ideology obtained in the previous Section, with ideal point estimates obtained via W-Nominate. Results are shown for each of the last five presidencies, and are measured relative to the president’s position.16 Collectively, the figures indicate a clear shift in the pattern of association between ideology and behavior in the legislature. While during Collor’s presidency (1990–1992) there was an almost perfect association between behavior and ideology, the strength of this association has weakened considerably over time. Ideology and behavior are far from unrelated, but there is clearly more than ideology going on.

16For behavior, I computed the average by party of the absolute distance between legislators (π_i) and the government’s leader in the Câmara de Deputados, but almost identical figures are obtained by using the party ideology estimates (π_j) instead. For the ideology estimates, I computed the average by party of the absolute distance between respondent in the survey and the mean position of the president’s party. This poses a problem for Franco, who joined Collor’s PRN prior to the 1989 elections, but left the party in May 1992, when the first serious corruption allegations against Collor emerged. He spent his whole presidency with no formal party affiliation, and then joined the PMDB in 1997. Of the main parties that were part of his cabinet, the PMDB was the one empirically closest to the president, and was the party used to produce Figure 6(b).
Figure 6: Ideology and Behavior Relative to the President: By Presidency

Notes: The horizontal axis is the average absolute distance between the party members’ ideology estimates and the median legislator in the president’s party. The vertical axis is the average absolute distance between the party members’ W-Nominate ideal point estimates in 1 dimension and the ideal point estimate of the president’s whip. Dotted line shows the regression without intercept of Behavior on Ideology.
The most general pattern in Figure 6 is that parties included in the cabinet tend to appear in the area of the graph below the regression line, reflecting the fact that when in government parties line up more behind the president than their ideology would suggest. Focus, for instance, on Figure 6(e), which portrays the ideological and behavioral proximity between parties and the president during Lula’s first term in office. The main adversaries of the government (PFL and PSDB) are clearly separated from the rest, and are much further from the president in terms of behavior than of ideology (especially the PSDB). The leftist parties that opposed the government during most of the period (PDT and PPS) are in a similar situation, albeit with less extreme positions. Lula’s strange bedfellows (the rightist PL, PTB, and PP) are in the opposite situation, and exhibit a behavioral pattern much more similar to the government’s than predicted by ideology. The amorphous PMDB seems to keep its ideology, which probably reflects the fact that its *governista* wing cancels out the oppositionist wing. Finally, the behavior of the PT’s “natural” allies (the leftist PSB and PC do B) is very close to the president, as is their ideological position.

Given the *prima facie* evidence, the next step is to examine in greater detail the association between legislators’ behavior, ideology and ideology vote buying efforts. In the statistical analysis that follows, the behavior of legislators is measured through the analysis of roll call voting patterns, and I use the estimates described in the previous section to measure ideology. Though I theorize elsewhere about the exchange of resources for support, it is helpful to note here that presidents can dispose of different types of goods, which can be exchanges with parties or legislators for legislative support. Following work done on executive-legislative relations in Latin America in general, and in Brazil in particular, I distinguish the provision of pork to individual legislators through the selective appropriation of funds (Ames 1987b, Pereira 2002, among others) from the allocation of control over parts of government to parties, through the appointment of cabinet members (Geddes 1994, Amorim Neto 2006, among other). Hence, the basic model around which the analysis is built can be conceptually summarized as:

\[
\text{BEHAVIOR}_{it} = \alpha + \beta_1 \text{IDEOLOGY}_{it} + \beta_2 \text{CABINET}_{pt} + \beta_3 \text{PORK}_{it} + \varepsilon_{it}
\]

where subscript \(i\) denotes legislator specific variables, \(j\) denotes the party specific variable, and \(t\) indicates that the data are observed yearly, from 1996 through 2006. A brief description of the variables used in the analysis follows, and more details are provided in the online supplement.

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17This is the object of Chapter 3 of my dissertation, of which Job Market Paper # 2 is a condensed version.
18See Section 1.1 for a more thorough discussion of the literature.
19Problems with the data file that contains the 2002 data, provided by the Câmara de Deputados forced its exclusion from the analysis.
BEHAVIOR is the absolute distance between the legislator’s ideal point in one dimension, estimated using W-Nominate on yearly roll call data, and that of the president’s “whip” (Líder do Governo na Câmara) in that same year. W-Nominate estimates are constrained to lie in the $[-1, 1]$ interval, therefore absolute distances from the president must necessarily lie in a $[0, 2]$ interval, though the actual upper bound varies depending on the position of the president. The results discussed below also hold using an alternative operationalization of this variable, namely the frequency with which an individual legislator votes with the president.

The variable IDEOLOGY is the absolute distance of each legislator from the position of the mean legislator within the president’s party. Since this variable is estimated from the Power surveys, it is measured once for each legislature rather than yearly (note the subscript $t^*$ on this variable). In some regressions, due to the impossibility of obtaining individual estimates of ideology for all legislators, the legislator’s party’s average IDEOLOGY was used instead. While the use of average party values for ideology is not ideal, it should only add measurement error to the data. Since the values used are the means for the party to which legislators belonged, this error probably has mean zero across all observations. If true, the main consequence would be to increase uncertainty but not to cause bias in the estimates. Alternative ways of dealing with this problem are discussed and implemented later in this section.

Pork received by individual legislators (PORK) is operationalized as a legislator’s success in getting his budget amendments implemented the government in any given year. Brazilian legislators can propose a fixed number of individual amendments to the executive’s budget proposal. These amendments generally include infrastructure projects that benefit their constituencies. Since the budget law really only authorizes expenditures, the government is not obliged to actually spend the resources that were budgeted. Presidents can choose which amendments to carry out. Since legislators want their amendments implemented, selective use of the executive impounding power is an important tool to help to secure support and discipline members of congress.

Party membership in the cabinet is operationalized either as IN, a dummy variable indicating whether the legislator’s party was in the cabinet or not in a given year, or as CABINET, which is the share of the total investment budget under the control of the ministers from a legislator’s party. Cabinet membership was observed at the beginning of each legislative session (February of each year), and the investment budget was used for it is the most politically valuable portion of the budget. Though the budget for personnel and current expenditures is much larger, it is much less subject to political manipulation because of its high inertial component.

The first regressions shown in Table 6 highlight how the patterns of legislative behavior have
Table 6: Determinants of Legislative Behavior: Yearly data

(a) Model 1

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Notes: Dependent variable is BEHAVIOR, a measure of legislative voting in which lower values mean greater proximity to the president’s positions. P-values are shown below estimates.

varied over time, and the two models differ only with respect to the inclusion of an interaction term between ideology and the dummy variable that indicates whether the legislator’s party was in the cabinet (IDEOLOGY×IN). In broad terms, the three components of the model (ideology, handouts to parties, and handouts to legislators) play relevant roles in most years, and have the expected effects: greater ideological distance is associated with greater differences behavior distance from the president; and greater success in obtaining pork, and the party’s presence in the cabinet are associated with more behavioral proximity to the president. However, some interesting caveats apply.

A quick look at both tables shows that coefficients for IDEOLOGY are always positive and statistically significant. The finding that ideological distance from the president is positively associated with behavioral distance is not too interesting. After all, even though I have, up to this point, claimed that behavior cannot be explained by ideology alone, there is little doubt that ideology plays at least some role in the voting decisions.
Closer examination of the substantive impact of ideology on behavior, however, shows that these effects decrease markedly over time. This trend can be seen in the coefficient on IDEOLOGY in Table 6(a), but is even clearer in Table 6(b). There, because of the interaction term, the coefficient for IDEOLOGY captures only the effect of ideology for parties not in the cabinet. Inside the cabinet, the effect of ideology is, in fact, the sum of the coefficients on IDEOLOGY and on the interaction term IDEOLOGY×IN.

Consequently, for parties in the cabinet, the effects of ideology are always smaller that for those parties outside the cabinet, and since at least 1999 this effect has become very close to zero. The inference to be made is that the role of ideology has declined for Congress as a whole, and that it has never mattered much for legislators whose parties are in the cabinet. An interesting corollary is that resources that are distributed to parties do influence how individual legislators behave.

Note that there is a potential problem with the regressions shown in Table 6. While the variable CABINET, by definition, pertains to the legislator’s party, IDEOLOGY and PORK are attributes of each individual legislator. However, in these first models the average ideological position of each party is substituted for the individual measure because relatively few legislators were identified in each survey.

These few constitute a small subset of the data for which it would be possible, in principle, to use individual ideology estimates. The problem is that after merging the budgetary data with the ideological estimates, it is only possible to identify between 14 and 34 legislators per year, a number barely large enough to run year-by-year regressions. One option, in this case, is to pool the yearly data together for analysis.

There are two main potential pitfalls in using this “reduced” pooled set of legislators. First and foremost it is at least possible that this small subset of legislators is not representative of the whole sample. The other problem is that it is a severely unbalanced cross-sectional-time-series. With between 1 and 10 observations for 79 different legislators, there are a total of 217 legislator/year observations. This imbalance makes it very hard to run panel corrected standard errors routines (Beck & Katz 1995) and to identify and deal with autocorrelation either through the inclusion of a lagged dependent variable or by running AR-1 models (Achen 2000).

Though there are no perfect solutions for either of these problems, I adopted three alternative setups to help address them at least partially, and to obtain some sense of the robustness of the findings. To deal with the issue of representativeness of the reduced sample, I also assembled a pooled data set with all legislators, simply using the party mean ideology estimates as was done in the yearly regressions. This “full sample” includes 935 legislators, but as was the case with the reduced set,
also severely unbalanced because most legislators move in and out of the sample very frequently.\textsuperscript{21} To deal with the imbalance, I then created a “partial set” with only legislators who were present in at least six panels, which allows for computation of panel corrected standard errors. As a further validity check, I created yet another data set, this time replacing the mean party ideology values used in the “full” and “partial” samples with imputed values for each legislator using the Amelia Software for Multiple Imputation (King, Honaker, Joseph & Scheve 2001).\textsuperscript{22}

Table 7 reports results for three OLS models that were fit to each of the samples described above — reduced, full, partial, and imputed. The three models are variations of the basic conceptual approach shown in Eq. 8, and explore the effects of ideology on behavior in different ways.

The results are fairly similar across all samples and models, and corroborate the findings from the year by year regressions: ideology, pork distributed to individual legislator, and party membership in the cabinet are all important determinants of legislator behavior. The effects of the main explanatory variables have the same signs as in the year-by-year regressions, and are statistically significant under all specifications.

Model 3 includes basically the same variables as Model 2 and shows that ideology has a substantially smaller effect on legislative behavior for legislators whose parties are in the cabinet. In fact, in the all models the combined effect of IDEOLOGY and IDEOLOGY×IN is actually negative, but very small, and often not statistically significant.\textsuperscript{23} This suggests that for parties in the government coalition, either ideology has no effect, or there is a slight tendency for legislators ideologically more distant from the president to support him more emphatically. When not in the cabinet, however, the effect of ideology on behavior is clearly positive. Being part of the president’s coalition, it seems, trumps ideological considerations.

Participation in the cabinet indirectly affects legislative behavior, by significantly altering the effect of ideology on legislative votes, but it also has a direct effect. Recall that cabinet membership enters Model 3 twice, once through the share of the investment budget held by each party, and another as a dummy variable interacted with ideology. For all legislators in all models, being in the cabinet decreases their behavioral distance from the president, relative to not being in the cabinet, and this effect increases with the ideological distance to the president. It also increases with the share of the

\textsuperscript{21}Many legislators only serve one term, or serve non-consecutive terms. In addition, many legislators take leaves and are replaced by alternates, and others leave definitely to pursue other positions.

\textsuperscript{22}The complete data set, with just under 40 variables including the average ideological position within each party was used in this imputation. I imposed very high confidence priors so that the imputed values of ideology had to follow the distribution of ideology estimates for the legislature to which the year corresponded. I also constrained all legislator/year observations within a legislature to be the same, as was the case with the individual legislator estimates.

\textsuperscript{23}P-values for the combined effect of ideology are as follows: reduced sample = 0.11; full sample = 0.01; imputed sample = 0.02; and in the partial sample 0.3.
cabinet controlled by the legislator’s party.

Models 2 & 3 examine the effect of ideology over time through the inclusion of interaction terms that attempt to capture how ideology’s importance has waned. Model 2 includes an interaction between ideology and an ordinal variable that captures time (IDEOLOGY × YR). This setup imposes a linear restriction on the variation in the effects of ideology over time, which is probably an oversimplification. Still, the comparison of this interaction term in Model 1 across all samples reveals that ideology loses about 10% of its effect each year.

This assumption was relaxed in Model 3 by replacing the ordinal variable YR with dummy variables for each year, which are omitted from Table 7 for ease of presentation. When allowed to fluctuate freely, the effects of ideology exhibit a much more erratic path than in the previous model, but still retain a clear downwards trend, despite a significant spike in 2005. This can be seen in Figure 7, which shows in more detail how the effect of ideology has declined over time. In substantive terms, this is a very sharp decline. In 1996, a one standard deviation increase in ideological distance from the president caused an increase of between 0.5 to 1.3 standard deviations on the behavioral distance scale. Since then, this effect has vanished, and under some specifications is actually negative (but small).
Table 7: Determinants of Legislative Behavior: Pooled Data

|                   | Reduced Sample | Full Sample | Imputed Sample | Partial Sample | Mod.3 | Mod.4 | Mod.5 | Mod.3 | Mod.4 | Mod.5 | Mod.3 | Mod.4 | Mod.5 | Mod.3 | Mod.4 | Mod.5 |
|-------------------|----------------|-------------|----------------|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| IDEOLOGY          | 0.19 0.33 0.41 | 0.26 0.74 1.00 | 0.19 0.17 0.20 | 0.26 0.70 0.98 | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   |
| p-value           | 0.00 0.00 0.00 | 0.00 0.00 0.00 | 0.00 0.00 0.01 | 0.00 0.00 0.00 | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   |
| IDEOLOGY × IN     | -0.25 -0.29 -0.25 | -0.29 -0.25 -0.29 | -0.29 -0.29 -0.29 | -0.29 -0.29 -0.29 | -0.29  | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   |
| IDEOLOGY × YR     | -0.04 † -0.07 † -0.01 † -0.07 † | 0.00 0.00 0.00 0.00 | 0.00 0.00 0.00 0.00 | 0.00 0.00 0.00 0.00 | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   |
| PORK              | -0.29 -0.38 -0.45 | -0.22 -0.28 -0.29 | -0.27 -0.33 -0.39 | -0.22 -0.30 -0.32 | -0.29  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   |
| CABINET           | -0.17 -0.47 -0.43 | -0.04 -0.37 -0.38 | -0.05 -0.38 -0.38 | -0.07 -0.40 -0.41 | -0.17  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   |
| YR                | † 0.05 † 0.09 † 0.03 † 0.08 † | 0.00 0.00 0.00 0.00 | 0.00 0.00 0.00 0.00 | 0.00 0.00 0.00 0.00 | 0.05   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   |
| Const.            | 0.52 0.36 0.30 | 0.38 -0.21 -0.45 | 0.44 0.38 0.34 | 0.38 -0.15 -0.43 | 0.52   | 0.36   | 0.30   | 0.38   | 0.36   | 0.30   | 0.38   | 0.36   | 0.30   | 0.38   |
| N                 | 231 231 231 | 3675 3675 3675 | 4225 4225 4225 | 1581 1581 1581 | 231    | 231    | 231    | 3675   | 3675   | 3675   | 4225   | 4225   | 4225   | 1581   |
| R²                | 0.54 0.35 0.38 | 0.52 0.39 0.46 | 0.39 0.19 0.22 | 0.55 0.41 0.45 | 0.54   | 0.35   | 0.38   | 0.52   | 0.35   | 0.38   | 0.52   | 0.39   | 0.46   | 0.39   |

Notes: † Year effects were included. ‡ Interaction of IDEOLOGY with dummies for years was included. Dependent variable is BEHAVIOR, in which lower values indicate greater proximity to the president’s position. Estimates were obtained through OLS, and p-values are shown below estimates. In the reduced and imputed samples, variable IDEOLOGY was the legislator's individual estimated ideological distance to the president, while in the full and partial samples, party average were used instead.
Figure 7: Effects of Ideology on Legislative Behavior: 1996–2005

Notes: Figure shows the effects of ideology in Model 3 (shown in Table 7), which is the combination of the coefficient on ideology with the interaction term between ideology and a dummy variable for each year.

Overall, the results are supportive of the idea laid out earlier that the executive’s distribution of resources creates a “partial” scrambling of the underlying ideological organization of the legislature. The results also indicate that ideology, resources distributed to parties, and those distributed to legislators matter in determining legislator behavior, but that their relative weights vary from year to year, probably reflecting changes in strategy and political capacity of the executive. Results also suggest that ideology has lost importance in recent years, even though the story behind the mechanics of legislative politics suggests that ideology should always be important. In the next section I attempt to reconcile theory with data, by discussing alternative interpretations of this particular finding.

4 The Mechanics Revisited

From the preceding analysis it seems clear that the effect of ideology as a determinant of legislative behavior has declined. While it is possible to take this finding at face value, there are other possible interpretations of the results that imply considerably different stories about how executive-legislative relations have evolved in Brazil. In this section I examine two alternative interpretations compatible with the data, though not entirely compatible with each other.

Is it just an idiosyncrasy? Though ideology has lost importance as a determinant of legislative behavior, under Lula all three basic components of my framework exhibit smaller effects. Two hy-
hypotheses are compatible with this empirical finding. On the one hand it might suggest a learning period at the start of a new presidency, after which executive-legislative relations return to their “normal” state. However, the evidence is also compatible with the idea that there is no “normal” state, and that the patterns of executive-legislative behavior are unique to each president.

In fact, based on the same results I have shown thus far, one could claim that the whole structure of legislative-executive relations — and not just the role of ideology — changed between Cardoso and Lula. The idea here would be that there is nothing really structural in how the executive and legislative branches relate to each other, but rather that each president implements his own *modus operandi* according to his style, strengths, and the relevant issues of his time.

The coefficients on CABINET and PORK for the first two Lula years in Table 6 are compatible with this story. In 2003 and especially in 2004, the clear patterns of the Cardoso period are blurred, suggesting that at the beginning of his term, legislators did not respond to having cabinet positions or to the execution of their budget items. The last two years, which could help discriminate between the two hypotheses (learning vs. no structure) are also not clear: the situation “normalized” in 2005, with the patterns similar to those found under Cardoso, only to be disrupted again in 2006.

It is still impossible to say with certainty whether executive-legislative relations in Brazil have definitely shifted to a different pattern, or whether Lula’s second term will reveal a return to the previous “normality.” Arguments for the exceptionality of one period or the other are common, and structural traits can only be confidently identified over extended periods of time.

Soft evidence, however, suggests that the hypothesis of a complete lack of structure is implausible. It would be hard to deny that Lula’s first term was disastrous in terms of coalition management. The PT had never been part of the federal government before winning the presidency. By many accounts, Lula he began his government by handing too many resources to the PT (Franco, Vasconcelos & Lima 2005) and failed to accommodate the interests of key allies. The government, and handled congress very poorly on a regular basis and also in critical moments, as was seen in the series of mishaps in the run up to the backbencher Severino Cavalcanti’s election to the important position of speaker of the house. Things seem to have changed in Lula’s second term, which started in 2007. Since his reelection, late in 2006, he personally took up the task of dealing with parties, has given much more attention to “allies,” and put much more effort into building and managing a broader and more solid coalition. Thus there are plenty of signs — six months into his second term — hinting at a return to a relationship between congress and the presidency similar to the one that existed under Cardoso.

Additionally, some trends in the data began to show before Lula arrived in the presidency, and
therefore cannot be attributed to his personal style. Evidence shown earlier suggests an increasing disjunction between ideology and legislative behavior beginning with Collor. The downward trend in the importance of ideology is clear throughout the Cardoso period and continues into Lula’s. While the same might be true for the importance of cabinet nominations — results are noisier in this case — it definitely cannot be said regarding the effect of budget amendment success. This implies that even if Lula does things very differently regarding the last two, there was a clear and conspicuous decline in the role of ideology even before Lula came to power.

Finally, the lower explanatory power of PORK and CABINET in 2003 and 2004 can be attributed not only to Lula’s style, but also to the existence of the infamous mensalão, an alleged scheme to exchange outright bribes for legislators’ support — which I discuss in more detail in Chapter 5 of my dissertation. If the government was, in fact, handing cash to certain legislators in return for their votes, this alternative to “regular” exchanges with Congress could reduce the importance of traditional currencies such as cabinet positions.

Until time passes and reveals how Lula and Congress will behave in the next few years, or until the data series can be extended further back in time, it is impossible to decide between the two hypotheses. Nonetheless, all things considered, I find the hypothesis that there was a temporary disruption of rather stable patterns of executive-legislative relations more plausible than the idea that there is no stable pattern.

Was it ever ideology? A radically different interpretation is to read the decline in the effect of ideology identified in the previous section as an indirect sign that there is some other factor at play. In concrete terms, examine Figure 8, which is similar to Figure 6 above, but instead of showing relative distances from the president, depicts ideology and behavior in absolute terms.\(^{24}\) Note that when the coalitions are ideologically coherent, as in Cardoso’s government, the executive’s vote buying efforts increase behavioral polarization, understood as the separation between the government and opposition camps. In contrast, when the government’s coalition is ideologically incoherent, as was the case in Lula’s first term, a more selective scrambling of the underlying ideological disposition of parties occurs, with some parties being brought closer to the president, and others repelled. Though this is an important qualification to the basic framework presented in the previous chapter, the most conspicuous pattern in Figure 8 is still that ideology explains behavior quite well for governments that

\(^{24}\)The Figures also show the behavioral position of the president’s whip in Congress using the president’s party median ideology as the horizontal axis value for this point. Note that Franco did not have any party affiliation while in office (see footnote 16), but it is very reasonable to suppose that he was ideologically placed somewhere between the PSDB, whose candidate he endorsed in the 2004 elections, and the PMDB, the party he joined in 1997.
formed coherent coalitions, but not when coalitions were incoherent: note the precipitous drop in the association between ideology and behavior during Lula’s term. 25

The point, then, is that if the government vs. opposition cleavage overlaps neatly with the left-right ideological disposition of parties, such as was the case under Collor and Cardoso (especially in his first term), it is hard to distinguish between the effects of ideology and the government’s efforts to buy support. Therefore, it is at least plausible that this vote-buying logic, and not ideology, was what structured executive-legislative relations in Brazil in the earlier democratic period as well, but that observers of that period could have been lead to believe it was ideology. In this sense, the election of a nominally leftist president and his formation of an ideologically incoherent coalition played the role of a natural experiment. If ideology were the “name of the game,” we would not have observed the drop in the predictive power of ideology, that is seen in Figure 8(e). Specifically, parties on the ideological right would not have changed their behavior and approached the PT, and parties on the left would not have moved away from the PT just because of their government or opposition status.

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25 Note also that presidents, and their parties, are always more extremist on the behavioral dimension than on the ideological one. The fact that presidents seem to anchor the behavior scale is consistent with the argument that presidents, though their use of resources to obtain support, tend to structure legislative behavior around a government–opposition cleavage.
Figure 8: Ideology and Behavior: By Presidency

Notes: Ideology, shown on the horizontal axis, is the average legislator estimates by party. Behavior, shown on the vertical axis, is the average party member’s W-Nominate ideal point estimates in 1 dimension. Dotted line shows the regression without intercept of Behavior on Ideology.
5 Concluding Remarks

This paper helps clarify the influence of ideology and presidents’ handouts on legislative behavior. It highlights the inappropriateness of taking behavior as a proxy for ideology — as Nominate scores do; develops an exogenous way to measure the ideology of legislators; and analyzes how the legislative voting departs from it.

The estimates of ideology — originally conceived simply as an intermediary step in the broader argument of my dissertation — make an important contribution to building systematic knowledge about Brazilian politics. Both the legislator-specific and party estimates provide an accurate and detailed depiction of the ideological structure of the Brazilian legislature, and can potentially help test other arguments that make predictions about, or depend on, ideological positions. The method implemented here can be applied to similar data from other countries, which could then contribute to a clearer picture of how ideology evolves over time. On the substantive side, this estimation documents the relative stability of the ideological alignment of Brazilian parties since redemocratization, and shows that this alignment cannot explain the cleavage patterns that emerge from the analyses of legislative behavior. While this is not an entirely original claim, it is, to the best of my knowledge, made in a different way and supported by more sophisticated evidence than in previous work.

The comparison between ideology and legislative behavior supports the claim that deliberate action by the executive, such as the distribution of pork and cabinet positions in exchange for legislative support for the president’s initiatives, contributes alongside ideology, in determining how legislators behave. The critical point regarding the distribution of resources by the president is that legislators’ behavior is influenced both by what they receive individually and by what their party receives from the government, a distinction which I further explore in my dissertation (See Job Market Paper # 2).

To some extent, this finding represents a synthesis between the depictions of congress as the arena of the locally-minded, pork-seeking, free-floating legislator (Ames 1987a), and the competing view that internal rules make for a legislature structured around parties, which behave in roughly ideological terms (Figueiredo & Limongi 2002). Nonetheless, this should be qualified as “weighted synthesis.” While parties do seem to matter, they do not seem to matter in an ideological way. Parties, rather, seem to matter because they help mediate the distribution of resources by the president, even though not all exchanges of support for presidential handouts are made through parties.

Previous observations of ideological behavior by parties, I argue, were based on a coincidental artifact of Brazilian political reality in the late 80’s and 90s. With all presidents coming from the center-right, and supported by ideologically coherent coalitions, there was a coincidence between the
left-right during that period, and government-opposition cleavages that projected the appearance of an ideologically organized legislature. It has since become clear that it is the president vs. opposition cleavage that really matters, not ideology. If the decline in the role of ideology identified in this paper is taken at face value, congress has become more similar to Ames’s image than to Figueiredo & Limongi’s. If ideology never mattered, however, and handouts determine legislative voting, then congress has always been this way. In the unlikely scenario that there is no regularity, and all is contingent on the president, we would all then be forced back to the drawing board.

This paper relies on data from Brazil, which is probably the most well researched case in the region. However, there is less systematic evidence from other countries in the region that both that nominal ideological inclinations do not match actual legislative behavior, and that presidents, through their use of state resources under their control, exert an almost irresistible attraction and help structure legislative behavior along pro and anti government lines. For example, the years of the executive dominated politics in Bolivia — known as the rodillo oficialista — exhibit these same processes. A string of minority presidents were able to maintain heterogeneous coalitions mainly through the distribution of pork and patronage, and votes in congress were frequently split along government-opposition lines, with very little cooperation between the two sides (Mayorga 2006). In Uruguay, the link between legislative behavior and pro- or anti-government status has been documented (Morgenstern 2001), and so has the fact that two factions of the same party will vote against each other if one is in and the other out of government (Buquet, Chasquetti & Moraes 1998). In Ecuador, too, voting has frequently been determined by the commitment to support the government, and not because of the merits of any specific piece of legislation. Such commitments are often established through short-lived and quickly shifting deals, sometimes public, sometimes secretly established between between the president and parties, or even informal groups of legislators (Mejía Acosta 2004). Notwithstanding the lack the data to extend the analysis in this paper to other countries, this evidence suggests that the processes analyzed here have a potential scope that transcends the case of Brazil.

The general point is that under certain circumstances, one should not attempt to infer ideology from observed voting patterns in the legislature. When presidents exercise unilateral control over important political resources and need to build support in multiparty legislatures, executive-legislative relations will hinge on the exchange of pork and patronage for votes in congress. By distributing resources, presidents cause legislator’s actual voting patterns to diverge from what would be predicted solely by their ideology. Therefore, the picture that emerges from the analysis of legislative behavior can be very different from the underlying ideological structure of the legislature.
References


