Cabinet coalitions are central to the functioning of Latin American presidential systems. However, the reasons for their formation remain unclear. While recent studies suggest that presidents invite parties to the cabinet to facilitate governability and lawmaking, this study argues that the composition of cabinet coalitions is largely predetermined by commitments made before presidential elections. To analyze this argument, the study introduces the conditional logit model as a new empirical strategy for modeling cabinet choice under this type of regime. Based on a new dataset of 107 cabinets in 13 Latin American democracies, the study shows that pre-electoral commitments strongly affect cabinet formation and thereby also confound the relationship between cabinet formation and governability.

Cabinet coalitions are common in Latin American presidential systems, but their formation is not fully understood. Even though “understanding how a given election result leads to a given government is, when all is said and done, simply one of the most important substantive projects of political science” (Laver and Schofield 1998, 89), “relatively little is known about government formation in presidential regimes” (Clark et al. 2009, 443).

This article provides an important step toward overcoming this scientific lacuna and analyzes how direct and indirect commitments made by presidents before presidential elections affect the composition of cabinet coalitions in presidential democracies. Until now, most studies have understood the invitation of parties to the presidential cabinet as a consequence of the president’s motivation to implement policy. Research shows that legislative factors determine how government goods are allocated between coalition partners (Amorim Neto 2006; Amorim Neto and Samuels 2011) and how presidents interact with coalition partners in the lawmaking process (Pereira et al. 2008; Raile et al. 2010; Pereira and Mueller 2004). It is therefore no wonder that legislative factors are also assumed to define which parties get into the cabinet (Alemán and Tsebelis 2011).

However, the present article argues that the partisan composition of cabinets is largely predetermined by the bargaining and the competition before and during presidential elections. Because only one candidate can win the election, pre-electoral...
Coalitions are formed, which give parties with weak blackmailing power in the law-making process the chance to team up with presidential candidates and thereby secure a share of cabinet posts after the election. The article also argues that the presidential contest produces a strong antagonism between the president and the parties of the president’s electoral rivals. Since the president’s survival in office is not contingent on the support of other parties in Parliament, parties that present a strong presidential candidate are excluded from the cabinet, even if their inclusion is rational from a lawmaker perspective. As a consequence, pre-electoral bargaining and competition strongly affect the relationship between cabinet composition and lawmaking in presidential systems.

This article empirically evaluates this argumentation on the basis of so-called conditional logit models, presenting an auspicious new empirical strategy to analyze cabinet formation under this type of regime. The tests are conducted on a new dataset of 107 democratic cabinets in Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, El Salvador, Honduras, Nicaragua, Panama, Uruguay, and Venezuela. Based on the new method and data, this study presents the most comprehensive test yet of the determinants of the partisan composition of presidential cabinets.

The article reveals that pre-electoral bargaining has a substantially independent effect on cabinet formation. Moreover, some variables associated with governability and lawmaking, such as controlling an upper house majority or the median party in the lower house, have only a substantive effect as soon as one controls for the effects of pre-electoral bargaining. Therefore, the formation of cabinets in presidential systems must be understood as a combination of the incentives of legislative and electoral competition.

The article is structured as follows. The literature on the formation of coalition cabinets in presidential systems is reviewed, followed by a presentation of the core argument, that cabinet formation is largely constrained by the electoral contest. The conditional logit model, results, and some robustness analyses are discussed, and the article concludes with a discussion of promising avenues for future research.

**CABINET FORMATION AND GOVERNABILITY**

Representative government can be organized in many ways. Indeed, governments are selected and held accountable differently around the world. All forms of democratic government, however, can be derived from two fundamental principles. Under the parliamentary principle, the government originates from the parliament and can always be removed by a parliamentary majority. Under the presidential principle, the president is popularly elected and serves fixed terms (Lijphart 1984).

Even though most political scientists agree that the system of government is the backbone of every democracy, we know comparatively little about government formation under presidentialism. While “coalition government [in parliamentary systems] has been both the object of careful empirical analyses and the foundation for
an elaborate superstructure of theory” (Laver and Schofield 1998, 7), scholars have only recently started to analyze the different aspects of cabinet formation in presidential regimes.

The origin of this literature can be traced to a debate triggered by Juan Linz (1994) about the perils and pitfalls of the presidential form of government. While Linz famously claims that presidential systems are more prone to democratic breakdown than parliamentary systems, a further common understanding of his argument is that governability is difficult, that cabinet coalitions are unlikely to occur, and that they are less stable than in parliamentary systems (Cheibub 2007).

Recent research suggests, however, that governability in presidential systems is better than Juan Linz and others expected, and connects these successes with the ability of presidents to form and manage cabinet coalitions. One important claim of these studies is that the incentive to form and maintain stable coalitions is, in principle, not very different from that in parliamentary systems (Cheibub 2007; Cheibub et al. 2004), as presidents need to obtain “political support more or less the same way as prime ministers, by building government coalitions … securing the votes they need in congress” (Figueiredo and Limongi 2000, 158).

In this context, some studies emphasize that institutional lawmaking powers make presidents quite flexible when composing their cabinets and connecting their choices with their basic policy strategy. Amorim Neto (2006) shows that presidents holding strong decree powers can choose between policy strategies based either on executive decrees or on legislative statutes. If presidents choose a policy strategy essentially based on decrees, they do not need to form broad cabinet coalitions in order to maximize legislative support. They can form minority governments, appoint nonpartisan ministers to their cabinet, and distribute cabinet seats in a nonproportional manner among coalition partners (Amorim Neto 2006; Zelaznik 2001).

Other works underscore the claim that the allocation of cabinet posts, in addition to the use of decrees and pork, can be understood as a tool of presidents to achieve governability. Raile et al. (2010) show that sitting at the cabinet table establishes an exchange baseline for cooperation in Congress, even though additional pork is needed to win legislative support (see also Pereira and Mueller 2004; Ames 2001). Martínez-Gallardo (2012) further argues that the stability of presidential cabinets is contingent on the president’s need to cooperate with parliamentary parties. Presidential powers—for example, the ability to issue decrees—increase presidents’ autonomy and therefore lead to cabinet instability in Latin America.

It is therefore no wonder that Alemán and Tsebelis (2011) expect institutional legislative powers and the policy motivations of political actors to be decisive for the question of which parties get into the cabinet. They claim that presidents tend to invite into their cabinets parties positioned close to their own ideal policy position because transaction costs are reduced and policy compromises in Congress can be easily found. They also argue that presidents located close to the ideological center of Congress have few incentives to invite other parties to their cabinets because they can pass laws with the help of switching legislative coalitions. Furthermore, they argue that presidents with a relatively strong decree authority relative to the over-
sight mechanisms of parliaments can circumvent the congress altogether and are thus unlikely to invite parties to their cabinets other than their own.\(^2\)

Which hypotheses about the partisan composition of cabinets in presidential systems can be deduced from this strand of literature? Which attributes make a specific cabinet coalition likely to be formed? A simple baseline hypothesis is that controlling a majority in the lower or upper house of Congress makes cabinet coalitions more likely to form, even if, under specific conditions, minority governments are likely to emerge. Since political parties in Latin America are primarily located along the left-right dimension (Rosas 2010, 71; Saiegh 2009, 128; Wiesehomeier and Benoit 2009, 1439), cabinets can also be expected to be more likely to form when coalition members are ideologically connected (Negretto 2006, 67) or when they minimize the number of parties and the ideological range within the cabinet (Alemán and Tsebelis 2011, 7).

A logical consequence of this approach is that cabinet coalitions are more likely to include the legislative median party because the median party is needed to form both left-wing and right-wing majorities (Cheibub 2007, 52). Furthermore, parties with a more extremist position than the president compared to the status quo are likely to be excluded from the government because these parties are likely to vote for presidential proposals when these proposals move the status quo closer to their own ideal point. Since presidents can expect legislative support from these parties even without formal cabinet participation, presidents are unlikely to invite them into the cabinet.

Under what circumstances are minority governments likely to form, according to the literature on governability? One can expect minority governments to emerge that include the median party (Cheibub et al. 2004; Negretto 2006) because in a one-dimensional policy space, the median party is necessary for forming legislative majorities, and presidents do not need to make office concessions when they control this pivotal player. As discussed above, one can further expect that minority governments are more likely to form when presidents possess strong proactive legislative powers, such as extensive rights to issue decrees (Amorim Neto 2006), or when they control strong reactive legislative powers, such as the right to veto bills with a high legislative threshold to override the veto (Cheibub 2007, 59; Colomer 2005b). In addition, minority governments can be expected to be more likely to form when the legislature possesses weak control and oversight mechanisms against the president, because, with no oversight mechanisms, legislators lack tools to demand cabinet participation (Alemán and Tsebelis 2011).

**CABINET FORMATION AND PRE-ELECTORAL COMMITMENTS**

While most studies so far have focused on the relationship between cabinet formation and presidents’ ability to legislate, relatively little research has been done on how commitments made before presidential elections affect the composition of cabinets in presidential systems. In parliamentary systems, pre-electoral negotiations and electoral constraints have received increased attention by analysts of postelec-
toral cabinet formation (Strøm et al. 1994). Martin and Stevenson (2001), Golder (2006), and Debus (2009) bring together comparative empirical evidence that pre-electoral coalitions often translate into cabinet coalitions after the election. At the same time, they show that antipacts—pre-electoral announcements promising that specific cabinet coalitions will not occur—decrease the probability that a specific party coalition will be the coalition in the cabinet.

The effects of pre-electoral commitments on cabinet formation in presidential systems have not yet been systematically analyzed using sophisticated empirical methods, even though Deheza (1997), Mainwaring and Scully (1995, 33), and Chasquetti (2002) find descriptive evidence that cabinet coalitions are often preceded by similar pre-electoral coalitions. More recent studies also indicate that pre-electoral commitments affect how cabinet posts are allocated among government parties in presidential systems (Carroll 2007).

Electoral commitments can be assumed to have important constraining effects on the partisan composition of governments in presidential systems, for three reasons. First, presidential elections provide very strong incentives for the formation of pre-electoral coalitions, due to the disproportionality of the presidential electoral rules. Since Duverger (1954), we have known that disproportional electoral systems encourage pre-electoral coordination. Because only one candidate can win, electors shy away from their preferred presidential candidate and cast a strategic vote for the candidate they prefer among the potential winners. Anticipating this effect, risk-averse parties coordinate their electoral strategies by forming pre-electoral coalitions to increase their chances of winning the competition.

However, since presidential elections award the single most important office in a given polity, not presenting a presidential candidate also imposes costs on parties. Supporting parties may lose credibility with their constituents. They may jeopardize the support of their party base, frustrate party militants, and damage their intransigent image. Furthermore, supporting parties may give up potential coattail effects and thus may suffer a loss in votes for the parliamentary contest as well (Amorim Neto and Cox 1997).

When so much is at stake, risk-averse parties are likely to demand compensation for their pre-electoral support, such as concessions in the candidate’s policy platform during the campaign, vote transfer agreements in congruent elections, or office benefits after the election. Office benefits can be particularly attractive: for the candidate’s party, they are due only in case of victory and are thus easily promised. For the supporting party, they provide access to high-level offices that would be difficult to attain otherwise.

The second reason pre-electoral commitments are likely to play a strong role in cabinet formation is connected to the chain of delegation in presidential systems. Delegation in parliamentary systems is singular and indirect (Strøm 2006). From the voters to the ultimate policymakers runs a single hierarchical chain, wherein authority is delegated to the next higher level and every higher level is accountable to the lower ones. In contrast, presidential systems exhibit at least two chains of delegation: voters elect the legislature and the president separately. This institutional
difference also affects the conjunction of coalition stages. While in an ideal-typical parliamentary system delegation is tailored to the dominant legislative coalition, which decides all distribution of power at the national level, including the allocation of cabinet portfolios, a “parliamentary filter” in the distribution of power does not exist in presidential systems. Consequently, the impact of electoral constraints on cabinet formation can be expected to be more direct and concise in presidential systems than in parliamentary systems.

A third reason for the constraining effect of pre-electoral commitments is the credible commitment problem inherent in presidential systems. Unlike prime ministers, presidents do not need the support of any party to stay in office. Thus, during legislative bargaining, presidents find it more difficult to credibly commit to future political actions (Persson et al. 2000) and need a strong reputation in order to make complex legislative deals. Imagine a president who abandons all pre-electoral commitments directly after the election and invites only members of his or her own party to the cabinet. He or she will not only lose the support of the pre-electoral coalition partners in the legislative process; he or she will also lose the ability to make any political deal in the legislature that involves future political actions.

This also explains why one has to consider the whole political game—that is, electoral and legislative party competition—to understand cabinet formation in presidential systems. In other words, the reason for the inclusion of pre-electoral partners in presidential cabinets may not only be based on presidents’ obligation to fulfill their pre-electoral commitments. Once pre-electoral agreements have been made, presidents can use the fulfillment of their electoral commitments as a signaling device to parties outside their coalition. Presidents do not always honor electoral support at the expense of governability, but the composition of the presidential cabinet is largely predetermined by the pre-electoral coalition formation process.

The composition of pre-electoral coalitions is therefore very likely to differ from postelectoral negotiations. A party can be attractive as a pre-electoral coalition partner for its good organizational infrastructure, its roots in civil society, or its access to campaign funds that a candidate would not receive otherwise. Furthermore, extreme parties, which have no power in the legislative bargaining process, can credibly threaten to draw valuable votes from presidential candidates and might induce pre-electoral pacts.

More research is needed to understand the dynamics of pre-electoral coalition formation in presidential elections (Freudenreich 2013; Machado 2009; Kellam 2015). Pre-electoral negotiations are a very complicated undertaking and often take place behind closed doors. Uncertainties about potential benefits are high, and voters can punish behavior they dislike immediately at the polls.

There is, however, some initial evidence about determinants of pre-electoral coalition formation in presidential elections. First, because voters can punish candidates at the polls and credible commitment problems exist between pre-electoral coalition partners, pre-electoral coalitions are likely to be composed of policy-motivated parties from the same political camp (Kellam 2015; Freudenreich 2013). Second, the ability to make deals across elections can highly encourage the forma-
tion of pre-electoral coalitions. Countries like Chile and Brazil, with their specific legislative electoral rules, provide several incentives for pre-electoral coalition formation in legislative elections, which foster cooperation in the presidential contest as well. Third, pre-electoral coalition formation is more prevalent when presidents’ institutional authority is high, as political actors make a relatively simple calculation about the benefits and the costs of coordination in presidential elections (Hicken and Stoll 2008; Freudenreich 2013). If political actors perceive the presidency as an important prize, the potential benefits of controlling the presidency are likely to exceed the costs of pre-electoral coordination.

Although parties are likely to form pre-electoral coalitions before presidential elections and receive cabinet posts after the election, parties that present a strong candidate against the eventual winner are likely to be excluded from the cabinet. To some extent, this is comparable to antipacts in parliamentary systems. Known in these systems as a type of pre-electoral commitment in which parties declare that they will not govern together (Martin and Stevenson 2001; Strøm et al. 1994), antipacts have not been considered in the literature on cabinet formation in presidential systems because it is generally uncommon for presidential candidates to explicitly announce before the election which parties will be excluded from the cabinet. However, presidential elections exhibit such a pronounced competition between the main candidates that this confrontation is likely to come close to an antipact. Because presidents do not act under the constraint of the vote of confidence procedure, bridging the electoral divide—especially in respect to the second-place finisher—may be hard to sell to party members and allies. Because presidents can exclude political rivals at low cost, one can expect that they will be less likely to form cabinet coalitions that comprise parties of competing candidates, especially the party of the main political rival.

To sum up, four hypotheses can be derived from this line of argumentation.

**H1.** Cabinets that are identical to the president’s pre-electoral coalition are likely to form.

**H2.** Even if presidents invite additional parties into the cabinet, the support of pre-electoral coalition partners is still honored.

**H3.** Cabinet coalitions are more likely to form when they exclude parties of competing presidential candidates in the previous election.

**H4.** Cabinet coalitions are especially likely to form when they exclude the party of the main rival in the previous presidential election.

**RESEARCH DESIGN**

These hypotheses were tested on a new dataset of cabinet formation in 13 Latin American countries using conditional logit models.
Country Sample

Countries must fulfill three criteria to be included in the present study. First, they must have a presidential system of government in the sense that the head of government is popularly elected and serves fixed terms (Samuels and Shugart 2010). Second, they must score 6 or higher on the widely used Polity IV Democracy Index for at least 20 years (until 2011) (Marshall and Jaggers 2011). And third, they must be located in Latin America.


Measuring Cabinet Composition

Studying cabinet coalitions in these countries poses some challenges, of which researchers of parliamentary systems may be unaware. Whereas half a century of intense research on cabinet formation has produced a well-established data infrastructure for parliamentary systems (Döring and Manow 2010), relatively few systematic efforts exist to classify the government status of parties in presidential systems. A basic problem is that the partisan composition of cabinets is not systematically reported by official resources, such as national electoral reports, and that government support is sometimes disguised by the relevant actors (Mejía Acosta 2004). This situation forces the researcher to comb through case study literature, Keesing World Records, and newspaper archives to establish a systematic data basis to compare cabinet formation across presidential countries.4

The composition of the cabinet is defined by the set of legislative parties that formally hold cabinet posts. The term formally is included because presidents occasionally invite members of other parties to join the cabinet on the basis of “their technical ability, political skill, or public image” (Zelaznik 2001, 132) but without any commitment by their parties (Cheibub 2007, 74–75). The problem with this approach is that agreements between parties in presidential systems are generally not written down or made public. Hence, this study follows Cheibub (2007, 75) and assumes that ministers are representatives of their parties, and departs from this norm only when there is clear evidence against a party’s membership in government.

Similar to approaches in parliamentary systems (Müller and Strom 2000), a new cabinet coalition takes place when a party decides to leave or enter the cabinet by sending or removing cabinet ministers, a new president takes office, or parliamentary or presidential elections are held.5

Furthermore, ten caretaker governments were excluded from the analyses that were conducted after the impeachment or unplanned resignation of presidents, because the theories presented here make little claim to explain these exceptional types of government.6
Measuring the Size and Ideological Composition of Cabinets

The legislative seat share of parties is based on Nohlen 2005 for the legislative terms covered, and updated for more recent legislative terms based on data provided by the Inter-Parliamentary Union (2011) and national electoral resources.7

All parties holding less than 1 percent of legislative seats were excluded from the dataset because these parties do not play a strong role in the cabinet formation process, and information on independent variables, especially the policy position of parties, does not exist. Systematically dropping observations from the estimation will certainly bias the results. Therefore it should also be mentioned that the potential bias caused by the exclusion of very small legislative parties is very likely to work against the argument of this study. Only five parties with less than 1 percent of the seats in Parliament in the dataset can be identified to be part of presidents’ cabinets, and their participation can best (if not exclusively) be explained by pre-electoral bargaining. Four parties supported the president in the first round of the previous election, and the fifth gave a voting instruction in the second round.8

To locate parties in policy space, the estimation of Wiesehomeier and Benoit (2009) was used and simplified to a rank order of parties along a simple left-right dimension.9 On the basis of this scale, one can identify the median party in Congress—the party that is located at the ideological center of the lower house and is therefore necessary for both a left-wing and right-wing majority. One can also determine whether cabinet coalition members are connected to each other; that is, no legislative party is omitted on the left-right continuum. Extreme parties are identified as being more distant from the political center than the party of the president, based on this simple rank-order scale.

A second simplification of Wiesehomeier and Benoit’s estimation was used to categorize parties as left, center-left, center, center-right, or right-wing parties. The ideological range in the coalition is then measured by the maximum ideological distance between parties, reaching from 0 (all members are in the same ideological camp) to 4 (left- and right-wing parties taking part).

Using a more nuanced categorization of parties is not advisable, for three reasons. For some arguments of coalition theory, the overall distance between parties is less relevant than their relative position. Moreover, the overall scope of the data used is low compared to efforts made for European parties. Existing estimates are generally only snapshots, but Latin American parties are relatively short-lived and ideologically flexible. Even if a party has a long tradition, the application of a metric classification is problematic when the period of interest is in the distant past. The assumption that parties do not change their overall ordering and remain more or less in the same political camp is less problematic than the assumption that parties hold exactly the same policy position over time.

A third reason is that based on the simple categorizations, it is possible to integrate additional sources of party positioning in Latin America (Colomer 2005a; Coppedge 1997; Rosas 2005; Power and Zucco 2009) and position parties that are
not part of Wiesehomeier and Benoit’s study. (For a discussion on empirical strategies to identify policy positions of parties in Latin America, see Freudenreich 2013).

**Measuring the Institutional Powers of Presidents and Parliaments**

The classification of presidential decree and veto powers is based on the index by Samuels and Shugart (2003), although measurements by Payne et al. (2007) and Negretto (2009) have been considered, and the substantive results presented here are independent of the choice of measurement. In order to measure the constitutional powers of parliaments, the index developed by Alcántara Sáez et al. (2005) is used. It includes nine parliamentary oversight instruments, such as control over presidential nominations, interpellations of government officials, creation of investigative committees, and impeachment.

**Measuring Pre-electoral Commitment**

Variables of pre-electoral bargaining are based on the electoral results reported in Nohlen 2005 and updated by national electoral resources. Whether parties of competing presidential candidates are included in the cabinet can be directly coded from these sources. Cabinet coalitions that are congruent with or an enlarged version of the president’s pre-electoral coalition were coded based on the following definition of pre-electoral coalitions in presidential elections: a pre-electoral coalition exists when one party supports the presidential candidate from another party in the first round of the presidential election and when the candidate’s party officially accepts this support. Second-round bargaining was not considered, due to the low number of second rounds in the presidential elections analyzed.10

**The Conditional and Mixed Logit Model**

The present study will be the first to apply conditional and mixed logit models to analyze cabinet coalitions in presidential systems. Some of the existing quantitative tests on cabinet formation rely on binary logit models, with the coalition or majoritarian status of cabinets as the unit of analysis (Cheibub 2007; Amorim Neto 2006). Other empirical studies that focus on which parties get into the cabinet often use as the dependent variable a dummy that indicates for each party in the legislature whether it is part of the cabinet (Álemán and Tsebelis 2011; Altman 2000).

These approaches, however, have some empirical problems. For example, the probability of these parties’ entering the cabinet is not independent from the probability of other parties’ doing so. Furthermore, attributes of cabinet coalitions are often more important in theories of cabinet formation than attributes of specific parties. For example, if a president wants to form a cabinet coalition that controls a majority in the lower house, generally several parties are at hand to achieve this aim. Once the president controls a majority, there are few incentives to invite additional legislative parties into the cabinet.11
Coalition research on parliamentary systems has used conditional logit models (McFadden 1974) to tackle this problem (Druckman et al. 2005; Warwick 2005; Bäck and Dumont 2008; Martin and Stevenson 2001). In a conditional logit model, cabinet choice is formulated as a selection problem of choosing a single cabinet coalition from the set of all possible coalitions in a given legislature. An important characteristic of the conditional logit model is therefore that the unit of observation is the choice set, in coalition theory often called the government formation opportunity or the bargaining situation, which occurs after the inauguration of a new president, the beginning of a new presidential or parliamentary term, or the quitting or entering of a cabinet party.

It should be noted, however, that the conditional logit model relies on the relatively strict assumption of independence of irrelevant alternatives (IIA), which implies that no unobserved heterogeneity exists among coalition alternatives (Glasgow et al. 2012; Train 2009). Recently, more sophisticated tools, so-called mixed logit models, have been proposed, which relax the IIA assumption by assuming random parameters based on specific mixing distributions (Glasgow et al. 2012; Train 2009) and can be used to analyze the robustness of the estimated coefficients.

**ANALYSES: CABINETS, GOVERNABILITY, AND PRE-ELECTORAL COMMITMENTS**

Table 1 shows three different model specifications of cabinet formation based on 107 bargaining situations in the 13 Latin American presidential democracies. While the first three columns of the table focus on situations in which the president’s party does not control a majority in Congress, the fourth column displays the estimation of model 3 based on the whole dataset in order to show that the results are no different when that restriction does not apply. The table provides the results of the untransformed estimated coefficients (that is, $b$ rather than the odds ratio $e^b$). Thus the signs of the parameters accurately reflect the direction of the substantive effects.

The first model includes variables associated with hypotheses from the literature on coalition governance and governability. Based on this literature, the baseline expectation is that cabinet coalitions are unlikely to control only a minority of seats in the lower house of Parliament. Controlling an upper house minority is also expected to decrease the probability that a coalition alternative is chosen. Transaction costs increase with the number of parties; thus, coalitions with few members are expected to be more likely to occur than broad coalitions. Low transaction costs are also the reason ideological connectivity should increase the probability that a coalition alternative will become the cabinet. With increasing ideological heterogeneity, coalition alternatives are expected to become less likely to form the cabinet. Furthermore, a logical consequence of this approach is that cabinet coalitions are likely to include the median legislative party and exclude parties that are more extreme than the president in policy terms.

Model 1 shows that a cabinet alternative that controls a majority in the upper chamber is significantly more likely to become the cabinet of the president, while
controlling a lower chamber majority has no significant effect on cabinet formation. One potential explanation for this phenomenon is that there are generally fewer parties in the upper than in the lower chamber, due to the disproportionality of electoral systems used to elect upper chambers in Latin America. Thus, the president’s party is often overrepresented in the upper house, which makes it easier for presidents to find majorities. Furthermore, second chambers are generally strong in Latin America (Nolte 1990), and controlling a second chamber is often sufficient for the president to prevent a veto override. This provides an interesting field for further research, given that the vast majority of extant research on coalition governance in presidential systems focuses exclusively on lower chambers.

Table 1. The Determinants of Cabinet Composition in Latin America

<table>
<thead>
<tr>
<th>Minority Bargaining Situations</th>
<th>Whole Dataset</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
</tr>
<tr>
<td>Lower house minority</td>
<td>–0.06</td>
</tr>
<tr>
<td></td>
<td>(–0.18)</td>
</tr>
<tr>
<td>Upper house minority</td>
<td>–0.86*</td>
</tr>
<tr>
<td></td>
<td>(–2.40)</td>
</tr>
<tr>
<td>Number of parties</td>
<td>–1.05***</td>
</tr>
<tr>
<td></td>
<td>(–8.09)</td>
</tr>
<tr>
<td>Ideologically connected coalition</td>
<td>0.28</td>
</tr>
<tr>
<td></td>
<td>(0.91)</td>
</tr>
<tr>
<td>Ideological range in coalition</td>
<td>–0.68***</td>
</tr>
<tr>
<td></td>
<td>(–4.47)</td>
</tr>
<tr>
<td>Median party included</td>
<td>0.54</td>
</tr>
<tr>
<td></td>
<td>(1.76)</td>
</tr>
<tr>
<td>Extreme party included</td>
<td>0.86*</td>
</tr>
<tr>
<td></td>
<td>(2.44)</td>
</tr>
<tr>
<td>Congruent pre-electoral coalition</td>
<td>4.13***</td>
</tr>
<tr>
<td></td>
<td>(9.26)</td>
</tr>
<tr>
<td>Enlarged pre-electoral coalition</td>
<td>3.13***</td>
</tr>
<tr>
<td></td>
<td>(6.73)</td>
</tr>
<tr>
<td>Party of competitor included</td>
<td>–0.61</td>
</tr>
<tr>
<td></td>
<td>(–1.85)</td>
</tr>
<tr>
<td>Party of second finisher included</td>
<td>–1.69***</td>
</tr>
<tr>
<td></td>
<td>(–3.72)</td>
</tr>
<tr>
<td>Observations</td>
<td>90,028</td>
</tr>
<tr>
<td>Cabinets</td>
<td>107</td>
</tr>
</tbody>
</table>

\( t \) statistics in parentheses

*\( p < 0.05, **p < 0.01, ***p < 0.001 \)
Increasing the number of participating parties and the ideological heterogeneity within a coalition has the expected significant negative effect on cabinet formation. The model thus supports two basic expectations from the literature on governability and coalition governance.

However, model 1 provides two further interesting findings. First, at first glance, there is no evidence that the participation of the median legislative party has a substantive effect on cabinet formation in presidential systems. Second, contrary to expectations derived from the literature on coalition governance, including a party that is ideologically more extreme than the president makes a coalition alternative more likely to become the government.\textsuperscript{16}

Models 2 and 3 include additional variables measuring pre-electoral cooperation and competition. These variables measure whether cabinet coalitions are congruent or enlarged versions of presidents’ pre-electoral coalitions, in order to understand whether presidents fulfill their pre-electoral commitments before inviting additional parties to their cabinet. Including parties of competing candidates, especially the party of the second-place candidate, is expected to have a negative effect on the probability that a coalition alternative will become the cabinet, due to the profound competition of the presidential election and the missing vote of no confidence procedure after the election.

Overall, table 1 shows the expected effects of pre-electoral bargaining and competition on cabinet composition. As predicted, the probability that a coalition alternative will become the president’s cabinet coalition is significantly higher when the alternative is the congruent or an enlarged version of the president’s pre-electoral coalition. At same time, the coefficients of variables measuring electoral competition are negative, as expected. A coalition alternative is unlikely to be chosen as the cabinet when it includes the party of the second-place finisher.\textsuperscript{17}

What does that mean in substantive terms? Based on model 3, coalition alternatives representing exactly the same set of parties as the pre-electoral coalition of the president are about 37 times ($e^{3.62}$) more likely to become the cabinet than a comparable alternative that excludes one or more pre-electoral member. Enlarged pre-electoral coalitions are about 20 ($e^{2.99}$) times more likely to be the president’s choice than a coalition that shares all other properties but is not an enlarged version of the president’s electoral team.\textsuperscript{18}

As mentioned earlier, considerations of governability and pre-electoral bargaining are assumed to describe two distinct yet compatible sets of factors that influence cabinet formation in presidential systems. Thus, one would expect that the explanatory power of variables associated with governability would increase once variables of pre-electoral cooperation and competition were included in the estimation. As table 1 shows, this is exactly the case. Once variables of pre-electoral bargaining are added to the estimation, including the median party significantly increases the probability that a coalition alternative will become the president’s cabinet coalition. Including a party more extreme than the president no longer has a significant effect, indicating that many extreme parties are included in the cabinet because they were part of the pre-electoral coalition.
Table 2. Determinants of Minority Governments in Latin America

<table>
<thead>
<tr>
<th></th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
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<tbody>
<tr>
<td>Lower house minority</td>
<td>−0.80</td>
<td>−0.20</td>
<td>−1.41**</td>
<td>−2.13</td>
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<td></td>
<td>(−1.76)</td>
<td>(−0.49)</td>
<td>(−2.92)</td>
<td>(−1.66)</td>
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<tr>
<td>Upper house minority</td>
<td>−1.53***</td>
<td>−1.32**</td>
<td>−1.32**</td>
<td>−1.53***</td>
</tr>
<tr>
<td></td>
<td>(−3.77)</td>
<td>(−3.23)</td>
<td>(−3.16)</td>
<td>(−3.83)</td>
</tr>
<tr>
<td>Number of parties</td>
<td>−1.31***</td>
<td>−1.41***</td>
<td>−1.35***</td>
<td>−1.33***</td>
</tr>
<tr>
<td></td>
<td>(−8.73)</td>
<td>(−9.10)</td>
<td>(−8.98)</td>
<td>(−8.85)</td>
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<tr>
<td>Ideologically connected coalition</td>
<td>0.16</td>
<td>0.18</td>
<td>0.23</td>
<td>0.13</td>
</tr>
<tr>
<td></td>
<td>(0.46)</td>
<td>(0.52)</td>
<td>(0.69)</td>
<td>(0.40)</td>
</tr>
<tr>
<td>Ideological range in coalition</td>
<td>−0.64***</td>
<td>−0.58**</td>
<td>−0.60***</td>
<td>−0.65***</td>
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<tr>
<td></td>
<td>(−3.76)</td>
<td>(−3.28)</td>
<td>(−3.49)</td>
<td>(−3.79)</td>
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<td>Median party included</td>
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<td>1.06**</td>
<td>0.99**</td>
<td>0.90**</td>
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<td></td>
<td>(2.16)</td>
<td>(3.08)</td>
<td>(2.88)</td>
<td>(2.67)</td>
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<tr>
<td>Extreme party included</td>
<td>0.69</td>
<td>0.69</td>
<td>0.69</td>
<td>0.70</td>
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<tr>
<td></td>
<td>(1.74)</td>
<td>(1.75)</td>
<td>(1.77)</td>
<td>(1.79)</td>
</tr>
<tr>
<td>Congruent pre-electoral coalition</td>
<td>3.62***</td>
<td>3.78***</td>
<td>3.73***</td>
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</tr>
<tr>
<td></td>
<td>(7.80)</td>
<td>(8.03)</td>
<td>(7.96)</td>
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<tr>
<td>Enlarged pre-electoral coalition</td>
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<td>3.02***</td>
<td>3.01***</td>
<td>2.97***</td>
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<td></td>
<td>(6.03)</td>
<td>(6.06)</td>
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<td>Party of competitor included</td>
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<td>−0.41</td>
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<td>Party of second finisher included</td>
<td>−1.68***</td>
<td>−1.73***</td>
<td>−1.67***</td>
<td>−1.64***</td>
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<td>(−3.70)</td>
<td>(−3.66)</td>
<td>(−3.65)</td>
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<td>Minority * median party</td>
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<tr>
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<td>(0.43)</td>
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<td>Minority * decree powers</td>
<td>−0.88***</td>
<td></td>
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<td></td>
<td>(−3.42)</td>
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<td>Minority * veto powers</td>
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<tr>
<td></td>
<td>(2.30)</td>
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<tr>
<td>Minority * leg. potential controls</td>
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<td></td>
<td></td>
<td>0.17</td>
</tr>
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<td>(1.17)</td>
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<td>Observations</td>
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<td>90,028</td>
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<td>Cabinets</td>
<td>107</td>
<td>107</td>
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</table>

\( t \) statistics in parentheses

*p < 0.05, **p < 0.01, ***p < 0.001
Institutional Variations of Presidential Systems and Minority Governments

One focus of the literature on coalition politics in Latin American so far has been on the formation of minority governments (Amorim Neto 2006; Zelaznik 2001; Cheibub 2007; Cheibub et al. 2004; Negretto 2006). The hypotheses from this literature can also be analyzed in the framework of a conditional model by the inclusion of interaction terms. Table 2 provides an empirical evaluation of the most important hypotheses of the existing literature.

Model 5 analyzes the argument of Cheibub et al. (2004), Negretto (2006), and Alemán and Tsebelis (2011, 7–8) that presidents confronting a divided opposition can govern with the help of switching legislative coalitions, and are thus more likely to form minority governments. The other three models include interactions between the minority status of the cabinet and variables measuring the institutional authority of presidents and parliaments. Models 5 and 6 include interaction terms with the institutional decree and veto powers of presidents, as measured by Samuels and Shugart (2003). Model 7 includes the interaction between the minority status and an index of parliamentary control powers, which is understood as an institutional counterpart of presidential institutional lawmaking powers (Alcántara Sáez et al. 2005).

Table 2 shows weak support for the common arguments in the literature. Instead, presidents seem likely to form minority governments when they do not have a strong independent influence on policy changes: the higher the decree authority, the less likely the formation of minority governments.

Robustness Analyses

The results are robust to a number of potential alternative specifications. First, the results are not driven by a specific country in the dataset. The estimations are very similar when one of the 13 countries is excluded from the regression. Second, the models are not driven by countries where coalitions are unlikely to occur due to low party system fragmentation. When model 3 is estimated based only on bargaining situations where the effective number of parties is higher than 2.5, the results are very similar (first column of table 3). Third, one may wonder whether the variable for upper house minority is affected by the inclusion of unicameral systems; namely, Costa Rica, Honduras, Nicaragua, Panama, and El Salvador.

The second column of table 3 shows that all main conclusions hold, even though the results are somewhat weaker due to the lower number of cases observed. In addition, one may question the validity of the conditional logit model in general, as it may suffer from a violation of the assumption of the independence of irrelevant alternatives. A mixed logit model allows for unobserved correlation between alternatives (Glasgow et al. 2012; Train 2009) and is shown in the third and fourth columns of table 3. Only the variable measuring the number of parties in a coalition has a significant standard deviation. This means that increasing the number of coalition members usually decreases the probability that a specific coalition will become the
government, but there are specific circumstances not captured by the conditional logit model in which increasing the number of parties is actually advantageous.

**DISCUSSION AND CONCLUSIONS**

Coalition formation in presidential systems deserves more attention than it has received so far because presidential systems are common around the world and often governed by party coalitions. Moreover, the formation of party coalitions has profound consequences for basically all political outcomes; coalitions tell us a lot about the functioning of presidential systems, and analyzing them in Latin America can enrich important debates there, in Europe, and beyond.
However, most extant studies focus on European parliamentary systems, and those that examine Latin American democracies consider only a small fraction of the coalition game. They emphasize the nexus between cabinet formation and legislative bargaining and neglect the effects of pre-electoral bargaining.

This article has shown that a more inclusive approach is necessary to study coalition dynamics in presidential systems. Cabinet formation must be understood as a combination of incentives of legislative and pre-electoral bargaining.

From this point of origin, the article has presented the most comprehensive empirical test of cabinet formation theories in presidential systems to date, based on a new dataset of 107 different cabinets in 13 Latin American countries, comparing the characteristics of over 90,000 potential cabinet coalitions. The conditional and mixed logit model employed here is a completely new approach to the study of cabinet formation in Latin America and presents a clear improvement over extant methodological approaches in the field.

The results presented here show that the president’s policy strategies can only partially explain the formation of cabinet coalitions in Latin American presidential democracies. Cabinet coalitions in Latin America are often predetermined by commitments made prior to presidential elections, and these commitments show independent effects to variables of legislative bargaining. Moreover, some variables associated with legislative bargaining, such as the inclusion of the lower house median party, affect cabinet formation in a significant way only when controlled for the effects of pre-electoral coalition formation. This does not necessarily imply that cabinet coalitions are never solely based on legislative considerations; however, the overall patterns indicate that presidents and parties consider both the legislative and the electoral arena when forming cabinet coalitions.

These results can be the starting point for several interesting avenues of future research. One of them is obviously to consider more explicitly how pre-electoral bargaining affects the allocation of cabinet posts in government coalitions (Carroll 2007) and the implementation of policy after the election. Furthermore, as cabinet formation is heavily affected by pre-electoral coalition formation and competition in presidential elections, it is important to know which factors determine pre-electoral coalition strategies (Freudenreich 2013).

Researchers of coalition formation should also consider more explicitly the differences in coalition formation, coalition management, and governability in presidential, parliamentary, and semipresidential systems. This article raises the question of whether the effects of pre-electoral commitments are stronger in Latin American presidential systems than in European parliamentary systems because presidents, in contrast to European prime ministers, are directly elected and serve fixed terms. It is a challenge for further research to elaborate a model of cabinet formation that is applicable across regime types and that makes it possible to understand the distinct dynamics of different forms of democracy.
NOTES

1. Similar to studies on cabinet politics in parliamentary systems, the terms government coalition and cabinet coalition are used interchangeably throughout this study.

2. The empirics do not fully support these expectations. While parties close to the president are indeed more likely be included in presidential cabinets, the authors find the unexpected effect that “parties are slightly more likely to enter the cabinet when the power of the executive is high” (Alemán and Tsebelis 2011, 19).

3. In Colombia the period of the Frente Nacional (1958–78) is excluded from the analyses. The formal agreement between the two major parties to share the bureaucracy with equal representation effectively rescinded party competition. The Dominican Republic is included even though it scored 5 on the Polity scale in 1994; irregularities and violence overshadowed the election that year, but the country was well above the cutoff point for the rest of the period. Venezuela is included even though Polity IV classifies it as undemocratic after 2006, because the country was one of the few democratic countries in Latin America during the 1970s and 1980s. Since the Constitution of 1999 laid much of the groundwork for the success of Hugo Chávez, all Venezuelan governments after 1999 are excluded from the analyses.

4. I could, however, cross-validate my dataset with those of Amorim Neto (2006) and Figueiredo (2011), to whom I am very grateful for generously sharing their data.

5. It clearly depends on the theoretical perspective whether parliamentary and presidential elections constitute a change in cabinet. Because this study is interested in the effects of both presidential elections and the configuration of forces in Parliament, presidential and parliamentary elections are considered terminal events.

6. The following cabinets were excluded from the analysis: in Argentina, the two interim presidencies of Rodríguez Saá and Duhalde; in Bolivia, the presidency of Quiroga after the resignation of Banzer due to aggravated health problems, and the presidency of Carlos Mesa after Sánchez de Lozada left office; in Brazil, the three cabinets of Itamar Franco after the impeachment of Collor; in the Dominican Republic, the presidency of Majluta after the suicide of Guzmán. Also the de facto presidency of Micheletti in Honduras and the cabinet of Velásquez after the impeachment of Pérez in Venezuela.

7. In general, the data do not account for party mergers or splits between elections. An important exception is Brazil, for which Argelina Figueiredo (2011) shared her data generously. While in most countries parties remain relatively stable in terms of their size, Brazil exhibits a lot of party switching and merging (Desposato 2006).

8. These parties are the Unión del Centro Democrático in Argentina, which joined Menem’s cabinet after the 1995 and 1997 elections; the Partido Verde in Brazil, in Lula’s first administration in 2002; the Partido Acción de Centro in Chile, in the Aylwin administration in 1990; and the Partido Comunista Venezolano in Chávez’s first administration. The Partido Verde did not support Lula in the first round of the 2002 presidential election but gave a voting instruction in the second round of voting and entered the cabinet afterward.

9. There is a broad consensus that the positioning of parties in Latin America can be reduced primarily to a single underlying dimension of political contestation (Rosas 2010, 71; Saiegh 2009, 128; Wiesehomeier and Benoit 2009, 1439).

10. Only five pre-electoral coalitions in the second round of a presidential election could be identified that differed from the first round of the presidential election. Thus they were unsuitable for quantitative analysis. Qualitatively, however, there is evidence that parties secured cabinet participation due to second-round bargaining. This is the case, for example, in Brazil after the 2002 election, in which the third- and fourth-place parties, the Partido
Socialista Brasileiro (PSB) with candidate Anthony Garotinho and the Partido Popular Socialista (PPS) with candidate Ciro Gomes, supported Lula in the second round. Both parties joined Lula’s cabinet shortly after the election.

11. A more practical problem with this approach is that legislatures with many parties, such as those of Brazil, Colombia, and Chile, provide many observations and thus gain considerable weight in the estimation.

12. Note that the number of coalition alternatives is exponential to the number of parties in a given legislature. The formula is \(2^n - 1\) with \(n\) being the number of parties in the legislature.

13. The advantage of a conditional over a standard logit model is that party characteristics can be easily formulated as coalition characteristics, such as whether a coalition contains the median party.

14. The number of bargaining situations analyzed per country is as follows: Argentina (13 bargaining situations/12,960 coalition alternatives), Bolivia (11/14,720), Brazil (16/44,032), Chile (7/448), Colombia (5/9,988), Costa Rica (9/516), Dominican Republic (7/32), Honduras (3/40), Nicaragua (2/520), Panama (7/4,608), El Salvador (11/436), Uruguay (6/48), Venezuela (10/1,680).

15. The analyses are restricted to minority situations because these situations are the focus of theories of government formation in both parliamentary and presidential systems. According to theories of legislative bargaining, the main motivation of presidents to form cabinet coalitions is their desire to control a legislative majority, which is present only if their own party does not control a majority on its own.

16. Instead of the median party variable, the range of the opposition was measured as a proxy for the centrality of the government, and produced similar yet weaker results.

17. The variable \(party\ of\ competitor\ included\) comes with a significant negative coefficient as long as the variable measuring the party of the second-place finisher is not included.

18. If pre-electoral bargaining is measured by a variable comprising both congruent and enlarged pre-electoral coalitions, a coalition alternative including at least all pre-electoral coalition members is about 28 times \((e^{3.32})\) likely to form the cabinet.

19. Statistical fixed effect variables cannot be included in conditional logit models because choice set–specific variables do not vary across alternatives and are automatically dropped from the estimation. They can be included in the form of interaction effects. However, one has to highlight a particularity of interaction models in the context of conditional logit models. When we are dealing with conditional hypotheses, we normally include all constitutive terms in the model (Brambor et al. 2006). Because the inclusion of the fixed effect part of the statistical interaction is impossible in conditional logit models, the omission of the constitutive terms does not impose a problem for the interpretation (Indridason 2008, 249; Golder 2006, 109).

20. A potential explanation for this phenomenon is similar to the argument developed by Strøm (1990) for minority governments in parliamentary systems. He argues that parties prefer to stay in opposition when the government has a weak independent influence on policy. This would, however, imply that the variable measuring the control powers of parliaments should come with a significant negative coefficient, but this is not the case.

21. For a general discussion of the mixed logit model, see Train (2009). For a specific application to cabinet choice, see Glasgow et al. (2012). Following common usage, I identify which variables should have random coefficients using the Lagrange multiplier test as proposed by McFadden and Train (2000) and assume an underlying normal mixing distribution.
REFERENCES


Inter-Parliamentary Union. 2011. PARLINE, Database on National Parliaments. Geneva: Inter-Parliamentary Union.


**Supporting Information**

For replication data, see the author’s file on the Harvard Dataverse website: https://dataverse.harvard.edu/dataverse/laps