

Comparing Cosponsorship and Roll-Call Ideal Points:

Evidence from the U.S. House of Representatives and the Argentine Chamber of Deputies

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Abstract

In this paper we use cosponsorship and roll-call data to compare legislators' revealed preferences in the U.S. House of Representatives and the Argentine Chamber of Deputies. We estimate ideal points from cosponsorship data using principal component analysis on an agreement matrix that includes information on all bills introduced to each US Congress between 1973 and 2000, and to each Argentine Congress between 1983 and 2002. We find that ideal point estimates of legislators' revealed preferences based upon cosponsorship data strongly correlate with estimates from roll call data. We also show that cosponsorship activity in the US Congress has lower dimensionality than in the Argentine Congress. Finally, we find roll call data in the US to be more reflective of within party variations than in the case of Argentina. We explain this lower discrimination as a function of individual and district level factors in both countries.

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In the last decade there has been a renewed interest in the comparative analysis of voting behavior in the legislatures of developed and developing countries (Morgenstern 2004, Carey 2006). New statistical techniques and the greater availability of data now allow researchers to map legislative coalitions, explore party discipline, and explain political realignments in multiparty systems (Poole 2005; Clinton, Jackman and Rivers 2004; Londregan 2000; Desposato 2005; Jones and Hwang 2005; Hix, Noury and Roland 2006; Rosenthal and Voeten 2004, Amorim Neto, Cox and McCubbins 2003; Alemán and Saiegh 2006, Hug and Schulz 2007). Efforts to understand voting behavior in legislatures across Europe and Latin America not only further our knowledge about lawmaking and legislative parties but also promise to shed new light into the electoral connection that shapes representatives preferences across different sets of institutional rules.

Voting, however, is just one among many different types of position-taking behaviors that legislators undertake to reveal their preferences to fellow legislators, the executive, and voters (Mayhew, 1974). Legislators also intervene on the floor, draft amendments, and sponsor legislation. These diverse political activities reveal the many choices that legislators make while in office and provide researchers with multiple data sources that can be used to estimate policy preferences. The context under which legislators make these diverse choices, however, varies and, presumably, individual incentives behind these different activities vary as well. Therefore, it is unclear whether legislators' ideal points recovered through different data sources provide information that reflects fundamentally the same positions.

This issue has been addressed in some works focused on the U.S. Congress. For instance, in a recent article Highton and Rocca (2005) analyze cosponsorship and roll-call data related to abortion policy in the 101st period in the U.S. House of Representatives and argue that "similar underlying causes" drive legislative behavior for both activities (p. 311).¹ We do not know, however, to what extent this similarity extends beyond abortion policy and across time periods. It also unclear to what extent we should expect the close association between voting and sponsoring legislation to appear in other legislatures besides the U.S. Congress. Since legislators are more likely to be susceptible to partisan pressures when they cast a floor vote than when they choose partners to sponsor bills and, given that U.S. parties are usually considered to be comparatively weak in terms of discipline, it is reasonable to question whether such pattern will be present in other legislatures.

In this paper we focus on legislators' positions recovered from the cosponsorship of bills and the link between these ideal points and those recovered from roll-call votes. Our empirical analysis uses roll-call and cosponsorship data from the U.S. and Argentine Congresses. Different than parties in the U.S, parties in Argentina are usually considered to be highly disciplined. As we discuss later on, this is partly due to the fact that the political careers of Argentine legislators are more closely tied to the support of the party leadership than the political careers of U.S. legislators. Consequently, the analysis from both Congresses helps to better understand the link between voting and cosponsoring under distinct partisan contexts.

The paper highlights three interesting results. First, we find that ideal point estimates based upon cosponsorship data strongly correlate with estimates from roll call data both in the U.S. and in Argentina. After using principal components analysis on properly generated *agreement* matrices, the correlation between ideal point estimates obtained from cosponsorship data and those

generated from roll-call votes is higher than .9 in the U.S. and .7 in Argentina. Second, we show that cosponsorship activity in the U.S. Congress has lower dimensionality than in the Argentine Congress. We argue that this difference reflects the lower prominence of ideology as a determinant of the legislative choices of Argentine legislators. Finally, the results also show that roll-call data provides more limited within-party discrimination in the Argentine Chamber of Deputies than in the U.S. House of Representatives. We argue that this finding is the result of both, high party discipline among Argentine legislative parties and relatively modest numbers of roll-call votes taken, something common in the legislatures of developing countries.

In the next section we discuss previous literature that addresses the link between cosponsorship and floor voting. In the second section we explain our estimation strategy for extracting ideal points from cosponsorship data. In the third section we compare the ideal point estimates extracted from roll-call and cosponsorship data in both countries. In the fourth section we examine some of the forces that might explain individual legislator differences in roll call and cosponsorship ideal point estimates. We conclude in the fifth section.

1. Cosponsoring and Roll-Call Votes

What drives cosponsorship patterns? The answer to this question in the academic literature has been mixed. In *Congress: The Electoral Connection*, Mayhew (1974) noted that U.S. legislators engage in position taking, through such devices as speeches, newsletters, interviews, roll-call votes, as well as through cosponsoring. He views cosponsoring as an inexpensive signal to voters, with few costs and potentially large benefits, particularly when constituents are attuned to such policy efforts (1974, p. 63). Other authors have also conceived the cosponsoring of legislation as primarily a position-taking device with constituents in mind (Campbell 1982, Highton and Rocca 2005). For instance, Balla and Nemacheck (2000) study cosponsorship patterns in managed care legislation in the 105th Congress and find evidence that legislators used cosponsorship to take positions that were popular with important constituencies. Similarly, Koger (2003) shows that electoral motives had a strong influence on members' decision to cosponsor. As Kessler and Krehbiel (1996) point out, if cosponsorship is considered another means of position taking, then "*electoral-connection theories predict a close correspondence between legislators' ideological predispositions (or, by extension, those of their reelection constituencies) and the content of the legislation they choose to cosponsor*" (p. 555).

An alternative view has argued that cosponsorship is primarily a signaling device with fellow legislators, and not constituents, as the primary targets (Kessler and Krehbiel 1996, Wawro 2000). In a similar vein, Fenno (1989, 1991) and Light (1992) depict cosponsoring as a tool to provide information to other legislators with the aim of coalition building. Yet, even within this perspective cosponsorship is conceived as a means of communicating ideological content.

Krehbiel (1995) for instance, maintains that "legislators cosponsor measures whose anticipated policy consequences they like relative to the status quo, and they choose not to cosponsor measures whose anticipated policy consequences they dislike relative to the status quo" (p. 910). Panning (1982) analyzes cosponsorship patterns in the Senate during the early 1970s and presents evidence which suggest that "it is ideology, however, rather than party (or region) that most sharply distinguishes the clusters of senators" (p. 602). Campbell looks at the 95th Congress

and finds a similar relationship between ideological tendencies and cosponsorship decisions. And Regens (1989) case study of legislation on acid rain controls also highlights ideological effects on the decision to cosponsor. More recently, Highton and Rocca (2005) study the decision to cosponsor an abortion related bill in the 101st House. They use a probit analysis to estimate the effect of factors associated with a representative taking a pro-abortion position in cosponsoring and in a roll-call, respectively. They find that constituent preferences are statistically significant predictors of cosponsorship, and that the relationship between constituent preferences and a legislator's position regarding abortion is of a similar magnitude of order for a legislator's cosponsorship and roll-call activity. Their findings lead them to state that "one would be hard pressed to make the case that the causes of position taking on roll-call votes are fundamentally different than those for non-roll-call position taking," and conclude that "the striking similarity of the two sets of estimates (MC party excepted) suggests that the behaviors have similar underlying causes" (p. 311).

If this logic is correct then we should expect legislators' ideal positions derived from cosponsorship to be correlated with the positions recovered through the analysis of roll-call votes. It is unclear, however, how strong this association should be since both activities differ in some fundamental ways. Because voting is a public good that affects the value of the party label (among other things), vote defection is strongly discouraged and in some cases severely sanctioned. Activities that do not affect the public good, by contrast, are not as tightly monitored party leaders. In consequence, floor voting choices should reflect more intensely the costs of defection imposed by different party structures and legislative rules.

Talbert and Potoski (2002), for instance, study the relationship between cosponsorship and roll call votes among U.S. legislators during the 103rd and 104th Congresses. In their view fewer institutional constraints and greater uncertainty affect the pre-floor agenda, resulting in a higher dimensional structure than that observed in decision-making on the floor. They argue that floor voting decisions are well represented in a single dimension that captures ideological and partisan features, but that cosponsorship decisions are multidimensional and reflect the various cleavages in American politics. They then use Poole and Rosenthal's NOMINATE (1997) to recover ideal point estimates for legislators from both roll call votes and cosponsorship data which show the highlighted differences in dimensionality.

Studies of cosponsorship in legislatures other than the U.S. Congress are very scant. In a recent work on the Chilean Congress, for instance, Crisp et al (2004a) portray cosponsoring as "an action that signals willingness to share a policy position and the reward (or punishment) that positions elicits from voters." Although the authors do not explicitly test the link between drafting and voting, they expect cosponsorship data and roll call votes to complement each other. They correctly note the wide availability of cosponsorship data in contrast to roll call data in the legislatures of developing countries and remark on its usefulness for legislative research.²

The questions about the correspondence between cosponsoring and floor voting are also relevant for other legislatures. If the institutional structure filters only a biased sample of initiatives to the floor and/or if partisan pressure on legislators is substantially greater when casting a vote, then there is reason to doubt that there will be a close correspondence between the ideal points derived from these alternative activities.

In the case of Argentina, which we analyze later in the paper, these are real concerns. Political parties in Argentina are generally considered to be very disciplined, mainly as a result of the influence that party leaders have over the careers of legislators. As Jones (1997) notes, a legislator who consistently votes against his/her party will eventually be expelled. Members of the Argentine Chamber of Deputies are elected under closed list proportional representation and party leaders have a strong say in the formation of electoral lists and the ranking of candidates. Parties also control political careers at the provincial level, where many Argentine deputies choose to move after a stint in Congress. Consequently, leadership demands can force legislators to follow the party line on roll call votes when they would have preferred to dissent. It is also reasonable to expect that the substantial power of the congressional leadership to affect the legislative agenda has an influence on the type of issues that reach the plenary floor. These potential effects, together with the relatively modest number of roll call votes, limit the amount of information that roll call votes can provide to properly discriminate among co-partisans.

2. Ideal Points from Cosponsorship Data

The question of whether cosponsorship data and roll call data reflect similar underlying causal factors has not been conclusively answered. Two reasons for the absence of a comprehensive response are the limited efforts made to obtain proper ideal point estimates from cosponsorship data, and the restrictions typically made in terms of country, time period and/or issue area investigated. In this paper we attempt to overcome some of these problems to evaluate whether both types of legislative activities are driven by similar underlying causes.

A crucial decision in the analysis of cosponsorship data involves the classification of non-sponsors. The decision to cosponsor a bill is indicative of support, but that the decision not to cosponsor a bill could reflect opposition, lack of interest, or lack of knowledge about the policy proposal. As shown in Table 1, all legislators make their preferences explicit when voting for a bill, α . However, only a subgroup of legislators to the right of the cutline would generally cosponsor that bill.

[Table 1, about here]

In a recent paper, Crisp, Desposato, and Kanthak (2005) attempt to account for this fundamental uncertainty, by modifying the original NOMINATE code. They address this problem by introducing a utility function in which NAY is disaggregated into two components: one which estimates the likelihood that the a legislator belongs to the group that rejects the bill (to the left of the cutline), and one which estimates the likelihood that the legislator lacks the interest or knowledge to cosponsor the bill (to the right of the cutline). A difficulty in implementing this estimation strategy is that there is generally very little information in each proposed bill to distinguish within NAY cosponsors. In fact, NOMINATE would reject a majority of the bills, given that in most cases there is a very small number of cosponsors. Therefore, even if there is a first dimension that explains most of the relationships generated by the data, almost all bills will include few YEAS from legislators that are ideologically proximate to the cosponsors (but most likely not at the extremes of the ideological spectrum). Most bills will tend to display large numbers of NAYS by legislators with extreme first dimension scores and there will be limited information to distinguish between those that indicate *rejection* and those that reflect a *lack of*

interest or lack of knowledge. High dimensionality will affect both the ideal point estimates and the classification of legislators into the rejection group.

The alternative approach we propose here builds on social network analysis. Rather than estimating parameters for each individual bill, it is common in social network analysis to construct an affiliation matrix (Table 2), where each cell indicates the number of times that each pair of legislators cosponsor legislation together. Rather than using the original (two-mode) dataset, organized as an $X = R * C$ matrix, with $1..R$ legislators and $1..C$ bill initiatives, we construct a square affiliation matrix, $A = X * X'$. In this affiliation matrix the diagonal elements describe the total number of projects sponsored by each legislator and the off-diagonal elements describe the number of times that each pair of legislators cosponsors bills together. Table 2 describes the first ten rows and ten columns of an affiliation matrix in the 2002 Argentine Senate. As it is possible to observe, there are very significant differences in the total amount of legislation sponsored by each legislator and significant differences in the amount of legislation cosponsor by each pair of legislators.

[Table 2, about here]

The ratio of bills cosponsor by each pair of legislators to the total number of bills sponsored by each of them will produce an agreement matrix, $G = A_{ij} / \text{diag}(A_i)$, as depicted in Table 3. Notice that because each legislator cosponsors a different amount of legislation, the denominator changes and the upper and lower triangles of the new $R * C$ square matrix are not identical. To estimate ideal points from cosponsorship data, we run principal component analysis (PCA) using singular value decomposition on the log transformed agreement matrices G . We then retrieve the first two rotated factors.

[Table 3, about here]

3. Comparing Ideal Points – Descriptive Results

To examine the link between legislators' positions derived from roll call votes and cosponsorship we use information on all bills introduced in the Argentine Chamber of Deputies between 1983 and 2002, and all bills introduced in the U.S. House of Representatives between 1974 and 2004. The Argentine data, constructed from data provided by the *Secretaría de Información Parlamentaria* of Congress, includes the name of each cosponsor on 125,000 bills introduced by legislators. The U.S. data was collected by James H. Fowler (2006) for his study on cosponsorship networks in the U.S. Congress, and includes 283,994 bills. We eliminated from both samples all bills with only one sponsor (no cosponsor), which left a sample of 48,122 bills in the Argentine Congress and 127,713 bills in the U.S. Congress. The relatively comprehensive character of the data helps ensure that the results of the analysis are not a function of sample bias or period effects. Table 4 summarizes this information.

[Table 4, about here]

As it is possible to observe, a majority of bills in both Congresses have relatively few cosponsors. In Argentina, the mean number of cosponsors during the 1984-2002 period was 2.4 and 90% of the bills initiated by legislators had fewer than 5 cosponsors. Meanwhile, in the U.S.,

the mean number of cosponsors during the 1974-2004 period was 8.6 and 90% of the bills had fewer than 20 cosponsors.

After computing the agreement matrix for each congressional period for both countries, as described before, we ran principal components analysis (PCA) with singular value decomposition using *R* 2.6 software. We then took the first two rotated factors and rescaled these first two factors to values between [-1 , 1]. The Principal Component estimates are rotationally invariant so, consistent with standard practices, we fixed Democrats to the left of the political spectrum (negative numbers) and Republicans to the right of the political spectrum (positive numbers). In the case of Argentina, we fixed UCR scores to the left of the first dimension and Peronists scores to the right of the first dimension.³

To compare these estimates with ideal points derived from roll call votes we use, for the U.S. House of Representatives, NOMINATE scores provided by Keith Poole, and for the Argentine Chamber of Deputies, IDEAL scores provided by Jones and Hwang (2003). The cosponsorship estimates for each legislator, *i*, in Congress, *j*, and country *k*, were then merged with the corresponding roll call data – Poole’s NOMINATE scores for the U.S. and Jones & Hwang’s IDEAL scores for Argentina. The descriptive results of the two sets of estimates are presented in Table 5 and in Figures 1 through 4.

First we address the issue of dimensionality. As expected, dimensionality is higher when we map positions using cosponsorship data. Yet, as Figures 1 and 2 show, cosponsorship results reveal relatively low dimensionality. In the U.S. the first two dimensions explain between 70% and 90% of the variance in the cosponsorship data. In Argentina the first two dimensions explain between 40% and 50% of the variance observed in the Chamber of Deputies. In the case of the U.S., for instance, we can observe that periods usually characterized by high level polarization, such as Congresses 97th through 107th, the variance explained by the first two dimensions is an impressive 90%.

[Figure 1, about here]

[Figure 2, about here]

The finding that the first two dimensions explains the vast majority of the variance in the U.S. cosponsorship data stands in contrast to the findings of Talbert and Potoski (2002), whose analysis indicates that patterns of cosponsorship are characterized by five or more dimensions. We suspect that this discrepancy in results is due to the difference in methodologies applied to the cosponsorship data. Their work applies the NOMINATE algorithm to the bill specific data which is saturated with zeros and treats the decision not to cosponsor a bill as akin to vote against a bill on the floor of the chamber. Since the vast majority of bills have relatively few cosponsors,⁴ applying this algorithm to the two-mode cosponsorship matrix results in most cutpoints set at spatial extremes as shown in Figure 3.⁵

[Figure 3, about here]

Our estimation strategy, instead, has many similarities to Poole’s (2005) optimal scaling procedure, since we use single value decomposition on the agreement matrix between each pair of cosponsors. While this strategy will not provide bill specific information, the data is still very

informative. As it is possible to observe in Table 5, the level of association between results from the first dimension of the roll call data (NOMINATE for U.S., and IDEAL for Argentina) and the first dimension of the PCA-Cosponsorship scores is extremely high.

[Table 5, about here]

For the U.S., the smallest correlation between roll call ideal points and PCA-cosponsorship scores is .848 in the 93rd period, with a mean correlation of .903 when all congressional periods are considered. The level of association between the roll call ideal points and PCA-cosponsorship scores in Argentine is slightly lower than in the U.S., with a mean correlation of .77 and a minimum of .72 in the 1994-1995.⁶

Visual representations of these associations appear in Figures 4 and 5, which plot the estimates from roll call data against those obtained from the cosponsorship data. A slope $b=1$ would indicate similar underlying causes explaining roll call and cosponsorship behavior. It would also suggest the lack of a “partisan effect” on roll call votes vis-à-vis cosponsorship. A slope $b<1$ would tend to indicate lower discrimination in roll call data, consistent with regular partisan unity in roll call votes. A slope $b>1$ would occur if cosponsorship data provided less intra-party discrimination than roll call data.

[Figure 4, about here]

[Figure 5, about here]

As it is possible to observe, in both countries there is a strong association between roll call and cosponsorship estimates. Overall, the mapping of legislators reveals a preference distribution that comes close to $b=1$. In both countries, the distribution of parties is unchanged by the method of estimation. The distribution of legislators’ ideal points in the U.S. case, however, more closely resembles a diagonal distribution than the distribution of ideal points in the Argentine case. In Argentina, within party correlation is not as high as it is in the U.S. case. The more limited pool of roll call votes in Argentina and, we believe, stronger partisan effects contribute to reduce the level of intra-party discrimination found in roll call votes.⁷

Figures 4 and 5 also show slopes for major parties: Democratic and Republican in the U.S., and Peronists and “others” in Argentina. As it is possible to observe in Figure 5, the estimated slopes for both Republican and Democratic legislators are below 1. Interestingly, the slope for the Republican members (solid line) during the period that goes from the 101st to the 103rd Congress is particularly less steep than the slope for the Democratic members (dashed line), which means less within party discrimination in roll call votes during this period. In the case of Argentina’s lower chamber the slopes are much flatter since roll call votes provide much less within party discrimination than in the case of the U.S. House.

These results could be interpreted as evidence of partisan and/or agenda effects. While this is a plausible story, it is not the only possible explanation for the evident partisan clumping in roll call votes compared to cosponsorship decisions. Revealed preferences based upon roll call data (compared to cosponsorship data) might reflect increased pressure on members of congress to vote consistent with the preferences of their constituents (relative to their own preferences). We suspect that newspapers report the roll call votes of members of congress far more frequently

than they report cosponsorship decisions. We also suspect that opposition candidates focus on the voting records of incumbents far more than on the incumbent's cosponsorship decisions. These channels of information to their constituents about incumbents' roll call voting may induce members of congress to give greater weight to the preferences of their constituents when voting on the floor than when deciding whether or not to cosponsor a bill. Of course, these two stories could be compliments rather than substitutes.

4. Explaining differences between Roll Call and Cosponsorship Estimates

In this section we examine variations in the association between ideal point estimates obtained from roll call votes and those obtained from cosponsoring legislation. A wide gap tends to reflect high partisan clustering in roll call vote decisions vis-à-vis cosponsorship choices, while a narrow one suggests rather mild roll-call constraints. To examine the forces that affect this gap, we construct a dependent variable measuring the absolute difference between the roll call and the cosponsorship estimates. The independent variables include partisan, individual and district level characteristics (from Lublin 1999, and Calvo and Escolar 2005 datasets). The key independent variables tap some of the various competitive pressures on legislators: length of tenure in the legislature, the partisan make-up of the district, and the legislator's margin of victory (and, in Argentina, the effective number of parties). Our expectation is that the gap will increase the *less* the electoral pressure on the legislator. This expectation is a consequence of our assumption that "safe" legislators will face greater pressure to tow the party line than legislators from marginal districts (all else being equal).

First, we include aggregate level information on electoral competitiveness: *margin of victory* in the district, and for Argentina, *effective number of competing parties* in the district (Laakso and Taagepera, 1973). Because the political future of representatives in the U.S. is closely linked to the electoral performance in their districts, we expect *margin of victory* to influence legislators' choices. In particular, we would expect members elected with small margins of victory to exhibit fewer disagreements in their respective legislative choices. In contrast to the U.S. case, the political future of Argentine legislators tends to be in the hands of party leaders who decide the order of candidacies under Argentina's closed list proportional representation rules. Consequently, we do not expect *margin of victory* to be a good proxy for constituency concern. Instead, competitive pressures in Argentine are better captured by intra-partisan features such as the number of competing parties in the district. Greater fragmentation in the district (i.e. province), we believe, should foster greater correspondence between both legislative choices.

In the case of the U.S. we include an additional variable that measures the relative partisan characteristic of a district's constituents (*district partisanship*). Assuming that a legislator's security increases the more lopsided the partisan make-up of the district, we anticipate the gap to increase as partisanship increases.

Second, we include personal characteristics: one variable indicating the number of years served in Congress to account for *tenure* effects and others indicating partisan affiliation. We expect low tenure legislators to exhibit fewer disagreements in their respective legislative choices. Conversely, senior legislators should be less constrained by district pressures to exhibit such correspondence, particularly in the U.S. context. In regards to partisan affiliation, we include

controls for the Argentine *PJ* (Peronists), and the U.S. *Democrats*. In the case of Argentina we include an additional variable that indicates whether the legislator belongs to the same party as the governor in the district (i.e., the district boss). We also include a variable measuring the legislator's level of ideological *extremism*. Our expectation is that more extreme legislators will be less susceptible to party pressures all else being equal, and, consequently, that the gap will be smaller for such legislators.

Lastly we include a series of dummies for each congressional period to control for period effects. Results from OLS regressions appear in Table 6.

[Table 6, about here]

In the case of Argentina *margin of victory* has no statistically significant effect on the consistency between roll call and cosponsorship ideal points. Increases in partisan fragmentation in the district, however, enhance the correspondence between both measures. As the number of parties increases, the block vote of legislators is more consistent with revealed cosponsorship preferences even when party discipline remains very tight. The only other variable that shows significant results is the measure for *Peronist* legislators. The evident suggests that non-Peronists tend to exhibit greater discrepancies than the Peronists.⁸ This is particularly interesting in the context of Argentine politics given that the PJ legislative bloc is typically considered to encompass great ideological variance but high voting unity.

In the case of the U.S. *margin of victory* is positively associated with a greater gap. Thus, more competitive districts appear to promote higher consistency between the two sets of estimates. The variable capturing *tenure* effects shows significant results as well, with greater time in Congress associated with weaker correspondence between cosponsorship and roll call ideal points. *District partisanship* is also positively associated with a greater gap. All three variables reflect the idea that unsafe districts and, therefore, higher sensitivity to district specific demands, is linked with greater consistency between both legislative activities. The fact that the direction of the effect of *Democrat* (i.e., the partisan affiliation of the MC) changes between Model 3 and Model 4 suggests that we should be cautious in associating a difference in the gap based on partisan affiliation. In the next iteration of the model, we will determine if affiliation with the majority party of the chamber is associated with an increase in the gap.

Lastly, we note that increasing ideological extremism increases the consistency between the two sets of estimates both in Argentina and in the U.S., as we expected. And that none of the period variables show significant effects.

The fact that *tenure* and *district partisanship* are significant predictors of the gap in the U.S. but not Argentina is consistent with the differences in the electoral and party systems of the two countries. The first past the post electoral system and relatively weak party system in the U.S. facilitates individual MCs deviating from the party line in roll call voting (and hence reducing the gap) when they find it in their electoral interest to do so. In contrast, Argentine legislators are relatively insensitive to the preferences of their constituents compared to the preferences of the leaders of their party. Given the closed list proportional representation rules in Argentina, the relative pressure to appease party leaders independent of the concern of constituents readily explains the failure of *tenure* and *district partisanship* to predict gap.

5. Conclusion

In the legislative literature the most common way to identify the ideal positions of individual legislators has been through the analysis of roll call votes. In the U.S., where this data is plentiful, we have information for every legislator for virtually every congressional period since practically the dawn of democracy. For other presidential countries this information is scant and rarely available for periods prior to the 1990s. Roll call votes, however, are not the only source of information on legislative preferences. Cosponsorship, we argue, is another valuable source of information that is also widely available for many legislatures and usually accessible for the study of longer historical periods. Over the past decade, scholars have shown an increased interest in cosponsorship activity by legislators (e.g., Kessler and Krehbiel 1996; Wilson and Young 1997; Talbert and Potoski 2002; Fowler 2006). In part, this reflects an overt recognition by scholars of the need to consider the behavior of legislators beyond that of roll call voting in assessing the character of policy and representation (e.g., Maltzman and Sigelman 1996; Mayhew 2000; Hill and Hurley 2002). In the same spirit our paper examines both kinds of behavior in the U.S. and Argentina and proposes a new method to derive ideal point estimates from cosponsorship data.

But, we noticed, alternative types of legislative activities can affect how representatives reveal their preferences, since political constraints associated with each behavior may be sufficiently different. The constraints imposed by party leaders on floor votes, for instance, are considered to be more stringent than those imposed on cosponsored bill initiatives. We then proceeded to examine empirically the link between roll call votes and cosponsorship patterns using data from both countries. The comparative measures obtained using data from both legislative activities provides ample evidence that the “same underlying causes” shape the cosponsoring and voting behavior of legislators in the U.S. and Argentina. On a methodological level, we show that using principal components analysis on properly transformed agreement matrices produces well behaved ideal point estimates with low dimensionality. We show that, in the US Congress, the correlation between NOMINATE scores (Poole 2005) and PCA estimates from the cosponsorship data is around $\approx .9$ for every Congress in the 30 year period under study. In the Argentine case, the correlation between the roll call scores and the cosponsorship estimates is around $.8$ for a 20 year period. We attribute the weaker correlation between ideal points in among Argentine legislators vis-à-vis U.S. legislators to much stronger “partisan effects” in the Argentine Congress, where defection in roll call votes, we argue, entails high electoral costs. Lastly we examined the gap between the ideal points estimates derived from each of the two activities.

Table 1: Three Cosponsoring Alternatives Consistent with Vote for bill α

		Left			Right				
Vote α		0	0	0	1	1	1	1	1
Cosponsor Alternatives	Alt. 1	0	0	0	0	0	1	1	0
	Alt. 2	0	0	0	1	0	1	0	0
	Alt. 3	0	0	0	1	0	0	0	0

Table 2: Affiliation Matrix: First 10 Rows, Argentine Senate 2002.

	A	B	C	D	E	F	G	H	I	J
A	51									
B	0	34								
C	6	2	550							
D	3	0	9	62						
E	11	3	16	2	83					
F	2	6	10	2	1	159				
G	0	4	2	0	0	7	20			
H	10	0	7	3	3	2	1	38		
I	3	5	2	1	1	44	4	0	75	
J	0	6	0	1	0	4	3	0	5	14

Table 3: Agreement Matrix: First 10 Rows, Argentine Senate 2002.

	A	B	C	D	E	F	G	H	I	J
A	1.000	0.000	0.118	0.059	0.216	0.039	0.000	0.196	0.059	0.000
B	0.000	1.000	0.059	0.000	0.088	0.176	0.118	0.000	0.147	0.176
C	0.011	0.004	1.000	0.016	0.029	0.018	0.004	0.013	0.004	0.000
D	0.048	0.000	0.145	1.000	0.032	0.032	0.000	0.048	0.016	0.016
E	0.133	0.036	0.193	0.024	1.000	0.012	0.000	0.036	0.012	0.000
F	0.013	0.038	0.063	0.013	0.006	1.000	0.044	0.013	0.277	0.025
G	0.000	0.200	0.100	0.000	0.000	0.350	1.000	0.050	0.200	0.150
H	0.263	0.000	0.184	0.079	0.079	0.053	0.026	1.000	0.000	0.000
I	0.040	0.067	0.027	0.013	0.013	0.587	0.053	0.000	1.000	0.067
J	0.000	0.429	0.000	0.071	0.000	0.286	0.214	0.000	0.357	1.000

Table 4: Number of Sponsors by Bill in Argentina (1984-2002) and USA (1974-2004)

ARGENTINA				USA			
N-Sponsors	Number of Bills	Percent	Cumulative Percent	N-Sponsors	Number of Bills	Percent	Cumulative Percent
1	77,646	61.74	61.74	1	156,281	55.03	55.03
2	15,653	12.45	74.18	2	32,252	11.36	66.39
3	8,828	7.02	81.2	3	11,858	4.18	70.56
4	6,143	4.88	86.09	4	8,815	3.1	73.67
5	4,714	3.75	89.84	5	6,112	2.15	75.82
6	3,375	2.68	92.52	6	5,147	1.81	77.63
7	2,367	1.88	94.4	7	4,286	1.51	79.14
8	1,776	1.41	95.81	8	3,786	1.33	80.47
9	1,312	1.04	96.86	9	3,385	1.19	81.66
10	1,048	0.83	97.69	10	2,965	1.04	82.71
11	728	0.58	98.27	11	2,700	0.95	83.66
12	562	0.45	98.72	12	2,414	0.85	84.51
13	455	0.36	99.08	13	2,213	0.78	85.29
14	430	0.34	99.42	14	2,195	0.77	86.06
15	460	0.37	99.78	15	2,069	0.73	86.79
16	65	0.05	99.84	16	1,761	0.62	87.41
17	30	0.02	99.86	17	1,640	0.58	87.99
18	22	0.02	99.88	18	1,580	0.56	88.54
19	24	0.02	99.9	19	1,515	0.53	89.08
20	19	0.02	99.91	20	1,349	0.48	89.55
21	18	0.01	99.93	21	1,314	0.46	90.01
22	20	0.02	99.94	22	1,300	0.46	90.47
23	11	0.01	99.95	23	1,275	0.45	90.92
24	2	0	99.95	24	1,673	0.59	91.51
25	8	0.01	99.96	25	2,817	0.99	92.5
26	3	0	99.96	26	810	0.29	92.79
27	6	0	99.97	27	756	0.27	93.05
28	2	0	99.97	28	702	0.25	93.3
29	7	0.01	99.97	29	636	0.22	93.53
30	6	0	99.98	30	612	0.22	93.74
>30	28	0.02	100	>30	17,776	6.26	100
Total	125,768	100		Total	283,994	100	
	48,122				127,713		

Table 5: Correlation between Ideal Point Estimates from Roll Call (Nominate, Ideal) and Estimates from Cosponsorship: Argentina and USA.

Argentina			US		
Year	Congress	House	Year	Congress	House
1990-1991	108-109	0.777	1973-1974	93	0.848
1992-1993	110-111	0.830	1975-1976	94	0.856
1994-1995	112-113	0.721	1977-1978	95	0.864
1996-1997	114-115	0.810	1979-1980	96	0.865
1998-1999	116-117	0.777	1981-1982	97	0.880
2000-2001	118-119	0.738	1983-1984	98	0.885
2002-2003	120-121	0.746	1985-1986	99	0.906
			1987-1988	100	0.908
			1989-1990	101	0.939
			1991-1992	102	0.912
			1993-1994	103	0.934
			1995-1996	104	0.930
			1997-1998	105	0.945
			1999-2000	106	0.936
			2001-2002	107	0.942

Table 6: Explaining the difference between Roll Call and Cosponsorship Estimates

Argentina, 108th to 120th Congress			USA, 93rd to 104th Congress		
Variables	Model 1	Model 2	Variables	Model 3	Model 4
Same Party Governor	-0.006146 (.01631)	-0.007388 (.01628)			
Tenure	-0.002316 (.00476)	-0.003155 (.00476)	Tenure	0.010805 (.00239)	0.0126389 (.00239)
PJ	-0.086874 (.01613)	-0.081266 (.01623)	Democrat	-0.016927 (.00495)	0.0252515 (.00808)
Margin Victory	-0.013918 (.06705)	-0.004088 (.06703)	Margin Victory	0.0494944 (.00912)	0.023 (.00993)
ENCP	-0.017843 (.00699)	-0.017538 (.00698)	District Partisanship (Democrat)	- -	0.1258014 (.01911)
Extremism	- -	-0.062755 (.02337)	Extremism	-0.145408 (.01547)	-0.149118 (.01539)
110-11 (1992-1993)	0.0025159 (.02404)	0.0014062 (.02399)	94	-0.011319 (.01006)	-0.014503 (.01001)
112-13 (1994-1995)	0.0059599 (.0242)	0.0067559 (.02416)	95	-0.030372 (.01005)	-0.030239 (.00999)
114-15 (1996-1997)	-0.029382 (.02422)	-0.028837 (.02417)	96	0.016576 (.0101)	0.0192637 (.01006)
116-17 (1998-1999)	-0.035484 (.02433)	-0.033692 (.0243)	97	-0.000214 (.0101)	0.0027826 (.01005)
118-19 (2000-2001)	-0.048697 (.02414)	-0.045678 (.02412)	98	-0.085588 (.01008)	-0.085488 (.01002)
120-21 (2002-2003)	0.0169379 (.02739)	0.0104719 (.02744)	99	-0.051592 (.01008)	-0.04817 (.01004)
Intercept	0.4450123 (.03355)	0.474536 (.03525)	100	0.1945391 (.06585)	0.194078 (.06548)
R-Sq	0.0363	0.0408	101	-0.116466 (.1466)	-0.127358 (.14581)
N	1634	1634	102	0.3189187 (.07359)	0.3214484 (.07319)
			103	-0.01524 (.01005)	-0.012935 (.01)
			104	-0.027575 (.01013)	-0.021108 (.01012)
			Intercept	0.2419024 (.00997)	0.1606768 (.01583)
			R-Sq	0.0884	0.095
			N	3780	3779

Note: OLS estimates with standard errors in parenthesis.

Figure 1: Dimensions in Cosponsorship Data using PCA, Argentine House, 1984-2002.

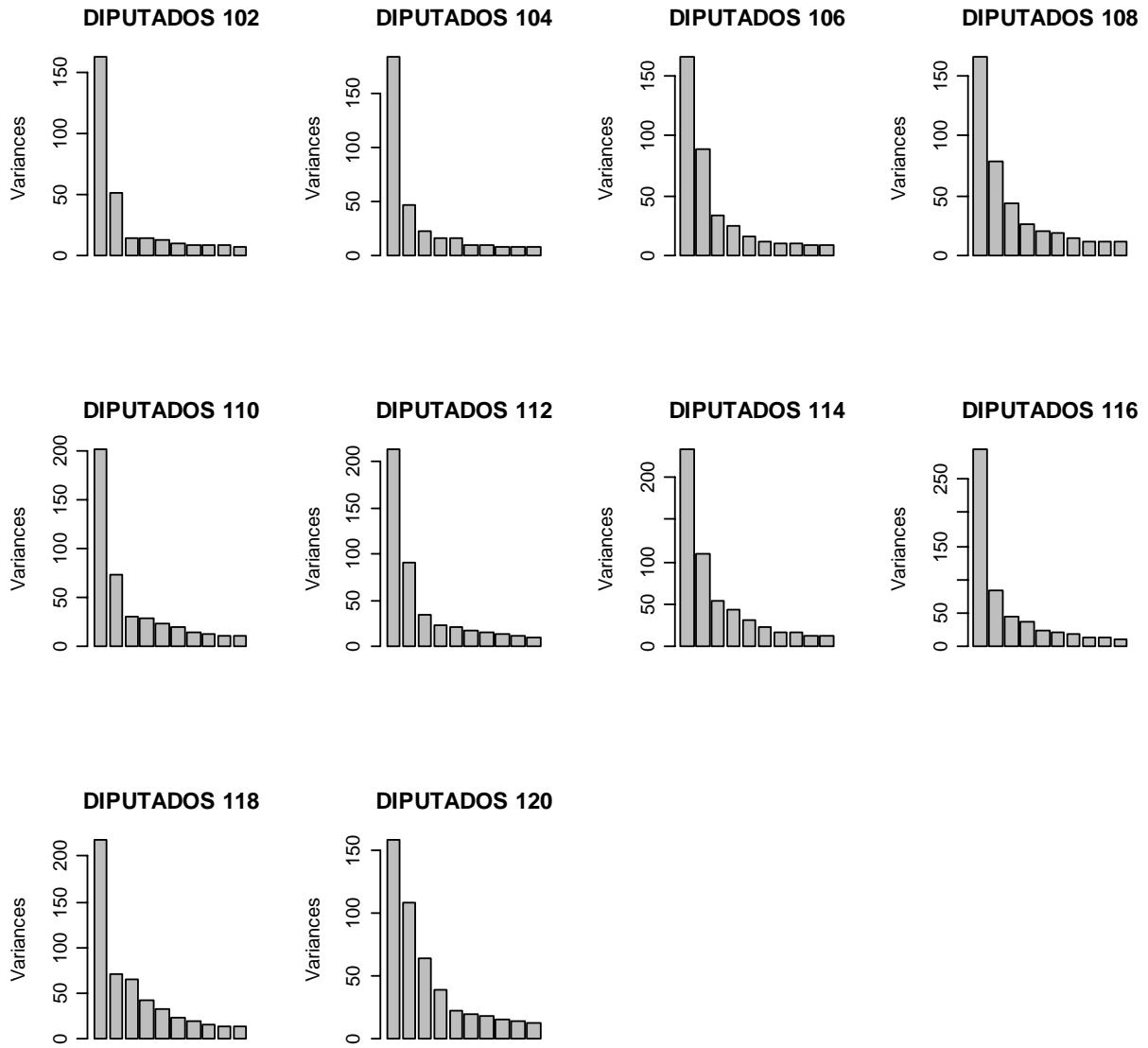


Figure 2: Dimensions in Cosponsorship Data using PCA, US House, 1974-2004.

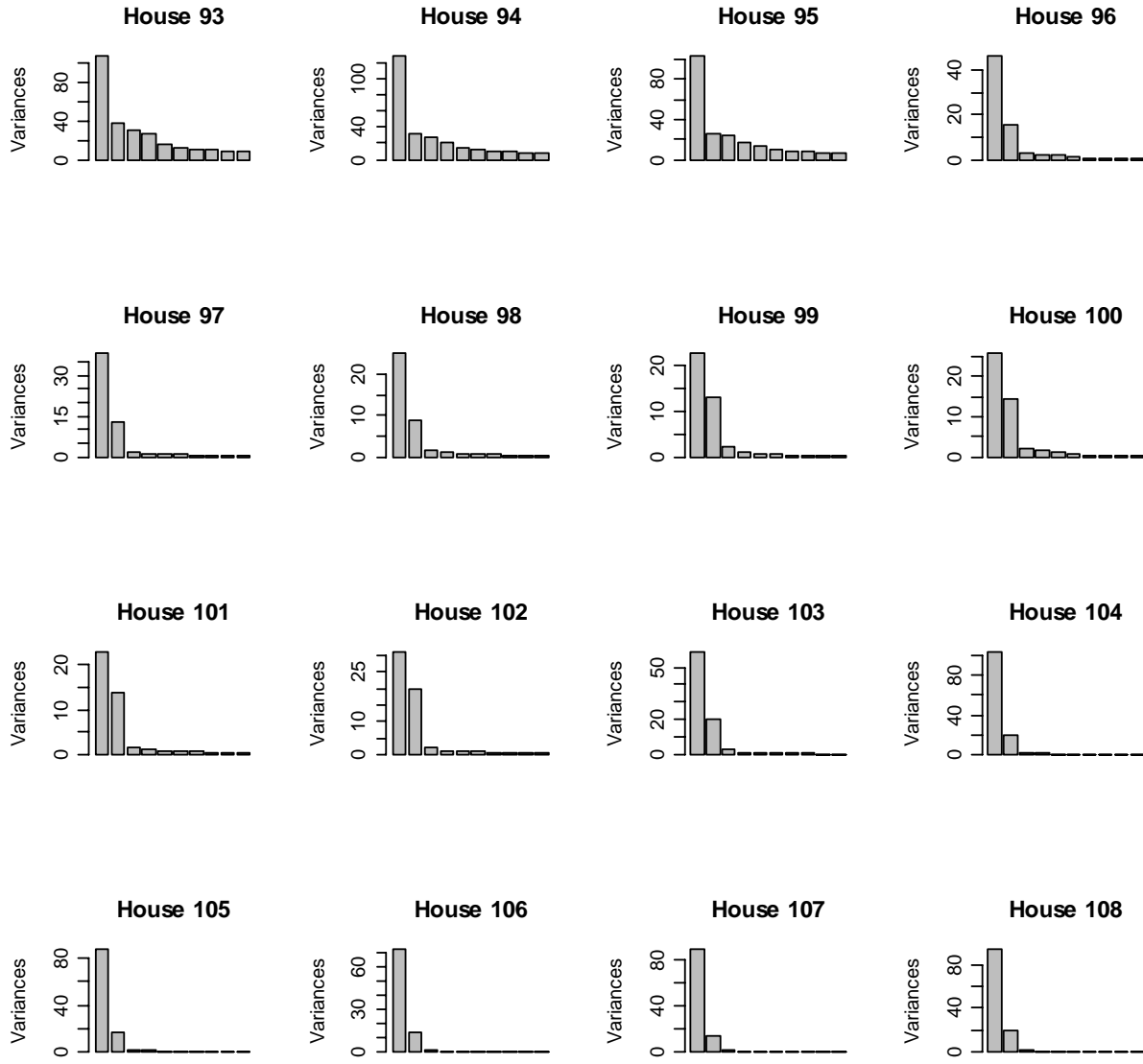


Figure 3: Nominat estimates on Cosponsorship data in the Argentine 112 Senate

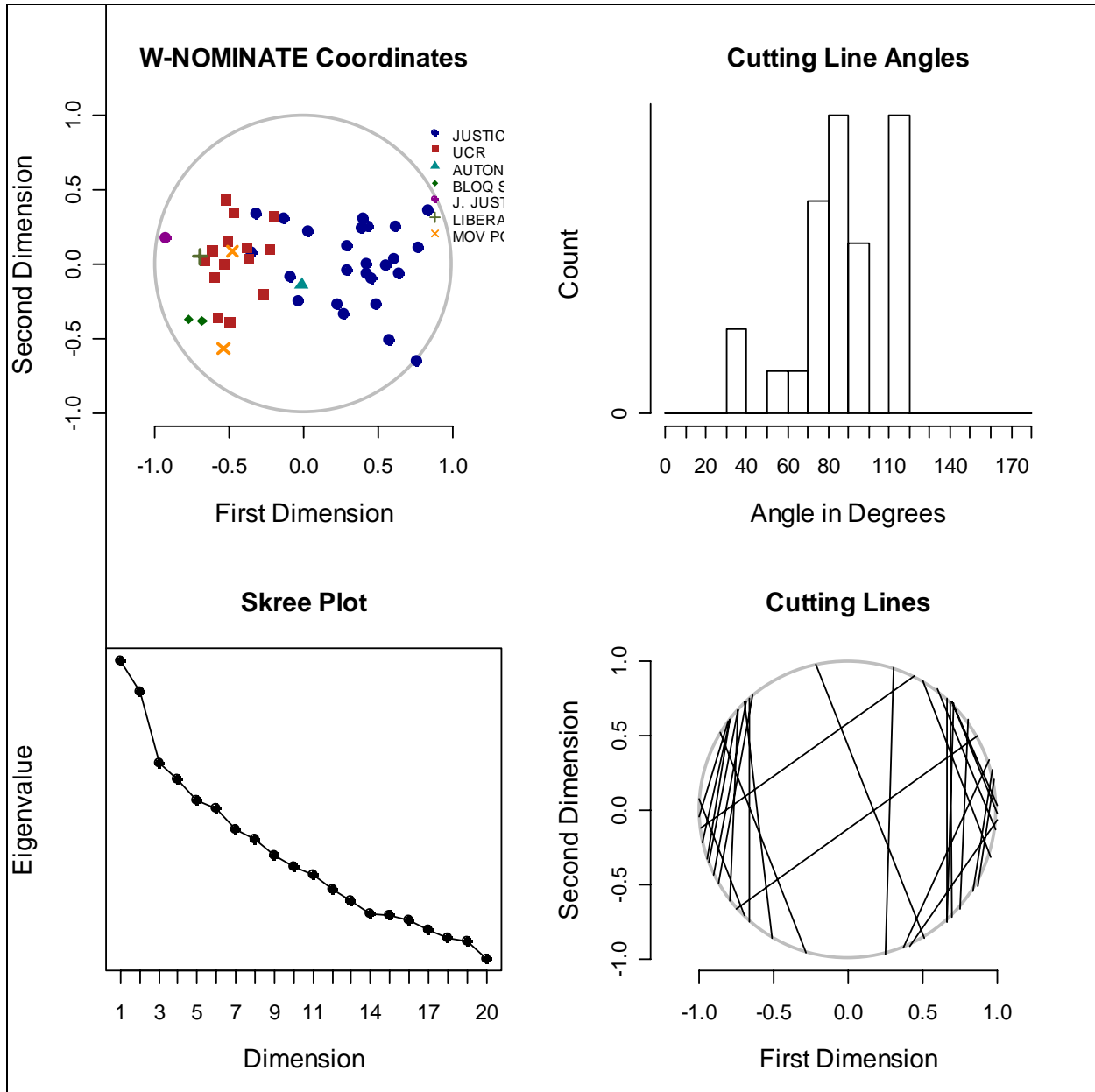


Figure 4: Association between Roll Call and Cosponsorship Estimates, Argentine House, 1990-2002

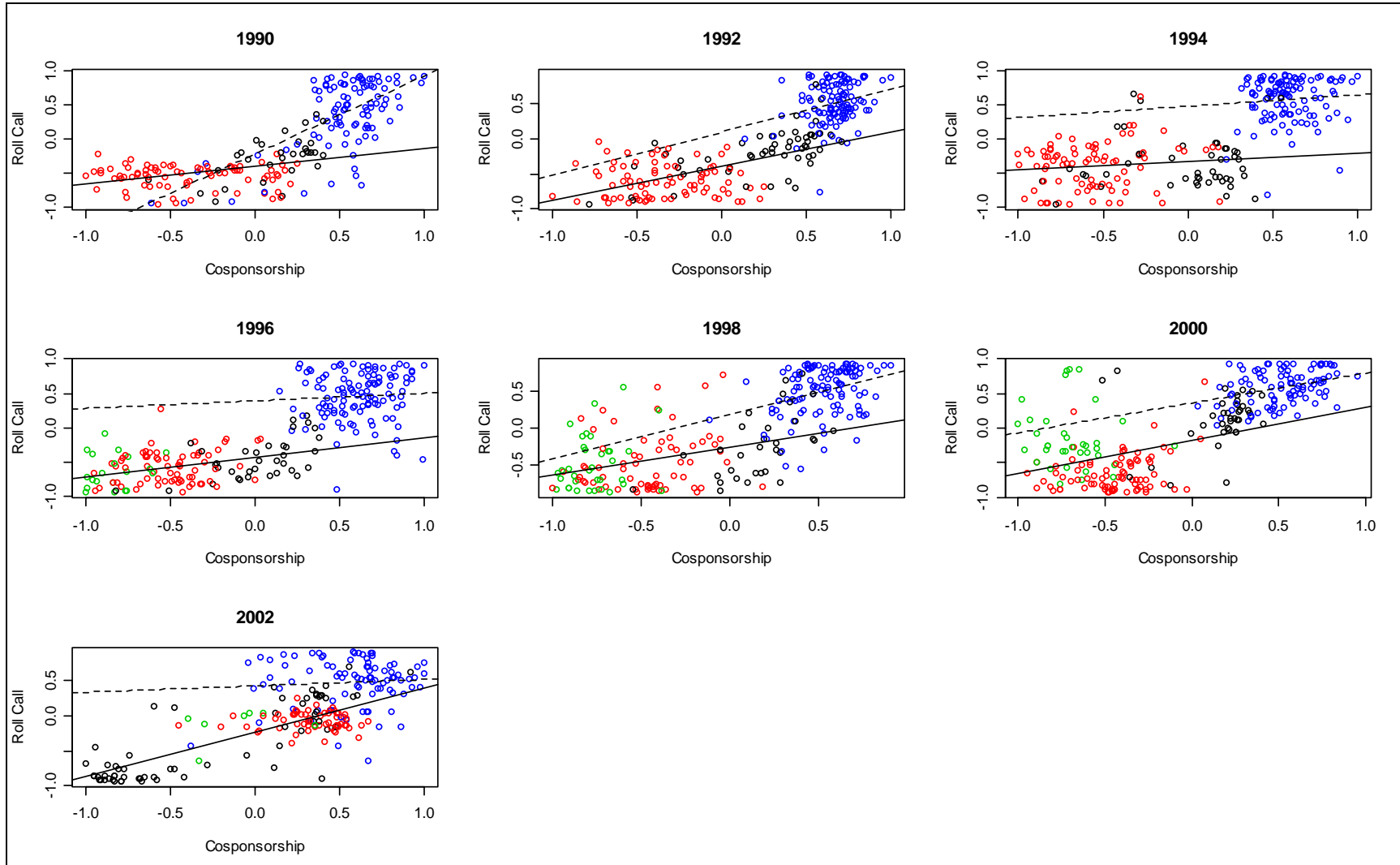
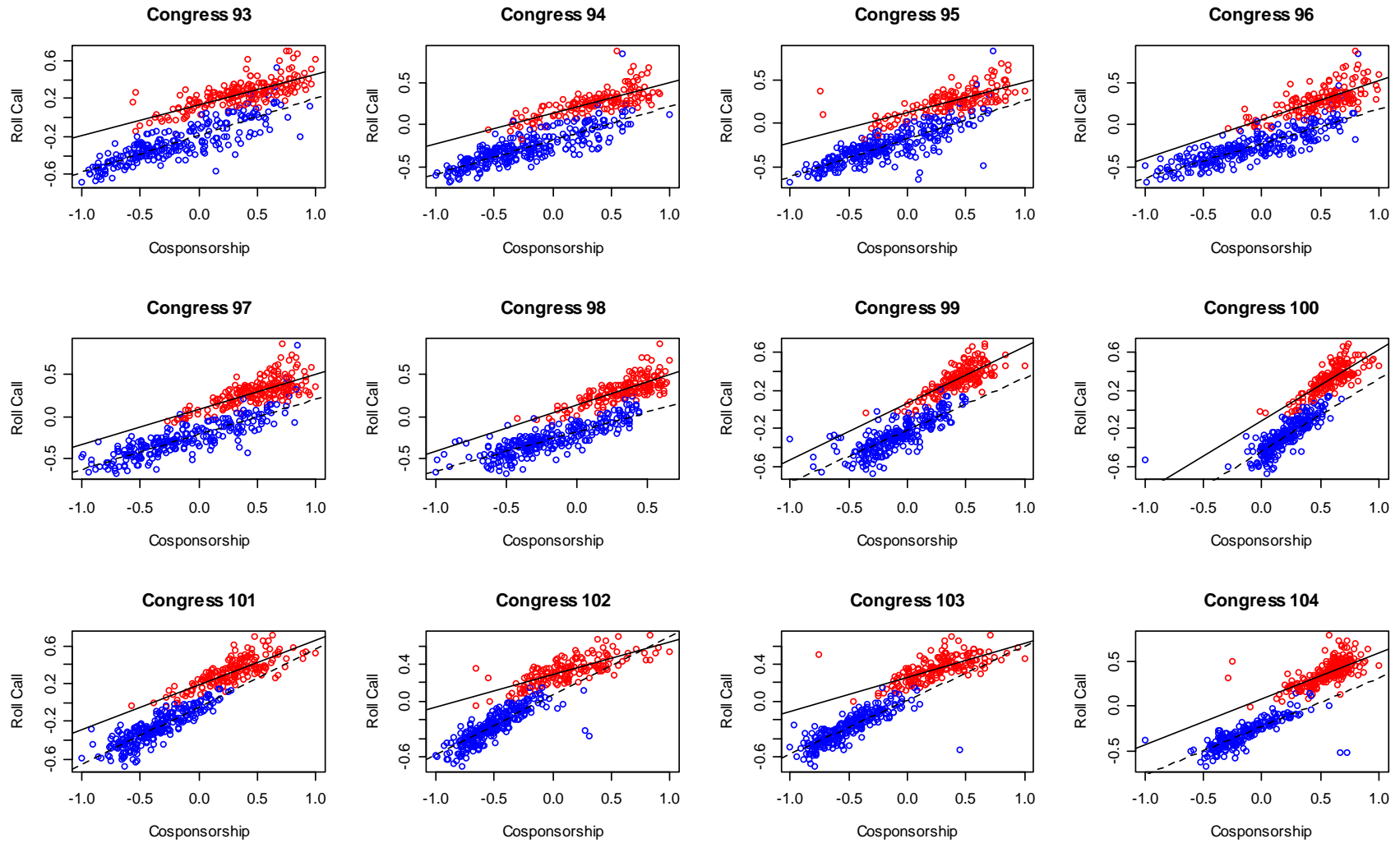


Figure 5: Association Between Nominate and Cosponsorship Ideal Point Estimates, US House, 1974-2004



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¹ A similar perspective is stressed by Panning (1982), who finds that members of Congress tend to cosponsor bills with members that are ideologically proximate.

² In another work on the Argentine Congress, Alemán and Calvo (2006) discuss the effects of cosponsorship on fellow legislators and investigate the link between cosponsorship and legislative success. They find that although

cosponsorship tends to increase the likelihood of a bill's success, cross-partisan support decreases the likelihood of passage. And Crisp et al (2004b) concentrate on estimating the number of cosponsors in six presidential democracies and show, among other things, that greater electoral competition tends to decrease the propensity to cosponsor.

³ Different from the US case, both main parties in Argentina have factions that occupy the entire political spectrum. Therefore, the decision to fix the UCR MCs on negative numbers and Peronists MCs on positive numbers is not necessarily a reflection of their ideological positions.

⁴ As it will be shown in Table 4, a majority of bills have no cosponsors (only 1 sponsor) and an overwhelming majority of bills have less than 10 cosponsors.

⁵ Interestingly enough, the amount of variation explained by the first two dimensions in the Argentine Senate is consistently higher than the variation explained by the first two dimensions in the Argentine House. The amount of variation explained by cosponsorship data in the U.S. House, by contrast, is higher than that of the U.S. Senate. The reason for such differences is to be explained by the different composition of the Argentine House and Senate. In effect, the lower district magnitudes of the Argentine Senate result in only two blocks, Peronists and Radicals, concentrating almost all Senate seats. By contrast, higher district magnitudes in the Argentine House provide a more fragmented partisan makeup, with many political parties occupying different regions of the policy space. Higher dimensionality in the Argentine Chamber of Deputies, therefore, seems to reflect position taking by legislators within regions of the ideological spectrum. The more polarized nature of the Argentine Senate, by contrast, results in a larger amount of variation being explained by the first two dimensions.

⁶ In that year the newly created FREPASO overtook the UCR as the second largest Argentine Party.

⁷ Partisan discipline is in fact so tight, that in order to improve discrimination Jones and Hwang (2004) coded legislators that were present but abstained from voting as Nay. There is good evidence that legislators oftentimes leave the floor rather than voting against the party. We show later in the paper that there is statistical evidence to support Jones and Hwang's strategy of coding legislators that are present but abstain as votes against their parties.

⁸ We tried including other large parties (e.g. UCR), but these showed no significant influence.