Supplemental Materials for "Presidents and Parties: How Presidential Elections Shape Coordination in Legislative Elections"

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1.0 Additional Materials Regarding Models 1-4 from the Main Paper

1.1 Case Selection Criteria and Presidentialism

We elaborate on each of our case selection criteria in turn.

First, the explanation for our chosen time period is straightforward. We saw no reason to not broaden our coverage both forwards and backwards in time relative to the literature, provided the appropriate data were available. This ensured that our presidential regime-only models would have a somewhat more adequate number of cases. Because data became difficult to obtain around the turn of the twentieth century, we somewhat arbitrarily chose to draw the lower bound at 1900; data also became difficult to obtain for very recent elections, which led us to the 2005 upper bound.¹ As noted in the main paper and as demonstrated below, confining the analysis to the post-World War II period does not alter our conclusions.

Second, as is conventional, we employ the minimalist, procedural definition and operationalization of democracy developed by Alvarez, Cheibub, Limongi and Przeworski (1996, 1999). This means that we study only those legislative elections in countries where the chief executive is elected; the legislature is elected; more than one party competes; and incumbents have actually lost elections. As noted in the main paper and as demonstrated below, neither controlling for pre-1990 OECD membership; eliminating elections in African countries; nor eliminating single country-elections, all relatively unconsolidated democracies, alters our conclusions.

Third, also straightforward is our decision to confine the analysis to countries with a population of at least one million. Comparing elections in tiny Nauru (population approximately thirteen thousand) to elections in the United States (population approximately three hundred million) seems akin to comparing apples and oranges—especially when one is concerned, as we are, about the challenges of cooperating across districts. The literature implicitly takes a similar approach: the effective number of ethnic groups, one of its control variables, is only available for larger countries (see, for example, Fearon 2003), which means that small countries would otherwise need to be list-wise deleted from the analysis.² Hence, it makes sense from a theoretical standpoint; for reasons of data availability; and in the interests of comparability to restrict our analysis to elections in larger countries.

Fourth and finally, we exclude elections conducted under electoral systems with two relatively unusual features: fused elections and single, nation wide electoral districts. In fused elections such as post-1980s Bolivia, voters cast a single ballot for the presidency and the legislature, but distinct

¹ Less arbitrarily, severe restrictions on franchise existed in many countries prior to the turn of the last century. We could not help but be concerned that participation in pre-1900 democracies was too different from that in post-1900 democracies for valid comparison. In other words, we to some extent break with Alvarez, Cheibub, Limongi and Przeworski (1996, 1999) by working participation into our definition of democracy (see the following discussion for more on this point).

² Some of the smallest countries, such as the state of Kiribati, are technically eliminated by Golder (2006) on the grounds that they lack formal political parties. He also eliminates Kyrgzstan and Lebanon for this reason, and we follow suit.

and separate legislative and presidential electoral systems then translate the votes into seats. These elections are problematic because it is not clear to which electoral system voters and elites respond: that of the legislature or that of the presidency.³ Moreover, we agree with Golder (2006, 38) that their inclusion risks biasing the results in favor of finding an effect of presidential elections. Hence, our exclusion of these elections follows a long-standing practice in the literature. The decision to exclude countries with a single, nation-wide electoral district like Israel is more unusual, but stems from this paper's distinctive goal of establishing the mechanisms by which presidential elections shape legislative elections. While we technically can still speak of an average effective number of electoral parties in the districts when there is only a single district, this average is trivial, making it inadvisable to use such elections to establish the district effect (i.e., in Model 2). Further, it is logically impossible to speak of cross-district coordination in elections with a single national district, even though similar aggregatory processes are no doubt at work within that district, which leaves them of little use in establishing the cross-district effect (i.e., in Model 3). Hence, even though these few elections could be used to establish the overall effect of presidentialism (i.e., in Model 1), they cannot be used to establish its mechanisms. We accordingly exclude them from our analysis in its entirety, providing consistency across the various models.

We next elaborate upon the reasons for estimating the models solely using elections in presidential regimes. As mentioned in the main paper, we have reservations about how the literature has encompassed non-presidential regimes in its coding scheme for key independent variables such as proximity. An example is that we follow the literature in coding both midterm legislative elections in presidential regimes and all legislative elections in non-presidential regimes as minimally proximate to a presidential election (i.e., as taking a value of zero on the variable of proximity). But should a distinction not be made between these two types of elections, and if so, what are the implications for the literature's conclusions? One could alternatively make the case that in non-presidential regimes, elections for the legislature and the chief executive, e.g., the prime minister, are temporally concurrent, akin to concurrent presidential and legislative elections. The difference between the former and the latter is then whether or not voters cast a separate ballot for the chief executive, and if so, how many candidates compete—information that could be captured by another variable, the effective number of presidential candidates. A full exploration of this matter must be left to future research; our simple solution for the purposes of this paper is to confine the analysis to elections in presidential regimes.

This begs the question of how we determine if a regime is presidential for a given election. Like the literature, we view the defining element of presidentialism to be the popular election of a "president"—i.e., a head of state-cum-chief executive—as distinct from the popular election of a legislature. In other words, the president and legislature must have separate electoral origins for a regime to be considered presidential. To elaborate, we classify a regime as presidential only if voters are *directly* involved in the selection of a president, even if it is to choose an electoral college as in the United States. Hence, both regimes where the president is selected by the legislature with no voter participation (save indirectly to elect the legislature itself), as in Turkey, and regimes where there is no president whatsoever, as in the United Kingdom, are non-presidential for the purposes of our study: the causal mechanisms and hence the hypotheses we develop do not apply to them. Note that any of the four regime types from Shugart and Carey's influential typology—true presidential; premier (or semi-) presidential; president-parliamentary; and parliamentary—may be classified as presidential according to this definition.⁴ The key is that they hold popular elections for a president

³ See, for example, the discussion in Cox (1997, 217).

⁴ For example, both Ireland and post-war Austria, which are often viewed as having parliamentary regimes (see, for example, Metcalf 2000 regarding Austria), nevertheless are presidential as we have defined it;

distinct from popular elections for a legislature, because we—like the literature—want to explore how these presidential elections affect their legislative counterparts. We leave to future work the task of exploring how these different regime types—i.e., the different powers these presidents possess—might mediate any such effect.

1.2 Model Results and Graphs of Marginal Effects

Here and in all of the sensitivity tests that follow, we include a replication of Golder's (2006) model for the overall effect that presidential elections have on the national level number of electoral parties in legislative elections. This replication model was not included in the main paper in the interests of space. However, we include it here because it is our benchmark: if the overall effect of presidential elections is shown to be sensitive to some aspect of the model specification, it is only natural to expect that we would observe sensitivity in the two mechanisms for the overall effect as well. Accordingly, this replication model is reported first and labeled as Model 1. All other models (i.e., those appearing in the main paper) are incremented in their labels by one. This means that the main paper's Model 1 becomes Model 2, the main paper's Model 2 becomes Model 3, and so on and so forth, in what follows.

Table 1a contains the coefficient estimates and robust (Newey-West) standard errors for the versions of Models 1-5 estimated using only elections in presidential regimes, including both fixed effects and fully pooled versions of Model 2 (the main paper's Model 1). This is the presidential elections version of the main paper's Table 1, in other words. In Table 1b, we present the fixed effects versions of Models 1, 3 (the main paper's Model 2), 4 (the main paper's Model 3) and 5 (the main paper's Model 4), none of which appeared in the main paper. We do so for both sets of cases, i.e. for all elections and for elections in presidential regimes. Because the bicameralism dummy variable is time invariant in the all elections version of Models 4 and 5, as well as in the presidential regime elections version of Model 3-5, we drop it from these models. This leads us to present two fixed effects versions of Model 3 when using all elections, one including bicameralism and the other not, in the interests of comparability. Figures 1-4 then present graphs of the estimated marginal effects of proximity comparable to those appearing in the main paper for both sets of cases.

1.3 Technical Detatils

The structure of the data set is extremely non-rectangular and somewhere between time series crosssectional (TSCS) and panel. Because the asymptotics are arguably in T, we might view it as time series cross-sectional in structure; however, the fact that we have T < N suggests instead viewing it as panel in structure (Beck and Katz 1995). We lean towards the former. This effectively rules out the use of a random effects model specification since our inferences should be conditional on the observed cross-sectional units, here the set of minimally democratic countries with popularly elected presidents existing from 1900 to 2005 (Beck and Katz 1996). For this reason, we employ country fixed instead of country random effects in the non-fully pooled models.

The complete variance-covariance matrices of the coefficients for the original Models 1-5 are available in electronic format from the authors. The robust Newey-West standard errors modified for panel data are calculated in STATA 7.0 using the time series cross-section extension to the "newey" command developed by Roodman (2002); comparable results are obtained using the "newey" command in STATA 10. We allow a maximum lag of one in light of how short the time series is for many countries.

similarly, so too are both the French Fifth Republic, the quintessential premier-presidential regime, and the United States, a pure presidential regime.

2.0 Alternative Models

2.1 Alternative Cases

We first present versions of the key, fully pooled Models 1-3 using different sets of cases. Table 2 contains these models estimated only using post-World War II (i.e., post-1944) elections. Second, we eliminate African elections from these models, the results of which are presented in Table 3. Third, we eliminate the relatively unconsolidated democracies that are observed for only a single election from the fully pooled versions of Models 1-3: Indonesia, Mexico, Peru and Sierra Leone. Table 4 presents these results. While most of the coefficients and standard errors from these three sets of models closely resemble those originally obtained, for the presidential elections versions of Model 2, there are some differences in sign as well as in magnitude. Accordingly, Figures 5, 6 and 7 graph the estimated marginal effects from both the all elections and presidential regime elections versions of Model 2 when eliminating pre-1945 elections, African elections, and single country elections, respectively, in versions of the main paper's Figure 3a. The only difference of note is in Figure 7: when eliminating single country elections and confining the sample to elections in presidential regimes, the marginal effect now narrowly falls short of conventional levels of significance using a two-sided test when there are few presidential candidates and the electoral system is proportional (mean magnitude = 7.9); however, using the more proper one-sided test, the marginal effect remains significant. Hence, while the empirical support for H1 is weakened by the elimination of the single country elections, this only strengthens the conclusion reported in the main paper that this hypothesis is less strongly supported by the data than is H2.

2.2 Alternative Measures

First, we use Cox's (1999, 17) inflation score as our dependent variable in Model 3 instead of the difference measure D. This measure divides D, the difference between the national effective number of electoral parties and the average district effective number of electoral parties, by the national effective number of electoral parties. Table 5 presents the resulting models, and Figure 8 graphs the estimated marginal effects in a version of the main paper's Figure 4. Notably, the results from the presidential elections model offers even stronger statistical support for H2 using this measure of the dependent variable, as shown in the table.

Second, we present versions of Models 4 and 5 that use an alternative measure of vertical centralization: central government revenue as a percentage of GDP. Note that the data is expressed as percentage points. Data from the World Bank's World Development Indicators (World Bank Group 2007) is available from the mid-1970s onwards; to create our measure, we backfilled this data with data from Polity II (Gurr 1990). When election year data was not available, we took data from the closest available year up to five years preceding or following the election year. See Hicken and Stoll (2008) for another application of as well as for more information about this measure. The resulting models are found in Table 6. The same signs are obtained in the two versions of the model from the alternative and original measures, although the coefficient now lacks statistical significance to go with its counterintuitive sign in the all elections version of the model, making the results more consistent with the literature's hypothesis. Because our interest in these models is driven by the vertical centralization variable, we do not present figures of the marginal effects of proximity for them.

Third, in fully pooled versions of Models 1 and 2, we employ logs of the original dependent variables to address the skew in their distributions. We do not do this in Models 3-5 because the difference measure D is unbounded on the real line and hence the logs of some of its values are undefined. Table 13 presents these results. Figures 19 and 20 graph the estimated marginal effects

in a version of this paper's Figure 1b (Model 1) and the main paper's Figure 3a (Model 2). These figures show that the only difference of note, which does not alter our conclusions about H1, is that the marginal effect of the presidential elections version of Model 2 becomes positive for high values of the effective number of presidential candidates when the average district magnitude is one (i.e., when the electoral system is restrictive) instead of remaining negative.

Fourth, we present versions of Models 1, 2 and 3 that employ a dummy variable for concurrent presidential and legislative elections as a measure of proximity instead of the measure introduced in the main paper. Table 14 presents these results. Figures 21, 22 and 23 graph the estimated marginal effects in a version of this paper's Figure 1b (Model 1), the main paper's Figure 3a (Model 2) and the main paper's Figure 4 (Model 3). First, we see from this table and Figure 23 that this simpler, alternative measure of proximity provides more support for H2: the inflationary effect is statistically significant over a much greater range of values of the effective number of presidential candidates when all elections are used to estimate Model 3, and it attains significance (also over a wide range of values of the effective number of presidential candidates) for the first time when confining the analysis to presidential regime elections. Second, by way of contrast, this alternate measure provides less support for H2, as can be seen from Figure 22: when using presidential regime elections only to estimate Model 3 and the electoral system is restrictive (i.e., the average district magnitude is equal to one), a statistically significant deflationary effect is found for small to medium effective numbers of presidential candidates. The marginal effects are also decreasing in the effective number of presidential candidates instead of increasing in this case. All else is as before. Combined, these findings tell us that the use of this alternative measure of proximity bolsters the conclusion reported in the main paper that H1 is less strongly supported by the data than is H2.

2.3 Alternative Specifications

Finally, we present several alternative model specifications. First, in Table 7, we control for a country's advanced industrial status, which we operationalized as a dummy variable coded "1" if the country was a member of the OECD prior to 1990 and "0" otherwise in Models 1-3. While most of the coefficients and standard errors from these three sets of models closely resemble those originally obtained, there are some large differences in magnitude for the presidential elections versions of Model 2, as was the case above. Accordingly, Figure 9 graphs the estimated marginal effects from both the all elections and presidential regime elections versions of Model 2 when controlling for advanced industrial status in a version of the main paper's Figure 3a. The only difference is that the marginal effect now narrowly attains conventional levels of significance using a two-sided test when there are slightly more than two presidential candidates and the electoral system is majoritarian (mean magnitude = 1.0), a finding that is less consistent with H1 but as a result is nevertheless commensurate with the overall conclusions drawn at the end of the paper.

Second, Table 8 presents two versions of Model 3 that have as their dependent variable the national level party system and that control for the district level party system. The first version of this model is estimated using OLS; the second version is estimated using two stage least squares to address the potential endogeneity bias that might result from the use of the endogenous district level party system variable as a predictor. Although all coefficient signs remain the same, differences in the estimated magnitudes of the coefficients lead us to present the marginal effects of proximity in Figures 10 and 11 for the OLS and two stage least square versions of this alternative model specification, respectively. (These figures are versions of the main paper's Figure 4). The only difference of note is that the inflationary effect is no longer statistically significant when using all elections, whereas it had previously been significant for the small observed range of more than

approximately eight presidential candidates. This is a minor difference that does not affect the conclusions drawn in the main paper.

Third, Table 9 presents a variant of Model 3 that makes the interaction between proximity and the effective number of presidential candidates conditional upon the value of a personal vote. Shugart (1995) argues that the extent to which candidates rely on a party versus a personal vote may influence their ability to rally behind the leading presidential contenders: where the party label is an important asset for candidates, the incentives and ability to switch parties will be weaker, leaving proximate presidential elections able to exert less of an effect on cross-district coordination. We accordingly attempted to test this hypothesis using four different measures of the value of a personal vote: the particularism of the electoral system from Johnson and Wallack (2007), a data set that implements Shugart and Carey's (1995) coding schema for the value of a personal vote and that is an updated and corrected version of the Database of Particularism originally constructed by Wallack, Gaviria, Panizza, and Stein (2003); the original particularism data from Wallack et al.; electoral volatility including independents from Birnir (2005); and electoral volatility not including independents from Birnir (2005). This particularism data ranges from zero to two with zero representing the least incentive for cultivating a personal vote and two the greatest. For the 2003 data set, we average their ballot, pool and vote variables for the lower house to arrive at an overall score, as they suggest; for the 2007 data set, we again take the average of these variables, although now each is the weighted average across the various electoral system tiers for the lower house. Figures 12-15 graph the resulting marginal effects of proximity for all elections (12a, 13a, 14a, 15a) as well as for presidential regime elections (12b, 13b, 14b, 15b) for the minimum, median, third quartile, and maximum values of the conditioning particularism variable. Note that both versions of the particularism data are only available from 1978 onwards and for some but not all of our countries (specifically, data is not available for Sierra Leone and Turkey), which results in a truncation of our sample. Similarly, the volatility data is only available for a few of the elections that we study. However, what these tables and figures show is little support for the hypothesis; we leave further investigation of this matter to future work.

Fourth, Table 10 reports the results for all elections from the fully pooled versions of Models 1-3 using country clustered instead of Newey-West robust standard errors. As noted in the main paper, we do not provide these alternative robust standard errors for the presidential elections models due to the small number of countries (clusters), in combination with the very unbalanced panel: the robust "cluster" estimator has been shown to not perform well under such conditions (e.g., Kezdi 2004). Figures 16-18 graph the resulting marginal effects of proximity (versions of this paper's Figure 1b and the main paper's Figures 3a and 4, respectively). The only difference of note is that the inflationary effect is no longer statistically significant in Model 3, whereas it had previously been significant for the small observed range of more than approximately eight presidential candidates. (Similar findings were obtained from moving the district level party system to the right-hand side of the equation and letting the national level party system be the dependent variable.) As noted above, this minor difference does not affect the conclusions drawn in the main paper.

Fifth, Table 11 reports the results for a variant of Model 3 that additionally controls for the percentage of seats distributed in an upper tier, given Cox and Knoll's (2003) argument that large upper tiers should provide elites with incentives to engage in cross-district coordination. Because we only have data for this variable through 2000 from Golder (2005), we did not include it in the models reported in the main paper. To disentangle any changes in results due to the additional control variable from any changes in results due to the truncation of the sample, we also report the original Model 3 estimated using the truncated set of cases for which the data on upper tier seats is available. The similarity between the two sets of results reveals that controlling for this variable does

not affect the conclusions drawn about the relationship between party system aggregation and the interaction between proximity and the effective number of presidential candidates.

Sixth and finally, Table 12 reports the results for a variant of Model 1 that does not control for the interaction between logged mean district magnitude and the effective number of ethnic groups. A comparison of these models with the original models presented in the main paper's Tables 1 and 2 reveals that effectively identical results are obtained. Hence, controlling for this interaction does not affect the results for the key relationship of interest, that between the difference score on the one hand and the interaction between proximity and the effective number of presidential candidates on the other.

3.0 Appendix

COUNTRY	MODELS 1-3	MODELS 4-5	MODELS 1-3	MODELS 4-5	
	All Elections		Elections in Presidential		
	All Elections		Regimes		
Albania	2	0	0	0	
Argentina	10	10	10	10	
Australia	10	13	0	0	
Austria	21	9	14	9	
Bangladesh	2	0	0	0	
Belgium	27	8	0	0	
Brazil	11	5	9	3	
Bulgaria	5	4	4	3	
Canada	10	8	0	0	
Chile	4	3	4	3	
Colombia	7	4	7	4	
Costa Rica	13	8	13	8	
Croatia	2	1	2	1	
Czech Republic	3	2	0	0	
Denmark	40	12	0	0	
Dominican Republic	6	5	6	5	
Ecuador	3	1	3	1	
El Salvador	2	3	2	0	
Estonia	4	3	0	0	
Finland	34	9	21	9	
France	10	7	8	7	
Germany	26	8	5	0	
Ghana	20	0	2	0	
Greece	22	3	0	0	
Guinea-Bissau	2	0	2	0	
Honduras	2	0	2	0	
Hungary	4	3	0	0	
India	10	9	0	0	
Indonesia	10	0	1	0	
Ireland	27	9	20	9	
	17	7	0	0	
Italy Jamaica	7	0	0	0	
	13	2	0	0	
Japan Kapya	3	1	3	1	
Kenya Latvia	3 2	1	<u> </u>	0	
Lithuania	4	3	3	2	

The number of elections per country used to estimate the two versions of Models 1 through 5 (continued on the next page).

COUNTRY	MODELS	MODELS	MODELS	MODELS	
	1-3	4-5	1-3	4-5	
	All Elections		Elections in Presidential		
			Regimes		
Malawi	2	0	2	0	
Mauritius	2	2	0	0	
Mexico	1	0	1	0	
Netherlands	5	0	0	0	
New Zealand	3	1	0	0	
Niger	2	0	2	0	
Norway	27	7	0	0	
Peru	1	1	1	1	
Philippines	8	1	8	1	
Poland	4	2	4	2	
Portugal	8	6	8	6	
Romania	5	3	5	3	
Russia	4	3	4	3	
Sierra Leone	1	0	1	0	
Slovenia	2	2	2	2	
South Africa	2	1	0	0	
South Korea	4	0	4	0	
Spain	9	7	0	0	
Sri Lanka	3	0	3	0	
Sweden	30	10	0	0	
Switzerland	22	6	0	0	
Taiwan	3	0	3	0	
Thailand	7	5	0	0	
Trinidad and Tobago	4	1	0	0	
Turkey	11	2	0	0	
Ukraine	2	0	2	0	
United Kingdom	26	7	0	0	
United States	18	15	18	15	
Venezuela	4	2	4	2	
Zambia	3	0	3	0	
Total	595	242	216	110	

The number of elections per country used to estimate the two versions of Models 1 through 5 (continued from the prior page).

Bibliography

- Alvarez, Michael, Jose Antonio Cheibub, Fernando Limongi, and Adam Przeworski. (1996). Classifying Political Regimes. *Studies in Comparative International Development* 31 (2): 3-36.
- ——. (1999). "ACLP Political and Economic Database" [database online]. Retrieved August 2007 from <u>www.ssc.upenn.edu/%7Echeibub/data/Default.htm</u>.
- Beck, Nathaniel & Jonathan Katz. (1995). "What To Do (and Not To Do) with Time-Series Cross-Section Data." *American Political Science Review* 89 (3): 634—47.
- ——. (1996). Nuisance vs. Substance: Specifying and Estimating Time Series Cross-Section Models. *Political Analysis* 6 (1): 1—36.
- Birnir, Johanna. (2005). "Public Venture Capital and Party Institutionalization." *Comparative Political Studies.* 38 (8): 915–938.
- Cox, Gary. (1997). Making Votes Count: Strategic Coordination in the World's Electoral Systems. New York: Cambridge University Press.
- . (1999). Electoral Rules and Electoral Coordination. *Annual Review of Political Science* 2: 145–61.
- Cox, Gary and Knoll, Jonathan S. (2003). Ethnes, Fiscs and Electoral Rules: The Determinants of Party System Inflation. Paper presented at the annual meeting of the American Political Science Association.
- Fearon, James D. (2003). Ethnic Structure and Cultural Diversity by Country. *Journal of Economic Growth* 8 (2): 195–222.
- Golder, Matt. (2005.) Democratic Electoral Systems around the World, 1946-2000 [database online]. *Electoral Studies* 24 (1): 103–21.
- ——. (2006). Presidential Coattails and Legislative Fragmentation. *American Journal of Political Science* 50 (1): 34—48.
- Gurr, Ted R. 1990. Polity II: Political Structures and Regime Change, 1800-1986 [database online]. Boulder, CO: Center for Comparative Politics [producer]; Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor]. Accessed March 2005.
- Hicken, Allen and Heather Stoll. (2008). Electoral Rules and the Size of the Prize: How Political Institutions Shape Presidential Party Systems. *Journal of Politics* 70 (4).
- Johnson, Joel W. and Jessica S. Wallack. (2007). Electoral Systems and the Personal Vote [database online]. Retrieved September 2007 from <u>http://dss.ucsd.edu/~jwjohnso/espv.htm</u>.
- Kezdi, Gabor. (2004). Robust Standard Error Estimation in Fixed-Effects Panel Models. *Hungarian Statistical Review*, Special English Volume #9: 95-116.
- Metcalf, Lee. (2000). Measuring Presidential Power. Comparative Political Studies 33 (5): 660-685.
- Roodman, David. (2002). NEWEY2: Stata module to extend newey (HAC covariance estimation). Statistical Software Components S428901, Boston College Department of Economics. Revised 07 Feb 2004.
- Shugart, Matthew. (1995). The Electoral Cycle and Institutional Sources of Divided Presidential Government. *American Political Science Review* 89 (2): 327-43.
- Shugart, Matthew and John Carey. (1995). Incentives to Cultivate a Personal Vote. *Electoral Studies* 14 (4): 417-39.
- Wallack, Jessica Seddon, Alejandra Gaviria, Ugo Panizza, and Ernesto Stein. (2003). "Political Particularism Around the World." *World Bank Economic Review* 17(1): 133-143.
- World Bank Group, The. (2007). World Bank Development Indicators Online [database online]. Retrieved February 2007 from <u>http://devdata.worldbank.org/dataonline</u>

Model	1	2	2	3	4	5
Dependent Variable	National	Mean	Mean	D	D	D
-	ENEP	District	District	(National	(National	(National
		ENEP,	ENEP,	ENEP –	ÈNEP –	ENEP –
		Fully	Fixed	Mean	Mean	Mean
		Pooled	Effects	District	District	District
				ENEP)	ENEP)	ENEP)
Intercept	2.3***	1.9***	3.1***	0.15	0.19	-0.24
	(0.70)	(0.89)	(0.52)	(0.50)	(1.1)	(0.70)
Proximity	-1.9*	-0.48	-0.37	-1.4**	-0.64	-0.63
-	(0.99)	(0.93)	(0.41)	(0.70)	(0.81)	(0.79)
ENPRES	0.49**	0.29	0.016	0.14	0.31*	0.33**
	(0.23)	(0.33)	(0.16)	(0.12)	(0.18)	(0.16)
Proximity ×	0.44	0.024	0.078	0.39	0.078	0.052
ENPRES	(0.35)	(0.35)	(0.16)	(0.24)	(0.25)	(0.23)
Log Mean	0.15	0.37	-0.36	0.013	-0.056	-0.064
Magnitude	(0.24)	(0.44)	(0.29)	(0.078)	(0.17)	(0.16)
Effective Number	0.036			0.20***	0.28**	0.28**
of Ethnic Groups	(0.078)			(0.064)	(0.12)	(0.12)
Log Mean Magnitude	0.16					
× Effective Number						
of Ethnic Groups	(0.13)					
Proximity ×		-0.32	-0.13			
Log Mean Magnitude		(0.52)	(0.31)			
ENPRES ×		-0.011	0.10			
Log Mean Magnitude		(0.15)	(0.085)			
Proximity ×		0.15	0.087			
ENPRES × Log Mean		(0.19)	(0.11)			
Magnitude						
Bicameral				0.17	0.12	0.15
				(0.16)	(0.28)	(0.29)
Nat'l Government					-0.0048	
Revenue (% Total)					(0.0087)	
Ν	216	216	216	216	110	110
MSE	1.7	1.0	0.72	1.0	1.2	1.2
R ²	0.32	0.34	0.74	0.22	0.16	0.16

Table 1a. Coefficient estimates and Newey-West robust standard errors in parentheses for Models 1—5, a version of the main paper's Table 1, where the cases are legislative elections *in presidential regimes only*. Country fixed effects, where included, are not shown. Significance codes are for two-sided tests, all calculated prior to rounding to two significant digits: 0.01, ***; 0.05, **; 0.10, *.

			All Elections	5		Р	residential Re	egime Electio	ns
Model	1	3	3	4	5	1	3	4	5
Dependent Variable	National	D	D	D	D	National	D	D	D
-	ENEP	(National ENEP –	(National ENEP –	(National ENEP –	(National ENEP –	ENEP	(National ENEP –	(National ENEP –	(National ENEP –
		Mean District ENEP)	Mean District ENEP)	Mean District ENEP)	Mean District ENEP)		Mean District ENEP)	Mean District ENEP)	Mean District ENEP)
Intercept	2.7***	0.26***	0.26***	2.6	1.2	4.0***	1.7	3.1	2.0*
	(0.080)	(0.075)	(0.075)	(2.4)	(0.98)	(1.3)	(1.0)	(4.1)	(1.2)
Proximity	-1.1**	-0.66**	-0.68**	0.57	0.68	-0.44	-0.31	0.028	0.17
	(0.49)	(0.32)	(0.33)	(0.60)	(0.56)	(0.76)	(0.53)	(0.81)	(0.66)
ENPRES	0.22***	0.068	0.064	0.41***	0.42***	0.43**	0.20	0.23	0.24*
	(0.078)	(0.045)	(0.045)	(0.14)	(0.15)	(0.20)	(0.10)	(0.15)	(0.14)
Proximity ×	0.28	0.15	0.15	-0.33*	-0.37*	0.065	0.028	-0.18	-0.21
ENPRES	(0.18)	(0.12)	(0.12)	(0.18)	(0.19)	(0.26)	(0.15)	(0.22)	(0.20)
Log Mean	0.48***	-0.15**	-0.13*	-0.11	-0.13	-0.080	-0.12		-0.28
Magnitude	(0.10)	(0.071)	(0.071)	(0.14)	(0.13)	(0.25)	(0.14)		(0.23)
Bicameral			0.22** (0.086)						
Nat'l Govm't				-0.022				-0.025	
Revenue (%)				(0.023)				(0.046)	
Ν	595	595	595	242	242	216	216	110	110
MSE	1.2	0.78	0.78	0.77	0.78	1.3	0.86	0.98	0.98
R ²	0.58	0.56	0.56	0.72	0.72	0.66	0.56	0.54	0.53

Table 1b. Coefficient estimates and Newey-West robust standard errors in parentheses for *country fixed effects* versions of Models 1—5 that were not presented in the main paper. Country fixed effects are not shown. Significance codes are for two-sided tests, all calculated prior to rounding to two significant digits: 0.01, ***; 0.05, **; 0.10, *.

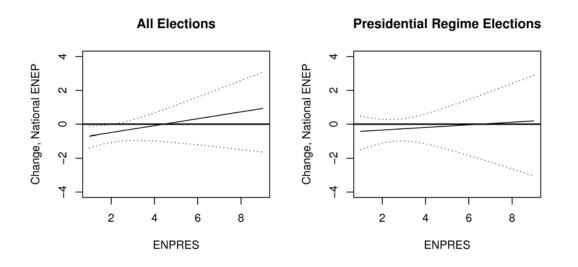


Figure 1a. For all elections as well as elections in presidential regimes, the estimated marginal effect of proximity on the national level effective number of electoral parties (ENEP) from *country fixed effects* versions of Model 1. Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

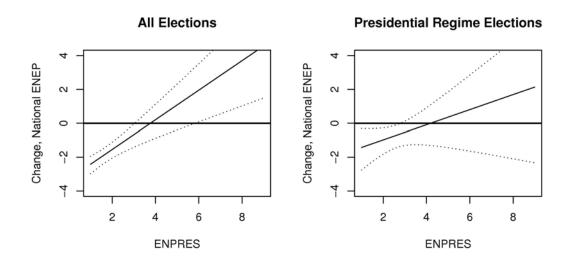


Figure 1b. For all elections as well as elections in presidential regimes, the estimated marginal effect of proximity on the national level effective number of electoral parties (ENEP) from *fully pooled* versions of Model 1. Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

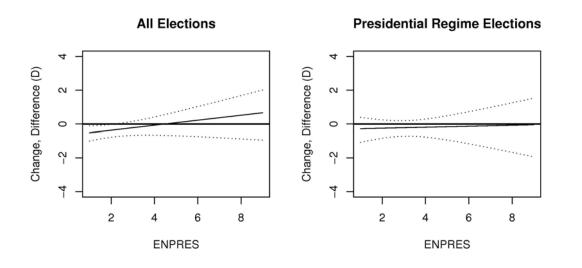


Figure 2a. For all elections as well as elections in presidential regimes, the estimated marginal effect of proximity on the difference between the national level and average district level party systems (D) from *country fixed effects* versions of Model 3. Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

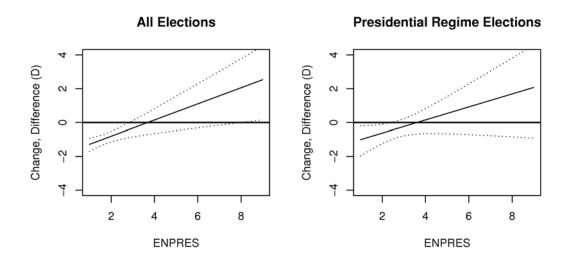


Figure 2b. For all elections as well as elections in presidential regimes, the estimated marginal effect of proximity on the difference between the national level and average district level party systems (D) from *fully pooled* versions of Model 3 (shown in the main paper). Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

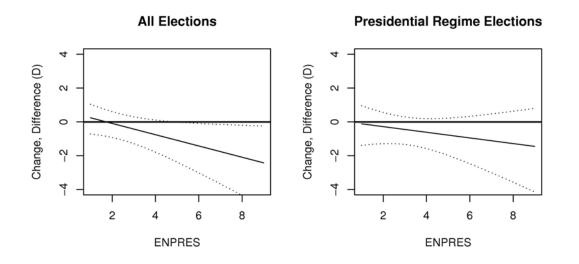


Figure 3a. For all elections as well as elections in presidential regimes, the estimated marginal effect of proximity on the difference between the national level and average district level party systems (D) from *country fixed effects* versions of Model 4. Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

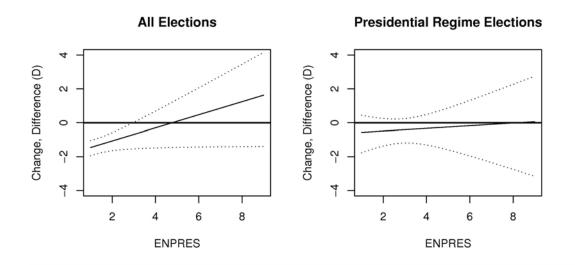


Figure 3b. For all elections as well as elections in presidential regimes, the estimated marginal effect of proximity on the difference between the national level and average district level party systems (D) from *fully pooled* versions of Model 4. Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

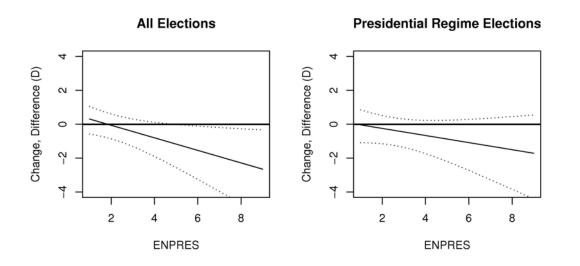


Figure 4a. For all elections as well as elections in presidential regimes, the estimated marginal effect of proximity on the difference between the national level and average district level party systems (D) from *country fixed effects* versions of Model 5. Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

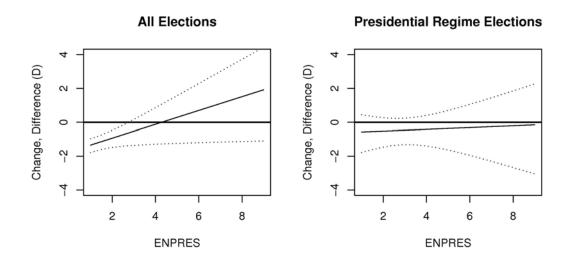


Figure 4b. For all elections as well as elections in presidential regimes, the estimated marginal effect of proximity on the difference between the national level and average district level party systems (D) from *fully pooled* versions of Model 5. Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

	A	Il Election	ns	President	ial Regim	e Elections
Model	1	2	3	1	2	3
Dependent	National	Mean	D	National	Mean	D
Variable	ENEP	District	(National	ENEP	District	(National
		ENEP	ENEP –		ENEP	ENEP –
			Mean			Mean
			District			District
			ENEP			ENEP)
Intercept	2.7***	2.5***	0.0059	2.2***	1.9**	0.18
	(0.19)	(0.070)	(0.18)	(0.74)	(0.91)	(0.52)
Proximity	-3.5***	-1.1***	-1.7***	-1.8*	-0.43	-1.5**
	(0.46)	(0.22)	(0.35)	(1.0)	(0.96)	(0.72)
ENPRES	0.15	0.12	0.089	0.53**	0.32	0.12
	(0.11)	(0.11)	(0.070)	(0.25)	(0.34)	(0.13)
Proximity ×	0.92***	0.21	0.46***	0.43	0.0031	0.41*
ENPRES	(0.22)	(0.13)	(0.17)	(0.38)	(0.36)	(0.25)
Log Mean	0.66***	0.53***	0.033	0.15	0.34	0.012
Magnitude	(0.15)	(0.052)	(0.053)	(0.26)	(0.45)	(0.082)
Effective Number	0.34***		0.32***	0.041		0.20***
of Ethnic Groups	(0.082)		(0.074)	(0.079)		(0.065)
Log Mean	-0.092			0.16		
Magnitude ×						
Effective Number	(0,005)			(0.4.4)		
of Ethnic Groups	(0.085)			(0.14)	0.04	
Proximity ×		- 0.67***			-0.34	
I M					(0.52)	
Log Mean		(0.19)			(0.53)	
Magnitude		0.049			0.0020	
ENPRES ×		-0.048			-0.0020	
Log Mean Magnitude		(0.057)			(0.15)	
Proximity ×		0.26**			0.17	
ENPRES× Log		(0.26^{**})			(0.17)	
Mean Magnitude		(0.11)			(0.19)	
Bicameral			0.34***			0.16
Dicamicial			(0.098)			(0.17)
N	473	473	473	202	202	202
MSE	1.6	0.93	1.0	1.7	1.0	1.1
R ²	0.23	0.93	0.20	0.31	0.35	0.21
<u>K</u> ²	0.23	0.32	0.20	0.31	0.35	0.21

Table 2. Coefficient estimates and Newey-West robust standard errors in parentheses for
fully pooled versions of Models 1-3 estimated using post-war elections only. Significance codes
are for two-sided tests, all calculated prior to rounding to two significant digits: 0.01, ***;
0.05, **; 0.10, *.

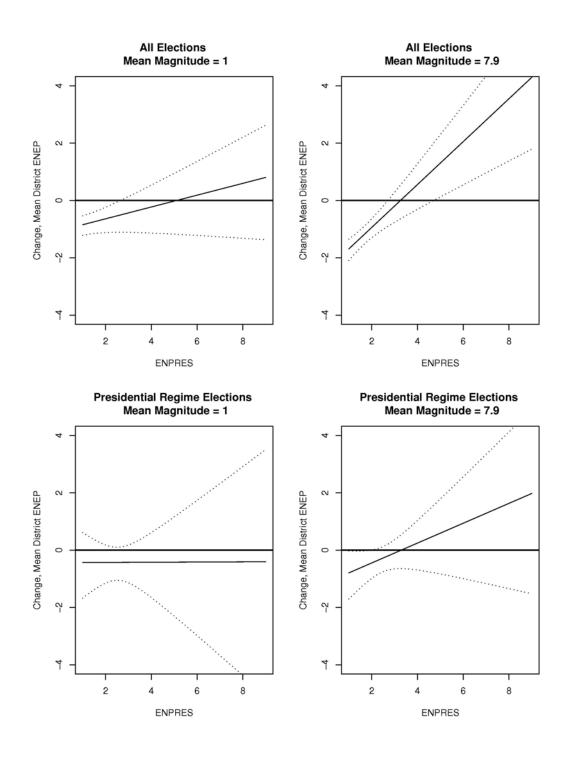


Figure 5. For all elections as well as elections in presidential regimes, the estimated marginal effect of proximity on the average effective number of electoral parties in the districts (Mean ENEP) from *fully pooled* versions of Model 2 for both a restrictive (Mean Magnitude = 1) and a permissive (Mean Magnitude = 7.9) electoral system with *pre-1945 elections eliminated*. Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

		All Election	s	President	ial Regim	e Elections
Model	1	2	3	1	2	3
Dependent	National	Mean	D	National	Mean	D
Variable	ENEP	District	(National	ENEP	District	(National
		ENEP	ENEP –		ENEP	ENEP –
			Mean			Mean
			District			District
			ENEP			ENEP)
Intercept	2.9***	2.4***	-0.052	3.3***	2.0**	-0.39
	(0.22)	(0.055)	(0.14)	(1.1)	(0.89)	(0.52)
Proximity	-3.2***	-0.81***	-1.7***	-1.9*	-0.33	-1.2*
	(0.43)	(0.24)	(0.33)	(1.1)	(0.95)	(0.68)
ENPRES	0.20**	0.15	0.081	0.50**	0.30	0.18
	(0.10)	(0.11)	(0.064)	(0.24)	(0.33)	(0.12)
Proximity ×	0.78***	0.14	0.44***	0.43	-0.018	0.30
ENPRES	(0.21)	(0.13)	(0.16)	(0.38)	(0.36)	(0.23)
Log Mean	0.029	0.54***	-0.016	-0.53	0.40	0.010
Magnitude	(0.16)	(0.040)	(0.045)	(0.45)	(0.44)	(0.081)
Effective Number	0.34***		0.54***	-0.56		0.58***
of Ethnic Groups	(0.12)		(0.078)	(0.51)		(0.19)
Log Mean	0.29***			0.63**		
Magnitude ×						
Effective Number						
of Ethnic Groups	(0.10)			(0.29)		
Proximity ×		-0.66***			-0.42	
Log Mean		(0.20)			(0.53)	
Magnitude						
ENPRES ×		-0.055			-0.022	
Log Mean		(0.054)			(0.15)	
Magnitude		0.00111			0.40	
Proximity ×		0.26***			0.19	
ENPRES× Log		(0.10)			(0.19)	
Mean Magnitude			0.4.0			0.000
Bicameral			0.19**			0.033
~ ~			(0.085)			(0.18)
N	476	473	473	202	202	202
MSE	1.5	0.87	0.98	1.0	1.0	1.7
R ²	0.25	0.33	0.21	0.35	0.24	0.33

Table 3. Coefficient estimates and Newey-West robust standard errors in parentheses for *fully pooled* versions of Models 1—3 estimated *excluding African elections*. Significance codes are for two-sided tests, all calculated prior to rounding to two significant digits: 0.01, ***; 0.05, **; 0.10, *.

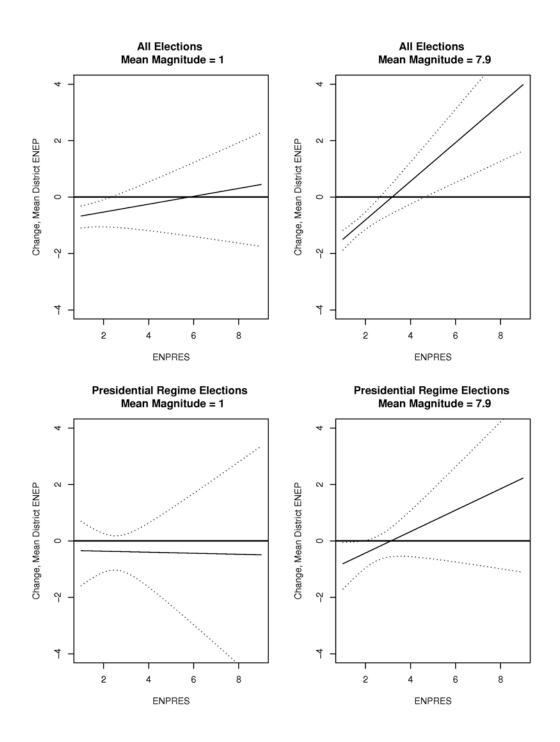


Figure 6. For all elections as well as elections in presidential regimes, the estimated marginal effect of proximity on the average effective number of electoral parties in the districts (Mean ENEP) from *fully pooled* versions of Model 2 for both a restrictive (Mean Magnitude = 1) and a permissive (Mean Magnitude = 7.9) electoral system with *African elections eliminated*. Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

	1	All Election	s	President	ial Regim	e Elections
Model	1	2	3	1	2	3
Dependent	National	Mean	D	National	Mean	D
Variable	ENEP	District	(National	ENEP	District	(National
		ENEP	ENEP –		ENEP	ENEP –
			Mean			Mean
			District			District
			ENEP			ENEP)
Intercept	3.0***	2.4***	0.27*	2.3***	2.0**	0.14
	(0.17)	(0.056)	(0.16)	(0.70)	(0.89)	(0.50)
Proximity	-3.2***	-0.97***	-1.7***	-1.7*	-0.51	-1.4*
	(0.42)	(0.20)	(0.34)	(0.99)	(0.93)	(0.71)
ENPRES	0.16	0.14	0.068	0.51**	0.30	0.14
	(0.10)	(0.10)	(0.065)	(0.24)	(0.33)	(0.13)
Proximity ×	0.83***	0.18	0.48***	0.38	0.022	0.39
ENPRES	(0.21)	(0.13)	(0.17)	(0.34)	(0.35)	(0.24)
Log Mean	0.54***	0.51***	-0.035	0.17	0.29	0.013
Magnitude	(0.14)	(0.042)	(0.048)	(0.25)	(0.43)	(0.079)
Effective Number	0.28***		0.28***	0.034		0.21***
of Ethnic Groups	(0.080)		(0.068)	(0.078)		(0.069)
Log Mean	-0.073			0.15		
Magnitude ×						
Effective Number				(a -)		
of Ethnic Groups	(0.080)			(0.15)		
Proximity ×		-0.48***			-0.12	
Log Mean		(0.17)			(0.50)	
Magnitude						
ENPRES ×		-0.034			0.021	
Log Mean		(0.053)			(0.15)	
Magnitude		0.4.0*			0.074	
Proximity ×		0.18*			0.076	
ENPRES× Log		(0.092)			(0.18)	
Mean Magnitude			0.31***			0.17
Bicameral						0.16
NT	504	504	(0.081)	212	010	(0.16)
N	591	591	591	212	212	212
MSE	1.5	0.86	1.0	1.7	1.0	1.1
R ²	0.20	0.32	0.16	0.31	0.34	0.22

Table 4. Coefficient estimates and Newey-West robust standard errors in parentheses for *fully pooled* versions of Models 1—3 *eliminating single country cases (Indonesia, Mexico, Peru and Sierra Leone).* Significance codes are for two-sided tests, all calculated prior to rounding to two significant digits: 0.01, ***; 0.05, **; 0.10, *.

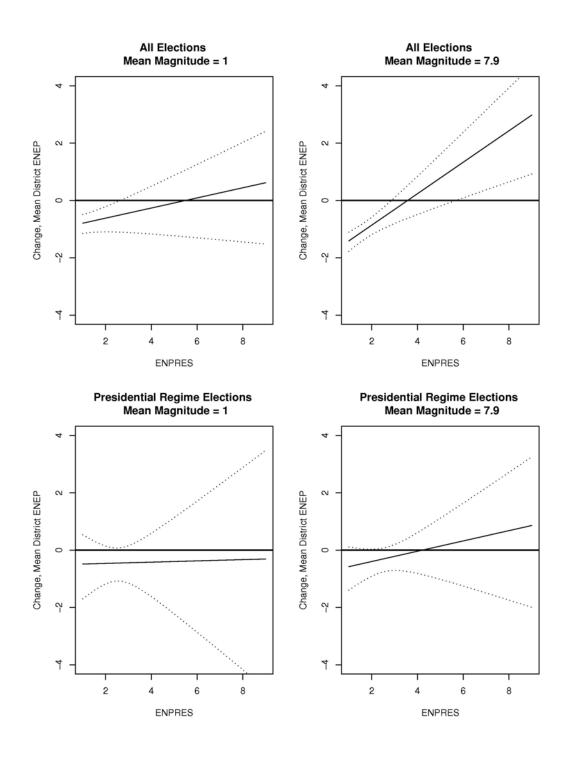


Figure 7. For all elections as well as elections in presidential regimes, the estimated marginal effect of proximity on the average effective number of electoral parties in the districts (Mean ENEP) from *fully pooled* versions of Model 2 for both a restrictive (Mean Magnitude = 1) and a permissive (Mean Magnitude = 7.9) electoral system with *single country elections eliminated*. Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

	All Elections	Presidential
		Regime
		Elections
Model	3	3
Dependent	Inflation	Inflation
Variable	Score	Score
Intercept	0.11***	0.058
	(0.023)	(0.052)
Proximity	-0.26***	-0.18**
	(0.041)	(0.074)
ENPRES	0.0078	0.023*
	(0.0065)	(0.013)
Proximity ×	0.065***	0.044*
ENPRES	(0.018)	(0.025)
Log Mean	-0.025***	-0.011
Magnitude	(0.0067)	(0.010)
Effective Number	0.045***	0.043***
of Ethnic Groups	(0.0092)	(0.011)
Bicameral	0.050***	0.024
	(0.011)	(0.019)
Ν	595	216
MSE	0.13	0.13
R ²	0.24	0.29

Table 5. Coefficient estimates and Newey-West robust standard errors in parentheses for *fully pooled* versions of Model 3 estimated *using an alternative measure of cross-district coordination, Cox's (1999) inflation score.* Significance codes are for two-sided tests, all calculated prior to rounding to two significant digits: 0.01, ***; 0.05, **; 0.10, *.

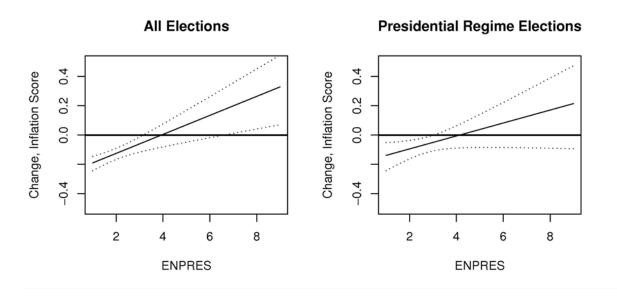


Figure 8. For all elections as well as elections in presidential regimes, the estimated marginal effect of proximity on *Cox's (1999) inflation score* from *fully pooled* versions of Model 3. Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

	All Ele	ctions	Presidenti	al Regime	
			Elections		
Model	4	5	4	5	
Dependent	D	D	D	D	
Variable	(National	(National	(National	(National	
	ENEP –	ENEP –	ENEP –	ENEP –	
	Mean	Mean	Mean	Mean	
	District	District	District	District	
	ENEP)	ENEP)	ENEP)	ENEP)	
Intercept	0.23	0.23	0.32	0.12	
	(0.17)	(0.17)	(0.66)	(0.52)	
Proximity	-1.8***	-1.8***	-1.5**	-1.5**	
	(0.37)	(0.37)	(0.76)	(0.73)	
ENPRES	0.086	0.086	0.14	0.14	
	(0.067)	(0.067)	(0.13)	(0.13)	
Proximity ×	0.47***	0.47***	0.40	0.39	
ENPRES	(0.18)	(0.18)	(0.25)	(0.25)	
Log Mean	-0.061	-0.061	0.010	0.0057	
Magnitude	(0.051)	(0.051)	(0.083)	(0.081)	
Effective Number	0.32***	0.32***	0.27***	0.28***	
of Ethnic Groups	(0.079)	(0.079)	(0.078)	(0.080)	
Bicameral	0.29***	0.29***	0.096	0.097	
	(0.088)	(0.088)	(0.17)	(0.17)	
Nat'l Govm't	0.0000052		-0.0074		
Revenue (%)	(0.000038)		(0.0093)		
Ν	531	531	198	198	
MSE	1.0	1.0	1.0	1.0	
R ²	0.18	0.18	0.23	0.23	

Table 6. Coefficient estimates and Newey-West robust standard errors in parentheses for *fully pooled* versions of Models 4—5 estimated *using an alternative measure of vertical centralization, central government revenue as a percentage of GDP.* Significance codes are for two-sided tests, all calculated prior to rounding to two significant digits: 0.01, ***; 0.05, **; 0.10, *.

	A	Il Election	ns	President	ial Regim	e Elections
Model	1	2	3	1	2	3
Dependent	National	Mean	D	National	Mean	D
Variable	ENEP	District	(National	ENEP	District	(National
		ENEP	ENEP –		ENEP	ENEP –
			Mean			Mean
			District			District
			ENEP			ENEP)
Intercept	3.6***	2.7***	0.48**	3.0***	2.5***	0.50
	(0.28)	(0.11)	(0.20)	(0.76)	(0.92)	(0.54)
Proximity	-3.6***	-1.1***	-1.9***	-2.2**	-0.86	-1.5**
	(0.41)	(0.21)	(0.33)	(0.99)	(0.95)	(0.69)
ENPRES	0.12	0.12	0.058	0.46*	0.21	0.14
	(0.095)	(0.11)	(0.061)	(0.24)	(0.34)	(0.13)
Proximity ×	0.92***	0.20	0.49***	0.49	0.11	0.38
ENPRES	(0.20)	(0.13)	(0.16)	(0.35)	(0.36)	(0.23)
Log Mean	0.58***	0.53***	-0.025	0.36	0.23	0.012
Magnitude	(0.13)	(0.043)	(0.047)	(0.25)	(0.43)	(0.075)
Effective Number	0.21***		0.24***	0.0043		0.15**
of Ethnic Groups	(0.080)		(0.068)	(0.079)		(0.064)
Log Mean	-0.081			0.027		
Magnitude ×						
Effective Number						
of Ethnic Groups	(0.077)			(0.14)		
Proximity ×		-			-0.15	
		0.59***				
Log Mean		(0.17)			(0.50)	
Magnitude						
ENPRES ×		-0.036			0.045	
Log Mean		(0.054)			(0.15)	
Magnitude						
Proximity ×		0.22**			0.090	
ENPRES× Log		(0.094)			(0.18)	
Mean Magnitude						
Bicameral			0.34***			0.20
			(0.083)			(0.16)
Advanced	-0.62***	-	-0.22*	-0.86***	-0.34**	-0.46**
Industrial		0.34***				
	(0.20)	(0.11)	(0.13)	(0.31)	(0.16)	(0.18)
Ν	595	595	595	216	216	216
MSE	1.5	0.86	1.0	1.6	1.0	1.0
R ²	0.22	0.34	0.17	0.35	0.36	0.25

Table 7. Coefficient estimates and Newey-West robust standard errors in parentheses for *fully pooled* versions of Models 1—3 *controlling for pre-1990 membership in the OECD*. Significance codes are for two-sided tests, all calculated prior to rounding to two significant digits: 0.01, ***; 0.05, **; 0.10, *.

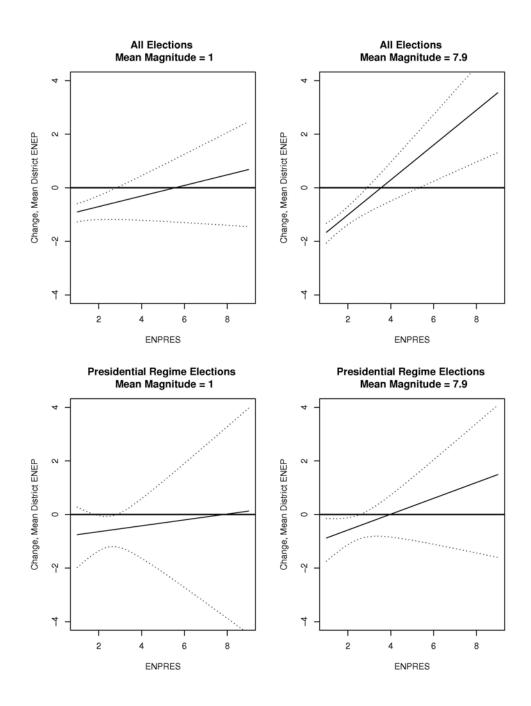


Figure 9. For all elections as well as elections in presidential regimes, the estimated marginal effect of proximity on the average effective number of electoral parties in the districts (Mean ENEP) from *fully pooled* versions of Model 2 for both a restrictive (Mean Magnitude = 1) and a permissive (Mean Magnitude = 7.9) electoral system additionally *controlling for pre-1990 membership in the OECD*. Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

	All Ele	ctions	Presidential Regime Elections		
Model	3	3	3	3	
Dependent	National	National	National	National	
Variable	ENEP,	ENEP,	ENEP,	ENEP,	
	OLS	2SLS	OLS	2SLS	
Intercept	-0.66***	-0.56	-0.34	-0.71***	
	(0.20)	(1.1)	(0.44)	(0.98)	
Proximity	-1.3***	-1.3**	-1.3*	-1.1*	
	(0.36)	(0.64)	(0.68)	(0.61)	
ENPRES	0.039	0.043	0.031	-0.046	
	(0.058)	(0.060)	(0.11)	(0.23)	
Proximity ×	0.35**	0.36**	0.36	0.34*	
ENPRES	(0.17)	(0.18)	(0.23)	(0.19)	
Log Mean	-0.19***	-0.17	-0.11	-0.20	
Magnitude	(0.048)	(0.19)	(0.079)	(0.22)	
Effective Number	0.29***	0.29***	0.22***	0.23***	
of Ethnic Groups	(0.059)	(0.047)	(0.064)	(0.075)	
Bicameral	0.41***	0.40***	0.14	0.14	
	(0.078)	(0.14)	(0.16)	(0.16)	
Mean District	1.3***	1.3***	1.3***	1.5***	
ENEP	(0.054)	(0.40)	(0.077)	(0.49)	
Ν	595	595	216	216	
MSE	0.96	0.96	1.0	1.0	
R ²	0.67		0.75		

Table 8. Coefficient estimates and standard errors in parentheses for two *fully pooled* versions of Model 3 that *take as their dependent variable the national level party system and that control for the average district level party system.* The first is estimated using *OLS* with Newey-West robust standard errors and the second is estimated using *two stage least squares (2SLS).* Significance codes are for two-sided tests, all calculated prior to rounding to two significant digits: 0.01, ***; 0.05, **; 0.10, *.

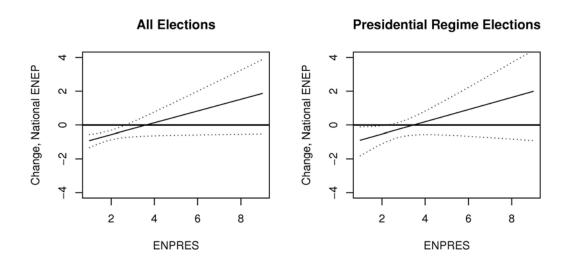


Figure 10. For all elections as well as elections in presidential regimes, the estimated marginal effect of proximity on the national level effective number of electoral parties (ENEP) from *fully pooled* versions of Model 3 that *control for the district level average effective number of electoral parties* and that are *estimated using OLS*. Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

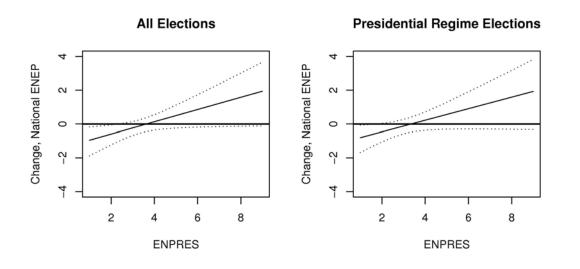


Figure 11. For all elections as well as elections in presidential regimes, the estimated marginal effect of proximity on the national level effective number of electoral parties (ENEP) from *fully pooled* versions of Model 3 that *control for the district level average effective number of electoral parties* and that are estimated using *two stage least squares*. Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

	All Elections				Presidential Regime Elections			
Model	3	3	3	3	3	3	3	3
Dependent	D	D	D	D	D	D	D	D
Variable	(National	(National	(National	(National	(National	(National	(National	(National
	ENEP –	ENEP –	ENEP –	ENEP –	ENEP –	ENEP –	ENEP –	ENEP –
	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean
	District	District	District	District	District	District	District	District
	ENEP),	ENEP),	ENEP),	ENEP),	ENEP),	ENEP),	ENEP),	ENEP),
	Particularism	Particularism	Volatility	Volatility	Particularism	Particularism	Volatility	Volatility
	(2007)	(2003)	w/Ind.	w/o Ind.	(2007)	(2003)	w/Ind.	w/o Ind.
Intercept	0.71**	0.19	-0.12	-0.15	3.2*	0.40	-2.7*	-2.8*
	(0.31)	(0.35)	(0.17)	(0.16)	(1.8)	(2.1)	(1.6)	(1.6)
Proximity	-2.9***	-3.1***	-2.0	-1.9	-5.3**	-2.4	0.29	0.40
	(0.67)	(0.73)	(1.4)	(1.4)	(2.1)	(2.5)	(2.7)	(2.7)
ENPRES	0.0089	0.34	-0.14	-0.17	-0.77	0.53	0.64	0.63
	(0.23)	(0.29)	(0.15)	(0.15)	(0.52)	(0.88)	(0.62)	(0.63)
Proximity ×	0.88**	0.69*	1.2*	1.2*	1.7**	0.48	0.43	0.40
ENPRES	(0.36)	(0.40)	(0.67)	(0.68)	(0.67)	(0.98)	(1.1)	(1.1)
Personal Vote	-0.57**	-0.065	0.027***	0.028***	-3.3**	-0.41	0.10	0.11
	(0.25)	(0.25)	(0.0088)	(0.0088)	(1.4)	(1.8)	(0.067)	(0.065)
Proximity ×	1.4**	0.78	-0.031	-0.037	4.5***	1.4	-0.11	-0.12
Personal Vote	(0.53)	(0.60)	(0.057)	(0.058)	(1.5)	(2.0)	(0.11)	(0.11)
ENPRES ×	0.10	-0.26	0.0071	0.0089	1.1**	-0.21	-0.020	-0.020
Personal Vote	(0.20)	(0.23)	(0.0087)	(0.0087)	(0.43)	(0.72)	(0.029)	(0.030)
Proximity ×	-0.46*	-0.11	-0.015	-0.014	-1.6***	-0.25	0.015	0.016
ENPRES×	(0.28)	(0.31)	(0.027)	(0.028)	(0.51)	(0.79)	(0.047)	(0.050)
Personal Vote								
Log Mean	-0.10	-0.0010	-0.12*	-0.11*	-0.11	-0.18	0.069	0.080
Magnitude	(0.080)	(0.10)	(0.068)	(0.065)	(0.15)	(0.15)	(0.18)	(0.17)
Effective Number	0.29**	0.32***	0.35***	0.35***	0.14*	0.14	0.37	0.37
of Ethnic Groups	(0.10)	(0.10)	(0.10)	(0.10)	(0.082)	(0.093)	(0.27)	(0.27)
Bicameral	0.51***	0.53***	0.17	0.20	0.21	0.20	0.19	0.23
	(0.16)	(0.16)	(0.14)	(0.14)	(0.23)	(0.24)	(0.28)	(0.28)
Ν	281	250	182	184	140	126	79	80
MSE	1.1	1.2	0.80	0.79	1.2	1.2	1.0	1.0
R ²	0.23	0.24	0.50	0.50	0.26	0.31	0.52	0.52

Table 9. Coefficient estimates and Newey-West robust standard errors in parentheses for *fully pooled* versions of Model 3 that make the proximity and effective number of presidential candidates interaction *conditional upon the value of a personal vote,* measured in four different ways. Significance codes are for two-sided tests, all calculated prior to rounding to two significant digits: 0.01, ***; 0.05, **; 0.10, *.

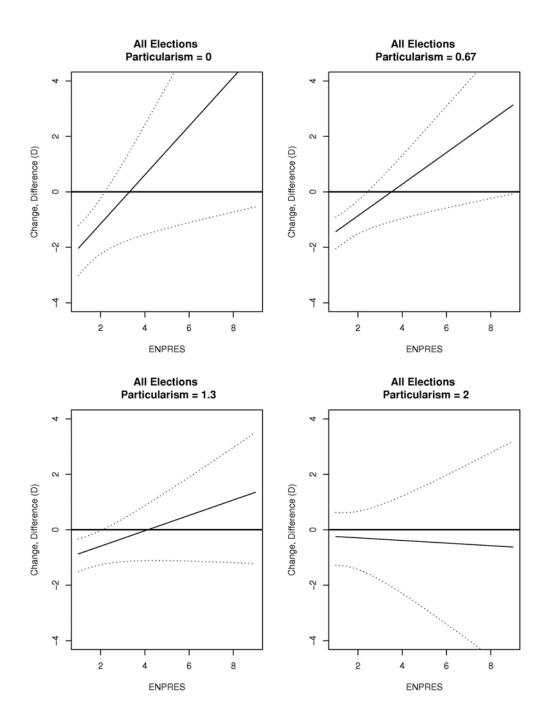


Figure 12a. For *all* elections, the estimated marginal effect of proximity on the difference between the national level and average district level party systems (D) from a *fully pooled* version of Model 3 that makes the relationship between proximity and the effective number of presidential candidates *conditional upon the value of a personal vote*, here the electoral particularism data of Johnson and Wallack (2007). Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

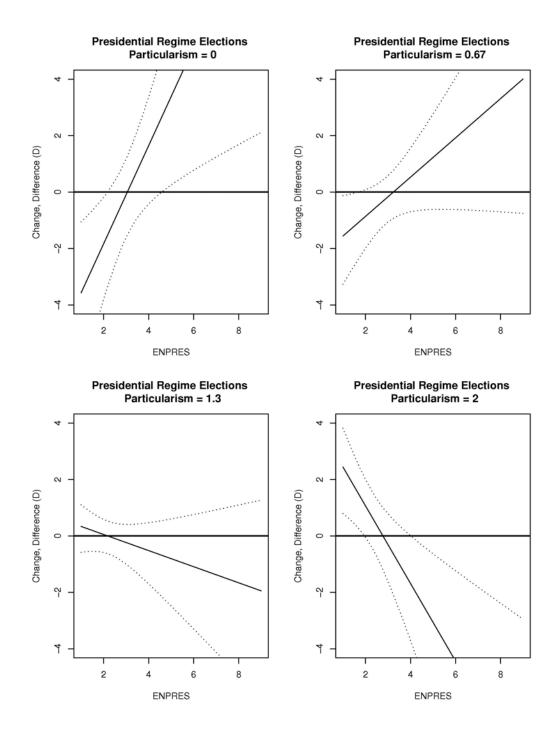


Figure 12b. For *presidential regime* elections, the estimated marginal effect of proximity on the difference between the national level and average district level party systems (D) from a *fully pooled* version of Model 3 that makes the relationship between proximity and the effective number of presidential candidates *conditional upon the value of a personal vote*, here the electoral particularism data of Johnson and Wallack (2007). Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

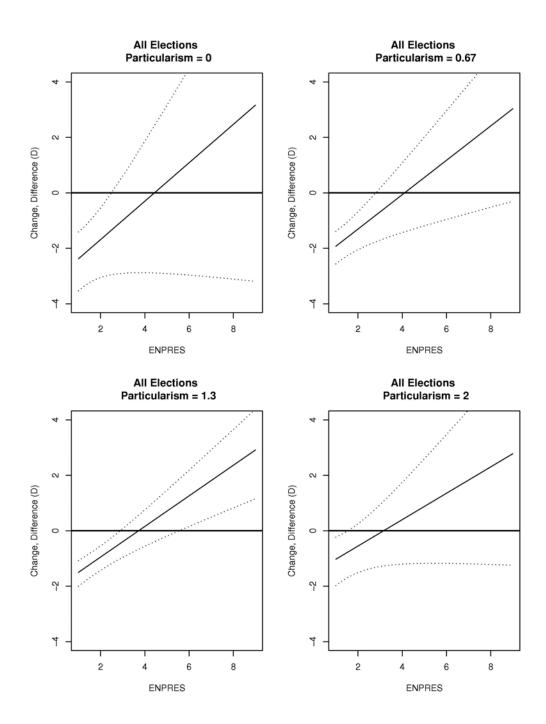


Figure 13a. For *all* elections, the estimated marginal effect of proximity on the difference between the national level and average district level party systems (D) from a *fully pooled* version of Model 3 that makes the relationship between proximity and the effective number of presidential candidates *conditional upon the value of a personal vote*, here the electoral particularism data of Gaviria et al. (2003). Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

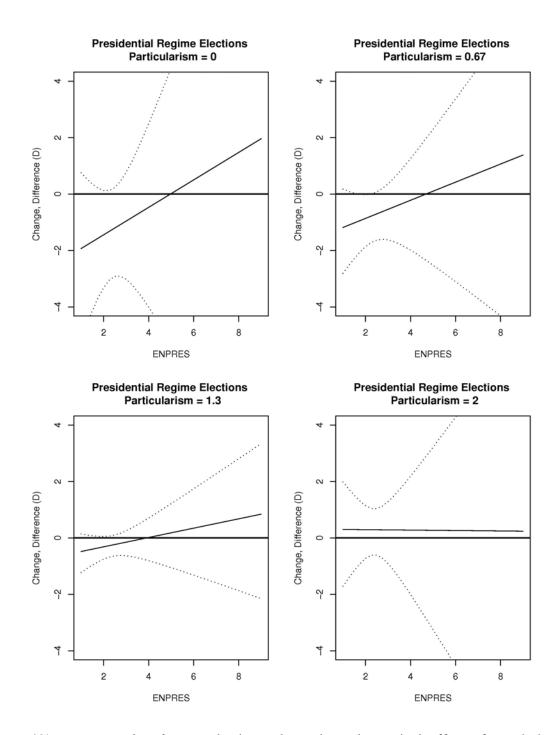


Figure 13b. For *presidential regime* elections, the estimated marginal effect of proximity on the difference between the national level and average district level party systems (D) from a *fully pooled* version of Model 3 that makes the relationship between proximity and the effective number of presidential candidates *conditional upon the value of a personal vote*, here the electoral particularism data of Gaviria et al. (2003). Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

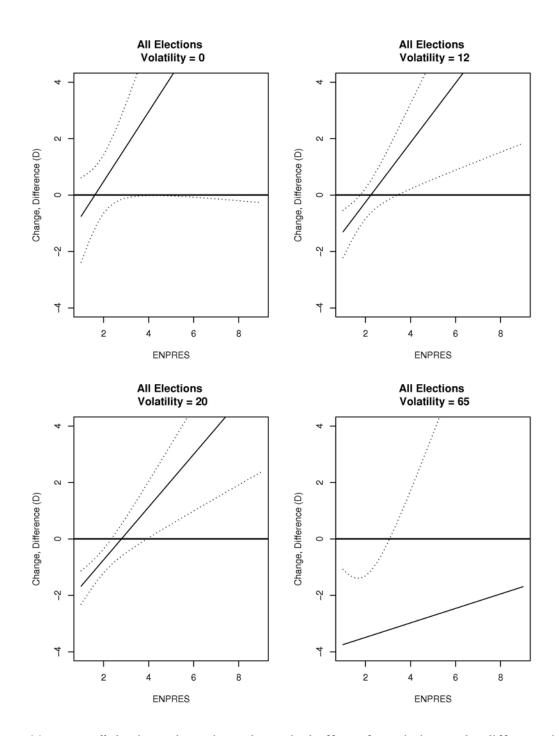


Figure 14a. For *all* elections, the estimated marginal effect of proximity on the difference between the national level and average district level party systems (D) from a *fully pooled* version of Model 3 that makes the relationship between proximity and the effective number of presidential candidates *conditional upon the value of a personal vote*, here the electoral volatility (with independents) data of Birnir (2005). Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

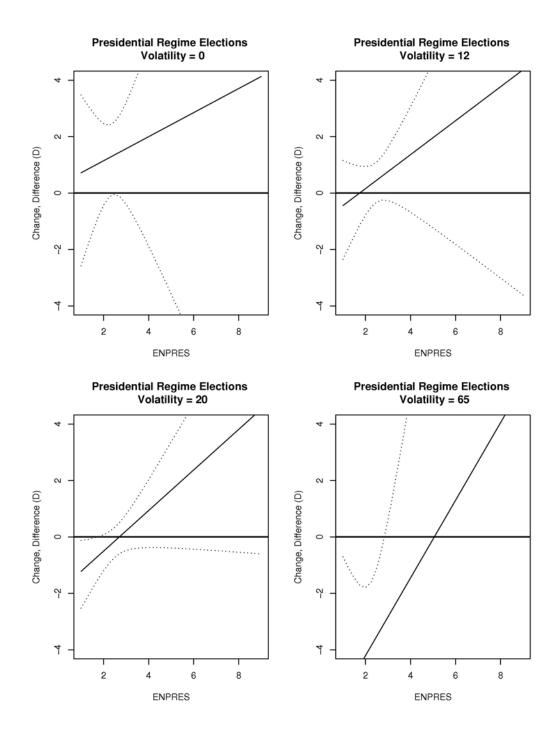


Figure 14b. For *presidential regime* elections, the estimated marginal effect of proximity on the difference between the national level and average district level party systems (D) from a *fully pooled* version of Model 3 that makes the relationship between proximity and the effective number of presidential candidates *conditional upon the value of a personal vote*, here the electoral volatility (with independents) data of Birnir (2005). Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

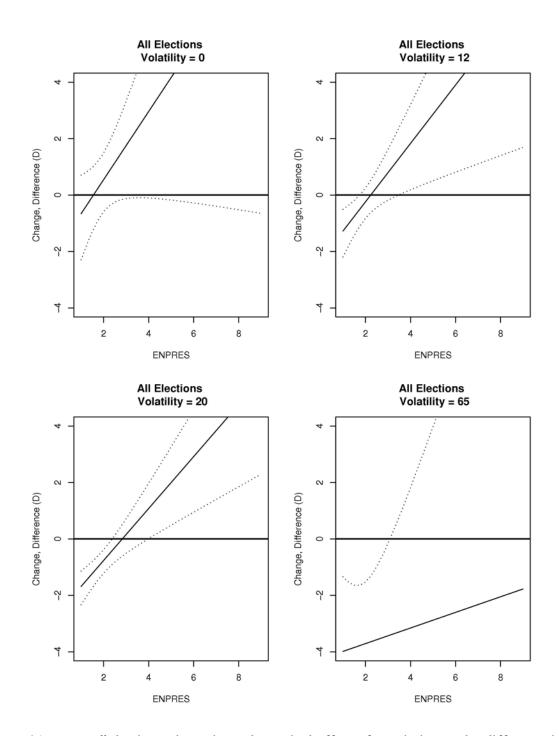


Figure 15a. For *all* elections, the estimated marginal effect of proximity on the difference between the national level and average district level party systems (D) from a *fully pooled* version of Model 3 that makes the relationship between proximity and the effective number of presidential candidates *conditional upon the value of a personal vote*, here the electoral volatility (without independents) data of Birnir (2005). Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

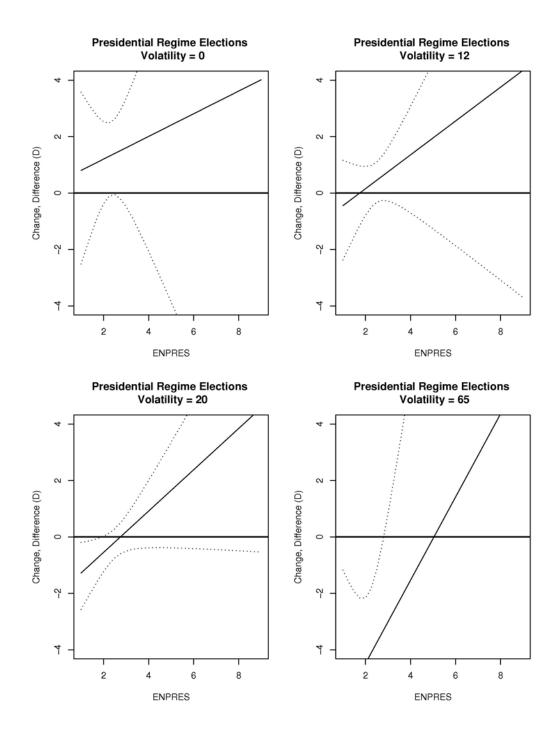


Figure 15b. For *presidential regime* elections, the estimated marginal effect of proximity on the difference between the national level and average district level party systems (D) from a *fully pooled* version of Model 3 that makes the relationship between proximity and the effective number of presidential candidates *conditional upon the value of a personal vote*, here the electoral volatility (without independents) data of Birnir (2005). Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

	All Elections				
Model	1 2 3				
Dependent Variable	National	Mean	D		
	ENEP	District	(National		
		ENEP	ENEP -		
			Mean		
			District		
			ENEP)		
Intercept	3.0***	2.4***	0.28		
	(0.32)	(0.10)	(0.27)		
Proximity	-3.3***	-0.95***	-1.8***		
	(0.53)	(0.32)	(0.43)		
ENPRES	0.16	0.14	0.070		
	(0.14)	(0.17)	(0.090)		
Proximity ×	0.87***	0.18	0.48**		
ENPRES	(0.27)	(0.20)	(0.22)		
Log Mean	0.54**	0.52***	-0.034		
Magnitude	(0.22)	(0.085)	(0.095)		
Effective Number	0.28**		0.27***		
of Ethnic Groups	(0.12)		(0.10)		
Log Mean Magnitude	-0.067				
× Effective Number					
of Ethnic Groups	(0.12)				
Proximity ×		-0.56*			
Log Mean Magnitude		(0.32)			
ENPRES ×		-0.044			
Log Mean		(0.084)			
Magnitude					
Proximity ×		0.22			
ENPRES × Log		(0.15)			
Mean Magnitude					
Bicameral			0.32**		
			(0.15)		
Ν	595	595	595		
MSE	1.5	0.87	1.0		
R ²	0.20	0.32	0.16		

Table 10. Coefficient estimates and robust standard errors in parentheses for *fully pooled* versions of Models 1—3 estimated using all elections and with *country clustered instead of Newey-West robust standard errors.* Significance codes are for two-sided tests, all calculated prior to rounding to two significant digits: 0.01, ***; 0.05, **; 0.10, *.

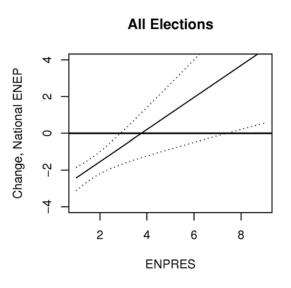


Figure 16. For all elections, the estimated marginal effect of proximity on the national level effective number of electoral parties (ENEP) from a *fully pooled* version of Model 1 with *country clustered robust standard errors*. Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

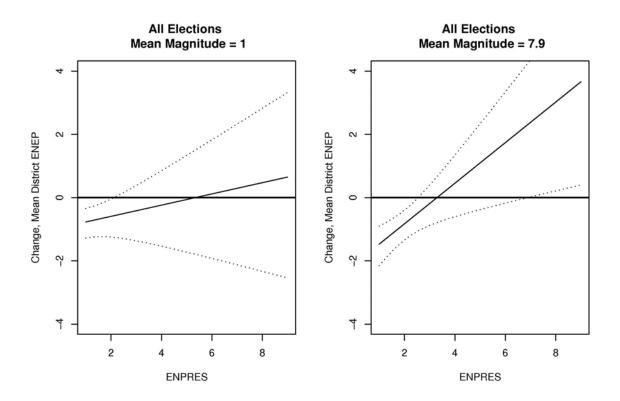


Figure 17. For all elections, the estimated marginal effect of proximity on the average district level effective number of electoral parties (Mean ENEP) from a *fully pooled* version of Model 3 for both a restrictive (Mean Magnitude = 1) and a permissive (Mean Magnitude = 7.9) electoral system with *country clustered robust standard errors*. Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band

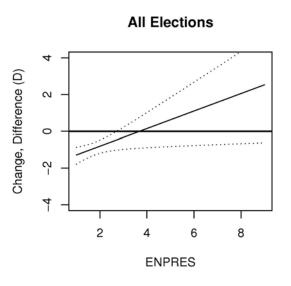


Figure 18. For all elections, the estimated marginal effect of proximity on the difference between the national level and average district level party systems (D) from a *fully pooled* version of Model 3 with *country clustered robust standard errors*. Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

	All Ele	ections	Presidential Regime		
			Elections		
Model	3	3	3	3	
Dependent	D	D	D	D	
Variable	(National	(National	(National	(National	
	ENEP –	ENEP –	ENEP –	ENEP –	
	Mean	Mean	Mean	Mean	
	District	District	District	District	
	ENEP)	ENEP)	ENEP)	ENEP)	
Intercept	-0.11	0.0076	-0.34	0.0011	
	(0.27)	(0.20)	(0.41)	(0.48)	
Proximity	-2.0***	-2.0***	-1.7***	-2.0***	
	(0.32)	(0.32)	(0.58)	(0.61)	
ENPRES	0.062	0.060	0.094	0.071	
	(0.061)	(0.062)	(0.11)	(0.12)	
Proximity ×	0.66***	0.67***	0.59***	0.64***	
ENPRES	(0.17)	(0.17)	(0.22)	(0.23)	
Log Mean	0.010	-0.0090	0.059	0.0093	
Magnitude	(0.061)	(0.057)	(0.075)	(0.087)	
Effective Number	0.38***	0.37***	0.42***	0.39***	
of Ethnic Groups	(0.11)	(0.097)	(0.13)	(0.13)	
Bicameral	0.22**	0.18*	0.088	0.040	
	(0.099)	(0.11)	(0.17)	(0.20)	
Percent Upper	0.0056		0.016		
Tier Seats	(0.0048)		(0.010)		
Ν	362	365	160	160	
MSE	0.85	0.85	0.91	0.92	
R ²	0.29	0.29	0.38	0.35	

Table 11. Coefficient estimates and robust standard errors in parentheses for *fully pooled* versions of Model 3 that *additionally control for the percentage of legislative seats distributed in an upper tier.* Significance codes are for two-sided tests, all calculated prior to rounding to two significant digits: 0.01, ***; 0.05, **; 0.10, *.

	All	Presidential
	Elections	Regime
		Elections
Model	1	1
Dependent Variable	National	National
	ENEP	ENEP
Intercept	4.0***	2.6***
	(0.078)	(0.75)
Proximity	-3.1***	-1.4
	(0.48)	(1.1)
ENPRES	0.17*	0.59**
	(0.10)	(0.25)
Proximity ×	0.83***	0.33
ENPRES	(0.23)	(0.38)
Log Mean		
Magnitude		
Effective Number		
of Ethnic Groups		
Log Mean Magnitude		
× Effective Number		
of Ethnic Groups		
Ν	595	216
MSE	1.6	1.7
R ²	0.13	0.27

Table 12. Coefficient estimates and robust standard errors in parentheses for *fully pooled* versions of Model 1 that *do not control for the interaction between the logged mean magnitude and the effective number of ethnic groups*. Significance codes are for two-sided tests, all calculated prior to rounding to two significant digits: 0.01, ***; 0.05, **; 0.10, *.

	All Ele	ctions	Presidential Regime Elections		
Model	1	2	1	2	
Dependent	National	Mean	National	Mean	
Variable	ENEP	District	ENEP	District	
		ENEP		ENEP	
Intercept	1.1***	0.87***	0.88***	0.68**	
	(0.041)	(0.019)	(0.15)	(0.29)	
Proximity	-0.84***	-0.36***	-0.47**	-0.16	
	(0.095)	(0.080)	(0.21)	(0.31)	
ENPRES	0.021	0.032	0.11**	0.094	
	(0.019)	(0.032)	(0.050)	(0.10)	
Proximity ×	0.23***	0.090**	0.12	0.025	
ENPRES	(0.044)	(0.042)	(0.075)	(0.11)	
Log Mean	0.16***	0.17***	0.080	0.16	
Magnitude	(0.030)	(0.013)	(0.051)	(0.14)	
Effective Number	0.066***		0.012		
of Ethnic Groups	(0.018)		(0.022)		
Log Mean	-0.028*		0.018		
Magnitude ×					
Effective Number					
of Ethnic Groups	(0.017)		(0.028)		
Proximity ×		-0.13**		-0.095	
Log Mean		(0.055)		(0.17)	
Magnitude					
ENPRES ×		-0.010		-0.012	
Log Mean		(0.016)		(0.047)	
Magnitude					
Proximity ×		0.045*		0.037	
ENPRES × Log		(0.027)		(0.056)	
Mean Magnitude					
Ν	595	595	216	216	
MSE	0.32	0.24	0.34	0.27	
R ²	0.25	0.38	0.40	0.41	

Table 13. Coefficient estimates and standard errors in parentheses for *fully pooled* versions of Models 1 and 2 that *take as their dependent variable the log of the effective number of electoral parties.* Significance codes are for two-sided tests, all calculated prior to rounding to two significant digits: 0.01, ***; 0.05, **; 0.10, *.

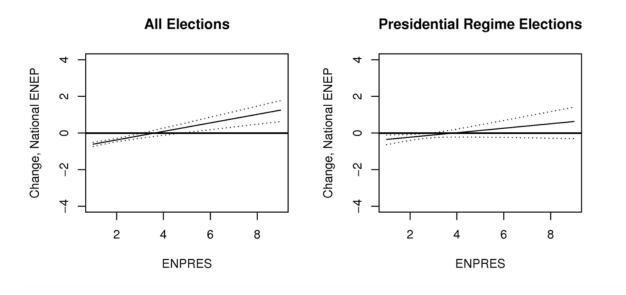


Figure 19. For all elections as well as elections in presidential regimes, the estimated marginal effect of proximity on the national level effective number of electoral parties (ENEP) from *fully pooled* versions of Model 1 that employ the *log* of the national effective number of electoral parties as the dependent variable. Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

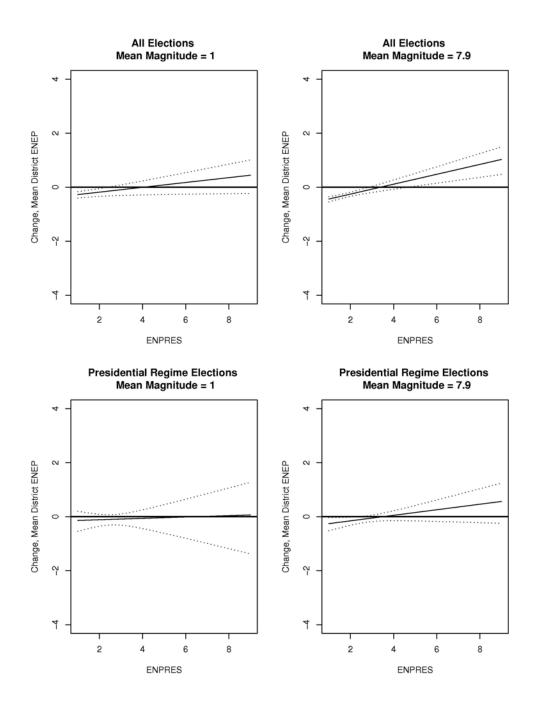


Figure 20. For all elections as well as elections in presidential regimes, the estimated marginal effect of proximity on the average effective number of electoral parties in the districts (Mean ENEP) from *fully pooled* versions of Model 2 for both a restrictive (Mean Magnitude = 1) and a permissive (Mean Magnitude = 7.9) electoral system that employ the *log* of the average effective number of electoral parties in the districts as the dependent variable. Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

	All Elections			Presidential Regime Elections			
Model	1	2	3	1	2	3	
Dependent Variable	National ENEP	Mean District ENEP	D (National ENEP – Mean	National ENEP	Mean District ENEP	D (National ENEP – Mean	
			District ENEP			District ENEP)	
Intercept	2.9***	2.4***	0.31**	1.6***	2.1***	-0.31	
	(0.18)	(0.056)	(0.15)	(0.41)	(0.38)	(0.37)	
Proximity	-3.7***	-0.83***	-2.3***	-1.8***	-0.54	-1.4***	
-	(0.43)	(0.31)	(0.44)	(0.53)	(0.48)	(0.49)	
ENPRES	0.16***	0.15***	0.062**	0.66***	0.25**	0.28***	
	(0.050)	(0.044)	(0.028)	(0.097)	(0.10)	(0.057)	
Proximity ×	1.1***	0.027	0.72***	0.56***	-0.076	0.51***	
ENPRES	(0.17)	(0.13)	(0.18)	(0.20)	(0.16)	(0.19)	
Log Mean	0.50***	0.48***	-0.052	0.15	-0.0060	-0.015	
Magnitude	(0.14)	(0.042)	(0.047)	(0.23)	(0.21)	(0.080)	
Effective Number	0.27***		0.26***	0.010		0.16**	
of Ethnic Groups	(0.085)		(0.066)	(0.085)		(0.065)	
Log Mean Magnitude	-0.061			0.14			
× Effective Number							
of Ethnic Groups	(0.081)			(0.13)			
Proximity ×		-0.67**			-0.19		
Log Mean Magnitude		(0.29)			(0.36)		
ENPRES ×		-0.024			0.095*		
Log Mean Magnitude		(0.025)			(0.052)		
Proximity ×		0.33**			0.21		
ENPRES× Log Mean		(0.13)			(0.14)		
Magnitude							
Bicameral			0.26***			0.14	
			(0.081)			(0.17)	
Ν	595	595	595	216	216	216	
MSE	1.5	0.89	1.0	1.7	1.0	1.0	
R ²	0.16	0.29	0.15	0.32	0.36	0.24	

Table 14. Coefficient estimates and Newey-West robust standard errors in parentheses for *fully pooled* versions of Models 1—3 estimated using *a dummy variable for concurrent elections as a measure of proximity.* Significance codes are for two-sided tests, all calculated prior to rounding to two significant digits: 0.01, ***; 0.05, **; 0.10, *.

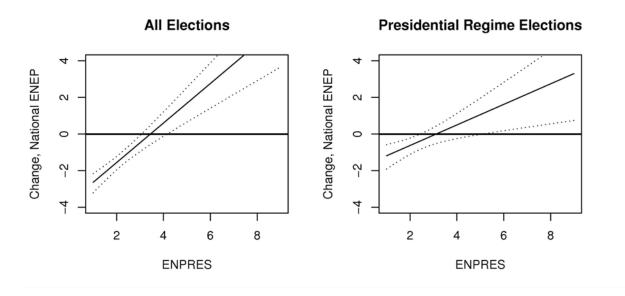


Figure 21. For all elections as well as elections in presidential regimes, the estimated marginal effect of proximity on the national level effective number of electoral parties (ENEP) from *fully pooled* versions of Model 1 that employ *a dummy variable for concurrent elections as a measure of proximity*. Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

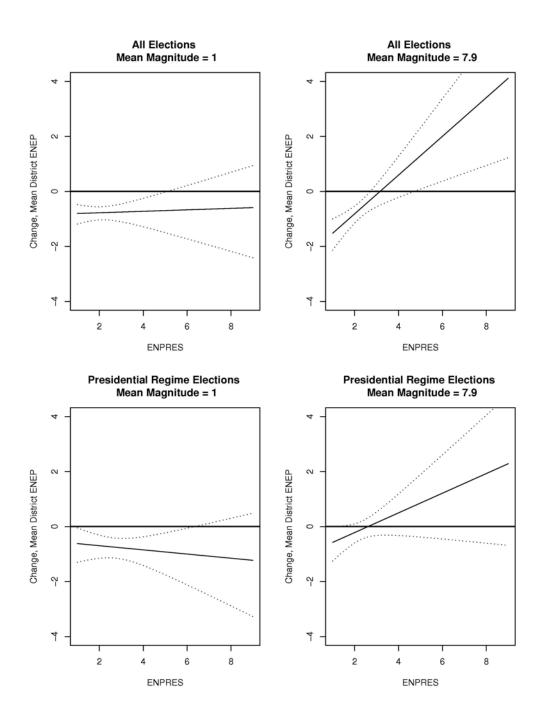


Figure 22. For all elections as well as elections in presidential regimes, the estimated marginal effect of proximity on the average effective number of electoral parties in the districts (Mean ENEP) from *fully pooled* versions of Model 2 for both a restrictive (Mean Magnitude = 1) and a permissive (Mean Magnitude = 7.9) electoral system that employ *a dummy variable for concurrent elections as a measure of proximity*. Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.

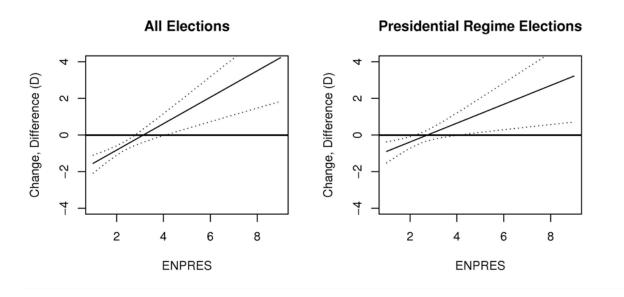


Figure 10. For all elections as well as elections in presidential regimes, the estimated marginal effect of proximity on the national level effective number of electoral parties (ENEP) from *fully pooled* versions of Model 3 that *control for the district level average effective number of electoral parties* and that are *estimated using OLS*. Marginal effects are shown for the range of the effective number of presidential candidates (ENPRES), and ninety percent confidence intervals band them.