SHORT ARTICLE

Electoral Rules and Partisan Control of Government: A Replication Study

Daniel Höhmann, University of Bamberg
Tobias Tober, University of Geneva

Does the electoral system affect government partisanship? Iversen and Soskice answer this question in the affirmative. These authors argue that center-right governments dominate in majoritarian systems, whereas proportional representation systems see more center-left governments. They explain this difference by the strategic voting behavior of the middle class under alternative electoral rules. In this study, we test the robustness of their empirical results to alternative measures of the main variables as well as to a completed version of the original data set. Our replication does not corroborate Iversen and Soskice's empirical findings. First, we cannot substantiate the notion that center-right governments emerge more frequently in majoritarian systems. Second, a time-series cross-section analysis does not support the hypothesis that the electoral system is a significant determinant of partisan control of government.

Do electoral rules affect the partisan control of government? In a seminal study, Iversen and Soskice (2006; hereafter I-S) answer this question in the affirmative. They argue that majoritarian systems—when compared to proportional representation (PR) systems—are more favorable to the formation of center-right (**MH**) governments as opposed to center-left (**LM**) governments. This systematic disadvantage of **LM** parties, in turn, should explain why government redistribution is lower in majoritarian than in PR countries. On the basis of an innovative and intuitively appealing formal model that emphasizes the strategic voting behavior of the middle class, they find both descriptive and inferential evidence for both claims. Their novel partisan mechanism differs from standard accounts in the political economy literature that mainly stress incentives of opportunistic politicians (for an overview see Rodden [2009]).

At the same time, the study has drawn major theoretical criticism too (e.g., Becher 2016; Lupu and Pontusson 2011). This motivates us to replicate this influential piece of work. In particular, we will test the robustness of its empirical results to alternative measures of the key variables and to an extension of the original data set. We make three main modifications. First, we use manifesto data instead of expert classifications as an alternative measure of a party's ideological position. Second, we substitute I-S's simple binary indicator for PR systems with a more fine-grained indicator—the median district magnitude. Third, we complete the original data set by adding missing data for the United States and Canada. For these two countries, I-S exclude all country-year observations with governments led by the Democratic Party and Liberal Party, respectively. We consider this exclusion as theoretically unjustified and as a potential source of empirical bias.

Our replication consists of two separate parts that both cast doubt on the initial results. First, concerning the descriptive evidence, we cannot corroborate that more **MH** than **LM** governments emerge in majoritarian countries. Second, concerning the inferential evidence, results from time-series cross-section models (TSCS) suggest that the electoral system is not a significant determinant of partisan control of government. Since these findings challenge the proposed causal mechanism linking electoral institutions to government partisanship, our empirical results are also of theoretical importance.

Daniel Höhmann (daniel.hoehmann@uni-bamberg.de) is a PhD candidate at the Chair for Empirical Political Science, University of Bamberg, Bamberg, Germany. Tobias Tober (tobias.tober@unige.ch) is a PhD candidate at the Geneva School of Social Sciences, University of Geneva, Geneva, Switzerland.

Data and supporting materials necessary to reproduce the numerical results in the article are available in the *JOP* Dataverse (https://dataverse.harvard.edu/dataverse/jop). An online appendix with supplementary material is available at http://dx.doi.org/10.1086/694653.

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I-S IN A NUTSHELL

The formal model developed by I-S assumes that the electorate is divided among three equally sized groups of voters: low-income (*L*), middle-income (*M*), and high-income (*H*). Voters *M* should always prefer an **LM** government, as *M* is—like *L*—generally in favor of redistribution from *H*. In a two-party majoritarian system, however, it is always possible that an **LM** government, once elected, will revert to the preferred policies of its core voters *L*, that is, redistribute from both *M* and *H*. Faced with this uncertainty, *M* prefers an **MH** over an **LM** government. In PR systems, on the other hand, there will be a third party with *M* as its core base of support. Thus, the problem of a credible commitment to *M* voters is solved in countries with PR rule through direct party representation. From this follows the prediction that **LM** government is more likely than **MH** government under PR and vice versa in majoritarian systems.

To test these predictions, I-S use data from 17 advanced democracies covering the period from the first election after the Second World War to the year 1998. For the measurement of government partisanship, I-S use an index of the left-right center of gravity (CoG) of the respective cabinet in power. The index relies on the average of three expert surveys that classify parties on the traditional left-right scale. Concerning the measurement of electoral systems, I-S use a dummy variable that divides countries into proportional multiparty systems and majoritarian two-party systems.

When cabinets are coded as **LM** with their position being left to the overall mean of the CoG index, I-S show that **MH** governments account for 75% of all governments in majoritarian countries but for only 26% of all governments in PR countries. Next, I-S code governments according to their relative position to the legislative median (or mean in cases of single-party governments). The results show the same pattern but are slightly weaker. They find 66% **MH** governments in majoritarian and 37% in PR countries.

Finally, I-S estimate five cross-sectional ordinary least squares regression models with the partisan composition of governments as the response variable. Regarding the effect of the electoral system on the partisan control of governments, the results are consistent across all specifications: PR elections—as opposed to majoritarian elections—significantly promote the formation of **LM** governments.

ALTERNATIVE MEASURES

Party position. Expert surveys, as used in I-S, have been criticized for various reasons (see Budge 2000). Most importantly for our purposes, expert surveys are largely time invariant. However, studies (Barth, Finseraas, and Moene 2015; Becher 2016; Lupu and Pontusson 2011) have suggested that certain conditions might arise—selection of moderate candidates, position changes in response to rising inequality, and so forth—under which left parties can achieve credible commitment even in majoritarian systems. Hence, a precise record of changes in party positions is absolutely crucial for testing I-S's theoretical model.

Furthermore, given that candidate selection can be an important commitment device, expert surveys are problematic because they are often not explicit about what is exactly meant by "party" and what entity (for instance, the party leader or the party as a whole) experts should judge. In addition, different experts might have deviating opinions about what is meant by "left" and "right" and thus locate the same party on different positions on the left-right scale. A final concern is whether judgments of country specialists refer to political intentions and preferences or whether they rather characterize the actual behavior and legislative activities of political parties.

We do not believe that manifesto data are the perfect remedy for all these problems. Yet, we do believe that using data from the Comparative Manifesto Project (CMP; Volkens et al. 2014) improves the analysis considerably. First and foremost, CMP data are more sensitive to changes in party positions over time. Second, the CMP also codes proxy documents such as party leader speeches. While this is often cited as a weakness of CMP data (for a summary of the critical debate see Gemenis [2013]), we consider it useful in our case because party leaders' positions can be crucial (see above).

Another often criticized aspect of the CMP is its standard scale measuring left-right positions. We rely on a new scaling technique by Lowe et al. (2011). The scale is based on log odds ratios in order to extract more precise propositions about the ideological preferences of political actors. It addresses some of the well-known shortcomings of the original left-right scale. Most notably, it allows for the generation of positions of any level of extremity and corrects for the original centrist bias. Particularly, the latter would bias our replication against I-S's initial findings. The logit estimates for party positions are then used to calculate the respective cabinet's CoG for each year.[1] To do this, each government party's score on the logit scale is weighted by its cabinet decimal seat share. Data on government and cabinet formation are taken from the Parties-Governments-Legislatures (PGL) database (Cusack and Engelhardt 2002).

Electoral system. Iversen and Soskice claim that what matters is whether an electoral system produces single-party majority governments or not. However, some countries with relatively small district magnitudes tend to produce such

1. Logit estmates are available at https://dataverse.harvard.edu/dataset.xhtml?persistentId=hdl:1902.1/17073 (accessed March 13, 2016).

governments despite the fact that they use PR rule. Indeed it is well documented in the literature that strategic voting appears even in PR systems, to the extent that those systems deviate from pure proportionality, for instance because of small district magnitude. Cox (1997, 33) concludes accordingly: "There is a continuum of systems, ranging from those in which strategic voting imposes a constraining upper bound, to those in which it imposes a rarely constraining or unconstraining upper bound, on the number of parties." Thus, following Carey and Hix (2011), we use the median district magnitude (MDM)—that is, the number of representatives elected from a single district—as an alternative measure of the electoral system. Compared to the simplistic binary distinction between PR and majoritarian rule, this measure is a more nuanced indicator that is sensitive to variation within the continuum of electoral systems.

For the replication of the main regression results we categorize the MDM into three groups. On the basis of the data from Carey and Hix (2011), the first group contains all countries with single-member districts, the second group includes cases with an MDM between 2 and 6, and the last category consists of all high-magnitude systems with an MDM greater than 6. We then use the MDM as an independent variable to explain variation in government composition. Different from I-S's time-invariant binary indicator, this variable provides us with useful (within-country) variation over time, which enables us to estimate TSCS models.[2] With this more sophisticated analytical tool, we are able to control for potential unobserved factors that might influence electoral systems and the ideological position of governments.

DATA SET COMPLETION

Our third modification is the completion of the data set. For Canada and the United States, the initial data set excludes all country-year observations with governments led by the Liberal Party (Canada) and the Democratic Party (United States), respectively. Remarkably, only those cases are missing that potentially contradict I-S's theoretical expectations. Since the electoral systems of Canada and the United States are majoritarian, the missing **LM** governments should not frequently emerge. We believe that excluding these two parties (presumably because of their alleged centrist positions) is theoretically unjustified—especially in a two-party system—and is a source of empirical bias in favor of the original propositions. We therefore complete the data set by these cases. In total, this increases the sample size by 60 country-year observations.

EMPIRICAL RESULTS

The first part of our replication concerns the descriptive evidence, that is, I-S's stylized fact of an antileft bias in majoritarian countries. In this step, we cross-tabulate the electoral system (measured by the original binary indicator) and our new indicator for government partisanship for the years 1945–98. We then turn to the inferential evidence and present TSCS models that regress government partisanship on the electoral system (measured by the MDM). All TSCS estimations are based on the initial 17 advanced democracies annually observed between 1950 and 1996.

Descriptive evidence. When the government position is coded relative to the overall mean of the logit scale (not shown), the cross-tabulations confirm the expected pattern of more **LM** governments in PR systems (about 54%) and more **MH** governments in majoritarian systems (about 66%). Yet, when governments are coded relative to the parliamentary median, the results change significantly. Contrary to I-S, we can no longer replicate the systematic antileft bias under majoritarian rule. As can be seen from the left panel of figure 1, there are only marginally more **MH** governments in majoritarian countries. Adding the missing observations for Canada and the United States (right panel) eliminates the difference altogether. We find that only 49.5% of all governments in majoritarian systems are **MH** (using a *t*-test, the difference between the share of left and right governments is indistinguishable from zero, $p = .58$). These results suggest that—cross-nationally—the Liberals in Canada and the Democrats in the United States tend to be **MH** parties. In the national context, however, these two parties clearly represent **LM** positions. Thus, excluding them is theoretically unjustified and is a cause of empirical bias. When we use the completed data set, we can show that the initial finding of **MH** dominance in majoritarian electoral systems disappears.

As for the relationship between PR rule and government partisanship, our results corroborate those of I-S: 61.6% of all governments in PR countries are **LM**. However, the difference between electoral systems is considerably smaller than in their descriptive analysis. While I-S find that the proportion of **LM** governments (relative to median legislator) in PR systems is about 29 percentage points higher than in majoritarian systems, we detect only a difference of about 11 percentage points (cf. Funk and Gathmann 2013). Thus, although the comparative claim of I-S still seems to hold, the relationship is much weaker.[3]

2. We observe changes in Austria, Denmark, France, Italy, Japan, and Norway. See table A1 in the online appendix for more detail.

3. We also recalculated the cross-tabulations with the MDM as an alternative indicator for electoral systems. The results do not deviate substantially from I-S's descriptive findings, irrespective of the coding of the

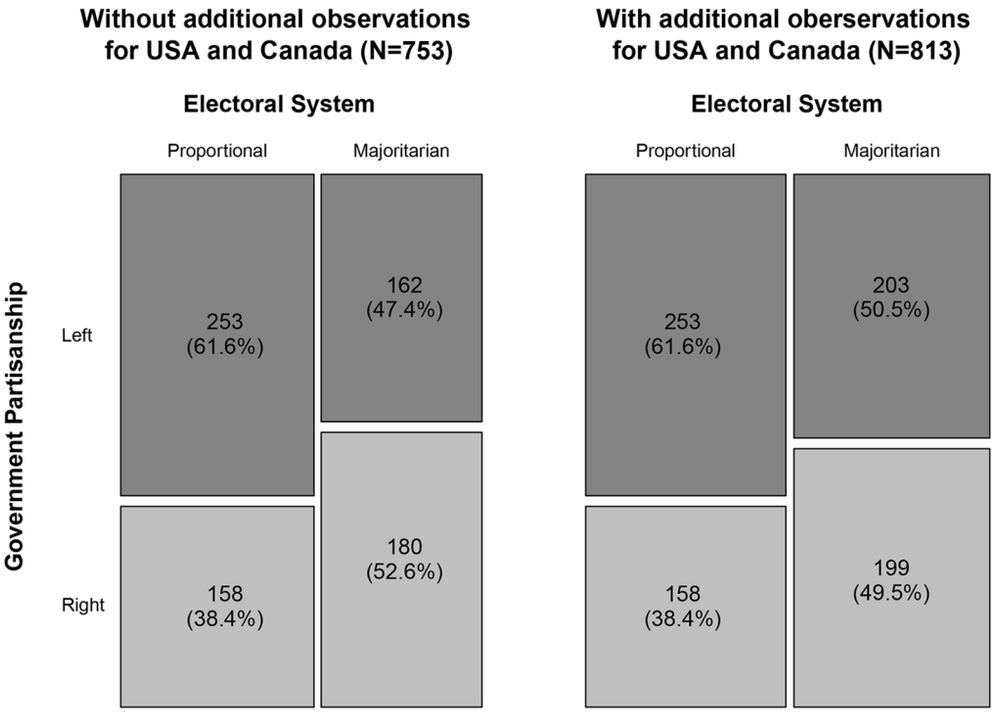

Figure 1. Electoral system (binary indicator) and government partisanship (position relative to the parliamentary median; data from the CMP)

Inferential evidence. To test the robustness of the initial regression results, we take advantage of variation in our alternative measure of the electoral system (MDM) and estimate TSCS models with country fixed effects (FEs). Such a specification cannot be applied to I-S's system indicator, as all time-invariant effects are differenced out in FE models.

Table 1 presents the results of our TSCS models. The control variables enter the models in the same way as in the original study (see Iversen and Soskice 2006, 178, table 7). We include the lagged dependent variable on the right-hand side of the regression equation to deal with autocorrelated errors. In addition, we use panel-corrected standard errors.

Focusing on quantities of interest, we discuss only the effect of the electoral system on the ideological position of governments. The estimates show that the relationship between the district magnitude and partisan control of government is not systematic in statistical terms. In all five specifications, the MDM coefficient is indistinguishable from zero. Substantively, this means that a country's move to a more proportional system of representation is not associated with a more left-leaning government. The finding fits our descriptive observation that different electoral rules do not see vastly different compositions of government.

In the TSCS analysis above, we have introduced all our measurement changes at the same time for reasons of brevity. In order to get an impression of the relative contribution of each change, we entered our alternative measures stepwise (see the online appendix). Replicating the original pooled cross-section regressions from I-S, we find that both of our new measures contribute to falling levels of statistical significance (see table A2). The effect of the manifesto data is supported in the TSCS models as well. When we run these models without country FEs and with the CoG based on the CMP logit scale as the dependent variable (see table A3), the electoral system—no matter what measure we use—is no significant determinant of government partisanship in the model with the highest explanatory power (model 4). The biggest change, however, is caused by the country FEs. Regardless of whether we use expert or manifesto data as the dependent variable (see table A3), the within-country perspective systematically eliminates the association between the electoral formula and the partisan control of government.

ideological party position. Both codings yield the result that **LM** governments dominate in countries with a low MDM (MDM = 1) and that **LM** governments are more likely to be observed in high-MDM systems (MDM > 6). In countries with medium MDM systems ($2 \leq \text{MDM} \leq 6$) the number of **LM** and **MH** governments is almost balanced. Including Christian-Democratic coalitions in PR countries changes the results only slightly. For more see fig. A1 in the online appendix.

Table 1. Government Partisanship by Electoral System (MDM)

	Model 1	Model 2	Model 3	Model 4	Model 5
Lagged CoG median	.720*	.717*	.715*		
	(.034)	(.038)	(.035)		
	[.653, .787]	[.642, .791]	[.648, .783]		
Lagged CoG				.711*	.733*
				(.036)	(.029)
				[.641, .782]	[.675, .790]
Electoral system (MDM)	.010	−.025	.004	.105	.172
	(.090)	(.086)	(.088)	(.107)	(.102)
	[−.166, .186]	[−.194, .144]	[−.169, .177]	[−.105, .315]	[−.028, .372]
Fragmentation		.245*		.647*	
		(.117)		(.225)	
		[.017, .474]		[.205, 1.089]	
Right overrepresentation			.249*	.512*	
			(.092)	(.214)	
			[.069, .428]	[.093, .931]	
Turnout					−.006
					(.006)
					[−.017, .006]
Unionization					.003
					(.004)
					[−.005, .012]
Female labor force participation					.004
					(.002)
					[−.000, .009]
Constant	.146*	.148*	.178*	.191*	.127
	(.035)	(.039)	(.040)	(.061)	(.389)
	[.077, .215]	[.073, .224]	[.100, .256]	[.071, .311]	[−.635, .889]
Country FEs	✓	✓	✓	✓	✓
Number of observations	645	617	645	618	630
Number of countries	17	17	17	17	17
R^2	.613	.616	.615	.707	.700

Note. Unstandardized coefficients, panel-corrected standard errors, and 95% confidence intervals are from TSCS fixed-effects models.
* Zero outside the confidence interval.

By adopting an FE strategy we inevitably lose all between-country variation in the data.[4] Yet, the large literature on the origins of electoral institutions suggests that endogeneity is a real concern for our analysis (Rodden 2009). Explanations for the emergence of particular electoral rules range, for example, from the power calculations of ruling parties (Boix 1999) to economic structures and interests (Cusack, Iversen, and Soskice 2007). Furthermore, unobserved time-invariant country characteristics such as cultural beliefs and historical legacies might jointly affect government partisanship and electoral institutions. Thus, we conclude that the FE-induced gain in consistency clearly outweighs the efficiency costs. We find this also confirmed by statistical specification tests.

CONCLUSION

"Electoral Institutions and the Politics of Coalitions: Why Some Democracies Redistribute More than Others" (Iversen and Soskice 2006) is a seminal and innovative contribution to the political economy literature. In this replication study, however, we have shown that its quantitative evidence is problematic. When we include previously missing observations for Canada and the United States and use alternative indicators to measure party positions and the electoral system, the initial results cannot be replicated. Our descriptive analysis has illustrated that—contrary to I-S's theoretical expectations—countries with majoritarian electoral rule do not

4. The standard deviation of the within component of the MDM variable is 0.25. For comparison, the standard deviation of the between component is 0.85.

see more center-right than center-left governments. The results from TSCS regression models support this finding by showing no systematic relationship between the electoral system and government partisanship.

Our findings speak to a number of recent studies that have questioned the empirical and theoretical implications of I-S. Empirically, our results align closely with the results of Döring and Manow (2017). The study analyzes postwar democratic governments and, similarly to our study, finds that the expected effect of the electoral system is less pronounced than I-S claim. Our finding of no antileft bias in majoritarian systems seems to support recent theoretical work that highlights the importance of the structure of inequality (Barth et al. 2015; Becher 2016; Lupu and Pontusson 2011). Explicitly, Becher argues that the larger the difference in income between *M* and *H*, the larger is the probability of **LM** winning elections in majoritarian systems. If the income gap between the middle and the rich is sufficiently large, the **LM** party will credibly commit to more moderate positions, and thus middle-income voters will be more willing to vote for it. Redistribution under this scenario will be still higher than under an **MH** government. In short, we do not want to claim that electoral rules have no effect on politics and in turn on policy, but rather our replication casts doubt on the underlying mechanism proposed by I-S. We hope to explore this avenue in more detail in future research.

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