11

Coattails Upside Down: How Assembly Elections Shape Presidential Elections

Up to now, we have largely glossed over potential differences between presidential and parliamentary democracies. We have seen that, in general, presidentialism is not so different from parliamentarism when it comes to how the assembly electoral system shapes the parties. This could be seen in Figure 7.1, which had each executive type plotted with a distinct symbol. We could see that the Seat Product Model (SPM) predicted the trend in the effective number of seat-winning parties (N_S) among the whole set of democracies. The presidential systems did not stand out as requiring a distinct model.

Nonetheless, it is true that presidential systems tend to be more variable. That is, there are more cases of extremely high party-system fragmentation (e.g., Brazil and Peru) than there are among parliamentary systems. There are also more cases of unusually low fragmentation without having a very low Seat Product (*MS*); the United States is one key example. This chapter and Chapter 12 delve further into some remaining puzzles about understanding how party systems work in presidential democracies.[1]

As a starting point, we pose the following question: Which output in a presidential democracy should be easier to predict starting from *MS*: (a) the effective number of vote-earning parties in assembly elections (N_V), or (b) the effective number of presidential candidates? If you answered "a" you would be in good company. However, it is actually the effective number of presidential candidates (which we will call N_P) that responds better to the Seat Product Model. Figure 11.1 shows this to be so. The left panel shows N_P while the right panel shows N_V. In each panel, the relevant logical model is plotted with a solid gray line. While the data points are scattered, clearly it is in the left panel that the trend is closer to the logical model. The model for the left panel is explained below; that for the right panel is Equation 8.1. The rest of the chapter is about explaining how the patterns depicted in Figure 11.1 come about.

[1] These chapters use our nationwide dataset (Li and Shugart n.d.).

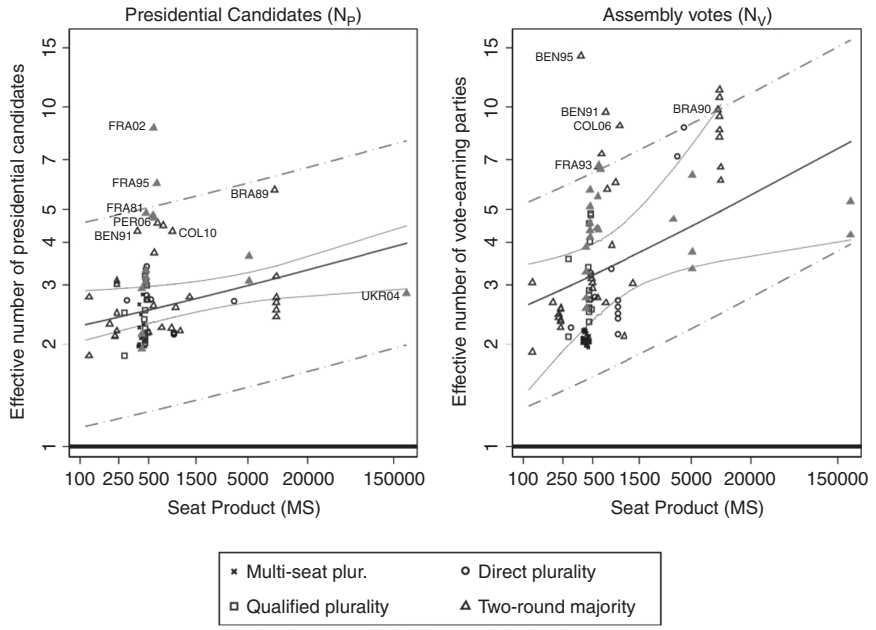

FIGURE 11.1 The impact of the Seat Product (*MS*) on the effective number of presidential candidates (N_P, left panel) and the effective number of vote-earning parties (N_V, right panel)

In both plots we have differentiated various institutional configurations of presidential and semipresidential democracy with different symbols. We also have labeled some specific elections that have substantially higher N_V or N_P than expected for their Seat Product.[2] In the right panel of Figure 11.1, the labeled points all come from nonconcurrent elections, meaning those that occur on a date different from that of the presidential election.[3] The relevance of this factor will be a major theme of Chapter 12. Dashed lines delimit values that are double, or half, the expectations of the respective model.

The symbols further differentiate the rules under which the president is elected; this, too, is a factor that we will come back to. Later in this chapter

[2] Note that data points from France are included, despite the country's assembly electoral system not meeting the definition of "simple." As we explain in Chapter 15, the French N_S is about what would be expected if it were simple (although N_V is less conforming to the SPM); thus we include it here to expand our sample to include one of the most important cases of significant presidency among all democracies.

[3] In defining the date, we mean the precise day and month, not merely the same year. In case of a two-round presidential election, elections are "concurrent" only if the assembly is elected at the same time as the first round of the presidential election. We have no cases of assembly elections occurring on the same day as a presidential runoff.

we will offer insights on what appears as a puzzle in Figure 11.1: there is no obvious pattern between how the president is elected and how high either N_P or N_V is.

If a symbol is filled in with light gray it is a semipresidential democracy, whereas the others are "pure" presidential. This distinction is discussed extensively elsewhere (e.g., Shugart and Carey 1992; Samuels and Shugart 2010) and our criteria for including a semipresidential system in this chapter and the next are explained in the chapter appendix.

The goal in this chapter is to explain patterns in those democracies in which a presidential election is a key event shaping the country's politics, thereby leaving out those countries that function as if they were parliamentary even when there is an elected head of state.[4] The model we develop in this chapter to derive N_P from MS assumes that the presidency is of central importance, either because the president fully controls the executive branch (as in "pure presidential" regimes) or because the presidency is especially important (even though there is also a premier accountable to the assembly, as in semipresidential systems).

The solid dark-gray diagonal in the left panel of Figure 11.1 represents the following model, derived through logic explained later in this chapter. It is:

$$N_P = 2^{1/2}[(MS)^{1/4} + 1]^{1/3} \tag{11.1}$$

Equation 11.1 is not a simple statistical best fit; it is a logical expression. Nonetheless, it is almost precisely the equation we obtain if we run a regression solely on the pure presidential systems. The regression outputs are shown in the chapter appendix. When we include the semi-presidential cases, the coefficients obtained conform to the model less precisely, although Equation 11.1 fits firmly within the 95 percent confidence interval of the expanded-sample regression (which is bounded by the solid light gray lines). In both cases R^2 is low (it is higher in the model with all cases), but we can be satisfied that the model is explaining the actual trend in N_P.

The finding in the left panel of Chapter 11.1 is remarkable, and must be emphasized:

The effective number of candidates receiving votes for the *presidency* can be predicted based on the *assembly* electoral system.

We should not be surprised that there is some wide scatter – as there is – because individual candidates for the office of presidency matter to the outcome of elections, often more than their party does (Samuels and Shugart 2010).[5] Yet the Seat Product Model explains the pattern.

[4] For instance, as noted in Chapter 7, we classify semipresidential systems in Finland and Portugal as if they were parliamentary. See the appendix for further detail.

[5] The biggest outlier in N_P is, by far, the French election of 2002, an extraordinary contest that we discussed in Chapter 3.

It is perhaps more remarkable still that the trend in N_P can be predicted better than N_V, which is shown in the right panel of Figure 11.1. In the plot for N_V our logical model from Chapter 8 is plotted as the solid dark-gray line: $N_V = [(MS)^{1/4} + 1]^{2/3}$. From the lighter gray curves we see just how wide the 95 percent confidence intervals are on a regression (shown in the appendix) for this relationship in presidential democracies. The party system for assembly elections in presidential systems is simply far more scattered than is the case in parliamentary democracies – or, importantly for the topic of this chapter, than is the case for the effective number of presidential candidates.

To illustrate numerically how much better the fit to model expectations is for N_P than for N_V, we can consider the ratio of actual values to model-predicted values for each outcome, and for both samples (pure-presidential only and the full sample). Taking all the individual elections plotted in each panel of the figure, and calculating a mean ratio of actual to expected, we find the following: in the pure presidential systems, the mean ratio for N_P is 1.0018 (standard deviation 0.260), while the mean ratio for N_V is 1.0637 (0.671). For the wider sample that includes the semipresidential systems, the mean ratios are, respectively, 1.081 (0.412) and 1.096 (0.634). In both cases, the mean fit is better (and the standard deviation lower) for N_P, but this is especially so for pure presidential. In the wider set, we see that both measures are farther off, on average, but still the fit for N_P is better.

The main task of the remainder of this chapter is to explain the logic behind Equation 11.1. Doing so is significant in light of the basic effort of this book, which is to push the boundaries of what we can explain in party-system fragmentation with sparse inputs, consisting principally of the mean district magnitude (M) and the assembly size (S). The specific importance of doing this for the fragmentation of the presidential contest (i.e., N_P), is that it means a sharp break from the standard approach to explaining party-system outputs. That approach takes N_P to be an input variable, entered into regressions to help explain the assembly party system. We already expressed our fundamental methodological objections to such approaches (see Chapters 1 and 7).[6] If we can predict the average degree of fragmentation, even in presidential elections, via purely institutional inputs, we would consider it an advance. That is, instead of considering N_P to be one of several inputs into the explanation of N_V and N_S, we take it to be *one of several outputs of the Seat Product Model*. (Recall the schematic in Figure 9.5.) Nonetheless, the interplay between N_V (or N_s) and N_P is somewhat complex. We expand upon this relationship in the rest of the chapter.

[6] These objections only increase when, as is the case in several prominent works, parliamentary elections are included in the same statistical tests with an impossible value of $N_P = 0$ entered into the regression. See our discussion in Chapter 7; see also Li and Shugart (2016).

HOW ASSEMBLY AND PRESIDENTIAL COMPETITION ARE RELATED

Common wisdom has it that presidential "coattails" help the president's party win votes and seats in assembly elections, too, at least when these elections are concurrent or when assembly elections follow a short time after a presidential election.[7] We do not deny that this is a perfectly plausible explanation – *for any given presidential election*. After all, the characteristics and experience of the one man or woman who will be chosen to lead the executive branch are a fundamental consideration that voters use in presidential elections. If they like the presidential candidate, voters may be more inclined to support with their assembly vote the party of that presidential candidate.

However, we should ask ourselves if the relationship might work the opposite way too. That is, do the rules of assembly elections (such as *M* and *S*) affect the votes for presidential candidates? Already, in Figure 11.1 and Equation 11.1, we suggested that the answer is "yes."

The model that leads to Equation 11.1 starts with thinking through a possible connection between N_P and N_V. We already are confident from Chapter 8 that N_V is connected back to the Seat Product, *MS*, even though the variability in presidential systems is considerably greater than is the case for parliamentary systems (as we saw in the right panel of Figure 11.1). If there is a systematic connection between N_P and N_V, we can conclude that it may be misleading to treat competition for the presidency as if it were an exogenous input, as many standard works do.[8] Instead, let us proceed to see how both are connected to *MS*. Doing so requires us to think systematically about the connection between N_V and N_P.

Figure 11.2 shows this connection, N_P graphed against N_V. We may be tempted to focus on the data first. However, for the sake of model building we should concentrate, instead, on three theoretical lines shown in light gray: N_V=2, N_P=2, and N_P=N_V.

We explain the logic as follows. First, suppose there were two equal-sized parties in the assembly election, meaning N_V =2. In such a case we should not expect N_P to differ much. There are only two partisan options, and this binary choice is likely to structure executive competition, too, implying N_P =2. As the assembly party system expands beyond N_V=2, each party might wish to present a candidate. Note that this expansion of the assembly party system could be, for present purposes, due to any factor. For instance, it could be that the effective number of parties increases in

[7] For an extensive treatment of "coattails" which also applies the notion to cases where assembly elections come shortly before presidential, see Stoll (2015).

[8] Examples include: Amorim Neto and Cox (1997) and Cox (1997), Mozaffar et al. (2003), Clark and Golder (2006), Golder (2006), Hicken and Stoll (2011), Elgie et al. (2014), and Stoll (2015).

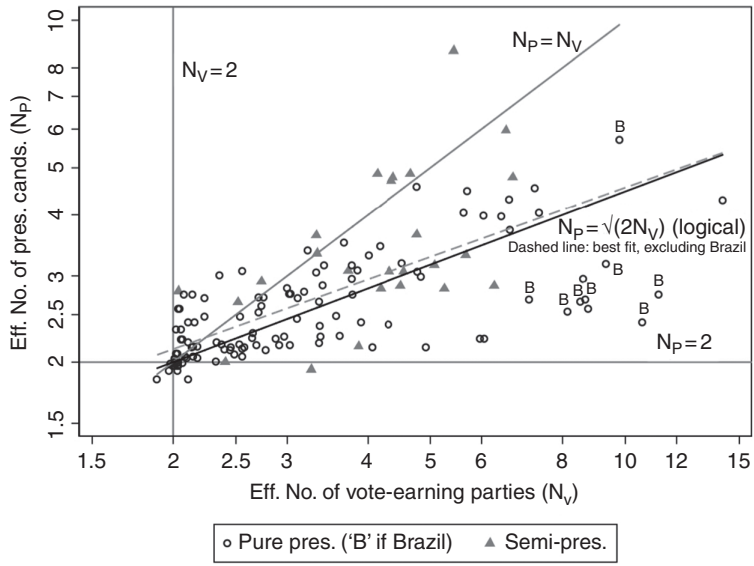

FIGURE 11.2 Relationship between the effective number of vote-earning parties in assembly elections (N_V) and the effective number of presidential candidates (N_P)

some country because existing parties split or new ones enter, despite a constant *MS*. What if the party system is more fragmented than N_V=2, even if it is a case where N_V is thus higher than expected, according to the Seat Product Model?

If voters followed their party preferences under a scenario of increased fragmentation of the assembly party system, then N_P=N_V would result. However, with a single seat available, this would be a defeating strategy for most parties. If they behaved entirely "rationally" (in a restricted sense of the term) they should still gather behind only a few major candidates. If they gather behind two such candidates, then the result would remain close to the line N_P=2 even as N_V increases. The competition for the presidency is thus confronted by two contradictory trends, one of which pushes it towards fragmenting along with the assembly competition, the other that keeps pulling it back towards N_V=2.

The reality should be in-between the extremes of N_P=2 and N_P=N_V. In the absence of any further information on whether the fragmenting push or the consolidating pull weighs more heavily, our best guess would be the geometric mean of the extremes:

$$N_P = \sqrt{(2N_V)}. \tag{11.2}$$

In other words, as N_V increases, incentives for either pre-election alliance-formation or strategic voting (or both together) increase. Thus we

expect $N_P<N_V$. Now we can think of $N_P=2$ as a (soft) lower limit, whereby the maximum coalescent or strategic behavior produces two equally competitive presidential candidates despite several significant players in the assembly arena. The upper limit on N_P is reasonably N_V, as it should be rare to have more options for president than for assembly, unless the latter has a very low effective number of parties. If $N_V<2$, then Equation 11.2 predicts $N_P>N_V$, suggesting competition for the presidency as a balance to assembly competition in which one party dominates.[9]

We can put this logical model to a visual test, by looking at the data shown in Figure 11.2. The dashed line indicates the logical model $N_P=\sqrt{(2N_V)}$. In the data plot, Brazilian elections are labeled with the letter "B" to distinguish them from the rest, while all other pure presidential systems are shown by unlabeled circles. Semipresidential cases are shown with shaded triangles. The reason for distinguishing the Brazilian elections is the same as one we have articulated in earlier chapters: the Brazilian electoral system is somewhat complex due to the prevalence of multiparty alliance lists. This feature means that the (actual or effective) number of parties in Brazil at the national level overstates the country's fragmentation.[10]

Figure 11.2 also plots a best-fit regression as a dashed line. We see that it is not much different from Equation 11.2, the logical model. For the actual regression result, which excludes the Brazilian data, see the chapter appendix. The fit of this model is better than we could have expected, as most of the variance in the number of presidential candidates is expected to come from current politics. These factors include the special characteristics of any given presidential candidate, as well as other factors besides the number of vote-earning parties in the assembly. The data points are scattered all around, mostly within the cone formed by lines $N_P=2$ and $N_P=N_V$. At very low N_V some occur well above the line, $N_P=N_V$, which now looks like only a soft upper limit.[11]

[9] On the notion of presidential voting as a balance to a dominant assembly party, see Zupan (1991), Fiorina (1992), and Shugart (1995: 329). The limiting case of single-party dominance under conditions of democratically competitive elections is one party, out of two running, winning all *seats*, thus $N_S=1$. By the model developed in Chapter 8, $N_V=(N_S^{3/2}+1)^{2/3}$, we predict for such a case $N_V=1.59$. That would mean two pertinent parties, the one that swept all seats, and one other competitor that managed to win none. In this two-party context, N_V is bounded at the upper end by 2.0, and we do not expect presidential contests to be more one-party dominant than those for the assembly, so the lower limit of expectation is $N_V=1.59$. Equation 11.2 would then yield $N_P=1.78$.

[10] We shall take up this topic further later in this chapter. In Chapter 14 we undertake a district-level analysis of the parties within alliances in Brazil and similar systems.

[11] The most striking of these cases among the pure presidential systems (circles) is Chile (2009): $N_V=2.6$, $N_P=3.1$, due to the presence of a nonpartisan presidential candidate who obtained around 20 percent of the vote. There are also some cases with higher N_V among semipresidential cases (triangles). All cases of $N_P>N_V>4$ come from France (1981, 1988, 2002, and 2007).

Where the assembly party system is restrictive in its options, we do find a higher effective number of presidential candidates than of parties earning assembly votes. As we suggested above, it may be that voters who have few options for assembly sometimes favor a minor party for president as a way of registering opposition to their main party options. Such a pattern occurs from time to time in the US, where a few elections have had significant third-party or independent candidates for president, but their support scarcely registered in the assembly voting (Shugart 2004).[12]

Figure 11.2 thus offers qualified support for the logical model of Equation 11.2. However, the real test of its logic is that represented by Equation 11.1; we have already found it to be promising (see Figure 11.1, left panel, and the chapter appendix). We now explain how we get from Equation 11.2 to the main logical model of this chapter, Equation 11.1. Table 9.2 gives us $N_V=[(MS)^{1/4}+1]^{2/3}$. This means we can substitute in our model $N_P=\sqrt{(2N_V)}$:

$$N_P = \sqrt{(2N_V)} = 2^{1/2}[(MS)^{1/4} + 1]^{1/3}.$$

This is Equation 11.1, which was plotted as the almost straight line shown in the left panel of Figure 11.1.

Shaky propositions that interconnect in a quantitative way reinforce each other. By itself, $N_P=\sqrt{(2N_V)}$ is debatable, in view of substantial scatter that even extends beyond the supposed upper limit at $N_P=N_V$, on which the model is based. The multiple logical (best-guess) steps involved in $N_V=[(MS)^{1/4}+1]^{2/3}$ add scatter. Their combination into $N_P=2^{1/2}[(MS)^{1/4}+1)]^{1/3}$ should pile up scatter to the point of submerging all logical connection. And yet the connection emerges – and pretty much agrees with actual best fit! This is a *tour de force*. It looks almost as if the individual parts of the total system were compensating for each other's deviations.

Brazil is a prime example. Its nationwide number of parties in assembly elections deviates from expectations based on *MS*, partly because of the complications introduced by multiparty alliance lists (the OLPR/SNTV hybrid discussed in the appendix to Chapter 7, and elaborated on further in Chapter 14). Because of its unusual party system, Brazil's data points are marked in Figure 11.2 – and its relationship between N_P and N_V deviates appreciably from the crowd. Yet when it comes to N_P versus *MS* (Figure 11.1), these two deviations seem to cancel each other out, and Brazil falls in line with the expectations. The key to this result is that *at the district level*, Brazil is not an outlier. Its effective number of *lists* is consistent with the models developed in Chapter 10, but as we shall see in Chapter 14, those lists often contain winning candidates bearing multiple party labels. These party labels are the ones counted

[12] Prominent examples include the US elections of 1968, 1980, 1992, and 2016, as well as the previously noted case of Chile 2009.

in the nationwide calculation of the effective number of parties, and thus the case appears deviant in Figure 11.2. Yet, strikingly, it is not deviant in Figure 11.1: when settling on presidential candidacies, the numerous parties in the system somehow come back into alignment with the logic of models devised for presidential systems that lack the various peculiarities present in the Brazilian case.[13]

This section of the chapter has demonstrated that we can derive a model for N_P in which the initial model-building step was N_V. Given that we found, shockingly, that the fit of the model for N_P is better than that for N_V, we should pause and ask if the order of the relationship might be

$$MS \rightarrow N_P \rightarrow N_V,$$

instead of

$$MS \rightarrow N_V \rightarrow N_P,$$

as we claimed in Figure 9.5. Such a claim would be even more outlandish than the one we are making with Equation 11.1, yet is it not plausible that the better fitting model is the one more proximate to the causal institutional factor? In a word, *no*.

Of all the effective-number quantities investigated in this book, the one on firmest theoretical logic is that connecting *MS* to N_S, the effective number of seat-winning parties. Our logical extension of the effect of *MS* on N_V was also found to be empirically sound in Chapter 8. In presidential democracies, as much as in parliamentary, the assembly size and the district magnitude constitute physical constraints on how much the number of parties can fragment. These constraints are not broken by presidentialism. More importantly, they do not directly constrain presidential candidates. Thus there is no direct link from *MS* to N_P, and thus should be expressed as

$$MS \rightarrow \quad N_V \rightarrow \quad N_P,$$

as indeed it was in Figure 9.5.

Why, then, are values of N_V more variable? The likely answer lies in the distinguishing feature by which an executive format moves away from parliamentarism to presidentialism (with those semipresidential systems with especially significant presidencies being intermediate in this distinction). If the system is parliamentary in its fundamental operation, the parties are forming, competing, and coordinating around the central institution that is solely responsible for determining executive power – the representative assembly to which a parliamentary cabinet is responsible.

[13] In a graph not shown here, N_P is found to be even more accurately represented by Equation 11.2 if we replace N_V with the mean district N'_V. Brazil is not an outlier in relation to N'_V. Further implications remain to be worked out.

On the other hand, when the system is fundamentally "presidentialized" (Samuels and Shugart 2010), political actors are relatively freer to create new vote-earning parties without destabilizing the executive. The latter depends on a presidency whose continuation in office is not threatened by fractious assembly politics. By the same token, political actors are also freer to deviate from their own party when the executive is presidential (Carey 2009), which may tend to reduce incentives to split a majority party when one is present, relative to the incentives under parliamentarism. Thus where the Seat Product or other factors encourage party fragmentation, presidentialism my exacerbate it (prime example: Brazil). Yet where the Seat Product or other factors lean towards few parties, presidentialism may help keep the number lower still (prime example: The United States). By these mechanisms, presidential systems are more variable, yet the Seat Product Model still affects assembly politics first.

In spite of that variation, we have seen that effective number of presidential candidates tends towards a *MS*-predicted value (Equation 11.1). Why might that be? An answer can be only speculative at this point, but perhaps the number of serious contenders for the executive expresses a broader tendency of alliances within the party system. Such a tendency would not be directly inferable from the effective number of assembly parties in the same way as it is in a parliamentary system.[14] However, those political groupings that nominate presidential candidates might reflect a more fundamental count of the political tendencies on the national scene via their competition for the most visible institution in the system. Perhaps future research that takes account of alliance patterns over time could disentangle the connections between N_V and N_P that this section has described and upon which we have built this chapter's logical models.

WHAT ABOUT ELECTION RULES FOR THE PRESIDENCY ITSELF?

At the start of this chapter, we differentiated, in Figure 11.1, various methods of electing presidents. We now address this factor, which would be seemingly important for explaining N_P, and perhaps by extension also N_V. The presidential election formula is, after all, the manner in which the winner of power over the executive institution is chosen. Nonetheless, only a weak visual pattern connects the rules of presidential election and N_P. The US presidency is the only one elected by a multiseat plurality rule, given the intermediary electoral college. The US, perhaps not surprisingly, has low N_P; moreover, it is possible that its low N_V for its *MS* (see right panel) is also largely

[14] In Chapter 15 (already foreshadowed at the end of Chapter 5), we see that India's highly fragmented party system has in common with Brazil's the formation of alliances that greatly reduce the number of competitors for the executive. The difference is that, being a parliamentary system, India's executive alliances are aimed at winning assembly seats first.

explained by the use of such a restrictive system to elect the presidency. Other countries that use direct plurality (depicted in both panels of Figure 11.1 as circles) or a qualified plurality (squares), such as Costa Rica, tend not to stand out as notably less fragmented than two-round majority (*contra* Shugart and Carey 1992; Mainwaring and Shugart 1997).

About half the presidencies in our sample are elected by two-round majority (triangle symbol in Figure 11.1), as are all our semipresidential cases. This rule might tend to inflate N_P, because it allows smaller parties to run in the first round to show strength, then support one of the top two in the runoff. Sure enough, some two-round majority presidential elections have high N_P. See, for instance, the elections at moderate *MS* but high N_P, such as some in France as well as Benin and Peru and other countries. Yet Brazil, which uses two-round majority, has only one election with fragmentation much higher than we expect based on its high Seat Product. That election was 1990, its first of the current democratic regime. The other Brazilian elections are quite close to the expectation of our logical model, notwithstanding the high *MS*. Thus sorting out the impact of the presidential election rule from that of *MS* is not straightforward. The challenge is especially great because the presidential election rule is changed more readily than is the assembly Seat Product, and some changes have been enacted only in response to increased fragmentation of presidential competition (Shugart 2007). On balance, it appears that the impact of the rule is greatest when *MS* is moderate; in such cases, the two-round system might encourage higher N_P than would be expected from the Seat Product.

We can probe the impact of the election method further by considering the ratio of a presidential election's observed value of N_P to what would be predicted by Equation 11.1. We will do this only for pure presidential systems, because we saw that they are better predicted by Equation 11.1, and because we are unable to compare the impact of plurality rule in semipresidential systems. The mean of this ratio for (pure) presidential systems that use plurality to elect their presidents is 0.971; the mean ratio for those using two-round majority is 1.110. While the direction of the effect is as expected, the difference of means is not significant (p=.102).[15]

While it is likely that the election method for the presidency has some effect on N_P, and indirectly on N_V, we do not attempt to model it. The election methods are several categories, rather than a quasi-continuous concept like *MS*. It is therefore difficult to specify a quantitative impact of presidential

[15] Perhaps this remains a surprise. We can take it one step further and investigate the difference of means in *presidential candidate vote percentages* in plurality and two-round majority elections (pure presidential only). We find only a small difference for the leading candidate (48.4 percent for plurality versus 44.2 percent for two-round majority). There is, however, a significant difference for the second candidate (40.0 percent versus 31.5 percent).

election rules, or their possible interaction with *MS*. Given the goals of this book, we prefer to work with quantities that lend themselves to model creation. We have seen in this chapter that even a statement as implausible as "the effective number of presidential candidates is systematically predictable from the assembly Seat Product" turns out to be astonishingly accurate. The rest – including the specifics of how the president is elected – is in detail.[16]

CONCLUSION

We have seen in this chapter that the assembly party system, and even the electoral system, plays a role in shaping the effective number of presidential candidates. This is a surprise, because it is generally assumed that there is a primary causality running the other way. In fact, it has become common for other scholars to treat the effective number of presidential candidates as if it were exogenously determined, and as if it were a major factor in shaping the assembly party system. Our results call this into question. We find that we can derive a quantitative logical model that predicts much of the variance in competition for the presidency from assembly factors – i.e., the Seat Product.

The advantage of discovering the effects reported in this chapter are that we now can say that electoral-system design can affect how fragmented the competition for the presidency is. Of course, we would not claim it can determine presidential politics. The institutional constraints located here do not take politics out of politics. After all, a presidential candidate with great charisma or tainted by serious scandal could cause a big fluctuation in the effective number of presidential candidates for one specific election. Such factors might also have repercussions for that candidate's party in assembly elections, through a more classic "coattail" effect. Moreover, several small parties might band together to present a joint presidential candidate, thereby generating a substantial difference between effective numbers of parties and presidential candidates. Yet even if there is not a determinative relationship for a single election, our results suggest that certain steps in electoral system design might make a difference in the long run. In particular,

[16] France is the most consistent outlier for N_P (and also has some high values of N_V). Why might N_P be so high in France? It could be due to France being our only case to use two-round systems for both president and assembly. We find (ahead, in Chapter 15) that N_S in France is consistent with a "simple" system, notwithstanding the second rounds. But N_V is less so. The parties can compete in first rounds for both institutions and retain their identity, while engaging in alliances for second rounds. No other country has this combination, and no other has a series of elections that have such high values of both N_P and N_V, despite modest *MS*. For a detailed treatment of the "four rounds" of any given election year in France since 2002, see Dupoirier and Sauger (2010).

if we want to minimize fragmentation of presidential competition, we would be wise to advise against very proportional systems for the assembly in a presidential democracy.

Such advice is not new (Mainwaring 1993), but it has not been shown before that the assembly electoral system and party system themselves could be so consequential, not merely to how presidents interact with assemblies, but also the constellation of votes for *presidential candidates themselves*.

Appendix to Chapter 11

DEFINITION OF "PRESIDENTIAL"

A presidential system is one in which the head of government is popularly elected and serves for a fixed term. Most definitions also include a criterion requiring the president to have some legislative powers (e.g., Shugart and Carey 1992). In most cases, classifying cases according to executive authority as either parliamentary or presidential is straightforward. However, semipresidential systems sometimes pose challenges. Broadly, a system is semipresidential if the president is popularly elected, but there is also a premier who (along with the cabinet) must maintain the confidence of the assembly majority (Samuels and Shugart 2010; Elgie 2011).

For our purposes – analyzing the impact of presidents on fragmentation of the assembly party system – we are most interested in isolating those presidencies that are sufficiently "powerful" to be the key political prize in the system. This is a distinction that crosscuts to a degree that between "pure" and "semi-" presidential types.

The operational rule we used in selecting cases of semipresidential as being "presidential" for purposes of this book is based on Shugart (2005b). This involves a series of questions posed about the powers stipulated in any given semipresidential constitution. We consider a country to be presidential if at least one of the following conditions is met:

(1) The president has initiative to name a premier *and* the cabinet forms without an investiture vote; *or*
(2) The president has initiative to name a premier *and* the president has a veto that requires at least three fifths of the assembly to override on regular legislative bills and/or the government budget.

The first condition establishes that the president generally dominates the process of selecting the head of government and cabinet, while the second one includes presidents who must bargain with the assembly to form the cabinet when their party lacks a majority, but who can prevent the majority from legislating over their heads.

Under this scheme, there are very few cases that would provoke controversy in coding. The semipresidential systems (and range of election years for which

we have data) that count as sufficiently presidential to be included in Chapters 11 and 12 are: Armenia (1999), France (1967–2007), Georgia (2004–08), Poland (2001–2011), Sao Tome and Principe (1991–2010), Senegal (2001–2007), Taiwan (2008), and Ukraine (2006–2007). Two other semipresidential systems were already included in previous chapters as "parliamentary" based on their weaker presidents: Finland and Portugal.

REGRESSION RESULTS FOR PRESIDENTIAL SYSTEMS

In Table 11.A1, we report the results of five regressions on presidential democracies. The output variable in Regressions One, Two, and Three is the effective number of presidential candidates (logged), while in Regressions Three and Four it is the effective number of vote-earning parties (logged) in the assembly election.

Regression One tests Equation 11.2, for which we expect a constant term of 0.1505 (the log of the square root of two) and a coefficient on the effective

TABLE 11.A1 *Regression tests of models for presidential systems: the effect of the Seat Product* (MS) *on the effective number of presidential candidates* (N_P) *and the effective number of vote-earning parties* (N_V) *in assembly elections*

	(1) **N_P, logged pure pres. (excluding Brazil)**	(2) **N_P, logged pure pres.**	(3) **N_P, logged all**	(4) **N_V, logged pure pres.**	(5) **N_V, logged all**
N_V, logged	0.471				
	(0.101)				
Expected	0.500				
F test stat	0.795				
$[(MS)^{1/4}+1]$, logged		0.333	0.238	1.896	1.031
		(0.0764)	(0.100)	(0.235)	(0.445)
Expected		0.333	0.333	0.667	0.667
F test stat		0.9999	0.3499	0.0001	0.4215
Constant	0.185	0.139	0.238	–0.980	–0.297
	(0.0378)	(0.0705)	(0.0954)	(0.220)	(0.363)
Expected	0.1505	0.1505	0.1505	0.000	0.000
Observations		72	86	94	114
R-squared		0.088	0.039	0.466	0.270
rmse		0.0988	0.129	0.169	0.191

Robust standard errors in parentheses.

number of vote-earning parties (N_V) of 0.500. Regression One excludes the Brazilian elections for reasons explained in the main chapter. It includes both presidential and semipresidential systems. The expected values are reached, with minor deviation.

In Regressions Two through Five, the input variable is the input variable is the *MS*-based expected number of pertinent parties, $N_{V0}=[(MS)^{.25}+1]$. Regressions Two and Four are for "pure" presidential systems only, whereas Regressions Three and Five include semipresidential systems.[17] As explained in the main text of the chapter, and indicated in the table, our expectation for Regressions Two and Three, testing Equation 11.1, are that the coefficient should be 0.333. In Regression Two (pure presidential only) the result is precisely as expected. In Regression Three, it deviates, but the *F* test shows that the estimated coefficient is statistically indistinguishable from expectation. The expected constant on both Regressions Two and Three is again 0.1505, due to logic explained in the chapter. The estimated coefficients are not significantly different from the logical expectations, although the result for Regression Two is more in line with the quantitative prediction than is the case for Regression Three. (By coincidence, both the coefficient and constant in Regression Three are 0.238.)

For Regressions Four and Five we expect a coefficient on the input variable of 0.667. Actual estimates are quite far from this value, even if the estimated coefficient is statistically indistinguishable from the expected value in the case of Regression Five, as the *F* test indicates. We offer explanation and interpretation of these results in the main text of Chapter 11.

[17] Regressions Three and Five have more observations than their counterparts for presidential candidates because some countries hold assembly elections more frequently than presidential.