

## Chapter 4 – Online Appendix

### Disproportionality (LSq)

#### *The Low LSq in SMDs in Russia:*

In both 1998 and 2002 in Ukraine, disproportionality was markedly higher in the PR tier than it was in the SMD tier. In Russia, disproportionality was higher in the PR tier in 1993 and 1995, was nearly identical to disproportionality in the SMD tier in 1999, but was markedly lower than in the SMD tier in 2003.

Weak party development lowered the level of disproportionality in the SMD tier at the national level (Nv SMD) by providing locally popular politicians from minor parties opportunities to win seats in individual districts, even though their parties garnered an extremely low percentage of the national vote. Indeed, there were a number of minor parties in Russia whose sole reason for existence seemed to be to serve as a vehicle for the election of their party leader to an SMD seat. In short, while a certain level of “contamination” between the PR and SMD tiers may have been in effect in these countries, low party institutionalization probably had a greater impact on these outcomes.

#### *Lack of Systematic Decline in LSq Overall over Time (Table 4.1)*

We expected to see disproportionality go down over time in each country, but ultimately we do not find a clear relationship in Table 4.1 between experience with the mixed system and overall disproportionality. Table 4.1 indicates the healthy negative correlation (-0.41) between the number of elections held under the mixed-member system and LSq Overall – in other words, the earlier the election, the greater the disproportionality. However, this relationship may be a

result of the large number of elections and low levels of disproportionality in Germany. As Table 4.1 highlights, if we only look at the first four mixed-member system elections for each country, the correlation between mixed system experience and overall disproportionality is essentially non-existent.

On the other hand, when controlling for other variables, as we do in Appendix 4B, Table 4.3, Model 5, we find that the number of elections has a negative and statistically significant relationship with LSq Overall when we do not include the non-institutionalized cases (and a negative but not statistically significant relationship when we include them).

*Notes on Table 4.1: Relationship between System Characteristics and (1) Disproportionality (LSq) and (2) Effective Number of Candidates at the SMD level (Ncands)*

- For majority systems, the mean LSq Overall score is 11.18. For SMD-FPTP systems, the mean LSq Overall score is 7.88 (all countries) and 7.31 (no non-institutionalized cases).
- Lithuania used a two-round majority rule system in its SMDs in 1992, 1996 and 2004, but plurality in 2000. In computing the country means for plurality and majority systems, we treat Lithuania 2000 as a completely different country from the other three elections, creating 16 different “country” cases for the plurality-majority formula question.
- We treat Italy and Hungary as unlinked systems. If we treat them as linked systems, we find the following changes: LSq Overall increases to 6.56 for linked systems and stays the same for unlinked systems (10.42 for all unlinked systems and 10.90 for unlinked systems with institutionalized party systems). Ncands increases to 3.39 for linked systems and to 3.92 for unlinked systems.

## **District Level Constraining Effects on the Number of Candidates (Ncands)**

### *Example of Duvergerian Tendencies*

Japan also provides a particularly good example of pushing toward Duverger's district-level two-partism. Excluding the Japanese Communist Party, which according to party policy until 2007 ran a candidate in nearly every SMD despite its inability to win any, there were on average in each Japanese SMD only 2.42 (2003) and 2.38 (2005) *actual* candidates.

### *The Lithuanian Exception*

A perplexing pattern in Lithuania is the relatively low effective number of candidates in its initial mixed-member election in 1992, in which the Ncands score was roughly 2.0 points lower than in subsequent elections. This outcome may be partially explained by specific political conditions surrounding this election. In 1990, Sajudis, the coalition of independence-minded forces within the country won a majority in the final election to the Soviet-era Congress of People's Deputies in Lithuania. The 1992 election took place in the context of a severe economic downturn following the collapse of the Soviet Union and thus was viewed as a sort of referendum on Sajudis and Lithuanian independence. Those disillusioned with the economic and political fallout of these processes (notably Russian and Polish minorities as well as those displaced by the economic downturn) flocked to the reformed former communist party, the Labour Democratic Party while those committed to Lithuanian independence remained loyal to Sajudis. This outcome created two large parties that attracted a substantial share of the electorate. Subsequent elections witnessed the collapse of the Sajudis coalition into several parties as well as the emergence of new parties in the center and the left as Lithuanian politics

moved further away from the polarizing debates surrounding independence (Krupavicius 1997; Fitzmaurice 2003).

If we do not code Lithuania 2000 and 2004 – two years in which Lithuania changed its electoral formula at the SMD level – as first elections in Lithuania, then the coefficients on 1<sup>st</sup> Election and Election Number (log) drop to statistical non-significance.

#### *Tavits and Annus on Learning Over Time in New Democracies*

Unlike our study, Tavits and Annus (2006) analyze only PR elections in pure PR systems and the PR tiers of mixed-member electoral systems. Their analysis of the number of votes cast for parties that failed to overcome the legal threshold in PR elections in postcommunist states shows that, over time, postcommunist voters cast fewer votes for parties that failed to gain election in PR contests.

#### **The Psychological Effect**

Research on Germany's mixed electoral system has demonstrated this psychological effect, even though Germany's SMD has little control over the final overall distribution of seats (Barnes, et al., 1961; Bawn, 1999; Cox, 1997; Fisher, 1973; Jesse, 1988). Jesse (1988) argues therefore that such a psychology in Germany makes very little rational sense since the final distribution of seats is determined exclusively by the PR tier. If voters and elites realize this distinction, one would expect a stronger psychological effect in SMD tiers of unlinked mixed systems that actually give their SMD tiers an equal influence over the final distribution of seats. In these systems, the stakes are much higher in the SMD vote and the psychological effect should therefore be greater.

### *Ncands and Nparties over time*

The mean Ncands is 3.93 in the first election and 3.20 in later elections. The mean Nparties in the first election is 4.45 and 3.81 in later elections. The correlation coefficient between the number of parties and the number of elections is -0.46 in PR and -0.42 in SMDs.

### *Why we do not include SMD/PR Ratio and Plurality in the Nparties – Ncands analysis*

With the 41 country/elections that we examine here, the correlation between Unlinked and SMD/PR Ratio is .41, thus raising collinearity issues. Also, only three out of these 41 country/election cases include two-round majority rules. Moreover, as we explain later, two of those three elections are controlled for by a dummy variable for Lithuania in most of our analyses. For these reasons, we do not include SMD/PR Ratio or Plurality rules as controls in our analysis of the Nparties-Ncands gap. Since we suspect that tier linkage is the most important institutional variable affecting the constraining effect of SMDs in mixed systems anyway, we are not particularly troubled by leaving these other variables out.

### **Possible Contamination Effects**

Contamination flowing from mixed system rules might increase the number of parties emanating from the SMD tier at the aggregate national level. That is, the coexistence of a PR tier with SMDs in mixed systems may undermine the national projection of the number of parties within single member districts by allowing parties to emerge and be sustained that are relatively small across most of the country and which might not have survived in a pure SMD system. This influence of the PR tier is felt especially at the national level because some of the minor

parties that gain election through PR are likely often to be regional parties that will have regionally concentrated followings. Such parties would be able to field successful SMD candidates in a small number of districts in their “home” region but are unlikely to field quality SMD candidates in the rest of the country. Consequently, these regional parties, supported by the representation they obtain in the PR tier, would tend to differ from district to district, further promoting party fragmentation in the SMD tier at the national level.

We find that political context appears to affect the degree to which district-level constraining effects in the SMD tier are translated to the national level. Clearly, the presence or lack of national projection is affected by the nature of the party system and the general political climate. At the same time, contamination may also play a part in shaping projection. By potentially promoting the viability of smaller parties with geographically concentrated followings, the PR tier may undermine the projection of district level effects of the SMD tier to the national level. This finding complements and extends the scholarship emphasizing contamination effects within mixed systems. Perhaps, some of the contamination effects found in other studies of mixed systems are due to the impact of PR on projection rather than its influence on district level dynamics in single-member district races. (That being said, the focus of Herron and Nishikawa’s [2001] analysis, though, is district-level contamination in Russia and Japan. It therefore appears likely that some measure of contamination affects both district-level dynamics and projection to the national level.) This less-emphasized aspect of the interaction between SMD and PR tiers in mixed systems deserves greater investigation. However, the fact that new democracies experience significantly greater discrepancies between the effective number of candidates in districts and the effective number of SMD parties at the national level

than established democracies also suggests that institutional effects are not the only thing at work in the dynamic of projection in mixed electoral systems.

#### **Additional Notes on Appendix 4A**

- Armenia, Russia, and Ukraine cause problems for N<sub>v</sub> SMD and N<sub>s</sub> SMD because of the huge share of votes and seats won by independent candidates. We treat independents as a single residual category, which artificially reduces the effective number of parties measure since independents did not behave as a single group. Alternative measures using parliamentary factions formed after the election or treating each independent as a different “party” produces artificially high measures.
- For Hungary, our measures of N PR are based on the territorial PR tier.
- In the 1998 Hungarian election, the MDF and Fidesz parties ran joint candidates in the SMD tier as well as their own (non-joint) candidates. Joint candidates belonged to one or the other party and were thus counted among that party’s candidates during calculation of vote and seat shares.
- In Italy, parties can run separately in PR but then join together as alliances that jointly back a single candidate in a given SMD. Because there was rarely competition between sub-alliance groups, we treat each *alliance* as a single, autonomous party in our SMD computations.
- In Macedonia, because alliances dominated competition in single-member districts, we treat each alliance as a single, autonomous party in our SMD computations. When parties were part of more than one alliance, we aggregated votes for the largest (most inclusive) alliance.

- Venezuela also includes a number of seats that are won through multi-member districting. We exclude those.