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## The effects of electoral systems on women's representation in post-communist states

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### Abstract

This paper examines the relationship between electoral systems and female representation in four post-communist states that use mixed electoral systems. Mixed electoral systems provide an excellent laboratory to test electoral system effects because voters cast two ballots under very different electoral rules. If the PR and SMD tiers of mixed elections are treated separately, one can study the effect of different electoral systems while holding all other factors constant. I find that unlike consolidated democracies, post-communist states do not experience statistically significant differences in the proportion of women elected to the legislature in the PR and SMD tiers of their mixed systems. In one case, Russia, the relationship runs counter to expectations—women perform better in the SMD tier than in the PR tier. I propose several reasons for these differences. © 2001 Elsevier Science Ltd. All rights reserved.

*Keywords:* Electoral systems; Women's representation; Mixed systems

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Scholars studying the representation of women in industrial democracies have noted a consistent relationship between electoral systems and the proportion of women elected to parliament. In consolidated democracies, proportional representation (PR) systems tend to produce higher levels of women's representation than single-member district (SMD) elections (Rule, 1987; Matland and Studlar, 1996; Matland, 1998). However, Matland has shown that there is no systematic relationship between PR and the election of women in less developed countries. He argues that there may be a minimum threshold of political development that needs to be surpassed before women can effectively organize and use institutions such as the electoral system to further their interests. Prior to reaching this threshold, factors that

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commonly affect women's representation in industrialized democracies do not have an effect in less developed nations (Matland, 1998).

In this article I will extend the examination of electoral system effects on women's representation to a number of post-communist states. This is an exploratory study intended to provide a preliminary analysis of how electoral institutions are affecting female representation in East Central Europe and Eurasia. The findings can only be viewed as tentative because these states are currently in transition, undergoing significant political transformations and adaptations that may make patterns observed during early elections quickly obsolete. Moreover, being new democracies the number of elections observed is quite small, usually one or two elections in each country examined here, providing another cause for caution in generalizing from the findings.

These warnings notwithstanding, such an investigation provides several important insights. First, early electoral outcomes are particularly important to the legitimacy of new democracies struggling to consolidate their new democratic institutions. One measure of democratic legitimacy is how well women and minorities are represented. Second, while early patterns may fade as political actors adjust to the incentives of the new system, there is also the potential of path dependence from these early experiences that may establish more long-term patterns. Finally, the study of institutions and their effects is almost exclusively conducted in stable polities. We know very much about how electoral systems affect the number of parties and the extent of female representation in established democracies but much less about how institutions affect outcomes in developing states. Yet, the greatest opportunity for institutional innovation and engineering lies in new states introducing electoral systems for the first time. It is vital to understand the immediate as well as potentially long-term consequences of institutional choices made in new democracies through direct observation. One risks significant errors assuming that institutional effects found in established democracies are generalizable to new democracies.

Table 1 gives the percentage of women elected to the lower house of the legislature in the most recent election in selected post-communist states where results were available and competitive elections were held.<sup>1</sup> Post-communist states present an interesting set of cases to test the relationship between electoral systems and female representation. Under communist rule women achieved levels of literacy, education, and participation in the work force that rivaled or exceeded levels in the West. But women reached this status under political regimes that allowed virtually no independent political organization. Therefore, women did not develop the level of political organization that accompanied increased gender equality in the West nor did they experience the level of political activity of women's groups during transitions from authoritarianism in developing countries of Latin America (Waylen, 1994).<sup>2</sup>

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<sup>1</sup> The following states were excluded because of a lack of information or questionable democratic credentials: Albania, Belarus, Georgia, Moldova, Armenia, Azerbaijan, Kazakhstan, Kirgystan, Tajikistan, Turkmenistan, Uzbekistan, and Serbia.

<sup>2</sup> This is not to say that women were not involved in the social movements that brought down the communist regimes in Eastern Europe. For a survey of women's roles in these movements see the country studies in Rueschemeyer, 1994.

Table 1  
 Women's representation in legislatures in post-communist states<sup>a</sup>

Country	% of women in legislature	Rating for political rights	Rating for civil liberties	GDP per capita (PPP in US \$)
Croatia	20.5	4	4	4300 <sup>c</sup>
Estonia	17.8	1	2	3610
Lithuania	17.5	1	2	3110
Latvia	17.0	1	2	5010
Czech Republic	15.0	1	2	8430
Slovakia	14.0	1	2	5620
Poland	13.0	1	2	4702
Bulgaria	10.8	2	3	4320
Slovenia	10.0	1	2	12,300 <sup>c</sup>
Hungary <sup>b</sup>	8.3	1	2	6059
Ukraine	7.8	3	4	3250
Russia	7.7	4	5	4760
Romania	7.3	2	2	3727

<sup>a</sup> Sources: Women's representation—Inter-parliamentary Union (undated); Political performance—Rating on the Freedom House scale of political rights and civil liberties for 1996–1997 (1—best to 7—worst scale). Karatnycky (2000); Economic performance—Real GDP per capita (PPP). Purchasing Power Parities (PPP) are real GDP per capita adjusted to account for disparities in prices across nations. Karatnycky et al. (1997).

<sup>b</sup> Source: Montgomery and Ilonszki (1999).

<sup>c</sup> 1996 estimates from the CIA World Factbook (1997) ([www.odci.gov/cia/publications](http://www.odci.gov/cia/publications)).

This social context characterized by weak political organization but high levels of literacy, education, and economic activity may interact in different and unexpected ways with institutional arrangements rendering the relationship between women's representation and electoral systems in post-communist states different from both consolidated democracies and democratizing states from other regions.

By directly comparing post-communist states to other regions this paper is intended to place post-communist states in a broader comparative perspective. Scholars examining the status of women in post-communist states often note that women have lost a great deal of descriptive representation upon the introduction of democratic parliaments formed through competitive, multi-party elections. Women were well-represented in communist-era governmental bodies, achieving levels of formal representation that were much higher than their own countries' pre-communist experience and the experience of most Western democracies. However, it is also acknowledged that the high levels of formal representation in the communist period did not translate into real political power for women. Although constituting a respectable proportion of the rank and file in communist parties and communist-era legislatures, women typically did not occupy positions of genuine political or economic power in the highly centralized systems of Eastern Europe or the Soviet Union

(Rueschemeyer, 1994; Nechemias, 1994). With the introduction of democratization, legislatures became genuine centers of democratic decision-making but the removal of gender quotas used during communist times meant many fewer women populated these institutions. Thus, democratization has presented a paradox for women in post-communist states that may be new to them but is all too familiar for women in most democratic regimes—the existence of opportunities for genuine political influence through democratic political institutions but the failure of women to attain significant representation in these very same institutions.

Post-communist states tend to have significantly fewer women elected to parliament than consolidated democracies but more than in other developing countries. Post-communist states are relatively underdeveloped economically with advanced industrial democracies achieving more than three times their level of GDP per capita (adjusted for purchasing parities). Even less developed democracies significantly outperformed post-communist states in this regard. Yet, women in these same post-communist states enjoy a socioeconomic status, as measured by literacy, economic activity, and education, that rivals or surpasses the West and far outstrips the status of women in developing countries. This situation poses interesting questions of the challenges and opportunities for women in societies where they have attained certain hallmarks of gender advancement but lack effective political organization, all in a context of economic decline and political fluidity. How these conditions interact with electoral systems will be the subject of the remainder of this paper.

The analysis will be based around a comparison of countries with mixed electoral systems. Mixed electoral systems provide an excellent laboratory to test electoral system effects because voters cast two ballots under very different electoral rules. If the PR and SMD tiers of mixed elections are treated separately, one can study the effect of different electoral systems while holding all other factors constant. Based on the literature, it is expected that a greater proportion of women will be elected in the PR tiers than in the SMD tiers of mixed systems in consolidated democracies but not necessarily in post-communist cases.

## **1. Electoral systems and women's representation**

Cross-national analyses have shown a consistent relationship between the type of electoral system and the proportion of women elected to the legislature. On average, countries employing party-list proportional representation had more than double the proportion of female legislators (20%) of countries using single-member district elections (9%) (Rule, 1994a:18). Moreover, women's representation grew at a dramatically higher rate in countries with PR elections than in countries with SMD elections (Matland and Studlar, 1996:709). Countries using both PR and SMD elections show a similar divergence in women's representation between the two electoral systems.<sup>3</sup>

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<sup>3</sup> Rule found that in four countries (West Germany, Japan, Australia, and France) where both PR and SMD elections were used PR produced approximately four times the proportion of female deputies as single-member district elections in the country (see Rule, 1987:489).

While the empirical relationship between PR and greater representation of women is well-established in Western democracies, the reasons behind the relationship are less clear. A myriad of interrelated features of PR systems seems to be at the heart of the system's greater propensity to produce female legislators. Some scholars have argued that party list elections mute cultural biases against women by forcing voters to vote for parties rather than individuals. The candidate-centered elections associated with single-member district elections potentially allow gender to be a much more influential factor in the voting decision, usually to the detriment of women's chances for election (Norris, 1987:130). However, there has been significant empirical evidence to suggest that a voter gender bias is no longer a major factor in the election of women to public office in the United States. If they manage to get their party's nomination, female candidates of major parties perform as well as their male counterparts (Darcy et al., 1994:175). Other explanations have focused on district magnitude, arguing that just as multi-member districts tend to increase the number of parties by reducing the threshold necessary to gain election they also allow more women to be elected (Rule, 1987; Rule, 1994b; Engstrom, 1987).

Still others have focused on party behavior under proportional representation. Parties are deemed more capable of responding to pressures for increased women's representation if nomination decisions are centralized as they are under PR. In SMD elections, the nomination process is usually under the control of local party organs or decided in primaries, both of which increase the opportunities for resistance to female candidates (Norris, 1993:314–315). Moreover, parties under PR may run women on their lists to balance their ticket to appeal to a broader electorate, a phenomenon that is absent when a single candidate is the center of competition in any one district (Matland and Studlar, 1996:709). Finally, high rates of incumbency in single-member district elections tend to freeze gender inequalities in place; a problem that is more easily overcome in party-list PR systems which experience greater turnover (Matland and Studlar, 1996:709; Norris, 1993:314–315).

Matland and Studlar have integrated these elements of PR elections into a contagion model to explain the higher representation of women in PR elections. They contend that increases in women representation are initiated by smaller parties committed to the promotion of women. This commitment to female representation is then emulated by larger parties competing for similar constituencies until the process reverberates along the whole ideological spectrum. Such contagion is not exclusive to PR systems but is more extensive and spread more quickly in PR systems for several reasons. The multiple parties often produced under PR systems provide greater opportunities for the emergence of women-friendly parties, which tend to be smaller parties that would be shut out of competition in two-party systems usually produced in SMD elections. Secondly, the centralized control over nominations makes it easier for parties under PR systems to react to stimuli for increasing female representation. Finally, electoral threats from parties promoting women are more serious in PR elections because of lower disproportionality between votes and seats. In single-member districts, the priority is finishing first so as to capture the seat. The margin of victory does not matter. Thus, in safe districts even substantial defections

toward a third party promoting a female candidate does not necessarily challenge the major parties' share of seats. In PR systems with large district magnitudes, even small shifts in the proportion of votes may take away seats from the major parties (Matland and Studlar, 1996:712–713).

Of course, many social, economic, and cultural factors influence women's representation in legislatures including the strength of the women's movement, cultural biases for or against female participation in politics, relative strength of left-wing and right-wing parties, and the socioeconomic status of women (Norris, 1987:126–131; Rule, 1987:491–495). An electoral system only structures the context in which candidates and voters operate; it can not determine how the incentives and disincentives embedded in that context are handled by individual actors. This is particularly evident when cases from outside the group of industrial democracies are examined. As noted above, the factors that consistently encourage more women's representation in Western democracies have not been found to have the same effects in less developed countries (Matland, 1998). If this condition is acknowledged, the question regarding institutional effects is not what effects a given institutional arrangement will have on political outcomes but what effects will be generated given the particular social context in which institutions are operating. This blurs the line between institutions and social structure, making identification of institutional effects independent of structural constraints all the more difficult.

One way to isolate the effects of electoral systems on the representation of women is to compare different tiers of a mixed electoral system. Mixed electoral systems that allow voters to cast separate votes in simultaneous PR and SMD elections provide a unique opportunity to study the effects of different electoral systems while holding constant other possible intervening variables such as culture, social cleavages, and the level of socioeconomic development. This conceptualization of mixed electoral systems follows the method of controlled comparison which studies "cases that differ with regard to the variables one wants to investigate, but similar with regard to all other important variables that may affect the dependent variables; these other important variables can then be treated as control variables" (Lijphart, 1994:78). This method has been used effectively by Putnam in studying the interrelationship between political institutions and social environment in Italy and by Lijphart who examined changes in electoral systems over time within individual countries (Putnam, 1993; Lijphart, 1994).<sup>4</sup> With the increased adoption of mixed electoral systems around the world there is an opportunity to apply the controlled comparison method to study electoral system effects in several very different political contexts—consolidated democracies, less developed countries, and post-communist states. This

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<sup>4</sup> Mixed electoral systems' combination of dichotomous electoral systems (PR and plurality/majoritarian) in a single social environment contributes a significant dimension of comparability not found in Lijphart's study. Despite their theoretical malleability, electoral systems are resilient institutions. All of Lijphart's cases involved changes in electoral systems within the same broad categories of electoral systems, mostly changes within the class of PR systems. Mixed electoral systems provide the unique opportunity of comparing the diametrically opposed categories of PR and plurality elections upon which the debate over electoral systems has been based.

increases the number of cases open to controlled comparison, making meaningful cross-national comparison possible.

## 2. The post-communist experience in comparative perspective

Studying the effects of electoral systems on women's representation in post-communist states is a difficult project. All of the post-communist states examined here use some form of proportional representation, either exclusively or as part of a mixed system that combines PR with seats elected in single-member districts. Therefore, electoral systems offer no significant variance among post-communist states that would help explain variation in women's representation within the region or between post-communist states and other regions.

I get around this problem by using a controlled comparison of PR and SMD tiers of mixed electoral systems. The test simply compares the proportion of women elected in the PR and SMD tiers of mixed systems. The electoral system is deemed to have an effect on women's representation independent of other possible factors (which are held constant) if there is a statistically significant difference in the proportion of women elected in the two tiers. The set of cases examined here include: four post-communist states (Russia, Hungary, Lithuania, and Ukraine) and four advanced industrial democracies (Germany, Italy, New Zealand, and Japan). Cases were chosen on the basis of having a mixed electoral system and availability of data. All of these states employed a mixed electoral system in which voters cast two votes simultaneously, one for a party in a PR party-list race and one for a candidate in a single-member district race. With the exception of Germany, mixed electoral systems have been a recent innovation for all the cases examined here. Thus, conclusions made about the effects of PR and SMD elections in established democracies must also be tentative since they are based on such a small sample. Although the patterns in consolidated democracies closely follow the expectations in the literature there is no guarantee that they will remain stable over time. Given the paucity of cases, all elections in which there was sufficient information were included as separate cases. Therefore, there are two cases for Russia (1993 and 1995) and three cases for Hungary (1990, 1994 and 1998).

Mixed electoral systems are not uniform. They vary widely in the type of electoral rules used in each tier and the extent of linkage between the two tiers. The SMD tier can utilize a plurality rule in which the candidate with the most votes wins (practiced in most of the cases studied here) or a two-round majoritarian rule that pits the top finishers against one another in a run-off (found in Hungary and Lithuania). Some mixed systems, like Germany's and New Zealand's, employ a linked system of compensatory seats that prioritizes the PR tier in the final distribution of seats in the legislature by subtracting the number of seats won in the SMD tier from the seats awarded under the PR tier. Other mixed systems, like Russia's and Japan's, have a parallel system that does not award compensatory seats. In these systems, seats won in each tier are awarded without regard to the party's performance in the other tier. Finally, in countries like Hungary and Italy there are more compli-

cated procedures for linking tiers through compensatory seats that subtract the votes cast for winning candidates in the SMD tier from a ‘vote bank’ in a compensatory PR tier to increase proportionality. In Hungary there is a tertiary national tier that distributes a number of seats to parties based on their wasted votes (votes that did not result in winning candidates in both the SMD and territorial PR tier).

While these distinctions between mixed systems have significant effects for the number of parties operating in the system, their effects on women’s representation is probably less important and at most indirect. Since I am examining the difference in the proportion of women elected in each tier, the existence or absence of compensatory seats that prioritize the PR tier over the SMD tier should not have a large impact on the analysis. The use of two-round majoritarian rules in the SMD tier may provide greater opportunities for female candidates in the first round of elections because of the higher district magnitude (two versus one for plurality systems) and thus dampen the discrepancy in women’s representation between the SMD and PR tiers in these countries. But, this did not produce profoundly different results in our two cases with two-round majoritarian SMD tiers (Hungary and Lithuania).

Several methods were used to identify female deputies. For Russia and Ukraine, women could be easily identified by the candidate’s patronymic (roughly equivalent to a middle name) which have different endings in Russian and Ukrainian for males and females. For Japan, the list of deputies were labelled ‘Mr’ and ‘Ms’. Designation of women by party and mandate in Hungary and Germany were taken from a secondary source. In three countries (Lithuania, Italy, and New Zealand) lists of candidates obtained from the internet were accompanied by photographs which were used to identify female deputies. The datasets constructed contained a number of dichotomous variables identifying for each candidate their gender, electoral mandate (the tier under which they were elected), and party affiliation, if any. A total of 4134 candidates from eleven elections in eight countries were coded.

Table 2 shows the percentage of women elected in PR and SMD tiers for each country and chi-square tests for a relationship between gender (0=woman, 1=man) and electoral system (0=SMD, 1=PR).<sup>5</sup> In every case but one (Russia 1995), a greater percentage of women were elected in the PR tier than the SMD tier of mixed systems. However, there was a stark difference between post-communist states and advanced industrial democracies. The difference between the two tiers in industrial democracies was substantial, more than twice the percentage of women were elected in PR tiers than in SMD tiers; while the difference between the two tiers was not nearly as great for post-communist countries.

Chi-square tests revealed that in all the industrial democracies one could reject the null hypothesis that the electoral system was unrelated to women’s representation while this null hypothesis could be rejected in only one case among post-communist states, Hungary. Even in Hungary, this pattern was reversed in the

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<sup>5</sup> Phi is the most appropriate correlation statistic for dichotomous variables approximating correlation coefficient  $r$ . The chi-square statistic is used as the  $P$ -value for statistical significance.

Table 2  
Correlation between women's representation and electoral systems in countries with mixed systems<sup>a,b</sup>

Country	Total % of women elected	% of women elected in PR tier	% of women elected in SMD tier	Difference between PR and SMD tiers (% change)	Chi-square	Phi (P-value)
<i>Post-communist states</i>						
Russia 1993 (n=440)	13.7	15.1	11.6	+3.5 (30.2)	1.150	0.0506 (0.377)
Russia 1995 (n=450)	10.1	6.7	13.8	-7.1 (106.0)	6.199	-0.1173** (0.012)
Hungary 1990 (n=386)	7.3	10.5	3.4	+7.1 (208.8)	6.963	0.1343** (0.008)
Hungary 1994 (n=386)	11.10	13.3	8.5	+4.8 (56.5)	2.239	0.0762* (0.135)
Hungary 1998 (n=385)	8.3	6.9	9.5	+2.6 (37.7)	0.891	0.0481 (0.3453)
Lithuania 1996 (n=137)	17.52	20.0	14.9	+5.1 (34.2)	0.610	0.0667 (0.4347)
Ukraine 1998 (n=426)	7.55	8.7	6.3	+2.4 (38.1)	0.931	0.0468 (0.335)
<i>Consolidated democracies</i>						
Germany 1990 (n=662)	19.94	28.10	11.78	+16.3 (138.1)	26.386	0.1997*** (0.000)
New Zealand 1996 (n=120)	30.00	47.27	15.38	+31.9 (207.1)	14.426	0.3467*** (0.000)
Italy 1996 (n=629)	11.45	18.71	9.05	+9.6 (105.5)	9.126	0.1205*** (0.003)
Japan 1996 (n=498)	4.80	8.50	2.33	+6.2 (269.6)	9.871	0.1408*** (0.002)

<sup>a</sup> \*  $P \leq 0.1$ , \*\*  $P \leq 0.01$ , \*\*\*  $P \leq 0.001$ .

<sup>b</sup> Sources: Russia—Anon (1994, 1996); Hungary—Montgomery and Ionszki (1999); Lithuania—Parliamentary website, <http://rcrls.lt>; Germany—Kolinsky (1993:142); New Zealand—Parliamentary website: [www.parliament.govt.nz](http://www.parliament.govt.nz); Italy—Elections website: <http://www.camera.it>; Japan—Parliamentary website, <http://www.shugiin.go.jp>

latest elections in which the difference in the proportion of women elected in the PR and SMD tiers was not statistically significant. Moreover, post-communist states present a case (Russia 1995) in which the relationship runs counter to expectations. In Russia's 1995 parliamentary election women gained election in significantly greater proportions in the SMD tier in than in the PR tier. There was a statistically significant *negative* relationship between PR and the proportion of women elected to parliament.

These findings suggest that the dynamic between electoral systems and women's representation works very differently in post-communist states than it does in industrial democracies. Further evidence is provided for a strong influence of PR on increased women's representation in advanced industrial democracies, corroborating findings from other cross-national studies (see Matland, 1998). But this impact of PR is not shared in most post-communist states and is actually reversed in one. This may just be a product of the political transition that will change to resemble patterns in the West after parties and voters adapt to the incentives of their new electoral systems. However, it is striking that a similar period of adaptation has not seemed necessary for PR to show its pronounced advantages over SMD elections in new mixed systems in consolidated democracies. Or the absence of a systematic difference in women's representation between PR and SMD elections may be part of a long-term condition in post-communist states in which, despite the attainment of high literacy rates, education, and economic activity for women, post-communist states, like less developed countries, have not passed a minimum threshold of development. Before offering some conditions that may differentiate post-communist states from both industrialized democracies and other developing states, I will first examine the impact of political parties on women's representation in the region and the interrelationship between parties and electoral systems.

### 3. The effect of political parties

Perhaps the lack of consistent promotion of female representatives in PR elections in post-communist states is due to the intervening effect of political parties. Cross-national research has suggested that socialist and social democratic parties tend to elect more women while the existence of strong right-wing parties tends to be negatively correlated with the proportion of women elected to parliament (Rule, 1987; Norris, 1985). If certain parties are more 'women-friendly' than others then differences between PR or SMD tiers of a mixed system may be due to the relative success of these parties in a particular tier rather than a general promotion of women across all parties under one tier or the other. The use of compensatory seats in 'linked' mixed systems, in which seats won in the SMD tier are subtracted from the total allocated in the dominant PR tier, exacerbates the potential intervening effect of political parties.

Montgomery and Ilonszki make this argument in explaining the shift in the effect of the PR tier on women's representation in Hungary from 1990 to 1994. Hungary's 1990 election was the only post-communist case examined here that showed a strong

positive relationship between PR and the election of women. However, by 1994 this effect diminished, although remaining positively correlated with the election of women, the effect of the PR tier was only marginally significant ( $P=0.135$ ). By 1998, a statistically significant relationship between electoral system and gender no longer appeared to exist in Hungary. Montgomery and Ilonszki argue that this was due to a dramatic rise in the proportion of women elected in the SMD tier rather than any decline of women's representation in the PR tier. They go on to note that the decline in the difference between the PR and SMD tiers can be attributed to electoral volatility that hurt women's representation by denying parties a large set of winnable seats to distribute among different constituent groups (including women) within the party. Moreover, this electoral volatility mitigated the effects of the electoral system by substantially shifting the number of seats won in the PR and SMD tiers among parties with very different records of promoting women. For example, the increased success of women in single-member districts was driven exclusively by success of the Hungarian Socialist Workers' Party (MSZP) in 1994, which accounted for all fifteen female representatives elected in the SMD tier. Since the seats won in the SMD tier were subtracted from the national PR tier that meant that the MSZP did not receive nearly as many seats in the PR tier as it would otherwise. Therefore, more women were elected in the SMD tier vis-à-vis the PR tier in Hungary because of a change in the electoral fortunes of particular parties under each system rather than a shift in the general relationship between electoral systems and women's representation. The fact that the populist Democratic Forum (MDF), which tended to elect low numbers of women, experienced the exact opposite pattern of success in the PR and SMD tiers (SMD success and fewer PR mandates in 1990 and SMD failure and more PR mandates in 1994) further demonstrated the influence of an interactive effect between party success and PR and SMD systems (Montgomery and Ilonszki, 1999:24–25).

This is not to say that the influence of political parties completely discounts the impact of electoral systems on women's representation. Indeed, the relationship between electoral system and party success may be conceived as one of the ways electoral systems influence women's representation. For example, Women of Russia, the women's party that accounted for 36% of the women elected to the Russian State Duma in 1993 owed its existence to the PR tier. A strictly SMD electoral system would have shut this party out of the legislature because it did not have the large cadre of competitive local candidates capable of winning seats in single-member districts. Therefore, the PR tier in Russia's 1993 election fostered increased women's representation precisely because it promoted the establishment and success of a party that promoted the election of women. This coincides with Matland and Studlar's argument that PR systems cause greater levels of women's representation through a contagion effect that starts with the emergence of a women-friendly party that gains significant electoral support (Matland and Studlar, 1996:712–713). The point to be made is that electoral system effects are realized through and mitigated by political parties, complicating any simple equation between a particular electoral system and the promotion of women's representation.

Logistic regression was used to test the relative importance of the electoral system

and party affiliation. The dependent variable was the gender of the representative (0—male, 1—female) and the independent variables were the electoral system (0—SMD, 1—PR) and dummy variables for all significant parties (parties that won five seats or more).<sup>6</sup>

Table 3 shows the results of the logistic regression analysis for the 1993 Russian election. After controlling for the impact of political parties, the electoral system variable became statistically significant and switched signs. It was now negatively correlated with the election of women. The logistic regression model was statistically significant at the  $P < 0.001$  level and correctly predicted 92% of the observations.<sup>7</sup> This matches the relationship found in Russia's second election in 1995 when, upon the failure of Women of Russia to overcome the 5% legal threshold in the PR tier, a substantially greater proportion of women were elected from the SMD tier of the system. The logistic regression analysis suggests that the same general tendency existed in 1993 but was masked by the success of Women of Russia in the PR tier.

Controlling for party with logistic regression did not make a meaningful difference in the behavior of the electoral system variable in any of the other cases. These results are not reproduced here. In most of the other cases the electoral system variable was not statistically significant in explaining gender representation. In the 1994 Hungarian election, the electoral system variable crossed the threshold of statistical significance at the  $P < 0.1$  level ( $P = 0.09$ ) and remained positively correlated with the election of women when controlling for the influence of political parties. But the difference

Table 3  
Logistic regression of electoral system and party affiliation on gender of elected representative<sup>a</sup>

1993 Russian election Variable	B (st. error)	Odds ratio
Electoral System	-0.9670** (0.4998)	0.3802
APR	-0.1452 (1.158)	0.8648
DPR	0.4596 (1.158)	1.583
KPRF	1.247** (0.5870)	3.479
LDPR	0.6164 (0.6873)	1.852
PRES	-6.246 (21.01)	0.0019
RC	-0.0031 (0.6209)	0.9969
WR	12.33 (20.71)	227,227
YAB	0.7576 (0.7373)	2.133
Constant	-2.226 (0.2718)	—

<sup>a</sup>  $N=450$ ;  $-2 \log \text{likelihood}=239.971$ ; goodness of fit= $404.891$ ; model chi-square= $113.436$ ; Sig.= $0.0000$ ; % correctly predicted  $91.78$ ; \* $P \leq 0.1$ , \*\* $P \leq 0.02$ .

<sup>6</sup> Other logistic regression models were also run with only those parties that were shown to be statistically significant in the chi-square tests. But the larger models including all parties performed better.

<sup>7</sup> Perhaps more telling the model correctly predicted 38% of the women elected which was by far better than the null hypothesis that would predict all representatives to be male.

between the logistic regression and significance of the bivariate correlation in the chi-square test was marginal. Moreover, the chi-square test for the logistic regression model was not statistically significant. In Russia's 1995 election the electoral system continued to be negatively correlated with women's representation (that is, women were more likely to be elected in the SMD rather than the PR tier) even when controlling for party. Russia is truly the exception of the study. Unlike every other case, women tend to be elected in greater numbers in SMD elections rather than in PR elections.<sup>8</sup>

#### 4. Possible explanations

What can account for the apparent lack of electoral system effects on women's representation in post-communist states when PR is so consistently correlated with higher proportions of women legislators in advanced industrial democracies? Following Matland, one may conclude that, like less developed democracies in the Third World, post-communist states have not achieved a level of political and socioeconomic development that has allowed women to organize so as to take advantage of institutional opportunities (Matland, 1998). This would partially coincide with the evidence presented here. But, certain patterns in women's representation under PR and SMD systems in post-communist states suggest that post-communist states may be unique in the type of political 'underdevelopment' that retards a positive effect between PR and women's representation.

Post-communist states are unique because the absence of a statistically significant difference in women's representation between PR and SMD elections is as much due to the relative success of women in single-member districts as it is due to relatively low levels of women's representation in PR races. If one compares the average percentage of women elected in PR and SMD tiers in post-communist states and advanced industrial democracies one finds that women in post-communist states do marginally better in single-member district elections than their counterparts in the West (9.75 versus 9.64%, respectively) but significantly worse in PR elections (12.38 versus 25.65%, respectively). Thus, the paradox of electoral systems and women's representation in post-communist states is dual in nature. What explains the relative failure of women to achieve success in PR elections but the relative success of women in single-member district races?

The explanations offered below are necessarily preliminary in nature. In-depth case studies of individual countries are needed to uncover the myriad of factors at the heart of the intersection between the mobilization of women, their political and

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<sup>8</sup> Logistic regression using interaction terms combining party and mandate (party \* mandate) also did not produce significantly different results. In the Russia 1993 case the interaction terms combining party and mandate closely mirrored the raw party variables. The electoral system remained negatively correlated and statistically significant, albeit at a lower level ( $P=0.07$ ). The only interaction term that was statistically significant remained the Communist Party variable. The interaction term combining Women of Russia and mandate remained statistically insignificant ( $P=0.66$ ) although it retained an incredibly high odds ratio.

socioeconomic environment, and the rules under which elections are held. Nevertheless, several conditions of post-communist politics can be identified as possible explanations for the contours of women's representation in these states.

First, party fragmentation may be a partial explanation for the relatively low percentage of women elected in PR elections. One factor found to be positively associated with women's representation in PR systems is party magnitude. Party magnitude refers to the number of seats a party expects to win in a district. As parties gain more seats per district they are able to elect representatives who are further down on their list. Women are more likely to occupy these middle and lower range positions on a party list and are thus more likely to gain election if a few large parties elect many representatives per district than if many parties elect a small number of representatives per district (Matland, 1993; Matland and Taylor, 1997). This is likely to be even more important in post-communist states where women have not yet attained the organizational strength to pressure parties to place a substantial number of women in electable positions on their lists.

Post-communist states have among the world's highest levels of party fragmentation. Using Taagepera and Laasko's effective number of parties measure, the post-communist states examined here average 7.6 elective parties ( $N_v$ ) while the industrial democracies included in the study average only 4.6 elective parties (Moser, 1999b). Perhaps women fail to be elected in great numbers in post-communist PR elections because of the fragmentation of their party systems. With so many parties sending representatives, parties are only able to select representatives from the top positions of their lists, positions dominated by men.

Party fragmentation may also work in favor of women in single-member districts. Contrary to comparative experience, single-member district elections have not tended to constrain the number of parties in post-communist elections. In Russia, plurality elections have fielded an average of six significant candidates rather than two as the literature would expect (Moser, 1997). This proliferation of candidates in single-member districts may encourage women to run in these elections by lowering the threshold necessary to win. Just as district magnitude is expected to affect women's representation through its effect on the effective threshold for election, if the number of candidates exceeds expectations in single-member districts in post-communist states, more women may be expected to run if not necessarily win election.

Second, the relatively high level of education and economic activity of women in post-communist states may partially explain the higher percentage of women elected in single-member districts. While not conferring equality on women, the communist legacy may have created a critical mass of highly educated, professionally trained women who can be competitive in free elections. A comparison of female and male candidates in Russia shows that women who won parliamentary election in 1993 and 1995 tended to have similar occupational backgrounds as their male counterparts (Moser, 1999a). Of course, high social and occupational status should work in women's favor in both PR and SMD elections. The same qualities and skills that make a relatively high proportion of post-communist women competitive with men in single-member district elections should also make women competitive in attaining

electable positions on party lists in PR elections. This brings us to the final condition that differentiates post-communist states from other regions.

Third, the political character and organizational strength of political parties in post-communist states may have an intervening effect on the relationship between electoral systems and women's representation. In general, women's organizations in post-communist states have not yet been able to pressure parties to address issues that are important to them or to integrate them as formal or informal corporate members. Therefore, while centralizing nomination decisions into the hands of party leaders is deemed a factor that is beneficial to women's representation in consolidated democracies; it may have the opposite effect during the transitional period underway in post-communist states. Patriarchal attitudes and communist legacies may make parties (and the centralization of nominations in party leadership under PR) a hindrance rather than an aid to women's representation in post-communist states. Conversely, the lack of institutionalization of party systems in post-communist states has meant that parties tend to play a less central role in nominating candidates and providing voting cues to the electorate. In extreme cases like Russia or Ukraine, independent candidates outnumber partisan candidates and independents win more seats than any single political party (Moser, 1997). Under these conditions, female political entrepreneurs may have a better chance of getting elected in single-member districts than obtaining an electable position on a party list. This is only compounded by party fragmentation which limits the number of electable positions on a party's list but lowers the electoral threshold in the single-member districts.

## 5. Conclusions

The experience of women's representation in post-communist states presents a puzzle that requires explanation. With the exception of selected elections in Hungary, initial elections in post-communist states provide a set of exceptions to a consistent institutional relationship found in consolidated democracies—the positive relationship between PR electoral systems and women's representation. Perhaps this is a product of lower socioeconomic development making post-communist states similar to less developed states that were found by Matland also to lack a consistent relationship between electoral systems and gender representation. However, the fact that women in post-communist states tend to perform relatively well in single-member district elections complicates the picture and calls for more research. Why did Hungary better approximate the Western experience in its initial elections but lose this relationship in later ones? Why is Russia an exceptional case in which women have been elected in greater numbers in SMD elections than under PR?

These findings provide further evidence that the study of institutions must be grounded in the social and political context in which they operate. This is not to say that electoral systems or institutions in general have no effect on political outcomes. But institutions have different effects under different conditions and can not be seen as means to a particular end that can be applied to any context. Anyone looking for a quick institutional fix to the problem of low women's rep-

resentation in post-communist states will not find that answer in the electoral system, at least in the short-term. Introducing PR or doing away with majoritarian elements of mixed systems are unlikely to substantially change the gender balance in post-communist parliaments.

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