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Electoral System and Gender Representation in Sub-National Legislatures: Is there a National—Sub-National Gender Gap?

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Although there have been many studies which have looked at the impact of gender representation at the national level, there are relatively few which explore the sub-national level. In this article we provide an exploration of the patterns of representation of women within democratic countries, both developed and transitional that have elected regional, state, cantonal, or provincial legislatures which occupy the middle ground between the central government and local or municipal administration. We provide a systematic comparative analysis of women's access to and representation in such bodies. The focus is on a cross-national comparison of gender representation at the meso level and the gap in representation between meso and national legislatures. The impact of electoral system type, party magnitude, economic development, constitutional structure, and institutionalization of democratic structures are examined. The data on which this analysis is based are drawn from 536 meso legislative bodies in 29 countries. This is supplemented by party level data ($n = 1,348$) for the issue of party magnitude. Both OLS and logistical regression are used to test these propositions.

Many critical policy issues such as the environment, economic development, human resource development, health care, cultural issues and education transcend traditional local and municipal governments but are diverse enough to require alternative policies and solutions below the level of the central state. One major response has been to create intermediate (meso) levels of government between the central and local levels. These "meso"-level governments and their councils or legislatures are serving an increasingly important set of functions in the world's democracies. Among the many roles played by the meso level are (1) addressing issues of regional and ethnic nationalism; (2) provision of an increasing set of service functions ranging from health to the environment, transportation, education, welfare, and regional planning; (3) addressing the ideological association between decentralization and democracy and the redistribution of state power; (4) providing the opportunity for the central state to serve its own neo-liberal interests by downloading or dumping significant functions to the "meso" level while avoiding the need to raise central taxes (Sharpe 1993).

MESO LEGISLATIVE BODIES: A SPECIAL CASE FOR GENDER REPRESENTATION

For all of these reasons meso governments have become increasingly important, especially in relation to issues of par-

ticular concern to women (Andrew 1991; Ford and Dolan 1999). How women are represented in elective councils and legislatures at this level may therefore have a critical impact on a broad range of policy issues in the future. In addition to the critical areas of policy they address, meso elective bodies may provide attractive opportunities and easier access for women. These legislatures offer seats that are often less competitive, require less costly campaigns, and are less likely to require relocation away from familial demands, all conditions which have traditionally inhibited women's involvement in electoral politics (Lovenduski 1986). In addition, they also may serve as an important recruiting ground for women candidates for higher level offices.

In this study we explore the patterns of representation of women within democratic countries, both advanced industrial and developing, that have elected regional, state, cantonal, county, or provincial legislatures which occupy the middle ground between the central government and local or municipal administration. Although there have been many studies which have looked at the impact of electoral systems on gender representation at the national level, there are relatively few which explore the sub-national level. For example, in a recently published reference work, *Women in Politics: World Bibliography*, produced for the Inter-parliamentary Union (IPU 1999), less than 4 out of 418 pages and only 19 of 650 titles are to be found in the section on women in sub-national governments. Of the articles on the subject, we generally find them limited to examination of a single local government, sub-national units within a single nation, such as the U.S. (MacManus et al. 1999; Hawks and Staton 1999; Rule 1999; Ford and Dolan 1999), a comparison of different systems functioning at the sub-national level in the same country over time (Jones 1998; also Rule 1994), or a comparison of local and/or regional governments in a small number of countries

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(Considine and Deutchman 1996; Matland and Studlar 1996; Downs 1998).

We undertake a broader comparison of “meso” (sub-national, intermediate) legislatures in both advanced industrial democracies (AINDs) and democracies in less developed countries (LDCDs). Here we provide a systematic analysis of women’s access to and representation in such bodies. We place emphasis on the differential impact of formal electoral systems on the election of women at the meso level. We also examine the relationship between representation at the meso level and in national legislatures, the national– sub-national gender gap.

There is a well established and growing literature on the impact of electoral systems and electoral system reform on the representation of women in national legislative bodies (Darcy, Welch, and Clarke 1994; Matland and Taylor 1997; Caul 1999; Rule 1987, 1994; Schmitter 1998; MacIvor 1996). In general, these studies have concluded that more women are elected in proportional rather than in plurality or majority electoral systems. Furthermore, these studies show that electoral arrangements do affect not just electoral outcomes, but opportunities for women as candidates.

Electoral results in industrialized countries generally suggest that list proportional representation systems are more conducive to women gaining office than are single member plurality district systems. For example, in a study of “stable democracies,” Darcy, Welch and Clarke (1994: 142) argue that, “on average twice a proportion of women (20.2 percent) are currently elected to list PR systems as compared to SMD (10.2 percent),” (also see Reynolds, Reilly et al. 1997). Vengroff, Creevey, and Krisch (2000) confirm this finding using more recent electoral data and including a third category, mixed systems. In the comparison of 153 lower houses, they found the percentage of women in proportional, mixed and plurality/majority systems to be 14.7, 11.5, and 7.9 percent, respectively ($p < .001$).

Women form small minorities in most legislatures but they are an even smaller group where there is a plurality electoral system. In the United States, for example, where feminist political movements have reputedly had a marked political impact, only 13 out of 100 senators and only 61 (14 percent) out of 435 Representatives were women in 2001 (IPU, 2001). This contrasts rather sharply with several Scandinavian democracies, which have list proportional representation systems. In these countries women occupy a significantly greater number of legislative seats: 42.7 percent in Sweden, 37.4 percent in Denmark, 36.4 percent in Norway in 1998 as compared to 13.3 percent in the United States in that year, for example (see IPU 1999; also Darcy, Welch, and Clark, 1994: 142). Many authors attribute this difference in representation primarily to the existence of an SMD electoral system in the U.S. (Rule and Norris 1992: 41; also see Rule 1999: 195; and Amy 1993:108).

The impacts of the type of electoral system are affected themselves by a variety of contextual and socioeconomic factors, such as education of the population as a whole, and of women at the college level, high employment of women in

the workforce and low unemployment overall (Rule 1987, 1999), strength of fundamentalist religion (Welch and Studlar 1986), profession of legislators, incumbency (Bullock and MacManus 1991; Kushner, Siegal, and Stanwick 1997; Studlar and McAllister 1991; Studlar and Welch 1991) the level of organization and strength of women’s groups (Chapman 1993: 11; Caul 1997; Maille 1990) and “contagion” (Matland and Studlar 1996; Reynolds and Reilly et al. 1997: 5) especially where some of the political parties adopt quotas, and campaign finance and fundraising issues.

Traditionally, women’s roles in many societies are conceived to be inconsistent with competing for, or holding of, political office. The socialization hypothesis suggests that women are not interested in competing for such posts because of internalized values (Darcy, Welch, and Clark 1994: 104-18; Whicker and Whitaker 1999: 172-73). In addition, it is often argued that the pool of qualified women from which potential candidates can be drawn is small, i.e., the supply thesis (Randall 1987; Darcy, Welch, and Clark 1994; see also Gidengil and Vengroff 1997a, 1997b). All three of these factors have undergone dramatic changes in the advanced industrial countries (AINDs) but not exclusively in those countries (Rule and Zimmerman 1992; Welch and Studlar 1986; Ford and Dolan 1999).

Women are still handicapped in the competition for political office. Significantly fewer women than men present themselves as candidates and few are chosen as candidates for either safe or competitive seats. In fact, the GEM (the United Nations’ gender empowerment measure) continues to show important disparities in gender representation, even in the best of cases such as the Scandinavian countries (UNDP 1998). However, it is generally accepted that access for women to local and meso-level elective office is greater than it is for national legislative seats (Darcy, Welch, and Clark, 1994; Matland and Studlar 1998; Lovenduski and Norris 1993; Rule 1999; Ford and Dolan 1999). Furthermore, there has been a slow but steady increase in the representation of women in meso legislatures. In cases for which we have data on multiple elections at the meso level we find a modest average increase of 2.7 percent ($n = 203$). Overall 56.7 percent of these bodies saw increases in the percent of women members, 17.2 percent showed no change, and over a quarter (26.1 percent) showed a decline in the representation of women (see also Gidengil and Vengroff 1997a).

Our research highlights the influence of electoral rules and selection decisions. Indeed, most scholars still believe that “the most striking source of variation in the proportion of women in national legislatures is... the kind of electoral system in use” (Chapman 1993). We hypothesize this to be the case at the meso level and explore the question in a variety of democratic countries. Our hypotheses is that although the meso level provides greater access and potentially more representation for women in democratic systems than does the national legislature, the electoral formula still plays an important role. This should be especially apparent in systems that have different electoral systems at the national and meso levels.

One very critical and potentially confounding factor which has gained broad currency in the literature is party magnitude. By party magnitude we mean the number of seats a party reasonably expects to win in the next legislature. Matland, for example, argues that the representation of women in legislative bodies may be more a function of the size or expected number of seats a party anticipates winning than of electoral system type. The larger the “party magnitude” presents, the greater the representation of women (Matland 1998; Matland and Brown 1992; Matland and Studlar 1996). We test this proposition at the meso level.

Overall level of “development” may be a highly significant factor intervening between electoral system type and the impact of the latter on the likelihood of women being elected to a parliament. Matland (1998) studied women’s representation in national legislatures in 24 industrialized countries and 16 LDCs with democratic regimes in 1980, 1990, and 1997. His results tend to indicate that in LDCs the electoral system variable does not have a significant impact on the likelihood of women being elected to parliament nor did most of the other principal variables discussed above. His conclusion is that “there appears to be a threshold, a minimum development level . . . needed to create the foundation for other variables to have an effect. Below that level the variables that assist women in gaining representation in more developed countries simply have no effect” (Matland 1998: 120). It appears that the forces aligned against female political activity are so great in LDCs as to permit only token representation regardless of electoral system type. As development increases, however, Matland (1998: 120) observes more women are able to acquire the resources to become politically relevant (Matland, 1998: 120). The sample for the latter study was limited but it nonetheless raises important questions. In any analysis of gender representation, even at the meso level, this factor must be taken into account.

DATA AND METHODS

The data on which this analysis is based are part of an original data set compiled by the authors (available from the authors on request). The selection of the countries included in this study is based on three important criteria: (1) the existence of a democratic government; and (2) the existence of sub-national elected legislative bodies which are intermediary between local or municipal and national governments (what are labeled meso level by Sharpe 1993). That is these units must take in more than a single municipality, town, village or other local authority. These vary from country to country but include entities that are variously labeled region, province, state, canton, or even county. Included are countries that are formally federal in structure as well as those that are officially unitary states; and finally, (3) the availability of accurate, reliable data on meso elections in the 1990s (the most recent meso elections in each country were selected).

Our group of democracies includes both AINDs and LDC nations which have elected meso-level legislative

bodies. Among the former are 12 of the 15 EU countries (Austria, Belgium, Denmark, France, Germany, Ireland, Italy, Netherlands, Portugal, Spain, Sweden and the United Kingdom) plus Norway, Switzerland, Australia, Canada, New Zealand, and the U.S.A. This part of the sample, includes data on representation in 286 meso legislatures in these 18 countries.

The other group of democracies was established based on macroeconomic indicators reported by the World Bank’s *World Development Report*. These less developed democratic countries range from upper-middle-income to low-income and include meso governments from Argentina, Brazil, Mexico, Venezuela, Poland, Hungary, Russia, India, South Africa, Nigeria and Senegal. Less developed democracies add an additional 250 sub-national legislative bodies from eleven countries to our data set. Our total sample of meso legislatures thus consists of 536 such bodies from 29 countries.

To test for the impact of party magnitude we compiled a second data set on meso legislatures in which the unit of analysis is the party. Given the need for accurate party level data for multiple meso elections the sample countries were limited to twelve European democracies. We have included the party magnitude and number and percent of a party’s seats held by women for 1,348 cases in the sub-national legislatures of these countries for meso elections held in the 1990s. If party magnitude indeed has the important effects attributed to it, it is more likely to apply in these AINDs than in the LDCs. If it shows an important relationship with gender representation in these 1,348 cases it could be argued that comparable data should be collected for LDCs.

Hypotheses

Our first tests are to see if the factors associated with the representation of women, including the well-documented relationship between electoral system type and the representation of women in national legislatures, also holds at the “meso” level. We then check to see if the level of representation of women is greater at the sub-national than the national level. This is expected because of the less cumbersome set of barriers faced by women who want to participate in politics at the meso level. Therefore, two basic sets of hypotheses have been formulated. First we examine the representation of women in mesos:

$H_{1.1}$: *The representation of women in meso legislatures will vary with electoral system type, the highest percent being in those using proportional electoral systems, followed by those using mixed systems and finally by those employing plurality/majority systems.*

Then we look at the impact of party magnitude:

$H_{1.2}$: *The percentage of women elected from a party should increase with the magnitude or expected magnitude of that party in the legislature.*

As noted above, the level of economic development of a nation or region may have important consequences for

gender representation. We expect representation at all levels to be higher in AIND countries.

H_{1,3}: *The representation of women in meso legislatures will increase with the level of development.*

Finally, the constitutional structure of the country, federal vs. a unitary state could be expected to influence representational issues.

H_{1,4}: *There will be significant differences between federal and unitary states in the representation of women.*

With our second set of hypotheses we look at the gap between meso and national level legislative representation of women. Based on our review of the literature we expect that women will be better represented in mesos than in national legislatures:

H_{2,1}: *The percentage of women in meso legislatures will be higher than the percentage of women in their respective national legislatures.*

Given the importance of electoral systems:

H_{2,2}: *The national–meso gender gap will vary with the electoral system type.*

We must take account of the fact that the type of electoral system in play at the national and meso levels within countries is not always the same. Hence:

H_{2,3}: *If the electoral system types at the national and meso levels differ the gap between them in gender representation will be greater.*

As noted above, the gender representation gap between meso and national legislatures will also vary with the level of economic development and the character of the state (federal/unitary).

H_{2,4}: *As the level of economic development increases, the gender representation gap between meso and national legislatures will decrease.*

H_{2,5}: *There will be significant differences between federal and unitary states in the national–meso gender gap.*

We will test all nine of these hypotheses using bivariate analysis before moving on to a multivariate analysis that will allow us to view their relative impact along with that of other critical factors.

Findings: Gender Representation at the Meso Level

It is our expectation that the representation of women at the meso level, as is the case in national legislatures, will vary with the type of electoral system. As can be seen from Table 1, the percent of women in meso legislatures increases significantly ($p < .001$) with the degree of proportionality in the

≡ TABLE 1
ELECTORAL SYSTEM, LEVEL OF DEVELOPMENT AND
GENDER REPRESENTATION IN MESO LEGISLATURES*

Electoral System Type (meso legislature)	n	Mean Percentage of Women in Meso Legislatures
Advanced Industrial Democracies (AIND)		
Plurality/Majority	78	23.5
Mixed**	38	21.0
Proportional	170	29.1
Total	286	26.5
Developing Country Democracies (LDC)		
Plurality/Majority	111	10.3
Mixed	36	18.6
Proportional	103	14.8
Total	250	13.3
Combined		
Plurality/Majority	189	15.8
Mixed	74	19.8
Proportional	273	23.7
Total (N)	536	20.4

* $p < .001$

**systems "where different formulas . . . are used simultaneously in the same election (Blais and Masicotte (1996: 65).

system, moving from 15.8 percent in the majoritarian to 19.8 in the mixed and 23.7 in the proportional systems (H_{1,1}).

We need to also explore the degree to which the impact of electoral system types varies between AIND and LDC democracies. In the AIND democracies those meso legislatures which use a proportional electoral system of some type have significantly higher percentages of women holding seats than do those using either majoritarian or mixed systems. The key finding here is that in AIND sub-national legislatures using proportional electoral systems the percentage of women legislators is on average nearly twenty-five percent greater than is the case in majoritarian systems and nearly forty percent greater than in mixed systems.

The expected relationship holds only in part at the meso level for LDC democracies in our sample. Proportional systems have nearly 44 percent greater gender representation in meso legislatures than do plurality systems. The mixed category is even more impressive. However, the small number of both cases and nations which include most of the meso units in this category, make generalizations somewhat problematic.

In each electoral system category among the LDCD democracies the percentages of women represented are considerably lower than is the case for the comparable groups in established industrial democracies. Consistent with Matland (1998) there is a major difference by level of development in the overall presence of women at the meso level

($H_{1.3}$). However, unlike his results, the plurality/majority-proportional relationship to gender representation is relatively strong. In general it appears that regardless of the level of development, the electoral system type is quite important in elections at the sub-national level as well as at the national level.

Two additional factors, the relative wealth of the geographic entities being compared and the institutional issues associated with the unitary or federal structure of the state, require some consideration. The formal structure of the state (federal-unitary) may be of some importance even though the influence of this factor seems to have diminished over time with the growth of meso government units in unitary states. In fact we find significant differences in women's representation in subnational legislatures between unitary and federal states. Meso legislatures in the former ($n = 177$) average 18.6 percent women while in the latter ($n = 359$) 24.0 percent ($F = 24.2$, $p < .001$). Even when we control for electoral system type, the impact of the federal-unitary structure remains statistically significant ($H_{1.4}$).

As noted above, when we employ our AIND democracies/LDC democracies variable as a very rough proxy for wealth at the national level $H_{1.3}$ is confirmed. In the case of actual meso wealth, we were able to collect and calculate a rough measure in the form of the GDP per capita for 223 of the meso "regions" in our sample). Unfortunately, the lack of overlap between mesos and boundaries for which income data are collected, and the difficulty of collecting such data in less developed countries severely limited our sample. Thus, from the LDC countries, only Mexico's states are included in our sample for which data on GDP are available.

The correlation between wealth as measured by GDP/cap at the meso level and the representation of women is significant but only moderate in strength ($r = .31$, $p < .001$, $n = 223$). This cross-national examination potentially masks a more important relationship that may come into play within countries. In order to obviate the problem of the small n in some countries and the possibility of serious distortions produced by one or two outliers we examine both the Pearson and the rank correlations (Spearman's rho) within countries.

In only four nations does the wealth factor seem to covary with meso gender representation, Austria, Canada, Italy and the U.S. In Austria and Canada the relationship is very strong ($r = .77$ $p < .01$, $\rho = .82$ and $r = .76$ $p < .05$, $\rho = .63$, respectively) and statistically significant indicating that gender representation in state/provincial legislatures is strongly associated with the relative wealth of the area. The relationship holds (is statistically significant) but is somewhat weaker for the state legislatures in the U.S. ($r = .38$ $p < .03$, $\rho = .32$) and the Italian Regions ($r = .39$ $p < .05$, $\rho = .46$).

The Case of Party Magnitude

Recall that it is widely stated in the literature that party magnitude is positively and strongly associated with gender

representation in legislatures. We first look at the relationship between party magnitude and the number of women elected to a meso legislature from a party. Not surprisingly there is a positive and very strong correlation between the two ($r = .84$, $p < .001$, $n = 1,348$). What this indicates, however, is that parties holding many seats have more women (in absolute terms) than do smaller parties.

The more critical question is whether party magnitude is related to either the percent of women elected by a party or the percent of women in the legislative body. That is, do large party magnitudes translate into greater relative representation of women among a party's elected legislators than do small party magnitudes. Is there any systematic relationship whatsoever between the two? We first divided the sample into those parties that exceed the percent of women in their respective meso legislatures ($n = 581$) and those that are equal to or less representative of women than their respective meso legislature ($n = 767$). We then ran an Anova, comparing the mean party magnitude of the two groups. Consistent with expectations, there is a significant difference ($F = 7.79$, $p < .005$, $n = 1,348$) between the two, with the former holding on average just over ten seats while the figure for the latter is only 8.4. The significance of this relationship may be more a function of the sample size than the strength of the relationship. When we compute the correlation between party magnitude and the percent of women among the party's legislators, the relationship, although significant is extremely weak ($r = .07$, $p < .01$). This would indicate that party magnitude accounts for about one half of 1 percent of the variance in gender representation in a party's legislative delegation. In sum, party magnitude does not play an important role in the relative representation of women ($H_{1.2}$).

In addition, we ran the same statistical tests within countries to see if the impact is different in different systems. In only one case, Germany, did we find a significant and even as much as a moderate relationship. In that country the relationship runs just the opposite of expectations. That is, the percent of women in a party's delegation in a meso legislature is inversely related to party magnitude ($r = -.35$, $p < .01$). In two other countries, France and the Netherlands the correlations are positive as expected but relatively weak ($r = .14$ and $r = .26$ respectively).

The perceived and widely cited relationship is more a function of perceptions of the absolute rather than the relative numbers of women sent to the legislature by parties of different sizes. In fact, some of the smaller parties such as the various incarnations of the Greens are more likely to have gender equity promoting regulations in place. In many cases these parties may have high percentages of women among their relatively small delegations of elected representatives, thus canceling out the potential impact of party magnitude. There is also some indication of a diffusion affect of gender quotas from smaller to larger parties. This test applies to the meso level but the authors believe its effects are similar in national legislatures.

≡ TABLE 2
OLS MODEL FOR PREDICTING THE PERCENTAGE OF WOMEN IN MESO LEGISLATURE*

Variables	B	Standard Error	Beta	t	Sig
Constant	18.181	1.774		10.251	0.000
Plurality System	-5.583	1.472	-0.219	-3.792	0.000
Proportional System	3.185	1.29	0.131	2.469	0.014
Level of Development	13.496	0.91	0.554	14.833	0.000
Federal/Unitary	0.378	1.037	0.015	0.365	0.715
Relative Proportionality of Electoral Systems	-5.385	1.088	-0.223	-4.950	0.000

*R² = 0.364, Adjusted R² = 0.358; F = 60.644; p < 0.001, n = 535.

Multivariate Analysis: Gender Representation in Mesos

We employ OLS regression (see Table 2) in order to determine which factors contribute and the relative contribution of each to an explanation of the level of women's representation in meso legislatures. We have tested several models including a variety of combinations of variables before settling on the most elegant and theoretically satisfying.

Our dependent variable is the percentage of women in the meso legislature. The independent variables include level of development (AIND or LDC democracy), electoral system type (a dummy variable for plurality system and another for proportional system), the national institutional structure (a binary variable, federal or unitary), and a measure of the relative proportionality of the central and meso legislatures' electoral systems. The collective importance of the three electoral system variables is predominant. The difference between AIND and LDC democracies is almost equally powerful. Our federal/unitary state measure fails to reach a level of statistical significance and has virtually no impact. We also examined the size of the legislature but it has no impact on the proportion of women holding seats. Overall, the model explains more than a third of the variance in levels of gender representation at the meso level (R² = .364, p < .001, n = 535).

Findings: The National–Meso Gender Gap

It is our expectation that due to the existence of fewer potential barriers women will in general be better represented

in their meso than in their national legislatures. As can be seen from Table Three, this appears to be the case. The difference between gender representation in meso and national legislatures is significant and in the expected direction, but relatively weak (H_{2,1}). In 56 percent of the meso legislatures gender representation is greater than is the case in their respective national legislatures (see Table 3).

For mixed and proportional systems the representation of women in meso legislatures exceeds that of the national legislature in about three out of five (60.5 percent for mixed and 58.2 percent of PR) cases as well. Indeed, for plurality/majority electoral systems in AIND democracies, representation in sub-national legislatures is greater than in the respective national legislatures in nearly three out of four (74.4 percent) cases and in a greater percentage of cases than for either of the other two types of electoral systems. The average gaps between meso and national representation are also significantly larger for plurality/majority systems (H_{2,2}).

Meso legislatures using plurality electoral systems are more likely than either mixed or proportional systems to have greater gender representation at the subnational than the national level. Furthermore, given the greater access women have in multi-member districts under PR electoral systems, we expect any gap between the national and meso legislatures to be smaller where PR is used at both levels. Majoritarian systems should on the other hand show greater national-sub-national differences in favor of women's representation at the meso level. The data are consistent with this interpretation, the largest difference between meso and national gender representation occurring in the majoritarian

≡ TABLE 3
PERCENTAGE OF WOMEN IN MESO AND NATIONAL LEGISLATURES, ADVANCED INDUSTRIAL DEMOCRACIES
VS. DEVELOPING COUNTRY DEMOCRACIES*

	Mesos (mean % women by nation)	National Legislatures (% women)	% of Mesos with >% women than national legislature)	Mean difference in % women (local-national)
Advanced Industrial Countries (AIND)	26.5 (n = 286)	24.6 (n = 18)	62.9 (n = 286)	2.92
Developing Countries (LDC)	13.3 (n = 250)	14.7 (n = 11)	48 (n = 250)	-0.47
Total	21.5 (n = 536)	20.8 (n = 29)	56.0 (n = 536)	1.34

*p < 0.001

systems (3.2 percent, compared with 1.1 and 0.7 percent for mixed and proportional respectively). Gaps can be expected to be greatest where the electoral system types are different at the two levels, with the advantage going to the level with the more proportional system ($F = 7.7, p < .001$).

Also of interest here are the residuals because these help us to identify those countries which do not conform to the overall pattern very well. France, the U.K. and the U.S. stand out. These three countries show very large divergences between national and sub-national gender representation, with the sub-national showing much greater equity. The average difference in these countries in the percent of women (national vs. meso) strongly favors the sub-national by 13 percent, 11.7 percent, and 10.2 percent, respectively. The first two cases are especially important in illustrating the impact of the electoral system because they use different types at the national and meso levels ($H_{2,3}$).

In the case of France the electoral system at the national level is two rounds with a majority required in the first round and a plurality in the second round. The electoral system for the regional councils is proportional by party list. France has consistently had relatively low women's representation in the National Assembly (until 2002 elections when candidate quotas were employed), particularly for an advanced industrial democracy. Ranking 58th on the IPU list (IPU 2001 Women in Parliaments, World Classification) it is surpassed by every industrialized democracy except Italy (68th) and Japan (87th). At least part of the gender gap in representation in the Chamber of Deputies has been attributed to the restrictive electoral process and single seat constituencies. At the regional level, however, the electoral system is highly proportional, generates relatively low vote/seat distortions, has large multimember districts and closed party lists. In 21 of the 22 Regional Councils (Corsica is the exception) the percentage of women exceeds that in the national legislature. On average, the regional councils surpass the National Assembly by over 13 percent in the representation of women.

For the U.K. there are only three sub-national meso legislatures in existence, Scotland, Wales, and Northern Ireland. The first two use a mixed system for their elections as opposed to the classic FPTP of the national Parliament. In the case of Wales, 40 percent of the seats are held by women and in Scotland, 37.2 percent compared with only 17.9 percent for the national Parliament. In Northern Ireland, although its electoral system (STV) is considered to be "proportional," women's representation remains relatively low (13 percent). The long-standing conflict, competing religious communities, a large number of parties and relatively small district magnitude ($m = 6$), make gender representation there more problematic (Welch and Studlar 1995).

The U.S. case presents a different puzzle. Elections at both national and meso (state) levels are based on the same type of system, SMD but the meso national gap is quite large. Gender representation in state legislatures has grown slowly but steadily over the years, moving from 19.5 percent in 1993 (Rule 1994: 690) to 23.5 percent in 1999.

Currently, in 44 of the 50 states the percentage of women in the State legislature is greater than that in the U.S. House of Representatives. Among the exceptions only two state legislatures, Alabama and Kentucky (7.6 and 8.9 percent women respectively) are significantly lower in female representation than is the Congress (14 percent).

Does the pattern found in the U.S. hold across nations that have majority/plurality systems at both levels? Canada, Australia, and India, all of which use majoritarian electoral formulas at the meso level (two of Australia's mesos do not), are the other systems in our sample which may provide some evidence in this regard. In Canada, with FPTP elections in all provinces the national parliament and collectively the provincial parliaments have roughly the same percent of women, 19.9 percent and 20.4 percent respectively. Half of the provinces and two of the three territories rank below the national parliament and the other half and the remaining territory are above it. In the case of Australia, five of the six states and one of the two territories use a majoritarian electoral system while Tasmania and the Capital Territory use a proportional system. Electoral system type seems to play a limited role. Tasmania, with a proportional system just barely exceeds the national parliamentary distribution while Victoria, even with a majoritarian system actually has a female majority (51 percent). Five of the six majoritarian legislatures are close to the national parliament in gender representation.

In India, 22 of the 27 state parliaments are less representative of women than is the national parliament. In only one state, Delhi, is the margin in favor of the state legislature significant (12.9 percent compared to 8.8 percent in the national parliament). This is a case where culture and the level of development clearly come into play. However, a quota system requiring one third of local (but not meso) councillors to be women has been in existence since 1993, producing a core of experienced, potential future candidates for the state legislatures. A bill debated in the last three parliaments would require quotas at the state (meso) and national level as well.

Mexico is of interest here because it uses a mixed system for the national congress but FPTP at the state level. Consistent with expectations regarding electoral system effects, in an overwhelming majority of cases the individual state legislatures have fewer women (in percentages) than does the Congress. Furthermore, when the meso-level data are aggregated, gender representation at the national level exceeds that of the states by a wide margin.

Another disparity for consideration is that which exists in two countries using proportional representation at both the national and meso levels, Denmark and the Netherlands. These countries rank 2nd and 5th in the world in terms of gender representation in their national legislatures. In electorally and culturally similar Sweden and Norway (1st and 4th in gender representation nationally) aggregate meso-level representation of women actually exceeds that of the national legislature. In most counties in Sweden (18 of 21, 86 percent) and in Norway (16 of 19, 84 percent), the

≡ TABLE 4

MULTINOMIAL LOGISTICAL REGRESSION FOR PREDICTING GENDER REPRESENTATION GAP BETWEEN NATIONAL AND MESO LEGISLATURES

Variables	2 Log Likelihood of Reduced Model	Chi-Square	Degrees of Freedom	Sig
Intercept	519.028	0	0	—
% of Women in Local Legislatures	684.396	165.368	1	0.000
Plurality	526.696	7.668	1	0.006
Proportional	523.253	4.225	1	0.040
Federal/Unitary	519.437	0.410	1	0.522
Relative Proportionality of Electoral Systems	543.564	24.537	2	0.000
Level of Development	530.070	11.043	1	0.001

Pseudo R² Nagelkerke = 0.404.

percent of women representatives is greater than that in the national legislature. In Denmark and the Netherlands, where women's representation in the national legislature is roughly equivalent to that of Norway and Sweden, there is a surprisingly wide gap in favor of the national legislature. In Denmark, the gap when calculated over all meso units (counties) is 8.9 percent, with 13 of 14 councils having a lower percentage of women than the national. In Netherlands the comparable figures are 9.2 percent for the gap and 11 of 12 of the provincial legislatures having relatively fewer women at this level. In the case of Denmark, this may be related to the relatively small size of the county councils and the associated district magnitude. In the Netherlands the use of a single national constituency and the associated high degree of proportionality for the national legislature compared to smaller district magnitude provincially may have some impact. Leijenaar (1997) suggest that the party system at the provincial level is an important factor as well.

As noted above, there may be differences between the AINDs and the LDCs in the national meso gender gap. The gap is larger for advanced industrial democracies ($H_{2,4}$, $F = 19.7$, $p < .001$). Of the 286 meso legislatures in this category, gender representation at the sub-national level is greater than the national in 180 (63 percent). The situation is quite different in those nations considered transitional. Their mesos tend to be evenly split with a slim majority (52 percent) being less representative of women than their respective national legislatures. The average gap between the two levels is, however, much smaller in these systems than in the AINDs.

In order to answer the question of whether the same cultural factors that affect women's representation at the national level impact on such representation at the meso level we examine this relationship in two ways. First we compute the correlation between the percent of women in the meso legislatures and their national level counterparts. The correlation between gender representation at the two levels is very strong and significant ($r = .70$, $p < .001$, $n = 536$). It is equally strong when we do the same calculation for the 286 and 250 meso units in the AIND and LDC democracies respectively ($r = .63$ and $r = .56$, $p < .001$). However, there may be considerable variance between

regions within a given country (Rule 1994) in the gender distribution of representatives they send to the national level. Since women legislators in the national assemblies may be concentrated in certain regions or areas (Norranders and Wilcox 1998) our look at access at the meso level should also take this into account when disparities are being calculated.

An alternative way to check this relationship was therefore also undertaken. For each nation included in our sample we have aggregated the total number of seats available in sub-national legislatures and the total number of female officeholders and calculated the overall percent of seats in meso legislatures held by women nationally. We use this aggregate measure to compare with the percent of women in the national legislature.

Since we are now comparing meso units aggregated by nation our n has become smaller ($n = 29$, 18 AIND and 11 LDC democracies). We therefore report both Pearson's r and a rank correlation (Spearman's ρ) so as to take into account the possibility of an outlier distorting the strength of the relationship in the former. For our 29 nations the correlations are quite strong ($r = .85$, $p < .001$, $\rho = .84$, $p < .001$) indicating that the overall representation of women at the sub-national level and at the national level are very closely related. When we disaggregate we find very strong relationships for both AIND democracies ($r = .77$, $p < .001$, $\rho = .74$, $p < .001$) and the LDC democracies ($r = .93$, $p < .001$, $\rho = .85$, $p < .001$).

We now perform a multivariate test on the gap in gender representation between the national and the meso legislature (see Table 4). For our dependent variable we have classified all of the mesos into two categories, those in which gender representation is greater at the meso than the national level and those in which representation is greater at the national than the meso level. Because this variable is nominal, we employ multinomial logistical regression rather than OLS. The independent variables include the same list employed in our OLS regression, level of development, electoral system type, the federal-unitary state measure, and a measure of the relative proportionality of the central and meso electoral systems, and the percent of women in the meso legislature.

This model successfully classifies 75 percent of our 534 cases, (71 percent of those where there is a greater percent of women in the national legislature and 78 percent of those where the percentage of women is greater in the meso legislature). The pseudo R^2 (Nagelkerke) is .40. As can be seen from Table 4, electoral system factors account for a very significant part of the success in classification. Thus, for example, having a plurality electoral system at the meso level decreases the likelihood of having better gender representation in the national than in the meso legislature. The same is true where different electoral systems are in place at the meso and national levels with greater proportionality in the meso than the national electoral system contributing to a gap in gender representation favorable to the meso. Our proxy variable for economic development, AIND/LDC is likewise an important contributor in the model. Also of some interest is the fact that the nature of the state structure, federal/unitary does not have a significant impact on our dependent variable.

CONCLUSIONS

The number of countries employing meso-level legislatures or councils to address critical policy issues has expanded rapidly in recent years as part of the adoption of a broad strategy of decentralization. Gender representation and access to elective legislatures at this level has therefore become of critical importance. In this study we examined the representation of women in meso legislatures and the gap in representation between national and meso legislative bodies.

The representation of women in mesos is influenced in important ways by the proportionality of the electoral system and a country's level of economic development but not by the unitary/federal character of the state, party magnitude, or size of the legislature. Consistent with findings

for national legislatures the representation of women was found to be influenced in important ways by the electoral system, proportional systems generally providing for greater representation of women and plurality systems much less so. This is confirmed also in those cases where the national and the meso electoral systems are of different types (e.g., France, Mexico, the U.K.). The level of economic development, extent to which a democratic country has an advanced industrial as opposed to a less developed or transitional economy, is also of importance. Surprisingly, party magnitude, although widely cited in the literature, was found to have no relationship to the level of gender representation. Of some note is the fact that the federal or unitary character of a state per se seems to have no impact.

Our findings show that women are in general better represented, although the differences are modest, in their meso than in their national legislatures. The gender representation gap between national and meso legislatures is heavily influenced by electoral system proportionality, national meso differences in electoral system type and level of economic development. Overall meso-level gender representation is positively and strongly correlated with national legislative representation of women. Although there is some variation, the relationship is more likely to run from the local to the national in the industrial democracies in which meso units have had a long existence and the reverse in those in which meso units are relatively new creations.

As transitional countries become more industrialized we expect the gap in gender representation between levels to decline. What is quite clear, however, is that when we look at gender representation overall in the meso unit or the national meso gap in such representation, electoral system type and the contrast (where it exists) between national and meso electoral system types will continue to have a major impact on gender representation.

APPENDIX A
THE COUNTRIES, MESO LEGISLATURES, YEARS OF ELECTION, AND ELECTORAL TYPE USED IN THE ANALYSES*

Country	Unit	Year**	Electoral System
Argentina	42 provinces	1995	PR
Australia	6 (1) States, 2 (1) territories	1995 and 1999	Majority/Plurality
Austria	9/6 provinces	1991-1999	PR
Belgium	5 regions, 8 provinces	1995 and 1999	Mixed
Brazil	26 states	1998	Mixed
Canada	10 provinces, 3 territories	1991-1999	Majority/Plurality
Denmark	14 counties	1993 and 1997	PR
France	22 regions	1992 and 1998	PR
Germany	16 states	1990-1999	Mixed
Hungary	19 counties, 1 capital city	1998	PR
India	27/10 states	1994-2000	Majority/Plurality
Ireland	26 county	1999	PR
Italy	20/19 regions	1993-2000	Mixed
Mexico	31 states	1998	Majority/Plurality
Netherlands	12 province	1998	PR
New Zealand	9 regions	1999	Majority/Plurality
Nigeria	1 state	1999	PR
Norway	19 counties	1999 and 1995	PR
Poland	16 regions	1998	PR
Portugal	2 regions	1996	PR
Russia	90 oblast	1995-1998	Majority/Plurality
Senegal	10 regions	1998	Mixed
South Africa	9 provinces	1994-1999	PR
Spain	19 regions	1994 and 1999	PR
Sweden	25 county	1998	PR
Switzerland	23 cantons	1997-2002	PR
United Kingdom	3 regions	1998 and 1999	Mixed, STV***
United States of America	50 states	1999 and 2000	Majority/Plurality
Venezuela	23 states	1998	Mixed

*The complete data set, including a list of all mesos included, election dates and data sources are available from the authors on request.

**Multiple years mean that elections were held at different times for some units.

***Scotland and Wales are Mixed and Northern Ireland is STV.

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