

Leading by Example: Female Members of Parliament as Political Role Models

Author(s): Christina Wolbrecht and David E. Campbell

Source: *American Journal of Political Science*, Vol. 51, No. 4 (Oct., 2007), pp. 921-939

Published by: Midwest Political Science Association

Stable URL: <http://www.jstor.org/stable/4620108>

Accessed: 25/05/2009 14:03

---

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/action/showPublisher?publisherCode=mpsa>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

JSTOR is a not-for-profit organization founded in 1995 to build trusted digital archives for scholarship. We work with the scholarly community to preserve their work and the materials they rely upon, and to build a common research platform that promotes the discovery and use of these resources. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).



Midwest Political Science Association is collaborating with JSTOR to digitize, preserve and extend access to *American Journal of Political Science*.

# Leading by Example: Female Members of Parliament as Political Role Models

**Christina Wolbrecht** University of Notre Dame  
**David E. Campbell** University of Notre Dame

*One argument advanced in favor of descriptive representation is that female politicians serve as role models, inspiring other women to political activity. While previous research finds female role models affect women's psychological engagement, few studies report an impact on women's active participation, and none have done so in cross-national research. Our work also is the first to consider whether the impact of female role models is, as the term implies, greater among the young. Using three cross-national datasets, we find that where there are more female members of parliament (MPs), adolescent girls are more likely to discuss politics with friends and to intend to participate in politics as adults, and adult women are more likely to discuss and participate in politics. The presence of female MPs registers the same effect on political discussion regardless of age, but the impact on women's political activity is far greater among the young than the old.*

It is essential to provide positive female role models, who make women realise [sic] that getting involved into politics must not be left to men in suits.

Sandra Gidley  
Member of Parliament  
(Liberal Democrat)  
United Kingdom, 2004<sup>1</sup>

We have had ten years' experience with a gender-equal government and an almost gender-equal parliament. Do you understand what this means for today's ten-year-olds? . . . Their idea of what is normal is very different from the one that I, a woman born in the 1950s, had. When I was little, almost all the politicians were men. This

is what influenced my image of what is normal . . . Women's entry into the political arena has been of tremendous importance.

Gertrud Åström  
Government Analyst  
Sweden, 2005<sup>2</sup>

**D**escriptive representation for women has been advocated—by both scholars and activists—for many reasons. The presence of female legislators, cabinet members, prime ministers, and presidents, it is argued, helps compensate for past and present injustice, provides a voice for overlooked interests, and contributes to the overall legitimacy of democratic institutions (Phillips 1995; also Dovi 2002; Mansbridge 1999).

---

Christina Wolbrecht is associate professor of political science, University of Notre Dame, 217 O'Shaughnessy Hall, Notre Dame, IN 46556 (Wolbrecht.1@nd.edu). David E. Campbell is associate professor of political science, University of Notre Dame, 217 O'Shaughnessy Hall, Notre Dame, IN 46556 (Dave.Campbell@nd.edu).

Thanks to the Spencer Foundation and the National Academy of Education for research support; Bernard Fraga, Patrick Jaicomo, Christina Genardi, Darlene Luebbert, and Andrew Vogt for excellent research assistance; Michael Coppedge, Lane Kenworthy, and Andy Reynolds for sharing data in person or online; Lisa Baldez, Karen Beckwith, Joni Lovenduski, and Pippa Norris for pointing us in useful directions; and Corrie Hunt, Debra Javeline, Miki Caul Kittilson, David Nickerson, Kathryn Pearson, Ben Radcliff, Wendy Rahn, Monica Schneider, and the anonymous reviewers for valuable feedback. Judith Torney-Purta has been especially helpful. Previous versions of this article were presented at the 2005 annual meeting of the American Political Science Association, the Program in American Democracy Research Workshop at Notre Dame, the University of Minnesota, and The Ohio State University. Both authors contributed equally to the research.

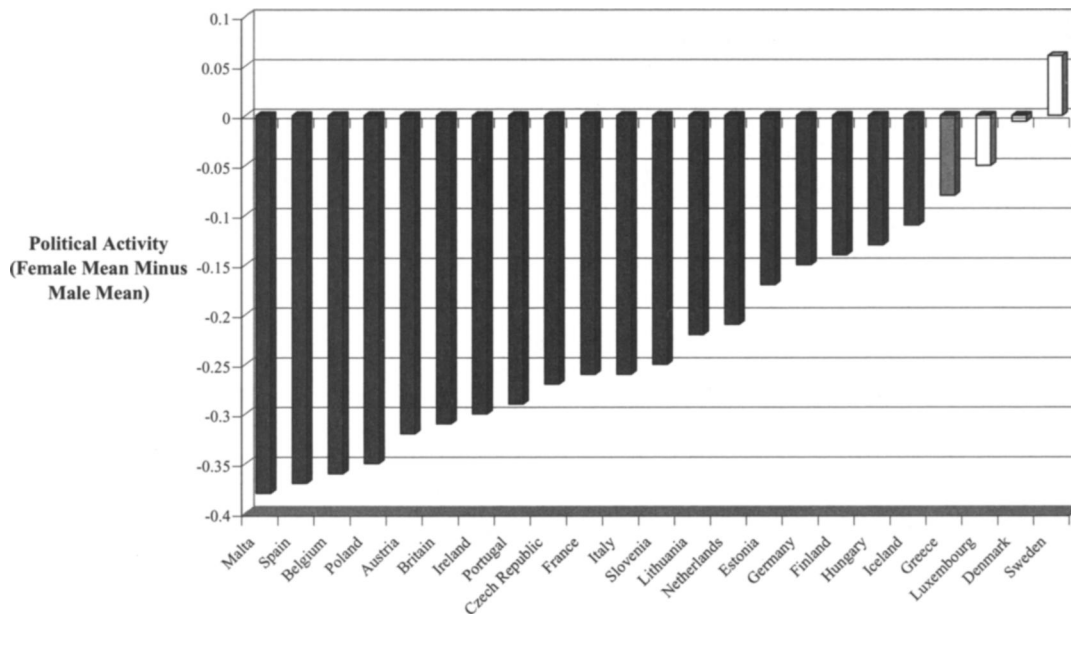
<sup>1</sup>"Women Need Political Role Models—Gidley." Press Release, Liberal Democrats (political party), United Kingdom. 27 April 2004. Accessed 9 February 2006 <<http://www.libdems.org.uk/news/story.html?id=6611&navPage=news.html>>.

<sup>2</sup>Karin Alfredsson. 2005. "Politics lead the way." Sweden.se (The Official Gateway to Sweden). Accessed 9 February 2006 <[http://www.sweden.se/templates/cs/CommonPage\\_\\_\\_12899.aspx#1](http://www.sweden.se/templates/cs/CommonPage___12899.aspx#1)>.

*American Journal of Political Science*, Vol. 51, No. 4, October 2007, Pp. 921–939

©2007, Midwest Political Science Association

ISSN 0092-5853

**FIGURE 1A Female-Male Differences in Political Activity (Adults)**

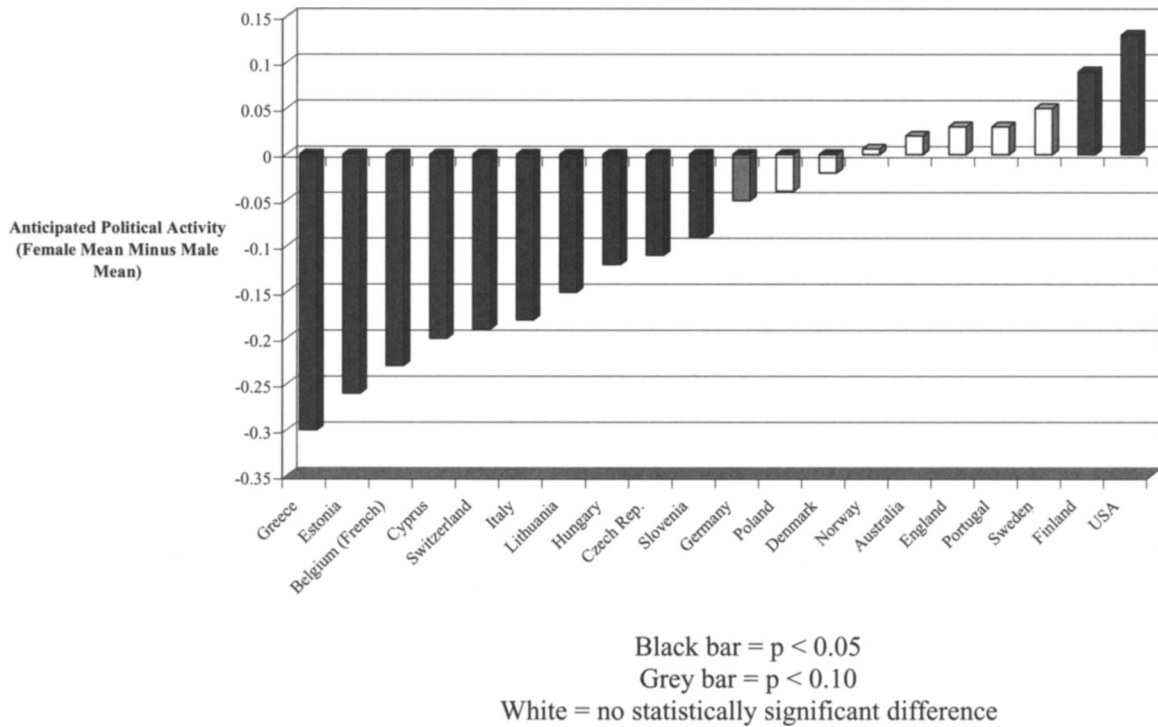
Female representatives also have been expected to spur engagement with politics among other women (e.g., Burns, Schlozman, and Verba 2001; Carroll 1985; Kittilson 2005). As exemplars of female political activism, female politicians may thus function as true role models, inspiring other women and girls to be politically active themselves. As the term “role model” suggests, we might particularly expect female politicians to inspire younger women who are still learning about the political world and their place within it. While some studies, almost entirely limited to the United States, have found the presence of female politicians to affect women’s psychological engagement with politics (e.g., efficacy or interest), few have reported an impact on women’s active political participation, almost none have examined the impact of role models outside of the United States, and no previous research has considered the relationship between the role-model effect and age.

In most of the world, it is unusual, if not rare, for women and girls to observe other women in positions of political leadership. In 2007, women comprise about 17% of members of parliament (MPs) worldwide, with considerable variation from country to country; women currently hold 47% of seats in the lower house in Sweden, but just 13% of seats in Greece’s lower house, for example (IPU 2007). In the late 1990s, women made up, on average, about 17% of the cabinet ministers in the world’s established democracies (Reynolds 1999), and only 39 nations had ever elected a woman president or prime minister (Norris and Inglehart 2001).

At the same time, women and men in the mass electorate differ in their propensity for political action across democratic states (e.g., Christy 1987; Verba, Nie, and Kim 1978). For example, Figure 1A displays differences in political activity among men and women across 23 democratic nations (European Values Survey), while Figure 1B displays the same for *intended* activity among adolescents across 20 democracies (IEA Civic Education Study).<sup>3</sup> In almost every case, women are (or intend to be) less politically active than men, raising serious normative concerns about political equality and representation.

There are myriad potential explanations for the gender gap in political activity. In this article, we focus on one factor that is often noted but has received virtually no empirical attention in cross-national research: the presence of descriptive representatives. Specifically, we ask whether cross-nationally, the presence of women in political office has an impact on the political activity of women. Using three different datasets, we find that where there are more women in political office, adolescent girls are more likely to discuss politics with friends and to intend to participate in politics as adults, and adult women are more likely to discuss and participate in politics. The presence of female MPs registers the same effect on the propensity for political discussion across age cohorts, but the impact on political activism is far greater among the young than it

<sup>3</sup>Details on both surveys and the measures employed are found below and in the appendix.

**FIGURE 1B Female-Male Differences in Anticipated Political Activity (Adolescents)**

Source: Figure 1A, European Values Survey. Figure 1B, IEA Civic Education Study. Dependent variables have a standard deviation of 1.0.

is on the old. That is, while female MPs stimulate political discussion among all women, regardless of age, it is largely among young women that the presence of female role models helps translate political engagement into a greater propensity for political action.

## Expectations and Evidence

Scholars and activists have long expected the presence of women in office to encourage greater political involvement among their fellow female citizens. Extant empirical work has focused primarily on the United States, but the theoretical arguments and proposed causal mechanisms are applicable, and have been proposed (e.g., Kittilson 2005), cross-nationally. Most previous work has concerned psychological engagement (e.g., interest, attention) rather than actual political activity. We seek to determine if female politicians serve as role models in the fullest sense—encouraging other women and girls to follow in their footsteps and participate actively in politics. We examine two kinds of political activity: political discussion with friends and family, and political participation, such as joining a political group or working for a party.

First, we ask whether female descriptive representatives encourage political discussion among women (*discussion hypothesis*). The mere presence of fellow group members may make politics a subject of women's discussion. To the extent that female politicians raise issues of interest to women (e.g., Childs and Withey 2004; Swers 2002; Wolbrecht 2002), frame legislative decision making from women's perspective (Walsh 2002), and provide substantive representation (e.g., Lijphart 1991; Schwindt-Bayer and Mishler 2005; Swers 2002), female role models may spark women's discussion about political topics. Previous research finds that the presence of female politicians is associated with greater psychological engagement (e.g., interest, attention, efficacy) in the United States (Atkeson 2003; Atkeson and Carrillo 2007; Burns, Schlozman, and Verba 2001; Koch 1997; Sapiro with Conover 1997) and in the United Kingdom (Norris, Lovenduski, and Campbell 2004), which may translate into a greater propensity for political discussion.<sup>4</sup> With regard to discussion specifically, scholars have reported positive effects under certain

<sup>4</sup>Scholars have found evidence of a similar effect among other politically underrepresented groups in the U.S., including African Americans (Abney and Hutcheson 1981; Bobo and Gilliam 1990; Gilliam 1996; Gilliam and Kaufmann 1998; Tate 1991; but see Gay 2001; Leighley 2001) and Latinos (Pantoja and Segura 2003).

conditions for both proselytizing (encouraging others to vote for a particular candidate) and conversing about politics in general (Atkeson 2003; Hansen 1997; but see Lawless 2004).

Second, the presence of female politicians might encourage women to enter the political arena themselves (e.g., Burns, Schlozman, and Verba 2001; Carroll 1985); that is, might make it more likely that women are (or, in the case of young women, intend to be) politically active (*role model hypothesis*). The expectation is that seeing others “like them” active in political life may inspire women and girls to active political participation. Impact on attitudes such as interest and efficacy is important, but the ability of female role models to inspire actual political involvement is arguably of even greater consequence and import. Yet, while widely proposed as a rationale for greater descriptive representation, most previous research on American adults has reported weak, inconsistent, or nonexistent links between the presence of female politicians and women’s political participation (e.g., Dolan 2006). However, other work finds that the presence of visible female politicians is positively associated with a range of anticipated activities among American adolescent girls (Campbell and Wolbrecht 2006), and that the presence of a successful female MP candidate predicts greater campaign volunteerism and turnout among women in the United Kingdom (Norris, Lovenduski, and Campbell 2004). We are not aware of any large-N cross-national research linking descriptive representation and women’s political activity.

Finally, the term “role model” suggests that the impact of descriptive representatives is greatest among young people (*socialization hypothesis*), a possibility unexamined by previous research. Young people are in the process of learning about the political world and their place within it, and thus their actions may be particularly open to influences in their environment. As individuals age, many of their behaviors become more established and less malleable, and thus, we hypothesize, less influenced by such factors as the presence of female representatives.

The expectation that political attitudes and behaviors might be most open to influence at a younger age is supported by research throughout the world which suggests that political activity is habit forming—participating at a young age is a strong predictor of participation later in life, and perhaps more importantly, not participating as one enters political adulthood makes future participation increasingly unlikely (Franklin 2004; Gerber, Green, and Shachar 2003; Jennings and Stoker 2004; Plutzer 2002). Other work suggests that the attitudes and actions of the young are more malleable and susceptible to cues than

are those of older citizens who have established political habits (Campbell 2002; see Sears 1975). Dramatic political events appear to have a particularly strong and long-lasting impact on the political predispositions of young people as they enter political life (Beck 1974; Beck and Jennings 1991; Inglehart 1981; Sears and Valentino 1997).

## Data and Method

We examine the impact of female politicians on the political activity of women and girls cross-nationally by employing three studies: the European Values Survey (EVS), conducted in 1999–2002; the European Social Survey (ESS), which took place in 2004; and the Civic Education Study (CES),<sup>5</sup> a survey of adolescents conducted by the International Association for Evaluation of Educational Achievement (IEA), the same organization that provides cross-national comparisons of academic performance, in 1999–2000.<sup>6</sup> The target age for the CES was 14 years old, which in most nations meant the eighth grade.<sup>7</sup> By employing three distinct surveys, we are able to examine each hypothesis across more than one dataset, providing a reliability check that increases our confidence in the results. (Consult the online appendix for details on the construction of all variables).<sup>8</sup> To maximize comparability across these three datasets, the analysis has been limited to fully democratic countries, nations receiving the maximum democratization score on the Freedom House index.<sup>9</sup> The EVS, ESS, and CES models thus include 23, 22, and 20 nations, respectively, with considerable overlap across datasets, as Table 1 indicates.

<sup>5</sup>Details about the European Values Survey can be found in European Values Study Group (2005). More information regarding the European Social Survey is located in Jowell (2005) and at <http://www.europeansocialsurvey.org>. For more on the CES, see Torney-Purta et al. (2001) and <http://www.wam.umd.edu/~iea>.

<sup>6</sup>In each nation, a representative sample of schools was selected; within each school one class of a civics-related course (i.e., history or social studies) was selected. Response rates among students were very high, averaging 94 percent; participation rates among schools were lower but still respectable (cross-national average of 84 percent).

<sup>7</sup>In nine countries, including the U.S., respondents were in the ninth grade. In Germany, three federal states refused to participate in the study. For more details on the methodology of the study, see Torney-Purta et al. (2001).

<sup>8</sup><http://www.nd.edu/~dcampbe4/rolemodel-appendix.pdf>

<sup>9</sup>Source: Kenworthy and Malami (1999). Note that the results are substantively identical if the nations with a lower Freedom House score are retained and the Freedom House score is used as a control variable. Results available upon request.

**TABLE 1 Nations Covered by the Civic Education Study, European Values Survey, and European Social Survey**

|                | Civic<br>Education<br>Study | European<br>Values<br>Survey | European<br>Social<br>Survey |
|----------------|-----------------------------|------------------------------|------------------------------|
| Australia      | •                           |                              |                              |
| Austria        |                             | •                            | •                            |
| Belgium        | • <sup>1</sup>              | •                            | •                            |
| Britain        | • <sup>2</sup>              | •                            | •                            |
| Cyprus         | •                           |                              |                              |
| Czech Republic | •                           | •                            | •                            |
| Denmark        | •                           | •                            | •                            |
| Estonia        | •                           | •                            | •                            |
| Finland        | •                           | •                            | •                            |
| France         |                             | •                            | •                            |
| Germany        | •                           | •                            | •                            |
| Greece         | •                           | •                            | •                            |
| Hungary        | •                           | •                            | •                            |
| Iceland        |                             | •                            | •                            |
| Ireland        |                             | •                            | •                            |
| Italy          | •                           | •                            |                              |
| Lithuania      | •                           | •                            |                              |
| Luxembourg     |                             | •                            | •                            |
| Malta          |                             | •                            |                              |
| Netherlands    |                             | •                            | •                            |
| Norway         | •                           |                              | •                            |
| Poland         | •                           | •                            | •                            |
| Portugal       | •                           | •                            | •                            |
| Slovenia       | •                           | •                            | •                            |
| Spain          |                             | •                            | •                            |
| Sweden         | •                           | •                            | •                            |
| Switzerland    | •                           |                              | •                            |
| United States  | •                           |                              |                              |

<sup>1</sup>French Belgium only.<sup>2</sup>England only.

### Dependent Variables

We are interested in the effect of the presence of female political role models on propensity for political discussion and political activity. Among the adult datasets, the EVS (but not the ESS) contains a measure of political discussion, in which respondents are asked to indicate how often they talk about politics when they “get together with friends”: frequently, occasionally, never. We measure *Political Discussion* in the CES with two separate variables, one that asks about discussion with family members and another with friends. Both measures are indices that combine two questions about domestic and

international politics and, like all the indices we discuss, have been standardized to have a standard deviation of 1.0. This standardization provides a common metric by which to compare the magnitude of effect sizes across the models and datasets.

To measure *Political Activity* in the EVS, we create an index that includes petition signing, boycotting, demonstrating, and membership in and volunteer work for a political party and/or a “local action group.” For petitions, boycotts, and demonstrations, respondents are asked whether they (1) would never participate in that activity; (2) might participate in it at some point in the future; or (3) have participated in that activity. The questions about parties and groups ask if one is a member and/or is currently doing unpaid volunteer work for that organization. Because the diversity of response options does not lend itself to an additive scale (since it is not clear how to weight probable against reported activity), we instead generate a political activity index using factor analysis. Each respondent is thus assigned a factor score (minimum = 3.2, mean = 5, maximum = 6.98, standard deviation = 1).

The ESS contains a similar battery of Political Activity, asking whether the respondent has participated in each activity “during the last 12 months.” The activities include contacting government officials, working in a political party, working in another organization, wearing a campaign badge, signing a petition, participating in a lawful demonstration, and boycotting. Factor analysis confirms that these items load together, and so they have been combined into an additive index that has been standardized (minimum = 0.34, mean = 1, maximum = 5.86, standard deviation = 1). Note the considerable overlap in the activities queried in these two sources of data; the most significant difference is that the ESS asks about wearing a campaign badge and the EVS does not.

To examine the impact of female politicians on political activity among adolescents in the CES, we employ a set of items in which respondents were asked, “When you are an adult, what do you expect that you will do?” followed by a list of activities that includes join a political party, write letters to a newspaper about social or political concerns, and be a candidate for local or city office (minimum = 0, mean = 1.5, maximum = 4.44).<sup>10</sup> While these are all conventional forms of political behavior and thus correspond to questions asked of adults

<sup>10</sup>IEA researchers have used Item Response Theory to generate a scale combining these three items that weights them appropriately. For more details, see Schulz and Sibberns (2004). The scales produced by the IEA and included in the public-release version of the data correlate very highly with alternative methods of scaling, like factor analysis and additive scales.

in the EVS and ESS, it is nonetheless reasonable to ask whether questions regarding *Anticipated Political Activity* are a reliable guide to future activity. In the absence of longitudinal data, we are admittedly unable to determine if intentions to participate translate into actual behavior. While existing research indicates that young people who identify themselves as potential participants in the political sphere are more likely to develop into politically active adults (Campbell 2006), a more cautious interpretation of these questions is simply that they provide insight into adolescents' current state of mind: do they envision themselves as politically active (Youniss, McLellan, and Yates 1997)?

### Independent Variables

For each dependent variable, we are interested in determining whether the presence of female political leaders affects women's and/or girls' political activity. Each model thus requires an independent variable reflecting the presence of female politicians within a given country, which we gauge by the percentage of women in each nation's lower legislative house (*% Women*) at the time the survey was conducted (IPU 2005). As the country's premier law-making body, parliaments are the central political institutions of any ostensibly democratic nation-state. While women may serve in powerful and influential positions behind the scenes, their presence as MPs indicates a public and visible face for female politicians.<sup>11</sup> The countries in our three datasets reflect considerable variation in the presence of female MPs, ranging from just 6.3% in Turkey (in 1999) to 45.3% in Sweden (in 2004).

Our focus on the percentage of women in the national legislature (collective representation), rather than on whether the legislator a respondent can participate in choosing is female (dyadic representation; see Weissberg 1978),<sup>12</sup> distinguishes our work from most of the research on the role model effect in the United States (exceptions—

work that examines the impact of descriptive collective representation—include Atkeson and Carrillo 2007; Schwindt-Bayer and Mishler 2005). Our analysis also is somewhat distinct in focusing on the impact of female elected officeholders rather than candidates, although recent work has moved in that direction (Atkeson and Carrillo 2007; Schwindt-Bayer and Mishler 2005; see Lawless 2004). A focus on representation by the collective body of elected leaders is particularly appropriate in the comparative context. Outside of the United States, multimember districts and party-list voting mean that the direct relationship between citizens and an individual representative is comparatively obscured. Indeed, when the entire country is a single district (e.g., the Netherlands) the dyadic approach is simply not possible (Powell 2004). The candidate-centered nature of U.S. elections means specific candidates are highly visible to American citizens in a way that is not replicated abroad, even in other nations with single-member, first-past-the-post electoral systems, such as the United Kingdom. A system employing party lists also makes it possible that female candidates are relegated to the bottom of parties' lists, as appears to have been the case in the past (Kittilson 2005).<sup>13</sup> While certainly elections draw citizens' attention to the political sphere (thus highlighting the presence of female politicians), our point is simply that elections in the comparative context are less likely to highlight individual legislative candidates.

In addition to the *% Women* MPs, we account for the respondent's sex (*Female*). We test whether women and girls are affected differently than men and boys with an interaction term between *Female* and *% Women*. A positive coefficient for this interaction would indicate that as the percentage of women in office rises, women's discussion and activity change relative to that of men. The inclusion of the interaction term means that *% Women* (without interaction) reflects the impact of women in office on men and boys.

At the individual level, we control for a number of variables that have a plausible connection to political participation, and might differ by sex. In the adult surveys (EVS and ESS), these include *Education* level, employment status (*Unemployed* = 1), and whether the respondent is either *Married* or living in a committed relationship. We also control for *Age* since, as explained below, it is a variable of theoretical interest. In the CES, we control for two measures of adolescents' socioeconomic status and home

<sup>11</sup>An obvious alternative would be to test the impact of having women as the head of government. However, in the countries and time periods represented in our three datasets, we have too few cases of such a circumstance to conduct reliable tests. Moreover, in every case except one (Lithuania, where a woman served for several weeks as acting prime minister), women have served only as presidents, a position that tends to be mostly ceremonial, during the period of our study. We have no cases of a female prime minister in the countries in our three surveys (Christensen 2006).

<sup>12</sup>Dyadic representation focuses on the relationship between citizens and the representative whom they vote for or against—the MP(s) elected from their district, for example. Collective representation concerns the relationship between citizens and the representative institution (e.g., the national parliament) as a whole (see Weissberg 1978).

<sup>13</sup>It is worth noting that, for the reasons outlined in this paragraph, the inclusion of the U.S. in our analysis introduces a bias against our findings. And indeed, the overview scatterplots reported in the online appendix do suggest that the U.S., with a relatively low percentage of women in the lower house and a relatively high level of female political activity, is an outlier.

environment: the number of *Books at Home*<sup>14</sup> and the education level the respondent expects to achieve (*Expected Education*).

It is critical to attend to the potential for a spurious correlation—that what appears to be an effect of the presence of female MPs may actually be the effect of a political or social context that facilitates both female representation and women's political activity. To this end, we control for a number of country-level factors associated with the representation of women, and which also may be related to women's political participation. Most crucial are the cultural attitudes toward women and women's roles that characterize a society. Accordingly, we include a separate dummy for *Scandinavian* countries, which stand out as uniquely egalitarian in their gender norms (Paxton 1997; Paxton and Kunovich 2003). We employ a dichotomous variable for nations that were either part of the former Soviet Union, or within the *Eastern Bloc*. The number of years since female enfranchisement (*Suffrage*) gauges formal acceptance of female political roles and is a consistent predictor of women's representation (Kenworthy and Malami 1999; Reynolds 1999; but see Moore and Shackman 1996).<sup>15</sup>

We also include a direct measure of "gender ideology," attitudes toward the role of women in society (Paxton and Kunovich 2003).<sup>16</sup> In the ESS, an aggregate national mean for *Gender Ideology* is calculated from three questions that gauge attitudes toward gender equality, while in the EVS it is only possible to use a single question that asks whether men's jobs should take priority over women's when the economy is poor.<sup>17</sup> In the CES, gender ideology is measured as a national mean of three gender role items that closely resemble those in the ESS.

<sup>14</sup>Measures of socioeconomic status are notoriously difficult to obtain from adolescents, a problem that is only exacerbated in a cross-national study. The number of books in the home has been found to be a reliable indicator of socioeconomic status (see Torney-Purta et al. 2001).

<sup>15</sup>Other measures of the status of women—for example, ratification of the U.N. Convention on the Elimination of all Forms of Discrimination Against Women (Paxton 1997), presence and/or organizational strength of a women's movement (Paxton 1997), average number of children per woman (Moore and Shackman 1996), and abortion rights (Kenworthy and Malami 1999)—have all failed to predict the descriptive representation of women in earlier research.

<sup>16</sup>Paxton and Kunovich (2003) argue convincingly that the direct measurement of gender ideology is a superior predictor of the prevalence of female officeholders than proxies for cultural factors like a nation's religious composition or the length of time since women's suffrage. We err on the side of inclusion and control for all these potential factors.

<sup>17</sup>The question about men's jobs is the only gender ideology item asked in all EVS nations. Fortunately, a similar item appears in all three surveys.

We measure the relative socioeconomic development of women using the United Nations' *Gender-Related Development Index (GRDI)*, which has been shown to predict the representation of women (Reynolds 1999) and also might be associated with female engagement with politics. We include the share of women in the labor force (*Female Labor Force*) to tap into the population from which women leaders are most likely to emerge and as an indicator of the social acceptability of women in non-traditional roles (see Kenworthy and Malami 1999; Moore and Shackman 1996; Oakes and Almquist 1993; Paxton 1991; Paxton and Kunovich 2003).<sup>18</sup> We account for the possibility that some parties and ideologies may facilitate the representation of women (Caul 1999; Duverger 1955; Reynolds 1999; Rule 1987) and likewise encourage girls' political engagement by controlling for the proportion of the vote captured by left parties (*% Left*).<sup>19</sup> We control for the general level of national affluence (*Per Capita GDP*). Finally, proportional representation is strongly associated with greater descriptive representation for women (Duverger 1955; Rule 1981, 1987, among many others). We thus employ a measure of the *Electoral System* provided by Kenworthy and Malami, a 3-point ordinal scale in which nations are coded "2 if their electoral system uses proportional representation exclusively, 1 if it is a mixed system, and 0 if proportional representation is not used at all" (1999, 252).

The nested structure of all three datasets—respondents sampled within nations—requires attention to the clustering of respondents within nations, which is a violation of the standard assumption for OLS regression that cases are fully independent from one another. In intuitive terms, the problem is that two respondents from, say, Sweden have more in common with one another than with two respondents from Spain. For the national variables this is true by definition, since national-level variables are the same for every resident within a given country.

To address this issue, we employ a hierarchical linear modeling, or HLM, approach, which accounts for

<sup>18</sup>The existing literature suggests that a superior measure is the percentage of women in professional and technical professions, but these data are incomplete for our set of nations.

<sup>19</sup>In analyses not shown, we also have accounted for the impact of *Gender Quotas* on women's representation with a dummy variable that indicates whether a country has any national laws or party rules requiring women's inclusion in candidate lists (Kittilson 2006; Kunovich and Paxton 2005; Schwindt-Bayer 2005). Across the three datasets, only three nations do not have such quotas—Estonia, Finland, and the United States (and the U.S. is included only in the CES). Including the quota variable prevents the models from converging in some specifications, so in order to keep the independent variables consistent across all the models, we have opted to omit the quota variable. This omission does not have a substantive effect on any of our results. See the online appendix for details.



the grouped nature of the data by modeling the intercept of the individual-level equation as a function of the national-level variables, and allowing the intercept to vary randomly across nations (Raudenbush and Bryk 2002).<sup>20</sup> The interaction term, Female X % Women, which constitutes the test of our hypotheses, is known in HLM parlance as a cross-level interaction because it models the relationship between variables at different levels of aggregation. It too is allowed to vary randomly by nation. Using the ESS and EVS equations as an example, the model can be formally expressed as:

*Political Activity*

$$\begin{aligned}
 &= \beta_0 + \beta_1(\text{Education}) + \beta_2(\text{Unemployed}) \\
 &+ \beta_3(\text{Married}) + \beta_4(\text{Age}) + \beta_5(\text{Female}) + \tau \\
 &\quad \beta_0 = \gamma_{00} + \gamma_{01}(\% \text{ Women}) \\
 &+ \gamma_{02}(\text{Electoral System}) + \gamma_{03}(\text{Female Labor Force}) \\
 &+ \gamma_{04}(\text{Per Capita GDP}) + \gamma_{05}(\text{Suffrage}) \\
 &+ \gamma_{06}(\text{Gender Ideology}) \\
 &+ \gamma_{07}(\text{Gender} - \text{Related Development Index}) \\
 &+ \gamma_{08}(\% \text{ Left}) + \gamma_{09}(\text{Scandinavia}) \\
 &+ \gamma_{010}(\text{Eastern Bloc}) + \mu_0 \\
 &\quad \beta_5 = \gamma_{50} + \gamma_{51}(\% \text{ Women}) + \mu_5
 \end{aligned}$$

There are many country-level variables that might plausibly confound the relationships we report. Accordingly, we have opted to err on the side of including a relatively large number of country-level variables in the model, even though this presents a high statistical hurdle for any country-level hypotheses, as the statistical power for level-two variables is diminished. However, we stress that the results reported below are not dependent on the control variables included in the equations. The statistical relationships we report hold up for aggregate-level bivariate regressions, as well as hierarchical linear models with varying blocs of country-level variables. (Please consult the online appendix for the presentation of multiple specifications, including bivariate scatterplots.)

<sup>20</sup>In the tables reporting the results of the hierarchical models, we report the amount of individual-level variance explained. Following the suggestion of Raudenbush and Bryk (2002), this has been calculated by comparing the individual-level variance in a model with no independent variables (a one-way random ANOVA, or Model 1) with the variance in the model as fully specified (Model 2). Specifically:

$$\frac{\sigma^2(\text{Model 1}) - \sigma^2(\text{Model 2})}{\sigma^2(\text{Model 1})}$$

## The Impact of Female MPs on the Political Engagement of Women and Girls

Table 2 reports results for the models testing the discussion hypothesis, while the models in Table 3 test the role model hypothesis. Note that across all the datasets, the direction and significance of the national-level variables vary widely, reflecting that they cover different, albeit partially overlapping, sets of nations, and that there are apparently not consistent relationships between national characteristics and individual-level political involvement. The individual-level controls generally perform as expected.

Beginning with political discussion (Table 2), our attention centers on the interaction between Female and % Women. Among adults, women's propensity for political discussion does appear to rise as the percentage of female MPs increases (column 1;  $p < 0.01$ , two-tailed).<sup>21</sup> The presence of women in office has a positive impact on girls' frequency of political discussion with their friends (column 2;  $p < 0.05$ ), but does not correlate with more discussion at home (the coefficient is positive, but fails to reach statistical significance; column 3).

Figures 2A and 2B display the substantive interpretation of the significant interaction term for adult women (EVS) and adolescent girls (CES). As is our standard practice, we display the statistically significant results graphically, with other variables held constant at their means, in order to make the interpretation of the interaction term transparent. In both datasets, males have a higher level of political discussion than females but they do not discuss politics more as the percentage of women in office increases (the main, uninteracted effect for % Women is not significant in either the EVS or CES models). Women and adolescent girls, however, do talk about politics more in nations with more women serving in elective office. Both figures show that while the gender gap in talking about politics does not disappear when moving between the minimum and maximum values for women in office, it does narrow. Specifically, in Figure 2A we see that females' political discussion rises 0.25 points on a 3-point scale, while in Figure 2B it rises 0.4 standard deviations.

Turning to political activity (Table 3), we find support across two datasets for the role model effect. Among adults in the EVS (column 1), the interaction between Female and % Women is positive and statistically significant ( $p < 0.01$ ), while in the ESS (column 2), the interaction term is positive but fails to achieve statistical significance

<sup>21</sup>All of the  $p$  values we report are two-tailed.

**TABLE 2 Political Discussion (Hierarchical Linear Models)**

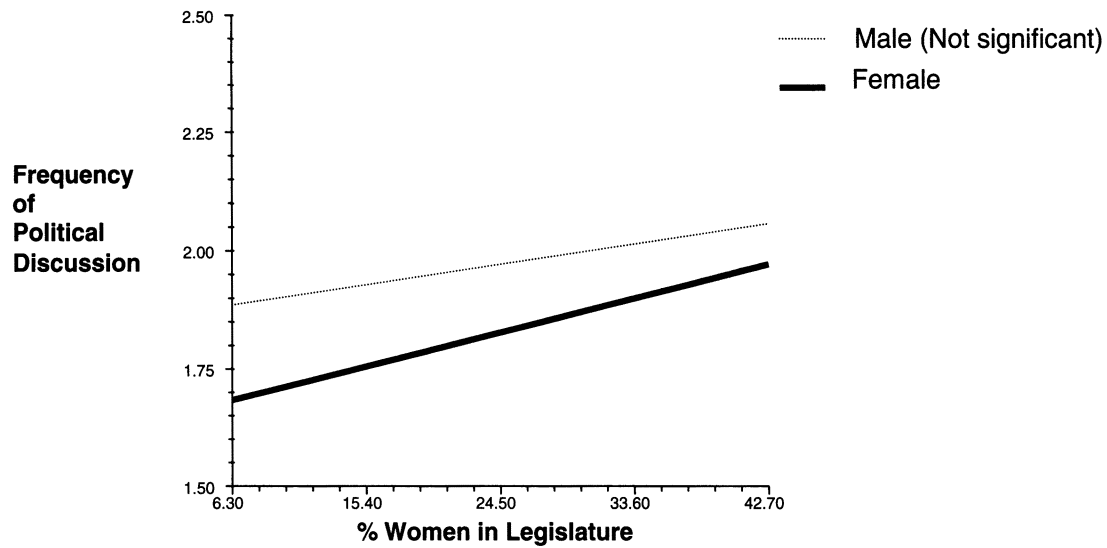
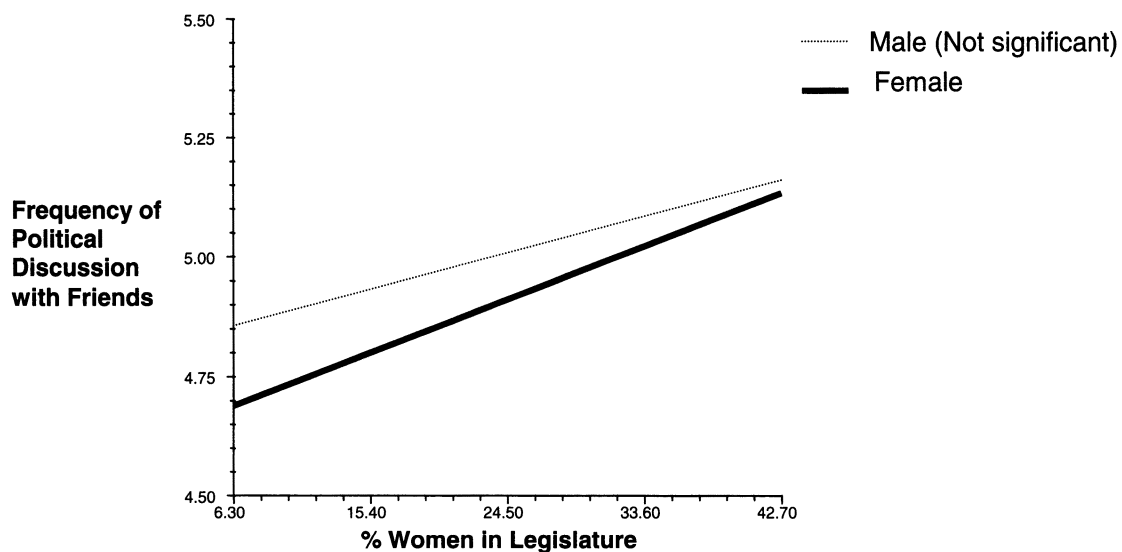
|  | <b>Adults:<br/>Political<br/>Discussion<br/>(1)</b> | <b>Adolescents:<br/>Political<br/>Discussion<br/>(with friends)<br/>(2)</b> | <b>Adolescents:<br/>Political<br/>Discussion<br/>(with family)<br/>(3)</b> |
|--|---|---|--|
| Female X % Women                           | 0.003<br>(0.0009)***                                | 0.004<br>(0.002)**  | 0.001<br>(0.001)   |
| % Women                                    | 0.005<br>(0.005)                                    | 0.008<br>(0.008)  | 0.0004<br>(0.006)  |
| Female                                     | -0.223<br>(0.020)***                                | -0.191<br>(0.034)***  | 0.002<br>(0.021)   |
| Age  | 0.004<br>(0.0004)***                                |   |  |
| <b>Individual-level Variables</b>          |   |   |  |
| Education (EVS) / Expected Education (CES) | 0.083<br>(0.005)***                                 | 0.094<br>(0.010)***   | 0.129<br>(0.010)***  |
| Books at Home                              |   | 0.046<br>(0.006)***   | 0.085<br>(0.008)***  |
| Married                                    | 0.084<br>(0.010)***                                 |   |  |
| Unemployed                                 | -0.054<br>(0.012)***                                |   |  |
| <b>National-level Variables</b>            |   |   |  |
| Electoral System                           | 0.054<br>(0.049)                                    | 0.205<br>(0.068)**  | 0.136<br>(0.054)**   |
| Female Labor Force                         | 0.012<br>(0.008)                                    | 0.203<br>(0.352)  | -0.266<br>(0.197)  |
| Per Capita GDP                             | -0.005<br>(0.004)                                   | -0.503<br>(0.461)   | 0.053<br>(0.295)   |
| Suffrage                                   | -0.001<br>(0.002)**                                 | -0.373<br>(0.169)**   | -0.359<br>(0.117)***   |
| Gender Ideology                            | 0.129<br>(0.221)                                    | 1.034<br>(0.348)**  | 0.763<br>(0.283)**   |
| Gender-Related Development Index           | -2.966<br>(1.806)                                   | -5.638<br>(3.474)   | -6.254<br>(2.916)*   |
| % Left                                     | -0.002<br>(0.003)                                   | -0.005<br>(0.005)   | -0.002<br>(0.001)  |
| Scandinavia                                | -0.172<br>(0.249)                                   | -0.486<br>(0.271)**   | -0.264<br>(0.135)***   |
| Eastern Bloc                               | -0.204<br>(0.123)                                   | -0.701<br>(0.222)*  | -0.450<br>(0.150)  |
| Intercept                                  | 5.517<br>(4.399)                                    | 9.217<br>(2.902)*   | 5.710<br>(2.440)**   |
| N  | 27,750  | 59,174  | 59,349   |
| Nations                                    | 23  | 20  | 20   |
| Variance explained                         | 0.09  | 0.03  | 0.06   |
| Dataset                                    | European Values Survey                              | Civic Education Study   | Civic Education Study  |

Robust standard errors in parentheses. \*p < 0.10, \*\*p < 0.05, \*\*\*p < .01.

TABLE 3 Political Activity (Hierarchical Linear Models)

|   | Adults:<br>Political<br>Activity<br>(1) | Adults:<br>Political<br>Activity<br>(2) | Adolescents:<br>Anticipated<br>Political<br>Activity<br>(3) |
|---|---|---|---|
| Female X % Women                                | 0.005<br>(0.002)***                     | 0.0007<br>(0.002)                       | 0.006<br>(0.002)**  |
| % Women   | -0.0002<br>(0.006)                      | 0.007<br>(0.002)                        | 0.013<br>(0.007)†   |
| Female  | -0.287<br>(0.044)***                    | -0.068<br>(0.045)*                      | -0.211<br>(0.044)***  |
| Age   | -0.007<br>(0.0008)***                   | -0.0001<br>(0.0003)                     |   |
| Individual-level Variables                      |   |   |   |
| Education (EVS, ESS) / Expected Education (CES) | 0.128<br>(0.005)***                     | 0.058<br>(0.001)***                     | 0.058<br>(0.008)***   |
| Books at Home                                   |   |   | 0.033<br>(0.007)***   |
| Married   | 0.025<br>(0.019)                        | 0.063<br>(0.010)***                     |   |
| Unemployed                                      | -0.050<br>(0.041)                       | -0.021<br>(0.024)                       |   |
| National-level Variables                        |   |   |   |
| Electoral System                                | -0.127<br>(0.066)*                      | -0.157<br>(0.093)                       | 0.194***<br>(0.031)   |
| Female Labor Force                              | 0.003<br>(0.012)                        | -0.007<br>(0.022)                       | -0.786*<br>(0.178)  |
| Per Capita GDP                                  | 0.002<br>(0.0007)***                    | 0.001<br>(0.009)                        | -1.492<br>(0.279)***  |
| Suffrage  | 0.004<br>(0.004)                        | -0.0002<br>(0.003)                      | -0.330<br>(0.098)***  |
| Gender Ideology                                 | 0.459<br>(0.210)**                      | -0.897<br>(0.380)**                     | 0.238<br>(0.149)  |
| Gender-Related Development Index                | 2.932<br>(2.506)                        | 10.635<br>(4.030)**                     | 4.379<br>(1.848)**  |
| % Left  | 0.002<br>(0.004)                        | -0.006<br>(0.004)                       | -0.012<br>(0.003)***  |
| Scandinavia                                     | 0.181<br>(0.173)                        | 1.019<br>(0.253)***                     | -0.157<br>(0.062)**   |
| Eastern Bloc                                    | 0.106<br>(0.415)                        | 0.047<br>(0.186)                        | -0.238<br>(0.161)   |
| Intercept                                       | -7.209<br>(8.411)                       | -7.548<br>(3.597)*                      | 1.402<br>(1.510)  |
| N   | 25,426                                  | 40,682                                  | 58,561  |
| Nations   | 23                                      | 22                                      | 20  |
| Variance explained                              | 0.13                                    | 0.05                                    | 0.02  |
| Dataset   | European Values<br>Survey               | European Social<br>Survey               | Civic Education<br>Study                                    |

Robust standard errors in parentheses. †p < 0.15, \*p < 0.10, \*\*p < 0.05, \*\*\*p < .01.

**FIGURE 2A Political Discussion, European Values Survey (Adults)****FIGURE 2B Political Discussion with Friends, Civic Education Study (Adolescents)**

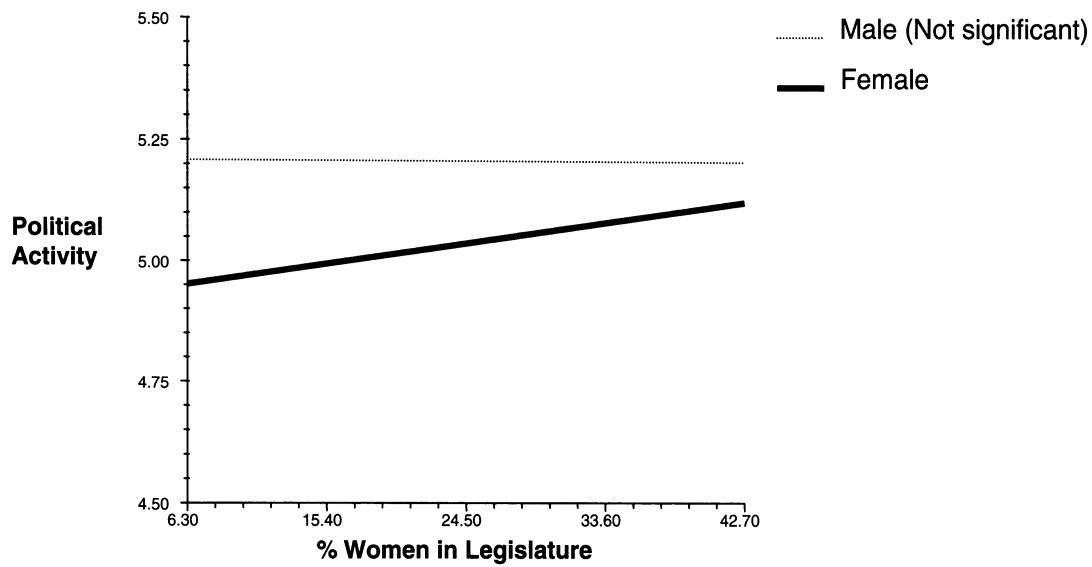
( $p = 0.70$ ).<sup>22</sup> Results for adolescents (column 3) also indicate a positive and statistically significant ( $p < 0.01$ ) relationship between Female X % Women and Anticipated Political Activity. Thus, across two of three datasets, the more female MPs, the more likely women and girls are to (intend to) engage in political activity.

A possible, or partial, explanation for the nonsignificant findings in the ESS concerns the varied wording

<sup>22</sup>One possible reason for the different findings is the different set of nations covered by each dataset. However, running the EVS models, restricted only to nations also represented in the ESS, produces results quite similar to what we find with the full dataset.

of the dependent variables across surveys. The ESS only asks about what respondents have actually done in the last 12 months. The EVS, on the other hand, inquires as to whether respondents have *ever* participated (a longer time horizon) and perhaps more importantly, whether they expect to participate in the future. The CES, of course, also asks girls what they intend to do in the future. Thus, the EVS and CES (where we find a significant effect for female MPs) capture not only actual political activity (in the case of the EVS), but also the impact of female MPs on whether women and girls envision themselves as politically active citizens in the future. By including the im-

**FIGURE 3A Political Activity, European Values Survey (Adults)**

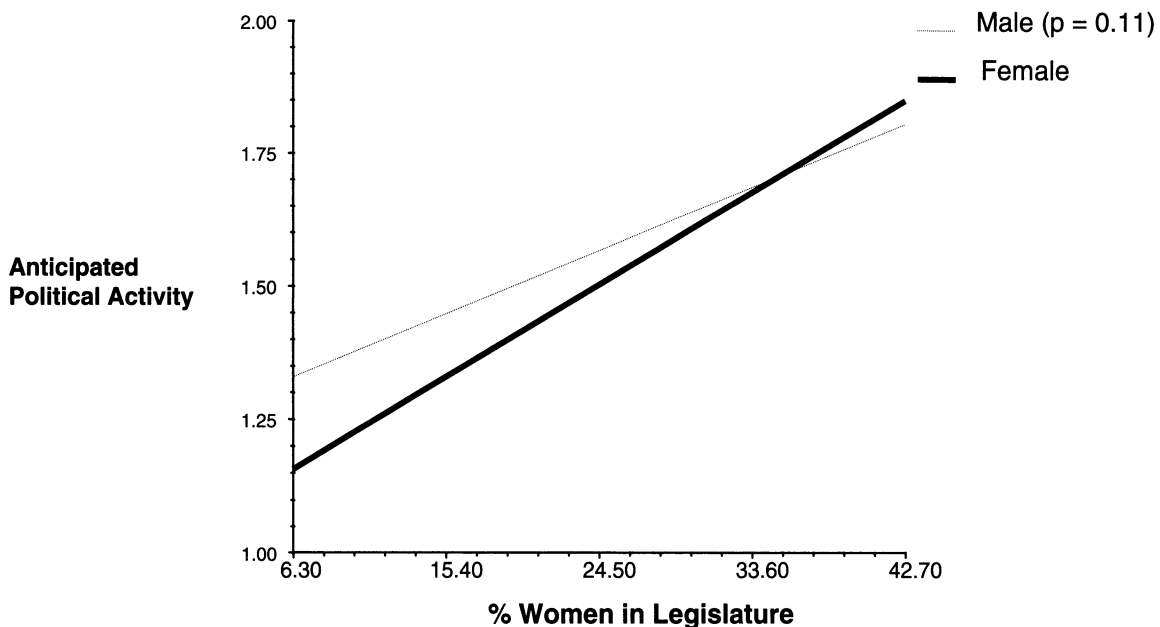


pact of female MPs on women’s and girls’ conceptions of themselves as politically active, rather than their actual behavior, a significant finding may be more likely. However, running a model in the EVS with a dependent variable that is an additive index of activities respondents report having done (with intended activity coded as 0) produces unchanged results; that is, the presence of female MPs exhibits a statistically significant effect even when we limit the dependent variable to only activities done, and do not

include what those respondents plan to do. (See the online appendix for more details.)

Figures 3A and 3B graph the role model effect among adults (EVS) and adolescents (CES). As the percentage of female MPs increases, there is a corresponding increase in women’s political activity (Figure 3A) of roughly a fifth of a standard deviation—a moderately sized impact. Even at the maximum number of women in office, women’s involvement continues to lag behind that of men, but the

**FIGURE 3B Anticipated Political Activity, Civic Education Study (Adolescents)**



gap is considerably narrower. Note that the line for men is statistically insignificant, as can be inferred from the insignificant coefficient for % Women. Among adolescents (Figure 3B), we observe a line for males that slopes upward and is marginally significant ( $p < 0.15$ ), and an upward-sloping—but steeper—line for females that is clearly significant ( $p < 0.01$ ). The magnitude of the impact is 0.6 standard deviations. Perhaps more importantly, the net effect is that adolescent girls close the gender gap in anticipated activity as the percentage of women in office increases, matching and even slightly exceeding boys when women comprise roughly 33% (approximately the 75<sup>th</sup> percentile) of the national legislature.

As the percentage of women in office increases, our results are suggestive that boys are more likely to express an intention to be active in politics. The results are more definitive that girls' anticipated political activity rises. The steeper slope for girls indicates that they are especially receptive to female role models, but the upward-sloping line for boys intriguingly suggests that political systems with greater female involvement are perceived as more open and accepting for all—males as well as females (for a similar finding regarding the effect of role models on women's and men's confidence in the legislature, see Schwindt-Bayer and Mishler 2005).

## Female Role Models and Political Socialization

Testing the socialization hypothesis requires data from both young and old cohorts. The CES cannot speak to this question since all of the respondents are of roughly the same age, although our finding of a strong role model effect among adolescents in the CES is consistent with—even a necessary condition for—the socialization hypothesis. The EVS and ESS, however, do include a range of ages among their respondents and thus provide an opportunity to evaluate the socialization hypothesis directly. To do so, we estimate a second set of ESS and EVS models in which Age is interacted with both the respondent's sex and the percentage of female MPs: *Age X Female X % Women*. A negative coefficient for this triple interaction term indicates that the role model effect lessens with age. Results for political discussion in the EVS and political activity in both the EVS and ESS are reported in Table 4.

The socialization hypothesis is not supported for political discussion: the triple interaction term is clearly nonsignificant (column 1), although the double interaction remains significant (as it is in the baseline model).

Thus, these results support the conclusion that all women, regardless of age, talk about politics more as the percentage of female MPs in their nation's lower house increases.

The results for political activity, however, are consistent with the socialization hypothesis. In both adult datasets, the presence of female MPs has a significantly greater impact on the political activity of younger rather than older women; *Age X Female X % Women* is negative and statistically significant ( $p < 0.01$ ) in both models (columns 2 and 3). The presence of the triple interaction testing for an age effect is not only itself significant in the ESS models, but its inclusion makes the double interaction (*Female X % Women*), which was nonsignificant in the baseline model, become significant ( $p < 0.01$ ) as well. The fact that the triple interaction is significant in the ESS when *Female X % Women* was not significant in the baseline model underscores the importance of differentiating the role model effect by age lest we reach the (false) conclusion that female MPs fail to affect the political activity of women.<sup>23</sup> Examining the role model effect among all women may mask the impact of female MPs if that impact is found mostly, or even only, among the young.<sup>24</sup>

The interpretation of interaction terms rests on simultaneously accounting for multiple coefficients, some of which have opposite signs, and thus can be complex. To simplify the presentation, Figure 4A and 4B provide a graphical display of the socialization effect, again holding all control variables at their means. For simplicity's sake, we have opted to show only two lines on each graph. Each line represents how variation in the percentage of women

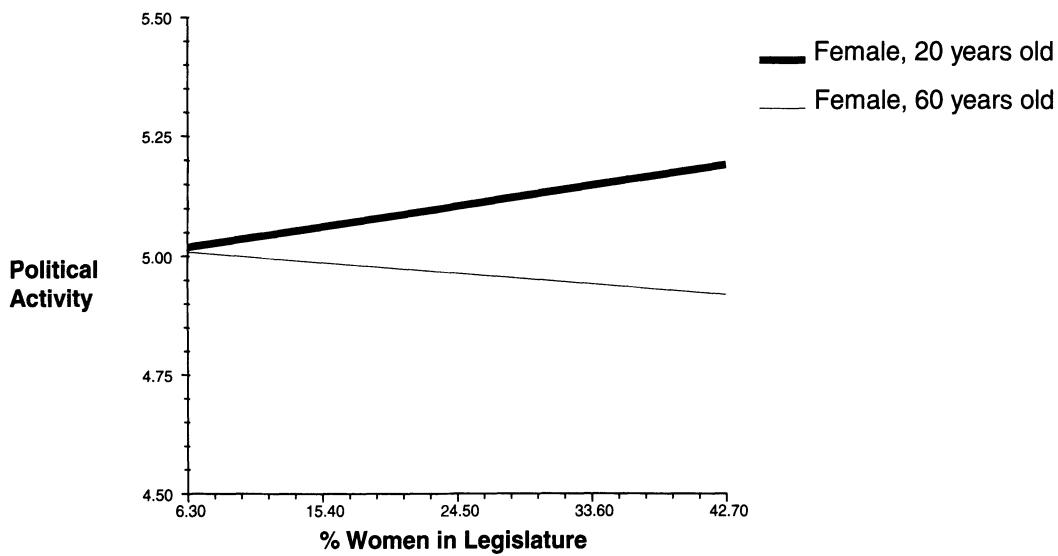
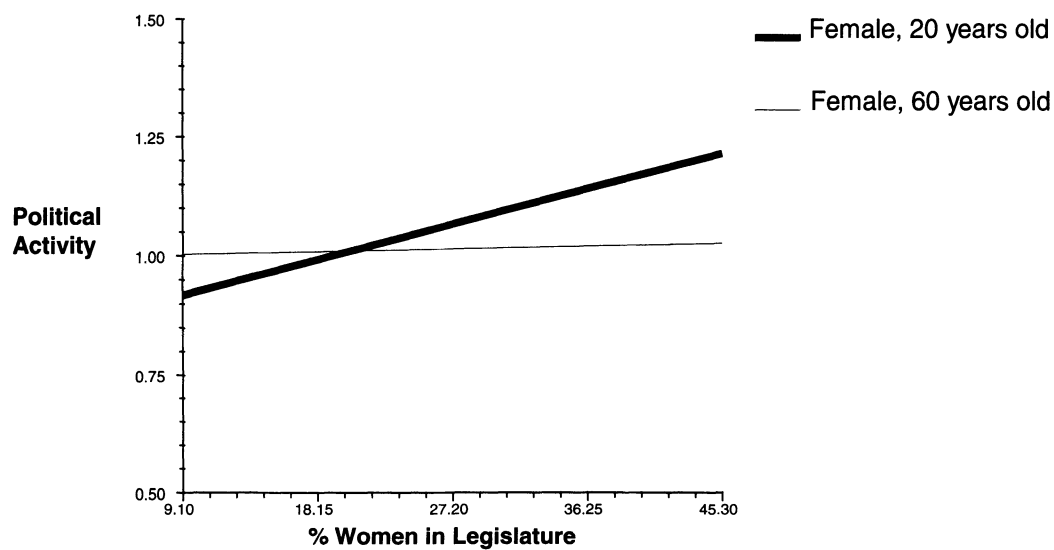
<sup>23</sup> An alternative method of modeling the socialization effect is to limit the data to females only, and interact % Women and Age. Results are substantively the same when we employ that strategy.

<sup>24</sup> A possible confounding effect is the shift leftward of female citizens in advanced industrial countries in recent years (Inglehart and Norris 2000), raising the possibility that younger and older women are distinguished by left-right ideology, with younger women more to the left than older. Given that presence of women in legislatures is positively correlated with the strength of left parties (e.g., Caul 1999; Reynolds 1999), differences in political ideology may explain the greater impact among younger rather than older women. We have tested whether ideology is a confounding factor by controlling for an individual's self-placement on a left-right ideological scale in the EVS and ESS (the CES has no such measure). The complication in doing so is a high rate of nonresponse to this question, and thus a substantial amount of missing data—ranging from 13% in the ESS to 17% in the EVS. Such a high degree of missing data raises concerns about the representativeness of the data when ideology is included as a control and listwise deletion is employed. Nonetheless, when ideology is included as a control, the results are substantively unchanged. See the online appendix for the complete results.

**TABLE 4 Testing the Socialization Hypothesis: Political Discussion and Activity (Hierarchical Linear Models)**

|                                  | Political<br>Discussion<br>(1) | Political<br>Activity<br>(2) | Political<br>Activity<br>(3) |
|----------------------------------|--------------------------------|------------------------------|------------------------------|
| Female X % Women × Age           | -0.00002<br>(0.00005)          | -0.0002<br>(0.00009)**       | -0.0002<br>(0.00006)***      |
| Female X % Women                 | 0.004<br>(0.002)*              | 0.013<br>(0.004)***          | 0.010<br>(0.003)***          |
| % Women                          | 0.005<br>(0.005)               | -0.005<br>(0.006)            | 0.002<br>(0.007)             |
| Female                           | -0.143<br>(0.047)***           | -0.335<br>(0.103)***         | -0.251<br>(0.089)**          |
| Age                              | 0.005<br>(0.0006)***           | -0.006<br>(0.001)***         | 0.0004<br>(0.0005)           |
| Female × Age                     | -0.002<br>(0.001)**            | 0.0009<br>(0.002)            | 0.004<br>(0.002)**           |
| Individual-level Variables       |                                |                              |                              |
| Education                        | 0.081<br>(0.005)***            | 0.127<br>(0.005)***          | 0.058<br>(0.005)***          |
| Married                          | 0.078<br>(0.010)***            | 0.018<br>(0.021)             | 0.062<br>(0.011)***          |
| Unemployed                       | -0.052<br>(0.021)***           | -0.050<br>(0.039)            | -0.019<br>(0.028)            |
| National-level Variables         |                                |                              |                              |
| Electoral System                 | 0.055<br>(0.046)               | -0.050<br>(0.055)            | -0.133**<br>(0.058)          |
| Female Labor Force               | 0.010<br>(0.008)               | 0.007<br>(0.012)             | -0.005<br>(0.016)            |
| Per Capita GDP                   | -0.007<br>(0.004)              | 0.002<br>(0.0007)**          | 0.001<br>(0.009)             |
| Suffrage                         | -0.001<br>(0.002)              | 0.004<br>(0.004)             | 0.0004<br>(0.002)            |
| Gender Ideology                  | 0.147<br>(0.221)               | 0.444<br>(0.235)*            | -0.945<br>(0.300)***         |
| Gender-Related Development Index | -2.782<br>(1.835)              | 4.965<br>(2.500)*            | 11.218<br>(3.547)***         |
| % Left                           | -0.001<br>(0.002)              | 0.003<br>(0.004)             | -0.005<br>(0.004)            |
| Scandinavia                      | -0.171<br>(0.128)              | 0.112<br>(0.176)             | 1.006<br>(0.221)***          |
| Eastern Bloc                     | -0.130<br>(0.247)              | 0.015<br>(0.390)             | 0.050<br>(0.078)             |
| Intercept                        | 4.854<br>(4.264)               | -9.821<br>(7.846)            | -8.207<br>(2.778)**          |
| N                                | 27,750                         | 25,426                       | 40,682                       |
| Nations                          | 23                             | 23                           | 22                           |
| Variance explained               | 0.10                           | 0.14                         | 0.05                         |
| Dataset                          | European Values<br>Survey      | European Values<br>Survey    | European Social<br>Survey    |

Robust standard errors in parentheses. \*p &lt; 0.10, \*\*p &lt; 0.05, \*\*\*p &lt; .01.

**FIGURE 4A Political Activity and Age, European Values Survey****FIGURE 4B Political Activity and Age, European Social Survey**

in office affects the political activity of females who are 20 and 60 years old, respectively.<sup>25</sup> The results from the EVS (4A) reveal a line sloping slightly downward for 60-year-olds but a sharply upward-sloping line for 20-year-olds. Consequently, in nations with a low percentage of women in office, there is little difference in the political activity of 20- and 60-year-old women. As the percent-

<sup>25</sup>In other words, we have omitted the presentation of the lines for male respondents. Figures with those results can be found in the online appendix. The choice of 20 and 60 as the ages to display is arbitrary, and meant only to illustrate differences across a reasonable age range.

age of women in office rises, the gap between the lines widens—younger women become more politically active than their elders by about a quarter of a standard deviation. In Figure 4B (ESS), the slope of the line for 60-year-olds is essentially flat, but the slope for younger women is sharply positive—increasing by 0.25 standard deviations. In this case, young women express a greater willingness to be politically active than do older women when the percentage of female MPs exceeds about 20% (roughly the mean).

We have found that the socialization hypothesis holds for political activity, but not discussion. One



possible explanation is that these divergent findings may be consistent with the rationale underlying the socialization hypothesis: a less demanding activity, such as partaking in political discussion as part of daily life, is more easily stimulated among all women by the presence of female MPs. Propensity toward a more demanding activity, such as engaging in political activity beyond conversation by signing a petition, joining a political party, or volunteering for a local organization, may be especially difficult to stimulate (or discourage) among older citizens whose habits are established, but still open to being shaped by political context among the young. In other words, discussion demands less effort or change in behavior, and thus may be more malleable at every age. Activity, on the other hand, requires greater commitment and behavior alteration, and thus may be less malleable as citizens age. Perhaps this is why previous research, which has not accounted for age differences, has been more likely to find a role model effect for psychological engagement than political activity. Future research into the impact of descriptive representation on political participation should account for the possibility that the effects might differ by age.

We also note that the evidence favoring the socialization hypothesis addresses, at least partially, the concern that we have reversed the direction of the causal relationship between the percentage of women in office and the political activity of women. Perhaps there are more female members of parliament within a nation because women are more politically active, and not the other way around. While this is a plausible hypothesis, it is far less plausible that there are more women in office because only *young* women are more politically engaged, especially since the young have generally lower rates of political participation.

## Discussion and Conclusion

A number of normative theorists have proposed—and hoped—that greater numbers of women in political office will have many positive effects: compensate for past and present injustice, provide a voice for overlooked interests, and contribute to the overall legitimacy of a democratic system (Phillips 1995; also Dovi 2002; Mansbridge 1999). Many related expectations, such as the prediction that female legislators will place issues of interest to women on the agenda and support policies that benefit women, have received strong empirical support (Lijphart 1991; Schwindt-Bayer and Mishler 2005; see Reingold). Scholars

and advocates also have expected that female descriptive representatives would affect other women's engagement with and participation in the political sphere (e.g., Burns, Schlozman, and Verba 2001; Carroll 1985; Dovi 2002; Kitilson 2005), but there have been few tests of these effects outside of the United States. The only large-N cross-national research of which we are aware demonstrates that the presence of female MPs is associated with increased confidence in the legislature among both women *and* men (Schwindt-Bayer and Mishler 2006); our research is thus the first attempt to date to examine the impact of female descriptive representation around the world on women's actual political activity, rather than on political attitudes or engagement.

Our analysis speaks to the representation literature by suggesting that, as exemplars of the possibility and potential of female political activism, female politicians in democratic nations do function as true role models, inspiring women and girls to be politically active themselves. Women of all ages are more likely to discuss politics, and younger women become more politically active, when there are more women in parliament. The findings regarding young women also contribute to the revival of research into political socialization, particularly in the comparative context where it has been long neglected (Sapiro 2004, 5). Future research can, and should, test whether such effects persist—do young women who are in nations with a large number of women politicians *remain* highly participatory as they age?

Evidence favoring the role model effect has normative implications, given continuing sex disparities in political engagement—in general and among young people in particular. In 11 of 20 countries in the Civic Education Study (see Figure 1B), girls are significantly less likely than boys to report that they envision themselves as politically active adults. In only two countries—Finland and the United States—are girls significantly more interested in political activity than are boys. Given that participatory habits develop in adolescence and largely persist throughout one's life (Franklin 2004; Plutzer 2002), there is good reason to believe that gaps in anticipated involvement among adolescents develop into gaps in actual engagement among adults, as correspondence between the female-male differences in Figures 1B (adolescents) and 1A (adults) suggest. Women thus risk not having their voices heard, or not heard as loudly, as men's in their nation's democratic processes. However, our analysis should leave advocates of gender equality hopeful, as these results suggest that the gender gap in political involvement can be ameliorated. Where there are female role models in political life, adolescent girls and young women in particular are more likely

to envision themselves as active participants in politics, raising hopes for greater gender equality in the future. Women, it appears, lead by example.

## References

- Atkeson, F. Glenn, and John D. Hutcheson, Jr. 1981. "Race, Representation, and Trust: Changes in Attitudes after the Election of a Black Mayor." *Public Opinion Quarterly* 45: 91–101.
- Atkeson, Lonna Rae. 2003. "Not All Cues Are Created Equal: The Conditional Impact of Female Candidates on Political Engagement." *Journal of Politics* 65(November): 1040–61.
- Atkeson, Lonna Rae, and Nancy Carrillo. 2007. "More Is Better: The Influence of Collective Female Descriptive Representation on External Efficacy." *Politics & Gender* 3(1): 79–101.
- Beck, Paul Allen. 1974. "A Socialization Theory of Partisan Realignment." In *The Politics of Future Citizens*, ed. Richard Niemi. San Francisco: Jossey-Bass, pp. 199–219.
- Beck, Paul Allen, and M. Kent Jennings. 1991. "Family Traditions, Political Periods, and the Development of Partisan Orientations." *Journal of Politics* 53(August): 742–63.
- Bobo, Lawrence, and Franklin D. Gilliam, Jr. 1990. "Race, Sociopolitical Participation, and Black Empowerment." *American Political Science Review* 84(June): 377–93.
- Burns, Nancy, Kay Lehman Schlozman, and Sidney Verba. 2001. *The Private Roots of Public Action: Gender, Equality, and Political Participation*. Cambridge, MA: Harvard University Press.
- Campbell, David E. 2002. "The Young and the Realignment: A Test of the Socialization Theory of Realignment." *Public Opinion Quarterly* 66(Summer): 209–34.
- Campbell, David E. 2006. *Why We Vote: How Schools and Communities Shape Our Civic Life*. Princeton, NJ: Princeton University Press.
- Campbell, David E., and Christina Wolbrecht. 2006. "See Jane Run: Women Politicians as Role Models for Adolescents." *Journal of Politics* 68(May): 233–47.
- Carroll, Susan J. 1985. *Women as Candidates in American Politics*. Bloomington: Indiana University Press.
- Caul, Miki. 1999. "Women's Representation in Parliament: The Role of Political Parties." *Party Politics* 5(1): 79–98.
- Childs, Sarah, and Julie Whitley. 2004. "Women Representatives Acting for Women: Sex and the Signing of Early Day Motions in the 1997 British Parliament." *Political Studies* 52: 552–64.
- Christensen, Martin K. I. 2006. "Worldwide Guide to Women in Leadership." Accessed 19 June 2006, <http://www.guide2womenleaders.com>.
- Christy, Carol A. 1987. *Sex Differences in Political Participation: Processes of Change in Fourteen Nations*. New York: Praeger.
- Dolan, Kathleen. 2006. "Symbolic Mobilization? The Impact of Candidate Sex in American Elections." *American Politics Research* 34(6): 687–704.
- Dovi, Suzanne. 2002. "Preferable Descriptive Representatives: Will Just Any Woman, Black, or Latino Do?" *American Political Science Review* 96(December): 729–43.
- Duverger, Maurice. 1955. *The Political Role of Women*. Paris: UNESCO.
- European Values Study Group and World Values Survey Association. 2005. *European and World Values Survey Integrated Data File, 1999–2002, Release 1* [Computer file]. 2<sup>nd</sup> ICPSR version. Cologne, Germany: Zentralarchiv für Empirische Sozialforschung (ZA)/Tilburg, Netherlands: Tilburg University/Amsterdam/Netherlands: Netherlands Institute for Scientific Information Services (NIWI)/Madrid, Spain: Analisis Sociologicos Economicos y Politicos (ASEP) and JD Systems (JDS)/Ann Arbor, MI: Inter-university Consortium for Political and Social Research [producers and distributors].
- Franklin, Mark. 2004. *Voter Turnout and the Dynamics of Electoral Competition in Established Democracies since 1945*. New York: Cambridge University Press.
- Gay, Claudine. 2001. "The Effect of Black Congressional Representation on Political Participation." *American Political Science Review* 95(September): 589–602.
- Gerber, Alan S., Donald P. Green, and Ron Shachar. 2003. "Voting May Be Habit-Forming: Evidence from a Randomized Field Experiment." *American Journal of Political Science* 47(July): 540–50.
- Gilliam, Frank D., Jr. 1996. "Exploring Minority Empowerment: Symbolic Politics, Governing Coalitions, and Traces of Political Style in Los Angeles." *American Journal of Political Science* 40(February): 56–81.
- Gilliam, Frank D., Jr., and Karen M. Kaufmann. 1998. "Is There an Empowerment Life Cycle? Long Term Black Empowerment and Its Influence on Voter Participation." *Urban Affairs Review* 33(6): 741.
- Greenstein, Fred I. 1965. *Children and Politics*. Rev. ed. New Haven, CT: Yale University Press.
- Hansen, Susan B. 1997. "Talking about Politics: Gender and Contextual Effects on Political Proselytizing." *Journal of Politics* 59(February): 73–103.
- Hess, Robert D., and Judith V. Torney. 1967. *The Development of Political Attitudes in Children*. Chicago: Aldine Publishing.
- Inglehart, Ronald. 1981. "Post-Materialism in an Environment of Uncertainty." *American Political Science Review* 81(December): 367–82.
- Inglehart, Ronald, and Pippa Norris. 2000. "The Developmental Theory of the Gender Gap: Women's and Men's Voting Behaviour in Global Perspective." *International Political Science Review* 21(4): 441–62.
- Inter-Parliamentary Union (IPU). 2005. *Women in National Parliaments* (Situation as of 25 December 1999). Accessed 25 July 2005, <http://www.ipu.org/wmn-e/arc/classif251299.htm>.
- Inter-Parliamentary Union (IPU). 2006. *Women in National Parliaments* (Situation as of 31 March 2006). Accessed 13 April 2006, <http://www.ipu.org/wmn-e/classif.htm>.
- Jennings, M. Kent, and Laura Stoker. 2004. "Social Trust and Civic Engagement across Time and Generations." *Acta Politica* 39: 342–79.
- Jowell, Roger, Central Coordinating Team. 2005. *European Social Survey 2004/2005: Technical Report*. London: Centre for Comparative Social Surveys, City University.

- Kenworthy, Lane, and Melissa Malami. 1999. "Gender Inequality in Political Representation: A Worldwide Comparative Analysis." *Social Forces* 78(1): 235–69.
- Kittilson, Miki Caul. 2005. "In Support of Gender Quotas: Setting New Standards, Bringing Visible Gains." *Politics & Gender* 1(December): 638–44.
- Koch, Jeffrey. 1997. "Candidate Gender and Women's Psychological Engagement in Politics." *American Politics Quarterly* 25(January): 118–33.
- Kunovich, Sheri, and Pamela Paxton. 2005. "Pathways to Power: The Role of Political Parties in Women's National Political Representation." *American Journal of Sociology* 111(September): 505–52.
- Lawless, Jennifer L. 2004. "Politics of Presence? Congresswomen and Symbolic Representation." *Political Research Quarterly* 57(March): 81–99.
- Leighley, Jan E. 2001. *Strength in Numbers? The Political Mobilization of Racial and Ethnic Minorities*. Princeton, NJ: Princeton University Press.
- Lijphart, Arend. 1991. "Debate—Proportional Representation: III. Double Checking the Evidence." *Journal of Democracy* 2(Summer): 42–48.
- Mansbridge, Jane. 1999. "Should Blacks Represent Blacks and Women Represent Women? A Contingent 'Yes.'" *Journal of Politics* 61(August): 628–57.
- Moore, Gwen, and Gene Shackman. 1996. "Gender and Authority: A Cross-National Study." *Social Science Quarterly* 77(June): 273–88.
- Norris, Pippa, and Ronal Inglehart. 2001. "Cultural Obstacles to Equal Representation." *Journal of Democracy* 12(July): 126–40.
- Norris, Pippa, Joni Lovenduski, and Rosie Campbell. 2004. *Research Report: Gender and Political Participation*. London: The Electoral Commission (UK).
- Oakes, Ann, and Elizabeth Almquist. 1993. "Women in National Legislatures: A Cross-National Test of Macrostructural Gender Theories." *Population Research and Policy Review* 12: 71–81.
- Pantoja, Adrian D., and Gary M. Segura. 2003. "Does Ethnicity Matter? Descriptive Representation in Legislatures and Political Alienation among Latinos." *Social Science Quarterly* 84(June): 441–60.
- Paxton, Pamela. 1997. "Women in National Legislatures: A Cross-National Analysis." *Social Science Research* 26: 442–64.
- Paxton, Pamela, and Sheri Kunovich. 2003. "Women's Political Representation: The Importance of Ideology." *Social Forces* 82(1): 87–114.
- Phillips, Anne. 1995. *The Politics of Presence*. New York: Clarendon Press.
- Plutzer, Eric. 2002. "Becoming a Habitual Voter: Inertia, Resources and Growth in Young Adulthood." *American Political Science Review* 96(1): 41–56.
- Powell, G. Bingham, Jr. 2004. "Political Representation in Comparative Politics." *Annual Review of Political Science* 7: 273–96.
- Raudenbush, Stephen W., and Anthony S. Bryk. 2002. *Hierarchical Linear Models: Applications and Data Analysis Methods*. 2nd ed. Thousand Oaks, CA: Sage.
- Reingold, Beth. n.d. "Women as Officeholders: Linking Descriptive and Substantive Representation." In *Political Women and American Democracy: Perspectives on Women and Politics Research*, ed. Christina Wolbrecht, Karen Beckwith, and Lisa Baldez. New York: Cambridge University Press. Forthcoming.
- Reynolds, Andrew. 1999. "Women in the Legislatures and Executives of the World: Knocking at the Highest Glass Ceiling." *World Politics* 51(July): 547–72.
- Rule, Wilma. 1981. "Why Women Don't Run: The Critical Factors in Women's Legislative Recruitment." *Western Political Quarterly* 34(March): 60–77.
- Rule, Wilma. 1987. "Electoral Systems, Contextual Factors, and Women's Opportunity for Election to Parliament in Twenty-Three Democracies." *Western Political Quarterly* 40(September): 477–98.
- Sapiro, Virginia. 2004. "Not Your Parents' Political Socialization: Introduction for a New Generation." *Annual Review of Political Science* 7: 1–23.
- Sapiro, Virginia, with Pamela Johnston Conover. 1997. "The Variable Gender Basis of Electoral Politics: Gender and Context in the 1992 U.S. Election." *British Journal of Political Science* 27: 497–523.
- Schulz, Wolfram, and Heiko Sibberns, eds. 2004. *IEA Civic Education Study Technical Report*. Amsterdam: International Association for the Evaluation of Educational Achievement.
- Schwindt-Bayer, Leslie A. 2005. "The Incumbency Disadvantage and Women's Election to Legislative Office." *Electoral Studies* 24: 227–44.
- Schwindt-Bayer, Leslie A., and William Mishler. 2005. "An Integrated Model of Women's Representation." *Journal of Politics* 67(May): 407–28.
- Sears, David O. 1975. "Political Socialization." In *The Handbook of Political Science*, ed. Fred I. Greenstein and Nelson Polsby. Reading, MA: Addison-Wesley, pp. 93–153.
- Sears, David O., and Nicholas A. Valentino. 1997. "Politics Matters: Political Events as Catalysts for Preadult Socialization." *American Political Science Review* 91(March): 45–65.
- Swers, Michele L. 2002. *The Difference Women Make: The Policy Impact of Women in Congress*. Chicago: University of Chicago Press.
- Tate, Katherine. 1991. "Black Political Participation in the 1984 and 1988 Presidential Elections." *American Political Science Review* 85(December): 1159–76.
- Torney-Purta, Judith, Rainer Lehmann, Hans Oswald, and Wolfram Schulz. 2001. *Citizenship and Education in Twenty-Eight Countries: Civic Knowledge and Engagement at Age Fourteen*. Amsterdam: International Association for the Evaluation of Educational Achievement.
- UNDP [United Nations Development Programme]. 1995. *Human Development Report 1995*. New York: Oxford University Press.
- UNDP [United Nations Development Programme]. 2003. *Human Development Report*. New York: Oxford University Press. Accessed 25 August 2006, [http://hdr.undp.org/reports/global/2003/indicator/indic.196\\_1.1.html](http://hdr.undp.org/reports/global/2003/indicator/indic.196_1.1.html).
- Verba, Sidney, Norman H. Nie, and Jae-on Kim. 1978. *Participation and Political Equality: A Seven-Nation Comparison*. Chicago: University of Chicago Press.

- Walsh, Katherine Cramer. 2002. "Enlarging Representation: Women Bringing Marginalized Perspectives to Floor Debate in the House of Representatives." In *Women Transforming Congress*, ed. Cindy Simon Rosenthal. Norman: University of Oklahoma Press, pp. 370–96.
- Weissberg, Robert. 1978. "Collective vs. Dyadic Representation in Congress." *American Political Science Review* 72(June): 535–47.
- Wolbrecht, Christina. 2002. "Female Legislators and the Women's Rights Agenda: From Feminine Mystique to Feminist Era." In *Women Transforming Congress*, ed. Cindy Simon Rosenthal. Norman: University of Oklahoma Press, pp. 170–97.
- Youniss, James, Jeffrey A. McLellan, and Miranda Yates. 1997. "What We Know about Engendering Civic Identity." *American Behavioral Scientist* 40(5): 620–31.