

**Do Women Politicians Lead Adolescent Girls to be More Politically Engaged?  
A Cross-National Study of Political Role Models**

**Christina Wolbrecht**

Associate Professor  
Department of Political Science  
University of Notre Dame  
217 O'Shaughnessy Hall  
Notre Dame, IN 46556  
574-631-3836 (office)  
Wolbrecht.1@nd.edu

**David E. Campbell**

Assistant Professor  
Department of Political Science  
University of Notre Dame  
217 O'Shaughnessy Hall  
Notre Dame, IN 46556  
574-631-7809 (office)  
Dave\_Campbell@nd.edu

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## **Abstract**

Does the presence of political role models—women in elected office—lead girls to envision themselves as active participants in the political system? Using data from twenty-seven nations (the IEA Civic Education Study), we find evidence for the role model effect. The greater number of women who serve in a nation’s lower legislative house, the more likely adolescent girls are to express an intention to be politically active in adulthood (anticipated involvement). Our further analysis indicates that the role model effect on anticipated political involvement is not, as expected, mediated through attitudes the appropriateness of politics for women, beliefs about government responsiveness, attention to politics, or political trust. Rather the presence of female political role models appears to have a direct effect on girls’ expectations for their own role in the political world.

## **Do Women Politicians Lead Adolescent Girls to be More Politically Engaged? A Cross-National Study of Political Role Models<sup>1</sup>**

The greater representation of women in positions of power has been advocated for many reasons. The presence of women legislators, cabinet members, prime ministers, and presidents, it is argued, may help compensate for past and present injustice, may provide a voice for overlooked interests, and can contribute to the overall legitimacy of supposedly representative democratic institutions (Phillips 1995; also Dovi 2002; Mansbridge 1999). More broadly, female political leaders may serve as role models for other women, providing concrete evidence of the possibility and potential for female political participation (Dovi 2002; Mansbridge 1999; Carroll 1984; Sapiro 1981). We term this basic intuition—that the presence of descriptive representatives might affect the political engagement of fellow group members—the role model effect. In particular, we are concerned with the possible impact of role models on the political intentions of adolescent girls.

In most of the world, it is unusual, if not rare, for women to observe other women in positions of political leadership. In 2005, women comprised about 16 percent of members of parliament (MPs) worldwide. The degree of that underrepresentation varies greatly from country to country; women hold 45 percent of seats in the lower house in Sweden, but just 7 percent of seats in Japan's lower house (IPU 2005a). In the late 1990s, women made up about 17 percent of the cabinet ministers in the world's established democracies, and only rarely held the most prestigious portfolios with, again, considerable cross-national variation (Reynolds 1999). By the turn of the last century, only 39 nations had ever elected a woman to the position of president or prime minister (Norris and Inglehart 2001).

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At the same time, women and girls continue to lag behind their male compatriots in many measure of mass political participation. The size of the participation gender gap varies considerably across countries, however. Since disparities in resources and level of development fail to explain all of the gender differences, there is reason to expect political culture and gender socialization contribute a great deal to cross-national variation in the extent of the participation gender gap. As part of the broad and multi-faceted context of gender socialization, the presence of prominent female role models might shape the political socialization of young citizens, and their potential for future political activity.

In this paper, we examine the hypothesis that cross-nationally, the presence of visible female role models makes young women more likely to express an intention to engage in political activity as adults. Previous research has uncovered support for the role model effect among women (Atkeson 2003; Burns, Schlozman, and Verba 2001; Koch 1997; Sapiro with Conover 1997; Hansen 1997) and adolescents (Campbell and Wolbrecht 2006) in the United States, but there has been less work on this phenomenon cross-nationally (for an exception, see Norris, Lovenduski, and Campbell 2004). Our paper is the first, to our knowledge, to examine the role model effect in a wide sample of countries, and to examine the effect among adolescents outside of the United States.

### **Previous Research**

While systematic cross-national studies are limited in number and scope, available evidence indicates that in general, women around the world are less likely to participate in various forms of political and civic activity than are their male compatriots (Norris, Lovenduski, and Campbell 2004; Christy 1987; Jennings 1983; Jennings and Farah 1980; Kaase and Marsh

1979; Verba, Nie, and Kim 1978; Almond and Verba 1965; Duverger 1955). Sex differences in participation have been declining over time in many nations but most gender gaps have not been completely eradicated (Christy 1987). The size of the gap also varies by the type of activity: In some places (such as the United States and United Kingdom) sex differences in terms of activities such as voting have been eliminated, and women even exceed men in some forms of participation. For other forms, such as contacting public officials, donating to campaigns, and joining political organizations, women continue to lag behind men. Women also continue to be less psychologically engaged in politics, expressing less political interest, efficacy, and attention (Norris, Lovenduski, and Campbell 2004; Burns, Schlozman, and Verba 2001).

The degree to which women are less politically active than men varies considerably from nation to nation, suggesting national characteristics and contexts may contribute to the propensity for women to be politically active (e.g. Norris, Lovenduski, and Campbell 2004; Christy 1987; Verba, Nie, and Kim 1978). However, variations in the size of the gender participation gap across countries do not appear to be primarily economic in nature; level of development, for example, is only weakly or not at all related to the degree of gender imbalance in terms of political participation, and important variation remains among similarly developed nations (Christy 1987; Jennings 1983).

At the individual level, explanations for sex differences in political participation often emphasize gender inequalities in the material and psychological resources that facilitate participation (e.g., Schlozman, Burns, and Verba 1994; Andersen 1975). Disparities in educational attainment, employment opportunities, and organizational activism all contribute to the differential propensity for men and women to partake of civic and political activities. Yet,

controlling for resource disparities also does not entirely eliminate sex differences in participation (e.g., Burns, Schlozman, and Verba 2001; Verba, Nie, and Kim 1978).

The inability of resource disparity or economic factors to completely explain women's relative tendency toward political participation highlights the potential importance of political socialization—the processes by which adults and young people come to learn about their political environment, and their (gendered) place within it. Gender socialization can help explain both women's own willingness to participate in politics and the encouragement and/or permission to participate women may receive from society as a whole.

One indication of the possible importance of socialization is the fact that sex differences in political engagement appear to begin early, long before differences in resources such as educational attainment or occupational status emerge. In the U.S., early studies indicated that girls offer more “don't know” responses to political questions than did boys (Rapoport 1981), are less politically efficacious, interested, trusting, and knowledgeable (Owen and Davis 1988; Jennings and Niemi 1981, 1974; Orum et al. 1974; Greenstein 1965, 1961), and in some cases, are less likely to participate in politics (Hess and Torney 1967). Recent research indicates that this gap, like that among adults, may be declining or even reversed among American adolescents (Hooge and Stolle 2004).<sup>2</sup> However, the most recent cross-national evidence (detailed below) suggests that around the world, adolescent girls' political engagement continues to lag behind boys', although with considerable variation among nations.

Undoubtedly, the process of gendered socialization into distinct political roles occurs in a myriad of direct and indirect ways. Girls may learn to express less interest in political activity for reasons ranging from observed political sex roles in their own homes to the content of civic

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<sup>2</sup> Hooge and Stolle (2004) note that this finding may be in part a function of the bias in the survey they use toward the sorts of activities (social movement-related) in which girls show a greater interest rather than those (more radical and confrontational) that interest boys.

education in schools to the agenda of current political debates. We focus on one factor in particular that may shape political socialization—the presence, or more likely, absence, of visible female political role models.

There is some evidence, mostly from the American case, that the presence of female politicians has a positive effect on the propensity toward political activity among both women (Atkeson 2003; Hansen 1997; but see Lawless 2004)<sup>3</sup> and adolescent girls (Campbell and Wolbrecht 2006). Comparatively, recent research finds the presence of a successful female MP candidate was associated with greater campaign volunteerism among women in the United Kingdom (Norris, Lovenduski, and Campbell 2004). Research also indicates that the presence of role models incites women’s political engagement, contributing to greater interest, knowledge, and attention among women in the United States (Burns, Schlozman, and Brady 2001; Atkeson 2003; Koch 1997; Sapiro with Conover 1997)<sup>4</sup> and the UK (Norris, Lovenduski, and Campbell 2004).

In this paper we investigate the hypothesis that the presence of visible national female political role models affects the expressed intention of girls to be active in politics as adults. While other work has found evidence of a role model effect in the United States, ours is the first, to our knowledge, to examine the role model effect cross-nationally among adolescents.

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<sup>3</sup> Previous studies of the role model effect among women in the U.S. have focused on just one type of political activity: political proselytizing.

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

## Data

We examine the role model effect cross-nationally by employing the Civic Education Study (CES).<sup>5</sup> Conducted by the International Association for Evaluation of Educational Achievement (IEA), the same organization that provides cross-national comparisons of academic performance, the CES consists of data collected in twenty-seven nations.<sup>6</sup> In each nation, a representative sample of schools was selected; within each school one class of a civics-related course (history or social studies) was selected.<sup>7</sup> Classes were not tracked by academic ability. The target age for the study was fourteen years old, which in most nations meant the eighth grade (in nine countries, including the United States, it was the ninth grade).<sup>8</sup> The study was conducted in 1999. The sample of nations is eclectic, ranging from longstanding Western industrialized democracies like Sweden, England, and the United States, to former Soviet Republics like Russia and Latvia (see Figure 1 for a list of all twenty-seven countries). While the sample of nations is not random, it does represent a broad range of countries with different experiences with democracy and with varying levels of affluence.

Our primary dependent variable is a measure of adolescents' *Anticipated Political Involvement*. 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

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<sup>5</sup> For more on the CES, see Torney-Purta, Lehmann, Oswald, and Schulz (2001). Information about the study is available at <http://www.wam.umd.edu/~iea>.

<sup>6</sup> The CES also surveyed students in Hong Kong, which we exclude from our analysis as much of the data we employ are not available for and/or applicable to Hong Kong, a highly unusual political entity.

<sup>7</sup> Response rates among students were very high, averaging 94 percent; participation rates among schools were lower but still respectable (84 percent). Sample sizes within each nation range from 2,076 (French Belgium) to 4,926 (Colombia). The overall number of cases across the twenty-seven nations is 88,885, although because of missing data the actual number of cases employed in the individual-level models is smaller.

<sup>8</sup> In Russia, the average age was over fifteen. Note that in Germany, three federal states refused to participate in the study. For more details on the development and methodology of the study see Torney-Purta, Lehmann, Oswald, and Schulz (2001).

newspaper about social or political concerns, and be a candidate for local or city office. For each political act, respondents indicate whether they certainly will not do it, probably will not do it, probably do it, or certainly do it. IEA researchers have used Item Response Theory to generate a scale combining these three items that weights them appropriately.<sup>9</sup> These three political acts are of particular interest because they represent conventional political involvement (that is, not protests or civil disobedience) beyond voting—which in some of the nations within the sample is mandatory and thus not a good gauge of young people’s intended involvement. Even in nations without mandatory voter turnout, however, rates of anticipated voting are extremely high, resulting in very limited variation.

It is reasonable to ask whether questions about anticipated political involvement are a reliable guide to future activity. In the absence of longitudinal data, we are admittedly unable to determine whether intentions to participate translate into actual behavior. A cautious interpretation of these questions, therefore, is simply that they provide insight into adolescents’ current state of mind: Do they envision themselves as politically active? Looking beyond the present, this question speaks to the development of civic identity (Youniss, McLellan, and Yates 1997). Young people who identify themselves as potential participants in the political sphere are more likely to develop into politically active adults. Empirically, longitudinal research has shown adolescents’ statements that they anticipate being politically engaged as adults is a strong predictor of involvement later in life (Campbell N.d.).

Figure 1 displays the differences in the anticipated political engagement of boys and girls across the twenty-seven nations in the study. To provide a sense of magnitude in the scale’s otherwise non-intuitive metric, the anticipated political engagement index has been standardized

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<sup>9</sup> 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.

to have a standard deviation of 1.0. Each bar represents the difference between boys and girls. A negative value means that the score for boys exceeds that for girls, while a positive one means the opposite. A black bar represents a gender difference that achieves statistical significance with a p value of .05 or smaller, a grey bar means that the p value of the difference is between .05 and .10, and a white bar means that the difference is not statistically significant.

*Figure 1 about here.*

In 15 of the 27 nations, boys have a statistically significant higher rate of anticipated involvement in girls ( $p < .05$ ), while in two more boys exceed girls with a p value between .05 and .10. In eight nations, there is no statistically discernible gender difference, while in two (Finland and the U.S.), girls have a higher level of anticipated involvement than boys. The nation in which boys have the highest rate of engagement relative to girls is Greece; the smallest difference between the genders is observed in Norway.

Next we turn to a simple test of the role model hypothesis. Does having more women in elective office narrow the gender gap in adolescents' anticipated political engagement? The scatterplot displayed as Figure 2 provides a first cut at an answer. Along the y axis we see the female-male difference in anticipated involvement within each nation. The x axis displays the independent variable that will be our measure of the presence of female role models throughout the analysis—the percentage of women in each nation's lower legislative house as of December 1999 (IPU 2005b). As the country's premier law-making body, parliaments are the central political institutions of any ostensibly democratic nation-state. They are also among the most visible. While women may serve in powerful and influential positions behind the scenes, their presence as MPs indicates a more public and visible face for women politicians. An obvious alternative would be to test the impact of having a women as president or prime minister.

However, none of the nations represented in the IEA study had a women at the head of government at the time the data were collected (Reynolds 1999).

*Figure 2 about here.*

Figure 2 clearly shows a bivariate relationship, as made even clearer by the upward slope of the regression line. More women in office correspond to a smaller gender gap in anticipated involvement; in a bivariate regression, the coefficient for the percentage of women in office has a p value of .003, while the  $R^2$  is a healthy 0.28.

The bivariate relationship is suggestive, but far from definitive. For example, note that the four Scandinavian nations (Denmark, Finland, Norway, Sweden) all have a high proportion of women in the lower house and relatively small gender differences in anticipated involvement. Perhaps the finding in Figure 1 is simply driven by a Scandinavian effect, where norms regarding gender are especially egalitarian. Re-running the bivariate regression without the four Scandinavian nations maintains the positive relationship, with a slope that is quite similar (coefficient of 0.014, compared to 0.013), although the relationship has a higher p value (0.03) and the  $R^2$  value drops to 0.15.<sup>10</sup>

Ruling out that the bivariate relationship between women in office and the gender difference in anticipated involvement is merely an artifact of a Scandinavian effect leads to a more rigorous examination of potential confounding factors. To do so, we turn to an individual-level analysis, and incorporate controls at both the individual and national levels.

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<sup>10</sup> Germany also has a relatively high percentage of women legislators and a small gender difference. When it is also omitted from the model, (a) the slope is essentially unchanged (in fact it is steeper: 0.02); (b) the p value remains statistically significant ( $p > 0.05$ ), and (c) the  $R^2$  actually rises to 0.16.

## Modeling the Role Model Effect

We begin with a description of and justification for each of our control variables, and then move to a description of our estimator. At the individual level, we of course include gender (*Female*), as well as two measures of adolescents' socio-economic status and home environment: the number of books in the home (*Books*) and the education level the respondent expects to achieve (*Expected Education*).<sup>11</sup> We also include the frequency of television news viewing as a measure of general interest in the social and political world (*News*).<sup>12</sup>

It is crucial to attend to the potential for a spurious correlation—the possibility that the contexts in which women attain greater representation as legislators might also be characterized by cultural norms and practices that also encourage greater political interest among young girls. As a result, what may appear to be an effect of the presence of women legislators actually might be the effect of a political or social context that facilitates both female representation and girls' political engagement. At the country level, we control for a number of factors which may be related to both the representation of women and the political engagement of adolescent girls (the appendix provides additional information about the variables we include). Most crucial are the general cultural attitudes toward women and women's roles that characterize a political society. Religious and regional dummy variables have long been used as indicators of national culture and associated with the presence of female political leaders.<sup>13</sup> We measure the dominant religion

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<sup>11</sup> In education research, the number of books in a young person's home is a common indicator of educational exposure.

<sup>12</sup> We acknowledge that time spent watching television news could conceivably be a dependent variable (see our discussion of mechanisms below). It turns out, however, that it is unaffected by the presence of female legislators in the national legislature, and so seems to be a reasonable proxy for general attention to the social world.

<sup>13</sup> A few authors have taken advantage of the recent addition of a range of gender questions to the third wave of the cross-national World Values Study to more directly gauge the impact of culture on women's representation. All conclude that egalitarian gender roles play a powerful role in predicting the representation of women (Schwindt-Bayer and Mishler 2005; Paxton and Kunovich 2003; Norris and Inglehart 2001). Paxton and Kunovich (2003) find that the inclusion of a direct measure of gender attitudes causes virtually all of the previously significant regional and religious variables to drop out of the model. While their analysis suggests the superiority of direct measures of

with a dummy variable for a predominantly Catholic nation (*Catholic*) to account for the long-established relationship between traditionalistic religious cultures and female representation and political participation (Paxton 1997; Kenworthy and Lane 1999; Reynolds 1999). Similarly, we include a separate dummy for Scandinavian countries (*Scandinavia*), which as mentioned above stand out as uniquely egalitarian in their gender representation (Paxton and Kunovich 2003; Paxton 1997).<sup>14</sup> In addition, we include a dichotomous variable for nations that were former Soviet republics (*Former Soviet*). The number of years since female enfranchisement (*Suffrage*) gauges the national experience with formal acceptance of female political roles and is a consistent predictor of women's representation in the legislature (Siaroff 2000; Kenworthy and Lane 1999; Reynolds 1999; but see Moore and Shackman 1996).<sup>15</sup>

The above variables all tap into cultural factors that have been thought to predict the density of women officeholders within a country. Another strategy has been to include a more direct measure of “gender ideology”—attitudes toward the role of women in society. Paxton and Kunovich (2003) do this by calculating national averages for gender ideology items on the World Values Survey, which unfortunately does not cover all the countries in our sample. Analogously, we have generated national averages for an index of three questions about gender roles in the CES (*Gender Ideology*). For each one, respondents could indicate their response on a four point scale ranging from strongly disagree to strongly agree.

Women should have the same rights as men in every way

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attitudes (among other things, higher R-squared values), it also confirms the utility of regional and religious variables as proxies for gender ideology.

<sup>14</sup> Controlling for relevant variables eliminates the uniqueness of the Scandinavian experience in some (Siaroff 2000; Kenworthy and Lane 1999) but not all (Paxton and Kunovich 2003; Paxton 1997) work. We nonetheless include a Scandinavian dummy in our analysis, in order to have a full specification.

<sup>15</sup> Other measures of the status of women have not been found to predict women's representation; indices of social, political, and economic rights (Paxton 1997, but see Reynolds 1999), 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 Lane 1999) have all failed to achieve significance in earlier research.

When jobs are scarce, men have more right to a job than women (reversed)

Men and women should get equal pay when they are in the same jobs <sup>16</sup>

Paxton and Kunovich make a convincing argument that the direct measurement of gender ideology is a superior predictor of the prevalence of women officeholders than proxies for cultural factors like a nation's religious composition, its geographic region, and the length of time since women's suffrage. We err on the side of inclusion and account for all these potential factors.

Although it has mixed results as a predictor of women's representation in parliament, we include the share of women in the labor force to capture the social and economic availability and acceptability of non-traditional women (see Paxton and Kunovich 2003; Kenworthy and Lane 1999; Moore and Shackman 1996; Oakes and Almquist 1993; Paxton 1991). This measure, labeled *Female Labor Force*, taps into the population from which women leaders are most likely to emerge and might also be viewed as an indicator of the social acceptability of women in non-traditional roles.<sup>17</sup> We also account for the possibility that some parties and ideologies may facilitate the representation of women (Siaroff 2000; Caul 1999; Reynolds 1999; Rule 1987; Duverger 1955) and likewise encourage girls' political engagement by controlling for the proportion of the vote captured by left parties (*% Left*). Even though it has not consistently been shown to predict the proportion of female officeholders (Kenworthy and Lane 1999; Reynolds 1999; but see Paxton 1997), the level of democratization nonetheless has a plausible relationship to anticipated political engagement and a likely indirect effect on women in office via its many effects on social, political, and economic relationships (see Norris and Inglehart 2001). We thus control for each nation's 1999 Freedom House score (*Democratization*), with a higher score

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<sup>16</sup> Cronbach's alpha of 0.58.

<sup>17</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.

indicating a greater degree of democratization.<sup>18</sup> Additionally, we account for the general level of a nation's affluence and industrialization with per capita GDP (*Per capita GDP*). Finally, the type of electoral system has long been strongly associated with greater descriptive representation of women (Rule 1987, 1981; Duverger 1955, among many others). We thus employ a measure of the electoral system (*Electoral System*) used by Kenworthy and Lane, a three 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).

As before, the independent variable which explicitly tests the role model hypothesis is the percent of women in the lower house (*% Women*). Recall our hypothesis is that women politicians serve as role models specifically for adolescent girls. That is, we expect the percentage of women officeholders in a nation to have a differential impact on the anticipated involvement of girls than boys. To test whether girls are affected differently than boys we employ an interaction term between *Female* and *% Women*. A positive coefficient for this interaction would indicate that the anticipated involvement of girls rises to a greater extent than does boys' as the proportion of women officeholders increases.

The nested structure of the CES—students sampled within nations—is ideal for testing the role model effect, but nonetheless requires attention to the fact that the clustering of students within nations 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 are expected to have more in common with one another than two respondents from

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<sup>18</sup> Overall level of democratization has not been a significant factor in explaining the presence of female MPs (Kenworthy and Lane 1999; Reynolds 1999; but see Paxton 1997). This finding may be related to the heightened representation of women in less democratic communist systems and to the extent that democratization works indirectly via its many effects on social, political, and economic relationships (see Norris and Inglehart 2001).

Chile. A variety of methods have been developed to deal with clustered or hierarchical data, but in this case we opt for hierarchical linear modeling, or HLM (Raudenbush and Bryk 2002). A hierarchical model accounts for 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). The interaction term, *% Women X Female*, which constitutes the test of the role model effect 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 across nations. More formally, the model can be expressed as:

$$\text{Anticipated Involvement} = \beta_0 + \beta_1 (\text{Books}) + \beta_2 (\text{Expected Education}) + \beta_3 (\text{Female}) + \beta_4 (\text{News}) + r$$

$$\begin{aligned} \beta_0 = & \gamma_{00} + \gamma_{01} (\% \text{ Women}) + \gamma_{02} (\text{Electoral System}) + \gamma_{03} (\text{Democratization}) + \gamma_{04} \\ & (\text{Female Labor Force}) + \gamma_{05} (\text{Per Capita GDP}) + \gamma_{06} (\text{Catholic}) + \gamma_{07} \\ & (\text{Scandinavia}) + \gamma_{08} (\text{Suffrage}) + \gamma_{09} (\text{Former Soviet}) + \gamma_{010} * \% \text{ Left} + \gamma_{011} \\ & \text{Gender Ideology} \end{aligned}$$

$$\beta_1 = \gamma_{10}$$

$$\beta_2 = \gamma_{20}$$

$$\beta_3 = \gamma_{30} + \gamma_{31} (\% \text{ Women}) + \mu_3$$

$$\beta_4 = \gamma_{40}$$

To simplify comparing the magnitude of effect sizes, all independent variables have been standardized to range from 0 to 1. Note that because of missing data, only twenty-six of the twenty-seven nations can be included in the model (Colombia is the omitted nation). However,

when a less complete model is estimated which includes Colombia, the results are substantively unchanged.

### The Role Model Effect

Column 1 of Table 1 contains the results of the basic model.<sup>19</sup> For the most part, the control variables work as expected. Among variables describing the nations, the type of *Electoral System*, level of *Democratization*, and being majority *Catholic* all have the expected impact on adolescents' anticipated political involvement. There are some surprises, though. The nation's level of economic development (*Per capita GDP*) is negatively related to anticipated involvement, as is the country's *Gender Ideology*. We concede that both of these relationships are puzzling and, in the absence of theory, we have no convincing explanations for them. Instead, we simply note them as worthy of further study. Adolescents in countries in *Scandinavia* or of the *Former Soviet Union* do not have distinct patterns of adolescent anticipated political involvement, and support for parties on the left side of the ideological spectrum (*% Left Parties*) and the presence of women in the workforce (*Female Labor Force*) have similarly null effects. At the individual level, both measures of socio-economic status (*Books* and *Expected Education*) and attentiveness to the *News* behave as expected. Critically, the pattern displayed in Figure 1 holds up--the main effect of *Female* is negative. In other words, on average girls have a lower level of anticipated involvement than boys.

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<sup>19</sup> In the tables reporting the results of the hierarchical models, we report the amount of individual-level variance explained. Following the guidance 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:

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

These control variables are merely a prelude to the test of the role model effect. Are girls more likely to envision themselves as politically active in nations with more women in elective office? The answer is yes, as the evidence supports the role model effect. The interaction between *Female* and *% Women* is positive and statistically significant ( $p < 0.001$ )—meaning that as the percentage of women in the lower house increases, so does the anticipated political involvement of adolescent girls.

*Table 1 about here.*

To make the interpretation of the interaction term transparent, Figure 3 displays the rise in both boys' and girls' engagement as the percentage of women in a nation's lower house increases. The y axis spans half a standard deviation of the anticipated involvement index while the x axis moves from the minimum (6.3 percent, Greece) to the maximum percentage (43 percent, Sweden) of women officeholders. All other variables have been held constant at their means. The dotted line displays the anticipated involvement of boys, which decreases slightly as the percentage of women increases. The solid line shows the concomitant rise in girls' anticipated involvement, roughly a quarter of a standard deviation in the anticipated involvement index. By way of comparison, this is almost identical to the impact of *Expected Education* (and thus socioeconomic status, a long-standing predictor of political engagement). Note that the lines cross roughly at the point where women comprise one third of a nation's lower house.

*Figure 3 about here.*

As above, we continue to be concerned that this result may be driven by the Scandinavian nations, where there are especially egalitarian norms regarding gender roles. To test whether the four Scandinavian nations unduly influence these results, column 2 of Table 1 displays a model

in which Denmark, Finland, Norway, and Sweden have been omitted. The interaction between Female and % Women retains its statistical significance, and even increases a bit in magnitude.<sup>20</sup>

### **Explaining the Role Model Effect**

Having seen evidence that adolescent girls respond to female officeholders as political role models, we are interested in the process by which the presence of female political role models encourages greater anticipated political involvement among girls. There are a number of possible mechanisms by which the presence of descriptive representatives could plausibly lead to the role model effect. We discuss and test four explanations that have been proposed in the literature.

One potential mechanism is that seeing women officeholders changes attitudes about the appropriateness of women as political leaders (the *women's role* hypothesis). Many scholars argue that the absence of women from prominent political roles reinforces the widespread conception of women as unfit for political activity. Indeed, the possibility that female politicians might challenge dominant norms about the suitability of women for politics is a common argument for descriptive representation (Mansbridge 1999; Phillips 1995; Carroll 1984; Sapiro 1981). By modeling the possibility of female political activity, women politicians may encourage greater interest in political participation among girls (see Burns, Schlozman, and Verba 2001).

Another possible mechanism is that seeing women hold political office leads girls to view government as responsive to their interests (*government responsiveness* hypothesis). The

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<sup>20</sup> When these results are graphed, the line for both boys and girls incline although the slope for girls is considerably steeper.

presence of fellow group members in positions of political power may promote a belief that government is responsive to group interests and that group members are capable of affecting political outcomes (that is, political efficacy). Burns and her colleagues (2001), for example, hypothesize that the presence of women officeholders may lead to a “self-interested assessment” (351) that more women politicians will mean more pro-women policies; that is, they come to believe government will be more responsive to women’s concerns.

A third possible mechanism is that girls become more attentive to politics when they see women running for and serving in national political office (*political attentiveness* hypothesis). Female role models may affect participation by increasing girls’ engagement with political topics (see Bobo and Gilliam 1990 for an analogous example of racial role models). The mere presence of fellow group members in political roles may make girls more likely to pay attention to and discuss politics. Moreover, research suggests that female office-holders are more likely to pursue legislation on topics of particular interest to women (e.g., Swers 2002; Wolbrecht 2002) and to frame legislative decision-making in terms of women’s perspective (Walsh 2002). The presence of women legislators has been associated with greater representation of women’s interests in policy making, both in the U.S. (Swers 2002; Reingold 2000) and while less studied, cross-nationally (Schwindt-Bayer and Mishler 2005; Lijphart 1991). By raising issues of interest to women and encouraging political institutions to address women’s concerns in policy, female role models may spark girls’ interest in political topics and generate conversations about politics, which in turn affect the likelihood of political participation. Our own previous work suggests that in the United States, the role model effect for adolescent girls is mediated through an increasing propensity for political discussion within families (Campbell and Wolbrecht 2006).

A fourth potential explanation is that girls come to trust the political system, and the institutions that comprise it, when they see more women in positions of political leadership (*trust hypothesis*). Observing one's group members, with whom one may feel an intuitive shared identity, in positions of political power may lead to greater confidence in those institutions. Previous cross-national work has found the presence of descriptive representatives to be positively related to women's (and men's) confidence in the legislature (Schwindt-Bayer and Mishler 2005; Norris, Lovenduski, and Campbell 2004). In an analogous case in the U.S., the presence of African Americans in elective office appears to contribute to higher levels of political trust among blacks, which in turn facilitates their political participation (Bobo and Gilliam 1990).

Each of these four mechanisms can be tested with the CES data. For the *women's role hypothesis*, we employ a three item index, consisting of the following items. Respondents indicated their level of agreement with each statement using a four point scale, from strongly disagree to strongly agree.

Women should run for public office and take part in the government just as men do

Women should stay out of politics (polarity reversed)

Men are better qualified to be political leaders than women (polarity reversed)

The index is coded so that a higher value indicates a more egalitarian attitude ( $\alpha=0.67$ ).

The *government responsiveness hypothesis* is tested with a six question index. Like the women's role questions, respondents could indicate their level of agreement on a four point scale.

People in government care a lot about what all of us think about new laws

The people in government are doing their best to find out what ordinary people want

The powerful leaders in government care very little about the opinions of ordinary people (polarity reversed)

In this country a few individuals have a lot of political power while the rest of the people have very little power (polarity reversed)

The politicians quickly forget the needs of the voters who elected them (polarity reversed)

When people organize to demand change, the leaders in government listen

The higher the value, the more responsive government is perceived to be ( $\alpha = 0.63$ ).

To gauge the impact of role models on *political attentiveness*, we use items in which respondents were asked about their frequency of political discussion regarding (a) national and (b) international politics with each of three groups of people: their peers, their parents, and their teachers (for a total of six questions about political discussion). In each case, respondents reported whether they discussed politics with people in that particular group never, rarely, sometimes, or often. The index is coded so that a higher number means more political discussion ( $\alpha = 0.68$ ).

Finally, we measure *trust* with a four item index, consisting of the level of trust respondents report in the following four political institutions: the national government, local council or government of your town or city, political parties, and the national parliament (referred to by its indigenous name, e.g. "Congress"). Respondents could select their degree of trust as never, only some of the time, most of the time, and always. A higher value on the index corresponds to greater trust ( $\alpha = 0.73$ ).

The first step in determining whether any of these are mechanisms to explain the role model effect is to see whether any of them are related to the presence of women in the national legislature, controlling for the identical set of variables as in the model of anticipated political involvement. As can be seen in columns 3-6 of Table 2, the interaction between Female and %

Women has a significant impact on only one of the four mechanism variables: political trust. To put the magnitude of the effect in perspective, Figure 4 provides a graphic display of the interaction. Note that the level of political trust for both boys and girls rises as the percentage of women in the legislature increases, but the slope for girls is steeper than for boys. For neither sex, however, is the magnitude of the impact very large. Girls' political trust rises by only 0.075 of a standard deviation (recall that the dependent variable has a standard deviation of 1.0).

*Figure 4 about here.*

It is striking that of the four possible mechanisms, only one finds empirical support, and the magnitude is modest. In particular, it is notable that, contrary to longstanding conventional wisdom, we see no change in the perceived role of women in politics as the percentage of women officeholders increases. The presence of female political role models does not appear to shift attitudes regarding gender roles. Likewise, women politicians do not lead adolescent girls to believe that their government is more responsive to them. And in contrast to our research in the U.S. (Campbell and Wolbrecht 2006), where we found that girls are more politically engaged in communities where women ran for governor, Senator, or member of the U.S. House of Representatives, cross-nationally women in office do not trigger political discussion among girls. One possible way to reconcile this apparent contradiction is the fact that, in the U.S., visible women politicians are relatively rare (only 13 percent of members of Congress are women). A female candidate is thus far more likely to be considered "news" and thus become a subject of discussion in the U.S. than in many other countries. Furthermore, the personalized nature of American campaigns and media coverage of officeholders only increases the likelihood that a woman in elective office will spur discussion of her, as well as her policies and positions.

The link between women in office and girls' political trust, although of a modest magnitude, suggests a commonality between gender and race. In both cases, descriptive representation corresponds to an increase in trust. It is likely that girls view political institutions as more deserving of their trust in nations where women are well-represented in those institutions. In the American research linking racial descriptive representation and trust, it has been further shown that trust is the mechanism through which African Americans become more politically active when they are represented by black officeholders (Bobo and Gilliam 1990). Is it also the case that trust is the channel through which the role model effect operates? To see whether this is the case, we move the political trust index from the right to the left side of the equation, and include it as an independent variable in a model predicting the anticipated political engagement index, as displayed in column 7 of Table 1. If the role model effect is mediated by political trust, we should see the coefficient for *% Women X Female* decrease in magnitude and statistical significance when compared to the model in column 1.

As can be seen in the table, political trust is a highly significant predictor of anticipated involvement ( $p < 0.001$ ), but does not make a dent in the interaction between girls and the percentage of women elected to the lower house. Thus, while we can conclude that girls' political trust is affected, even if slightly, by the presence of women in office, it is not the case that increased trust is the mediating mechanism for the role model effect.

What, then, does explain the role model effect? The failure of these previously hypothesized intervening mechanisms to pan out suggests that the effect of role models cross-nationally may be more direct. Specifically, our analysis leads us to suspect that the presence of female role models changes how adolescent girls perceive not gender roles in general or the system as a whole, but simply their own relationship to the political system. Having seen women

successfully pursue elective office they are able to envision themselves as active participants in the political process. It is not that they change their perceptions of the role women *in general* should play in politics. And it is not that they come to see their nation's political system as more democratically responsive. Nor do they become more attuned to politics. Rather, they simply come to see a place for themselves as participants in the political system. Similarly, they see that system's institutions as deserving of their trust, either as a cause or an effect of their intention to be politically engaged.

Another way to think about these initially puzzling findings is that the presence of political role models helps girls make the leap from psychological political engagement to an intention for actual political activity. In other words, girls may be interested and attentive to politics, but less likely than boys to translate this psychological engagement into political action. Seeing fellow group members active at the highest levels of the political arena might inspire girls to follow through with that interest into an intention for active involvement—that is, to move from interested bystanders to active political players. Future research will continue to explore these pathways.

### **Discussion and Conclusion**

The study of political socialization was once a growth stock, but largely faded away as it ran into a bear market (Cook 1985). In recent years it has enjoyed a resurgence (Jennings and Stoker 2004; Hooghe and Stolle 2004; Gimpel, Lay, and Schuknecht 2003; Campbell 2002; Plutzer 2002; Galston 2001; Conover and Searing 2000; Niemi, Hepburn, and Chapman 2000; Smith 1999; Niemi and Junn 1998; Rahn and Transue 1998; Sears and Valentino 1997) as concern has risen about falling rates of political engagement among young people worldwide

(Wattenberg 2002). As research into the political development of young people continues, clearly gender differences should be a motivating concern. Across the twenty-seven nations in the CES, the political engagement of girls generally lags behind that of boys, and it seems likely that gender differences in political engagement are not limited to this admittedly eclectic collection of countries.

Given that participatory habits develop in adolescence which persist throughout one's life (Plutzer 2002; Franklin 2004), there is good reason to believe that gaps in anticipated involvement among adolescents develop into gaps in actual engagement among adults. Women thus risk not having their voices heard, or at least not heard as loudly as men, in their nation's democratic system. However, our analysis should leave advocates of gender equality hopeful, as we show that the gender gap in political involvement can be closed. Where there are female role models in political life, adolescent girls are more likely to envision themselves as active participants in politics.

Admittedly, there is a potential catch-22 lurking behind proposing more female role models as the way to overcome gender differences in the political engagement of young people. How do we get girls to be involved in politics? Get more women involved in politics. The reasoning may not be as circular as it first appears, however. The number of women in office is amenable to change. Nations can take steps to encourage political gender equity within their borders, both institutional and cultural in nature. This is hardly the place to settle the question of whether institutions or culture matter more, and so instead we simply note that existing evidence suggests both can affect the number of women officeholders (Paxton and Kunovich 2003; Norris and Inglehart 2001; Kenworthy and Malami 1999; Reynolds 1999; Paxton 1997). Importantly, we find that what affects girls' political engagement is the presence of female role models, and not

simply the underlying factors that contribute to the presence of role models in politics. This suggests to us that there are different paths to achieving gender equity in political representation—what matters for the political socialization of adolescents is the *end* and not the *means*. The bottom line is that as women increasingly serve as legislators, they also serve as role models for the rising generation of adolescent girls.

## Appendix

### *Individual-level variables (Civic Education Study)*

#### *Female*

(Self report)

#### *Books*

About how many books are there in your home? (Do not count newspapers, magazines, or books for school)

1= less than 11 books, 2= 11 to 50 books, 3= 51 to 100, 4= 101 to 200, 5= more than 200

#### *Expected Education*

How many years of further education do you expect to complete after this year?

0=0, 1=1-2 years, 2=3-4years, 3=5-6 years, 4=7-8 years, 5= 9-10 years, 6= >10.

#### *News*

How often do you listen to news broadcasts on television?

0=Never, 1=Rarely, 2=Sometimes, 3=Often

#### *Anticipated Political Involvement*

When you are an adult, what do you expect that you will do?

Join a political party

Write letters to a newspaper about social or political concerns

Be a candidate for local or city office

I will certainly not do this

I will probably not do this

I will probably do this

I will certainly do this

The analysis employs variable POLATMLE in the public-release version of the Civic Education Study.

### *Nation-level Variables (various sources)*

#### *% Women in Lower House*

As reported by the Inter-Parliamentary Union's "Women in Parliaments" database, as of December, 1999. The data are available on-line at <http://www.ipu.org/wmn-e/world.htm>.

#### *Gender Ideology*

Mean score of the an additive index combining the following three questions, asked of all participants in the Civic Education Study.

Women should have the same rights as men in every way  
When jobs are scarce, men have more right to a job than women (reversed)  
Men and women should get equal pay when they are in the same jobs

Strongly disagree  
Disagree  
Agree  
Strongly agree

The following variables were first used by Kenworthy and Malami (1999), who have generously made their data available at <http://www.u.arizona.edu/~lkenwor/research.html> [accessed July 25, 2005]. In each case, we quote verbatim their description of the variable:

#### *Catholic*

Authors' coding from Central Intelligence Agency (1997).

#### *Years Since Suffrage*

Year women gained voting rights in national elections [which we subtracted from 1999]. From Inter-Parliamentary Union (1995, Table 1).

#### *Female Labor Force*

Female share of the paid labor force. From United Nations (1995, Table 11).

#### *Democratization*

Degree of political rights and freedoms, scored on a scale of 1 (low) to 7 (high). From Freedom House (1997).

#### *Electoral System*

Structure of the electoral system. Coded 2 if voters choose among party lists in multimember districts which average five or more seats per district; 1 if party lists are used but district sizes average fewer than five seats, or a combination of party list and candidate voting is used, or voters choose among individual candidates in single-member districts. Authors' coding from Inter-Parliamentary Union (1998).

*Per Capita GDP*

Real gross domestic product per capita (in US \$), 1994. From UNDP (1997, Table 1).

The following variable was first used by Reynolds (1999), who in a personal communication, graciously shared these data with us. Again, we quote verbatim from the published description of the variable.

*% Left*

The sum of the vote shares of socialist, social democratic, communist, green, and women's parties. (In the few cases where the left vote percentage was unavailable, the left vote seat share was used as a proxy).

**Table A1. National Variables**

	<b>% Women in Lower House</b>	<b>Catholic</b>	<b>Years Since Suffrage</b>	<b>Gender Ideology (Minimum=0, Maximum=1)</b>	<b>Female Labor Force</b>	<b>% Left</b>	<b>Democratization</b>	<b>Electoral System</b>	<b>Per capita GDP</b>
Australia	22.3	0	97	0.87	38	49	7	0	19285
Belgium (French)	12.7	1	51	0.45	33	38	7	2	20985
Bulgaria	10.8	0	55	0.20	48	42	6	2	4533
Chile	10.8	1	50	0.56	29	39	6	1	9129
Colombia	11.8	1	45	0.75	23		4	2	6107
Cyprus	7.1	0	39	0.83	36	41	7	2	13071
Czech Republic	15	1	79	0.75	48	37	7	2	9201
Slovakia	14	1	79	0.53	47	18	6	2	6389
Denmark	37.4	0	84	1.00	44	50	7	2	21341
Estonia	10.9	0	81	0.46	46	6	7	2	4294
Finland	33.5	0	93	0.95	47	46	7	2	17417
Germany	30.9	0	81	0.86	39	48	7	1	19675
Greece	6.3	0	47	0.66	27	59	7	2	11265
Hungary	8.3	1	46	0.43	44	37	7	1	6437
Italy	11.1	1	54	0.60	32	27	7	1	19363
Latvia	17	0	81	0.16	47	46	6	2	3332
Lithuania	17.5	1	78	0.51	45	47	7	1	4011
Norway	36.4	0	86	0.96	41	32	7	2	21346
Poland	13	1	81	0.67	45	78	7	2	5002
Portugal	13	1	68	0.69	36	40	7	2	12326
Romania	7.3	0	53	0.27	45	31	6	2	4037
Russia	10.2	0	81	0.00	45	56	5	1	4828
Sweden	42.7	0	78	0.75	44	29	7	2	18540
Switzerland	21	0	28	0.79	35	45	7	2	24967
England	18.4	0	81	0.98	39	1	7	0	18620
United States	13.3	0	79	0.71	41	27	7	0	26397
Slovenia	10	1	54	0.60	50	20	7	2	10404

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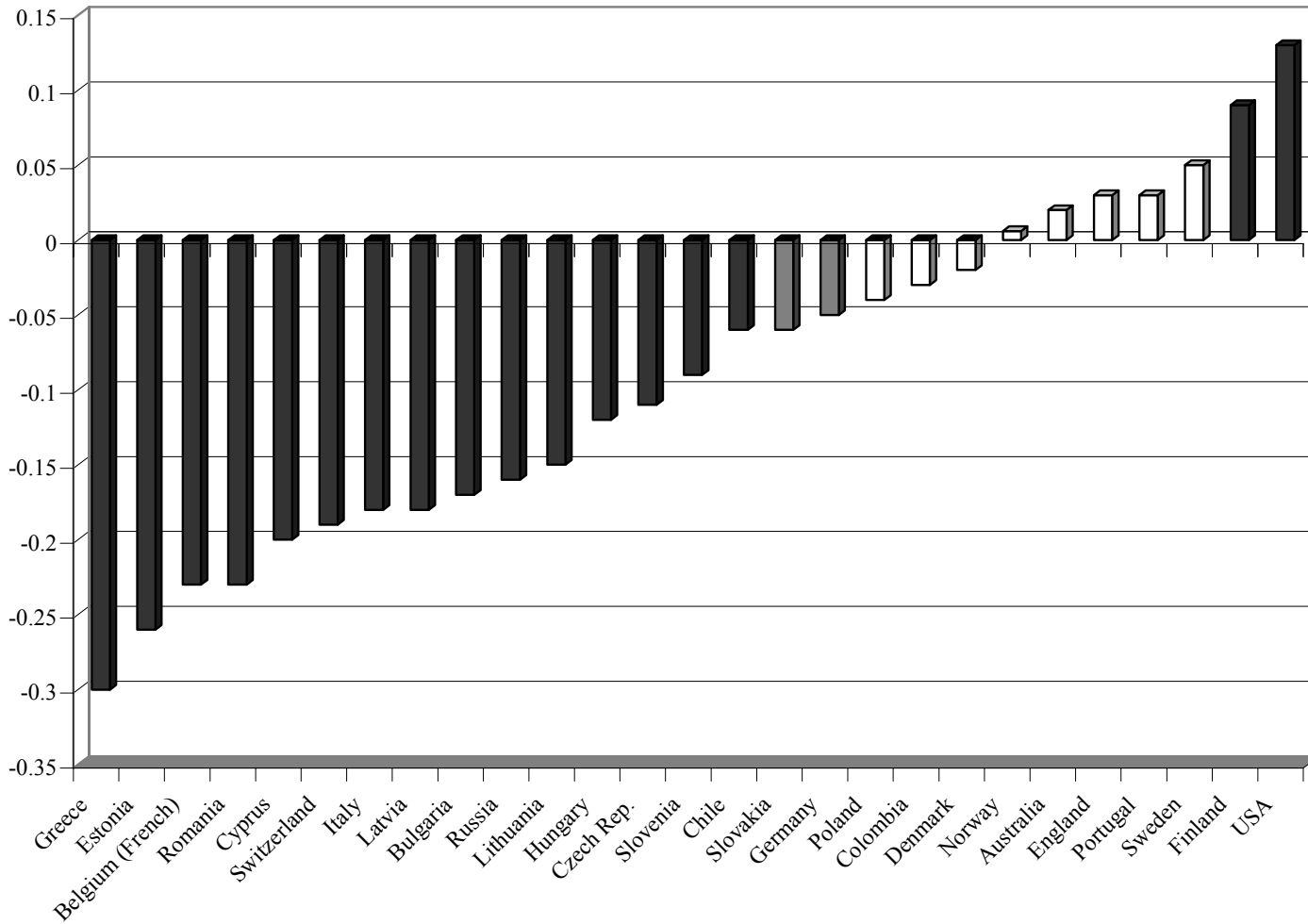
## Tables and Figures

**Table 1. Modeling the Role Model Effect and Its Potential Mechanisms**  
Results from Hierarchical Linear Models

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Anticipated Involvement	Anticipated Involvement, no Scandinavian nations	Women's Role	Government Responsiveness	Political Attentiveness	Political Trust	Anticipated Involvement (with Political Trust)
<b>Role Model Effect</b>							
Female X % Women	0.250 *** (0.040)	0.304 *** (0.107)	0.086 (0.124)	0.010 (0.033)	0.014 (0.010)	0.032 ** (0.011)	0.241 *** (0.043)
Female	-0.177 *** (0.025)	-0.184 *** (0.028)	0.336 *** (0.063)	-0.086 *** (0.018)	0.003 (0.005)	-0.015 ** (0.006)	-0.143 *** (0.027)
% Women	-0.059 (0.141)	0.102 (0.114)	0.151 (0.116)	0.017 (0.101)	-0.087 (0.079)	0.031 (0.044)	-0.096 (0.131)
<b>Individual-level</b>							
Books	0.083 ** (0.032)	0.071 ** (0.036)	0.093 *** (0.024)	-0.006 (0.016)	0.041 *** (0.006)	-0.006 (0.005)	0.101 *** (0.030)
Expected Education	0.256 *** (0.050)	0.209 *** (0.048)	0.340 *** (0.048)	0.007 (0.032)	0.125 *** (0.012)	0.027 *** (0.009)	0.254 *** (0.050)
News	0.146 *** (0.030)	0.125 *** (0.032)	0.180 *** (0.019)	0.093 *** (0.021)	0.115 *** (0.011)	0.041 *** (0.004)	0.121 *** (0.030)
Political Trust							0.851 *** (0.043)
<b>Nation-level</b>							
Catholic	-0.216 *** (0.047)	-0.239 *** (0.046)	-0.001 (0.239)	-0.086 *** (0.021)	-0.068 *** (0.022)	-0.040 ** (0.018)	-0.181 *** (0.046)
Scandinavia	-0.122 (0.098)		-0.103 (0.085)	0.074 (0.090)	-0.054 (0.087)	0.053 (0.040)	-0.191 * (0.097)
Former Soviet	-0.063 (0.179)		-0.238 * (0.112)	-0.161 (0.127)	-0.018 (0.071)	0.106 (0.061)	-0.217 (0.143)
Suffrage	-0.066 (0.107)	-0.081 (0.109)	-0.041 (0.054)	-0.199 *** (0.051)	-0.111 ** (0.044)	-0.031 (0.047)	-0.034 (0.097)
Gender Ideology	-0.357 ** (0.147)	-0.415 ** (0.147)	-0.012 (0.080)	-0.083 (0.080)	0.212 ** (0.075)	0.186 *** (0.054)	-0.583 *** (0.124)
Female Labor Force	-0.270 (0.245)	-0.392 ** (0.132)	0.407 *** (0.127)	0.315 ** (0.146)	-0.040 (0.078)	-0.256 ** (0.090)	0.055 (0.206)
% Left	=0.110 (0.112)	-0.127 (0.093)	0.241 ** (0.084)	-0.151 ** (0.069)	-0.049 (0.055)	-0.058 (0.051)	-0.093 (0.103)

Democratization	0.322 * (0.154)	0.401 ** (0.163)	0.183 * (0.101)	-0.026 (0.097)	-0.211 ** (0.076)	-0.075 (0.077)	0.346 * (0.183)
Per capita GDP	-0.303 ** (0.135)	-0.312 *** (0.070)	0.088 (0.098)	0.127 (0.109)	-0.054 (0.087)	0.027 (0.058)	-0.280 ** (0.108)
Electoral System	0.145 *** (0.032)	0.158 *** (0.034)	-0.063 *** (0.016)	-0.028 * (0.014)	0.029 (0.017)	-0.001 (0.020)	0.154 *** (0.036)
Intercept	1.474 *** (0.121)	1.511 *** (0.114)	2.367 *** (0.115)	2.689 *** (0.089)	0.452 *** (0.117)	0.546 *** (0.084)	1.008 *** (0.164)
Number of cases	75381	64567	67917	49672	73367	60546	58656
Number of nations	26	22	26	26	26	26	26
Individual-level	0.048	0.049	0.084	0.033	0.084	0.036	0.096
Variance Explained							

**Figure 1. Female-Male Differences in Anticipated Political Involvement**



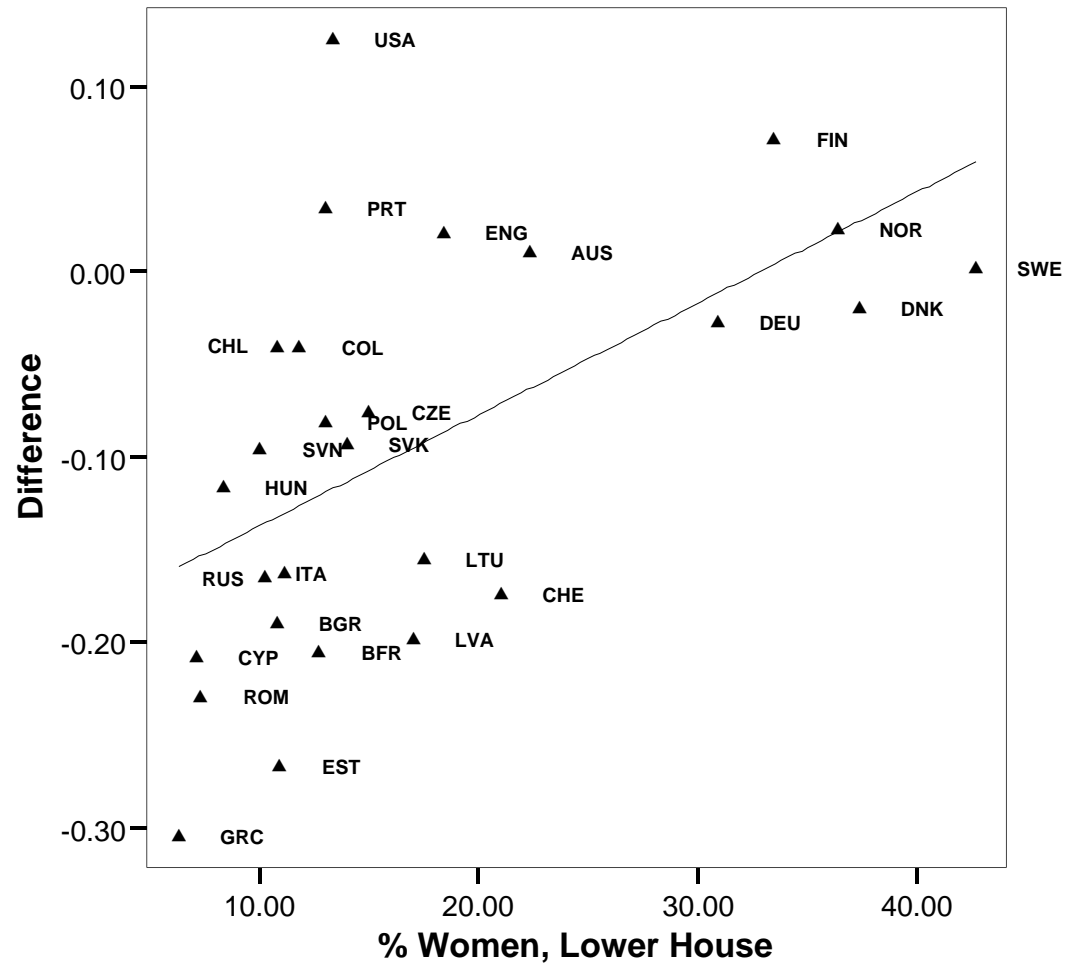
Source: IEA Civic Education Study

Black bar = p < 0.05

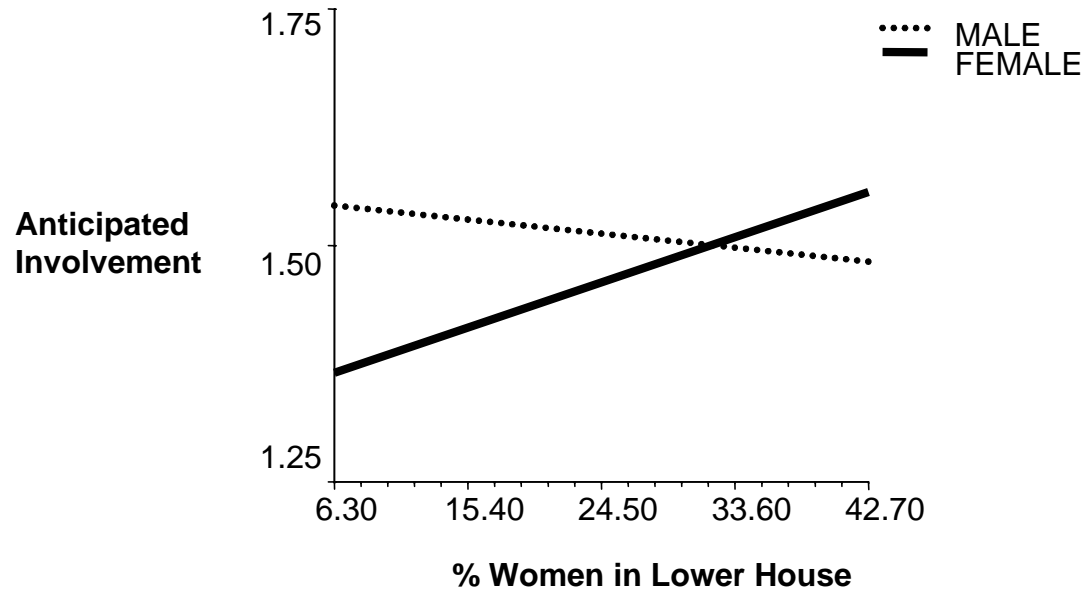
Grey bar = p < 0.10

White = no statistically significant difference

Figure 2. % Women in Lower House and Female-Male Differences in Anticipated Involvement

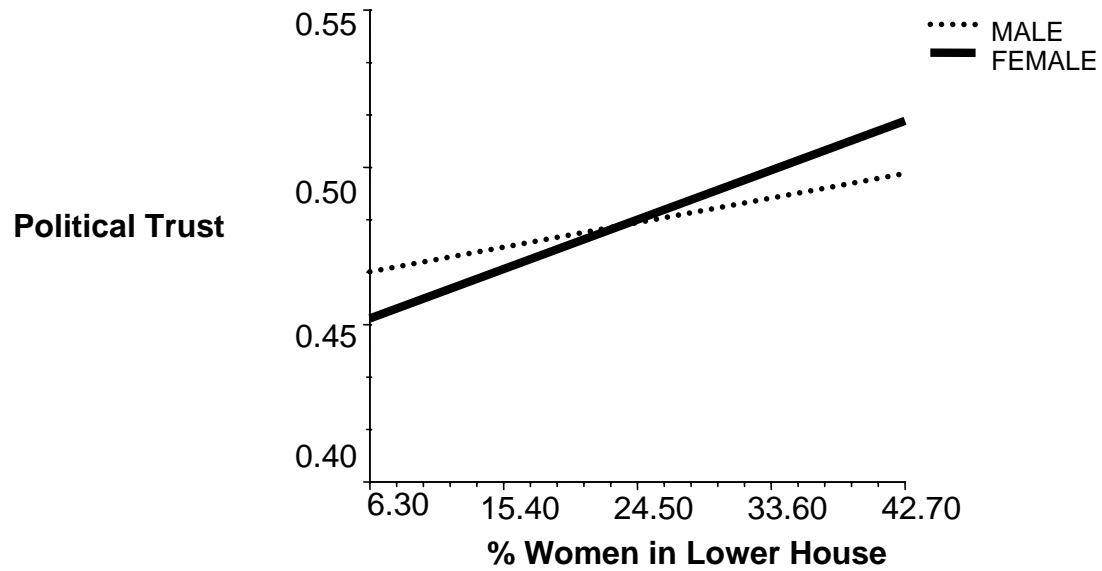


**Figure 3. Role Model Effect: Impact of Women Officeholders on Anticipated Political Involvement**



Results estimated from hierarchical linear model in Column 1, Table 1.  
All control variables held constant at their means.

**Figure 4. Impact of Women Officeholders on Political Trust**



Results estimated from hierarchical linear model in Column 6, Table 1.  
All control variables held constant at their means.