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# Women Ministers in Latin American Government: When, Where, and Why?

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*We examine factors that affect the supply of and demand for female cabinet ministers in Latin America and seek to understand the frequency with which women join cabinets and the types of portfolios women receive. Our analysis covers 18 Latin American democracies from 1980 to 2003. We find that presidents from parties of the left appoint more women. Increases in the percentage of women in the legislature and higher human development correlate with more women in the cabinet. Intense partisan competition increases the likelihood that a cabinet will contain a woman. Women are more likely to receive high-prestige cabinet posts from leftist presidents and when the percentage of women in the legislature increases. In addition, an international diffusion effect appears to explain the rapid expansion of women in Latin American cabinets.*

For many years, there has been international and domestic interest in expanding women's representation in politics. The U.N. Convention on the Elimination of all Forms of Discrimination against Women (1979) and the Fourth World Conference on Women (Beijing 1995) put women's representation on the global agenda. Women's movements pressured governments to address gender inequality in economic, social, and political spheres and to follow through on international commitments.

In response to this pressure, some democracies have seen a significant expansion in women's representation. In Argentina, the 1991 *Ley de Cupos* established a 30% quota for women in electable positions on party lists for the Chamber of Deputies, and women's representation increased from 5% in 1983 to 21% in 1993, and 32% in 2001 (Jones 1996). Women's representation in Costa Rica's Legislative Assembly increased from 7% in 1974 to 19% in 1998 before implementation of a 40% gender quota law; to 35% in 2002 after the law took effect. In Scandinavia, women have reached near parity with men in legislatures, and there is significant representation of women in cabinets (Skjeie 1991).

Globally, gender parity remains the exception and even where women's numbers in legislatures are increas-

ing, women typically hold few top executive posts. Latin America, however, provides a puzzle. Relative to the global average of women filling 12% of ministerial and vice-ministerial posts, many women serve in Latin American cabinets. In 2003, 18% of *ministers* were female (up from 5% in 1980 and 7% in 1990). In some countries, such as Colombia and Honduras, women played an extremely large role in the cabinet, holding 50 and 29% of ministerial posts in 2003 and 2002, respectively. In general in the world's democracies, when women are found in the cabinet it is in a subset of all ministries—typically the less prestigious portfolios: culture, education, environment, family, health, women's affairs (Davis 1997; IPU 1999). In a growing number of Latin American countries, however, women hold high-prestige posts. Between 2000 and 2003 women held prestigious ministries such as Finance (Costa Rica, Ecuador, Guatemala, Honduras, Venezuela), Foreign Relations (Chile, Colombia, Ecuador, El Salvador, Mexico), and Defense (Chile and Colombia). Why is there apparently less gender bias in the cabinets of these ostensibly more "macho" countries?

This article explores reasons for this strong representation of women in this seemingly unlikely region by seeking to understand the conditions under which women join president's cabinets and the types of portfolios women

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receive. Representation of women in cabinets is important for many reasons, including the cost to democracy of excluding half of the citizens from the highest levels of policymaking (Jaquette and Wolchik 1998; Phillips 1991; Sapiro 1981), and because cabinet posts are often an important recruiting group for chief executives. We test hypotheses about supply and demand factors thought to influence representation of women and juxtapose those findings against the diffusion hypothesis (Htun and Jones 2001; True and Mintrom 2001). The next section reviews the literature and presents hypotheses. Then we present the findings of our cross-national, time-serial analysis of Latin American presidents' cabinets. We conclude that diffusion is a more likely explanation for increased representation of women in Latin American cabinets than the slower process of change in domestic supply and demand found in highly industrialized democracies.

## Literature and Hypotheses

A variety of explanations have been offered for why leaders appoint women to their cabinets and place them in prestige positions including political and socioeconomic factors and diffusion effects. Norris (1987, 1997a) presents "supply" and "demand" components of political recruitment. Supply components include candidates' motivations and political capital (e.g., financial assets, party experience, connections, occupational and educational qualifications, legislative skills). The demand side of recruitment to the legislature is determined by those who select candidates and decide the qualifications needed. For cabinet recruitment, demand should be a function of political benefits and costs of filling a cabinet post with a woman vs. a man, or representing another group (e.g., ethnic minority, coalition partner). Benefits may also come from compliance with treaties, or increased respect for a country as international pressure for women's equality increases (see Htun and Jones 2001; True and Mintrom 2001).

Norris developed her conceptualization of supply and demand factors affecting recruitment to understand the relationship between gender and attainment of legislative seats in established democracies in Western Europe. We transfer her concepts to Latin America for two reasons. One, supply and demand factors affecting cabinet appointments incorporate forces presidents do and do not control when making cabinet selections. Two, this framework allows us to make a direct comparison between established and third-wave democracies to see if the same

factors affect women in the same way.<sup>1</sup> We acknowledge, however, that there are differences between presidential and parliamentary systems that may affect cabinet appointment decisions. A Prime Minister's need to sustain a vote of confidence in the parliament versus the separate origin and survival of the executive in presidential systems should allow presidents more freedom in making cabinet appointments than Prime Ministers (Blondel 1985: Chapter 3). In addition, parliamentary systems often have a norm, if not a legal rule, that cabinet ministers are members of parliament. No such requirement exists in presidential systems, and some countries require that a legislator resign her seat to take an executive post.

## Factors Affecting the Supply of Female Ministers

The supply of potential women ministers is determined in part by whether women desire such jobs. We assume some ambitious politicians of both genders want to be cabinet ministers because ministers influence policy and control extensive resources (e.g., budgets, pork, jobs).

The pool of qualified women also affects the supply.<sup>2</sup> Ministers are typically well educated and professionals (Davis 1997; Norris 1987; Sainsbury 2004; Studlar and Moncrief 1997; Thiébauld 1991). Htun (2003) cites the increasing education and percentage of women in the labor force in Latin America as reasons why women's representation in politics has increased. More generally, education and participation in the labor force has a positive effect on political activity by women (True and Mintrom 2001).<sup>3</sup>

People enter the cabinet in various ways (e.g., the military, bureaucracy), but experience in elected office is the main path in most parliamentary systems (Blondel

<sup>1</sup>The "third wave" of democratization began in Southern Europe in 1974 and spread to Latin America in the 1980s, and then to Eastern Europe in the late 1980s (Huntington 1991).

<sup>2</sup>Norms and legal requirements for serving in the cabinet vary (e.g., whether ministers are specialists or generalists). Parliamentary cabinet composition can be affected by the need to satisfy the portfolio requests of coalition partners, while presidents have more freedom in making appointments (Blondel 1985). See Blondel (1991), Davis (1997), and Laver and Shepsle (1994) about requirements to be a minister in a Western European cabinet.

<sup>3</sup>However, Matland (1998) found participation in the labor force only had a positive and significant effect on election of women in industrialized countries. In less-developed countries it was not significant. Inglehart and Norris (2003) caution that, even when women's education and professional status increase, cultural barriers such as attitudes about the proper role of women and about gender (in)equality, may still impede qualified women from participating in politics.

1987; Davis 1997; Kobayashi 2004; Norris 1997a).<sup>4</sup> Davis expected increased numbers of female parliamentarians to create “an irreversible process of change” (1997, 64) in attitudes and expectations about women that would lead to more women in the cabinet. We test for such an effect on Latin American cabinets. It is worth noting, however, that other researchers argue that election to the legislature may not be sufficient, or even necessary. Kobayashi (2004) explains that few women have served in the Japanese Diet long enough to develop the connections and patronage necessary for rising to top party ranks (also see Rodriguez [2003] about Mexico).<sup>5</sup> Studlar and Moncrief (1997) found that high turnover in parliamentary systems decreases the length of service needed before appointment to the cabinet. As turnover is high in many Latin American legislatures (Morgenstern and Nacif 2002; Schwindt-Bayer 2005), long service in congress may not be necessary for cabinet appointments in Latin America either. In addition, in presidential systems ministers do not have to come from the legislature, so increasing representation of women in the congress may not affect selection of women for cabinet posts.

Thus, we expect the probability that women will be appointed to the cabinet and will receive top-ranking posts increases as:

H1a: *More women have advanced education.*

H1b: *More women have experience in the workforce.*

H1c: *There are more women in the legislature.*

### Factors Affecting the Demand for Female Ministers

Demand for women ministers is a function of political benefits and costs for a president of appointing a woman to a post. Research in Western Europe and Canada has found that left parties are more “women friendly” than are right parties. Left parties included women’s rights and feminist issues in their platforms and spearheaded efforts to enact gender quotas (Davis 1997; Duverger 1955; Lovenduski and Norris 1993; Norris 1987, 1997b; Rule

<sup>4</sup>Many U.S. cabinet secretaries are former business leaders, lawyers, professors, governors, members of congress, or civil servants. However, Blondel describes the United States as a very “open” system where “the ‘routes’ to ministerial office are scarcely determined at all” (1985, 14).

<sup>5</sup>In Western Europe, women are more likely than are men to enter the cabinet from outside parliament or to have served fewer years in the parliament (de Winter 1991).

1987; Studlar and Moncrief 1999; Thiébauld 1991).<sup>6</sup> In Latin America as well, left parties have adopted women-friendly platforms (Htun 2003).<sup>7</sup> Presidents from left parties may anticipate greater benefits from appointing women to their cabinets than do presidents from right parties. Thus:

H2: *The probability that women will be appointed to the cabinet, and that they will receive top posts, increases when the president is from a left party.*

The effect of party ideology may diminish over time, however. In established parliamentary democracies center and right parties adopted women-friendly policies due to concern about losing votes to left parties (Caul 2001; Davis 1997; IPU 1999; Matland and Studlar 1996; Norris 1987, 1997b; Phillips 1991; Skjeie 1991; Studlar and Matland 1996; Studlar and Moncrief 1997). In Latin America in the 90s, diverse parties sought to woo women voters (Baldez 2002; Htun 2003, 128), so party ideology may only weakly affect cabinet appointments in third wave democracies.

The president’s support in the legislature may affect the cost to the president of appointing women ministers and the posts they receive (Reynolds 1999). A president whose party has a majority does not need to form a coalition to pass bills.<sup>8</sup> A majority president does not pay the cost of giving up scarce cabinet seats that he could give to leaders of other parties to form alliances when he gives a cabinet post to a woman, so he can use cabinet appointments to reach out to new groups, such as women, if he chooses to do so. A president without a majority (or with

<sup>6</sup>Caul (2001) found that both “old” and “new” left parties are more likely than center and right parties are to adopt party gender quotas.

<sup>7</sup>Interestingly, the “gender gap” in Latin American voting indicates that women are more likely than men are to vote for conservative parties (Htun 2003, 126–28; Baldez 2002, 26–27).

<sup>8</sup>When presidents control party nominations or appointment to future political jobs for legislators, as in many Latin American countries, these “partisan powers” mean the president rarely needs to worry about maintaining the support of his party’s backbenchers. Latin American presidents often have constitutional decree powers that allow them to legislate without the legislature, particularly when they are likely to lack partisan power (Carey and Shugart 1998; Mainwaring and Shugart 1997; Shugart 1998). However, we focus on whether the president’s party has a majority in the congress, because presidents who lack partisan powers often face confrontational legislatures, and decree powers are often limited to specific topical areas or may be temporally constrained. An important difference between presidential and parliamentary systems is that, due to separation of survival, a president is guaranteed a full term in office even if he lacks the backing of the congress, while a prime minister could be removed. Thus, presidents do not always have control over their party’s backbenchers, so a president’s expectations about executive-legislative relations ought to be part of the cost/benefit analysis when the president is selecting cabinet members.

a narrow, unreliable majority) may pay a high cost for appointing women to his cabinet, as those posts are not used to bring other parties into the cabinet to build an informal coalition government, as party leaders are usually male and they will expect to occupy these posts (Amorim Neto 2002; Shvedova 1997). Therefore, a president who is not concerned with building legislative support, or shoring up copartisan support, can afford the luxury of reaching out to new groups through his cabinet appointments if he chooses to do so. Thus:

*H3: The probability that women will be appointed to the cabinet, and receive top cabinet posts increases when the president's party has a secure majority in the legislature.*

However, the literature examining women's recruitment in industrialized democracies makes an alternative argument: "Close competition among political parties should be beneficial to women being appointed to the cabinet since the government wants to appeal to women swing voters" (Studlar and Moncrief 1997, 69; Davis 1997). That literature measures party competition in terms of seats in the legislature. Party competition was an important factor in the increasing election of women to the Swedish parliament in the 1970s, and women's representation in appointed positions in the 1990s (Sainsbury 2004; Skjeie 1991). Latin American parties, when locked in a closely competitive electoral situation may also view appealing to women voters as a useful strategy, particularly as their capacity to differentiate themselves on economic policy has been diminished by economic structural adjustment policies.<sup>9</sup> For presidents who are eligible for reelection (e.g., in Argentina, Brazil, Peru, Venezuela), wooing women supporters for future elections may be an appealing strategy, as some gender issues cut across party lines. In sum, a competitive electoral environment may cause the president to perceive reaching out to women voters as beneficial to himself or his party in the next election, which may be a nonconcurrent legislative or local election and not simply the next presidential election. Therefore:

*H4: When the electoral situation for parties is intensely competitive, women are more likely to be appointed to the cabinet and receive top cabinet posts.*

<sup>9</sup>Phillips makes a similar argument for why parties in Scandinavian countries would try to differentiate themselves on women's concerns "against the deadening weight of inter-party consensus on economic affairs" (1991, 88).

## Effects of Time on Demand for Female Ministers

The cost or benefit of appointing women to the cabinet can change over time. Change can occur slowly, as people become accustomed to women holding important government positions (Caul 2001). They may question the first president to appoint a woman to his cabinet, but if successive presidents also appoint women, doing so becomes the norm (see Sainsbury 2004), and a later president may be criticized for not appointing any women. The amount of time since women received the right to vote and to hold office or since the first woman was elected to the legislature may indirectly measure how accustomed people are to women in politics, and thus the cost a president will pay for not including women in the cabinet. Time passing may also lead to women receiving top cabinet posts if the norm is to enter the cabinet in lower ranking ministries (de Winter 1991; Studlar and Moncrief 1999). A society may become more accepting of women in government as it becomes more educated (Davis 1997; Studlar and Moncrief 1997), thus lowering the cost to a president of appointing women. Surveys show Latin Americans are becoming receptive to women in politics (Htun 2003; Inglehart and Norris 2003).<sup>10</sup> Therefore, we expect the probability women will be appointed to the cabinet to increase as:

*H5: More years have passed since women became visible in politics.*

*H6: The overall education level of the people of a country increases.*

International incentives or pressures to incorporate women have also changed over time. Unlike the domestic factors mentioned above that gradually increase benefits and reduce costs to a president of appointing women ministers, international change may rapidly raise the cost of not having at least token representation of women in top levels of government (see Htun and Jones 2001). True and Mintrom (2001) explore how transnational networks and international norms have produced a rapid global diffusion effect, putting pressure on governments to incorporate women. They expect a period effect to model pressures for expanded women's rights, becoming most pronounced after the 1995 Beijing Conference on Women.

<sup>10</sup>A woman president might also increase acceptance of women as cabinet ministers, but its rarity makes it difficult to test (i.e., Argentina 1974–76, Bolivia 1979–80, Nicaragua 1990–97, Panama 1999–04).

With regard to the general status of women, things were not the same in 2000 as they were in 1980. The reasons for this are myriad and reflect a changing environment, both domestic and international, as women's movements and organizations, NGOs, and international organizations have put pressure on governments to improve women's rights (Htun 2003; Jaquette 1997; Jaquette and Wolchik 1998; Luciak 2001; Rodriguez 2003). Thus:

H7: *Women will become more numerous in cabinets and gain access to prestige positions over time.*

## Data and Variables

We assembled data on cabinet composition for 18 Latin American countries from 1980 to 2003. We include only democratic periods in our analysis because the cabinet may be a signal of the president's policy intentions in a democracy, but it is not clear it serves that purpose in authoritarian regimes. We could not collect data on cabinets before 1980, so we begin observing a country in 1980 or the start of democracy whichever is later.<sup>11</sup>

The composition of cabinets is from data compiled by the U.S. State Department and the CIA in *Countries of the World and Their Leaders Yearbooks*. This annual publication records the name and title of all ministers. Because cabinet changes occur often in a president's term (45% of the ministers in our study serve only a single year and only 16% serve four years or more), we recorded the composition of the cabinet yearly.<sup>12</sup> For each minister we recorded

<sup>11</sup>The dataset includes: Argentina (1984–2003), Bolivia (1983–2003), Brazil (1985–2003), Chile (1990–2003), Colombia (1980–2003), Costa Rica (1980–2003), Dominican Republic (1980–2003), Ecuador (1980–2003), El Salvador (1986–2003), Guatemala (1986–2003), Honduras (1983–2003), Mexico (1980–2003), Nicaragua (1986–2003), Panama (1991–2003), Paraguay (1990–2003), Peru (1980–2003), Uruguay (1986–2003), and Venezuela (1980–2003). We defined the “start date” of democracy in each country as the first time competitive presidential elections were held. While questions surrounding the “freeness” of this election may arise for a few cases, we argue that even if competition was restricted, presidents still may have felt pressured to take steps after the election to try to legitimate the results (in part through cabinet appointments). We also addressed this statistically, by estimating models using only data after 1990 (which excludes many of the questionable elections) as well as by reestimating the model and excluding a different country each time. The results were substantively similar (see Appendix) and give us confidence in the validity of our chosen start date for each country. The later approach also allowed us to control for the impact of Colombia adopting a quota for representation of women in the executive branch in 2000.

<sup>12</sup>Blondel (1985) also found that the duration of ministers in Latin America was short. There is a lag in the data due to publishing time. The cabinet data records the name of the president, so we used the president to line up the cabinet data with the electoral variables.

their portfolio and gender.<sup>13</sup> We then placed each ministry into a category based on its areas of responsibility (e.g., we grouped ministries relating to land management, agriculture, livestock and fisheries into an Agriculture category). This gave us 23 distinct ministerial categories.

We then grouped these categories into high-, medium-, and low-prestige ministries. High-prestige ministries exercise significant control over policy, are very prestigious, and are highly visible: Finance and Economy, Foreign Affairs, Government/Interior, and Public Security and Defense.<sup>14</sup> Medium-prestige ministers control significant financial resources, but lack the prestige of top posts: Agriculture, Construction and Public Works, Education, Environment and Natural Resources, Health and Social Welfare, Industry and Commerce, Justice, Labor, Transportation, Communications and Information, and Planning and Development. All other ministries are low-prestige and offer few resources for patronage: Children and Family, Culture, Science and Technology, Sports, Tourism, Women's Affairs, ministers for reform of the state, temporary and transient ministries, and ministers without portfolio.<sup>15</sup>

We only retained for our analysis people whose title was Minister or Secretary. The exception is Attorneys General who function as Justice Minister in countries without a Minister of Justice.

<sup>13</sup>The authors and a native Spanish speaker independently coded each minister's gender. We resolved disagreements by consulting country experts and with web searches for photos or references to the minister, using gendered Spanish pronouns.

<sup>14</sup>The Ministry of Government (analogous to Interior) is included in the high-prestige category because in much of Latin America this minister is responsible for shepherding the president's domestic agenda through congress, and it is a common springboard for presidential candidates.

<sup>15</sup>Prestige of cabinet portfolios has been measured in the United States based on cabinet transfers and size of budgets and personnel (Weisberg 1987). Rose (1987) categorized British ministries based on media and parliamentary attention, use as a stepping stone to higher posts, and chairing cabinet committees. Such indicators are not feasible to implement across our 18 countries. However, a survey of literature on cabinets shows a largely consistent listing of a few “core” ministries. Finance and Foreign Affairs are listed most frequently; Defense, Interior, and Justice are also often listed as high prestige (see Blondel and Thiébaud 1991; Laver and Shepsle 1994). Though even within this short list of prestigious ministries, there are exceptions. In interviews, ministers in Norway did not list Defense in the top six most prestigious portfolios, and Social Affairs was listed as the second most important (Skjeie 1991). Due to the absence of study of cabinet assignments in Latin America, we categorized ministries loosely based on two dimensions: national policy prestige and budget size (as a measure of pork and patronage control enjoyed by the minister, since such resources are often key to building political power in Latin America). We place the Justice ministry in the Medium prestige category because its jurisdiction often overlaps with the Supreme Court and it lacks the visibility, prestige, and policy influence of other high-prestige ministries.

We measure women's education (H1a) as the percentage of women of secondary school age enrolled in secondary education.<sup>16</sup> The literature anticipates that advanced education qualifies people to be ministers, but data are not available for most countries concerning women's attainment of tertiary education. Workforce participation (H1b) is measured with the percentage of the labor force comprised of women.<sup>17</sup> Joining the work force as a maid or agricultural laborer is not the same as holding a professional job, and theory expects that more women will obtain top government posts as the number of female professionals increases (Jaquette 1997). Because data regarding women holding professional jobs are not available, the percentage of women in the workforce is commonly substituted. We measure representation in congress (H1c) as the percentage of women in the lower (or only) chamber.<sup>18</sup>

To measure whether the president is from a left party (H2) we want to account for the fact that left and right are relative within a given country, thus we code whether the president was to the left or right of the second-place finisher.<sup>19</sup> We use this variable instead of a region-wide ideological coding because we do not wish to test whether presidents who are leftists, relative to all parties in Latin America, are friendlier to women. Instead, we wish to test whether presidents who are perceived as liberal in their country (regardless of whether a country's ideological spectrum is narrow or wide or centered on the left or right) were friendlier to women.

To test H3 and H4, which concern how intraparty and party system politics can affect the president's decision calculus, we collected data on the percentage of seats held by the president's party. H3 concerns whether the president's party has a secure majority in the legislature. H4 concerns whether the party system is highly competitive or dominated by one party. The literature examining appointment of women to cabinets in parliamentary systems, where this later hypothesis was developed, measures party system competitiveness in terms of seats in the legislature, thus we do the same. We develop a trichotomous

measure to test both hypotheses. Presidents have a *secure majority* if their party controls 55% or more of the seats in a unicameral congress or both chambers of a bicameral congress. The party of a *near majority/narrow minority* president holds 45 to 54.9% of the seats in a unicameral congress or in the chamber of a bicameral congress in which the party is least well represented. A *minority* president's party holds less than 44.9% of the seats in a unicameral congress or in the chamber of a bicameral congress in which the party is least well represented. H3 suggests a positive coefficient for secure majority presidents. H4 suggests a positive coefficient for near majority/narrow minority presidents. We adopt this trichotomous measure instead of simply using the percentage of seats held by the president's party because the relationship is not a simple linear (or even curvilinear) one. Consider a 10-point change in the percentage of seats held by the president's party. A 10-point gain for a president whose party has 65% of the seats in the legislature is unlikely to change his legislative strategy because his party already controls the majority needed to legislate (even a loss of 10 points would not change his status). The same could be said for a president at the other extreme whose party controls 25% of the seats. Adding 10 percentage points will not change the fact that he still needs another party to support his proposals for them to pass. However, for a president whose party controls only 40% of the seats, that 10-point change could make all the difference. Thus, the trichotomous variable better captures the incentives the president faces. Additionally, party switching occurs frequently in some countries (Brazil, Ecuador, Panama) making broad categories a more accurate reflection of the president's support than a percentage that might change during a president's term.<sup>20</sup>

To test the effect of increased visibility of women in politics (H5) we include the number of years since a woman was first elected to the legislature.<sup>21</sup> We use the Human Development Index (HDI) to measure the overall education level of a country (H6).<sup>22</sup> The percentage of a country's population with higher education might better capture the open-minded, more egalitarian outlook that is expected to come with increasing levels of education in a society, but tertiary education statistics are

<sup>16</sup>Data are from the World Bank's *Gender Stats*. We use data on current enrollment for the only years available 1980, 1990, 1995, 2000. Data from 1980 were entered for 1980–87, data from 1990 for 1988–94, data from 1995 for 1995–99 and data from 2000 for 2000–03.

<sup>17</sup>Data are from the World Bank's *Gender Stats*.

<sup>18</sup>Data are from the Inter-Parliamentary Union (IPU 1995).

<sup>19</sup>Data on the ideological placement of parties are from Coppedge (1997) and Alcántara Sáez and Freidenberg (2001). We combined the two sources to better cover our 1980–2003 time period. The correlation between the two indices is quite high. Differences were resolved in consultation with country experts. Using only the coding from a single source produced nearly identical results (allowing for a difference in sample size).

<sup>20</sup>We obtain substantively similar results for all other variables using the percentage of seats the president's party has in the legislature. The coefficient for this variable is negative, but not significant in the model predicting appointment of any women to the cabinet and positive and significant at the .10 level in the model predicting the percentage of the cabinet that is female.

<sup>21</sup>Data are from the Inter-Parliamentary Union (IPU 2000).

<sup>22</sup>Data are from the United Nations Human Development Indicators.

often lacking for countries and years, and are unreliable for comparison across countries. Instead, we use HDI to measure the overall education level in society. This is advantageous because it encompasses several development measures (education, life expectancy, GDP/capita) allowing for a more well-rounded picture of societal education. In addition to being theoretically separate from women's education levels, it is empirically separate, which allows us to assess the effect of women's education and societal education simultaneously.

To test for period effects (H7) we include dummy variables for each five-year lapse of time in our data set. Following True and Mintrom (2001), these five-year intervals coincide with the periods of the U.N. world conferences on women. This operationalization allows for an explicit comparison of previous periods with the current one.

## Analysis and Results

Cabinet shuffles are frequent in Latin America, and 45% of the ministers in our sample serve only one year.<sup>23</sup> Therefore, we model the appointment of women annually because typically at least a few ministers change each year. We do recognize, however, that within a presidential administration, the composition of each cabinet is not independent of the previous one and that serial autocorrelation is likely to be present within each panel. We correct for this by estimating all models using Generalized Estimating Equations (GEE).<sup>24</sup> Model 1 considers the factors that prompt a president to appoint any women to the cabinet. The dependent variable follows a binary distribution (does the cabinet contains at least one woman?), which leads us to specify the use of the logit link and to correct for first-order autocorrelation within each panel.<sup>25</sup> The Model 1 coefficients are in fact logit coefficients, and all the usual caveats regarding interpretation apply. Model 2 uses the percentage of cabinet seats held by women as the dependent variable. We specify the identity link and a

Gaussian distribution, which produces OLS coefficients, again correcting for first-order autocorrelation. In the models presented in Table 1, we include the number of cabinet positions (range 8–26) as a control to capture the greater cost (perceived or real) of appointing women in small vs. large cabinets.

Only two of the three supply variables exert a statistically significant effect. The percentage of women in the workforce did not approach statistical significance. This reinforces Matland's (1998) finding about the impact of labor force participation on election of women to the legislature in less developed countries. Matland (1998, 118) argues that in developing countries women are often employed in the primary sector in jobs that are unlikely to raise their consciousness or empower women, as unionized jobs in industrialized countries are expected to (also see Jaquette 1997). We concur, and add that low prestige jobs do not increase the supply of women with the qualifications to serve in the cabinet. Surprisingly, an increase in women's secondary school enrollment decreases the probability women will be appointed to the cabinet. In Model 1, each 1% increase in women's enrollment decreases by 3% the chances that there will be a woman in the cabinet. In Model 2, higher enrollment translates into a .16% decrease in the percentage of female ministers. Inglehart and Norris (2003, 131) found that in some cases increases in women's education and professional status do not correlate with higher representation of women in the legislature and argue that cultural attitudes about women may be the explanation.

More women in the legislature increases the number of female ministers, as expected. In Model 1, a country with the minimum observed percentage of women in congress (0%) has only a .46 probability of having a woman in the cabinet, holding all other variables at their mean. The same country, with an average percentage of women in the congress (9%) has a .71 probability of having at least one woman in cabinet. When the percentage of women in the chamber reaches the maximum observed value (35%) the probability the cabinet will include a woman is .98. In Model 2, each 1% increase in women in the chamber increases the percentage of women in the cabinet by .29%, thus if a country moved from an average percentage of women in congress (9%) to near the maximum (say 30%), we would expect a concomitant increase of 6% in the number of women in the cabinet.

Hypothesis 2 predicts presidents from left parties will be more likely to appoint women to their cabinet than will presidents from right parties. In Model 1, the coefficient is positive, but not significant. In Model 2, the impact of left presidents on the gender composition of cabinets is small, as left presidents are expected to have only about 1.6% more women in their cabinets.

<sup>23</sup>In our dataset 23% of the ministers serve two years, 14% three years, 9% four years, and 7% five years or more. Blondel (1985) also found that ministers in presidential systems, particularly in Latin America, serve short terms.

<sup>24</sup>Like the Generalized Linear Model, Generalized Estimating Equations (GEE) allows us to specify the distribution of the dependent variable and the link function, but unlike GLM, it is intended specifically for panel data (see Zorn 2001).

<sup>25</sup>For all models, we tested for serial autocorrelation using the test for autocorrelation in panel data derived by Wooldridge (2002) and implemented by Drukker (2003). The test statistic is positive indicating autocorrelation is present. Results were substantively identical correcting for AR2 and AR3 disturbances.



**TABLE 1** Determinants of the Appointment of Women to a President's Cabinet

Dependent Variable	Model 1: <sup>A</sup>	Model 2: <sup>B</sup>
	Any Women in Cabinet	Percent Female Cabinet
<i>Supply Variables</i>		
Percent of women enrolled in secondary education	-.033* (.017)	-.159*** (.043)
Percent of women in labor force	-.038 (.064)	.099 (.164)
Percent of chamber composed of women	.117* (.055)	.292** (.113)
<i>Demand Variables</i>		
President from left party	.452 (.379)	1.556^ (.939)
Secure majority president	-.244 (.554)	-1.737 (1.459)
Near majority/Narrow minority president	.795^ (.429)	1.576 (1.049)
Human Development Index	.532 (4.417)	22.371* (10.567)
Number of years since first woman elected to legislature	.034 (.030)	.104 (.076)
<i>Control Variables</i>		
Number of ministers in cabinet	.102 (.065)	.042 (.148)
1980–1984	-2.295* (.989)	-7.680*** (2.449)
1985–1989	-1.922* (.825)	-8.476*** (1.958)
1990–1994	-1.176^ (.689)	-6.922*** (1.603)
1995–1999	-.413 (.628)	-7.058*** (1.372)
Constant	.168 (3.529)	-5.182 (8.581)
N	311	311
Wald $\chi^2$	25.23	75.91
Prob > $\chi^2$	(.022)	(.000)
Pseudo R <sup>2C</sup>	.22	.30

^p > .10, \*p > .05, \*\*p > .01, \*\*\*p > .005.

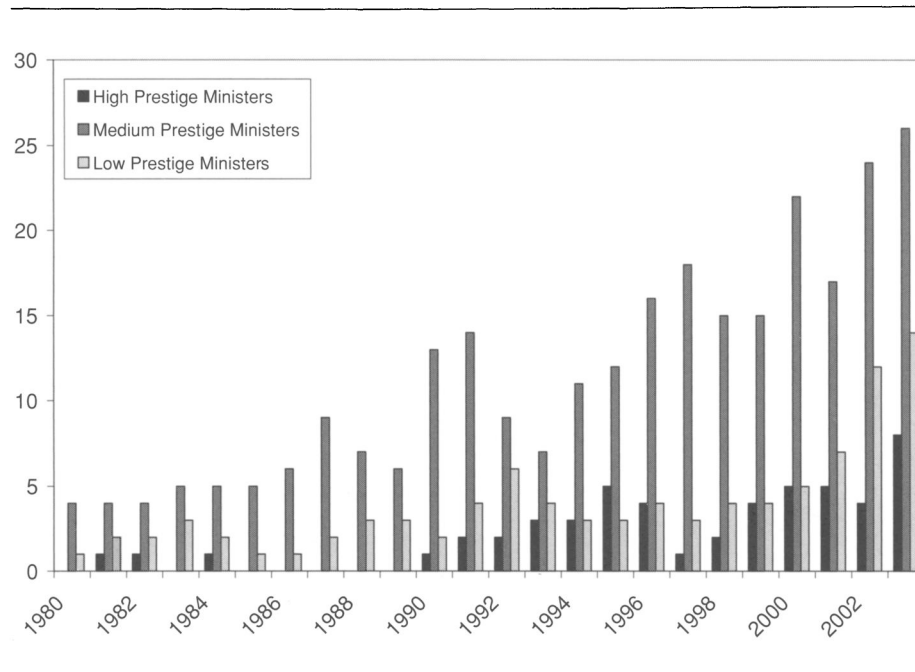
<sup>A</sup>Dependent variable is coded 1 if the cabinet contains one or more women, zero otherwise. Estimates produced using Stata's XTGEE command and specifying logit link, binomial family and AR(1) correlation. Coefficients should be interpreted as Logit coefficients.

<sup>B</sup>Dependent variable is the percentage of ministerial positions given to women. Estimates produced using Stata's XTGEE command and specifying identity link, Gaussian family, and AR(1) correlation. Coefficients should be interpreted as OLS coefficients.

<sup>C</sup>Squared correlation between the dependent variable and the predicted values from the model.

In both models, the coefficient for Secure Majority president is negative, but not significant indicating that they are not more or less likely than minority presidents to appoint women. This contradicts H3, which expected that Secure Majority presidents would be more

likely to appoint women to their cabinets. The coefficient for Near Majority/Narrow Minority president is significant and positive in Model 1 (they are 2.2 times more likely to appoint at least one woman to their cabinet than a minority president), and positive, but not significant in

**FIGURE 1** Number of Women Holding Ministerial Positions Over Time

Model 2.<sup>26</sup> This provides limited support for H4, which predicted women would be more likely to be appointed to the cabinet when partisan competition is intense.

The number of years since a woman was elected to the legislature (H5) has the expected sign, but is not significant in either model. HDI (H6) is positive as expected in both models, but is not significant in Model 1. It is significant in Model 2, but while the coefficient is large (22.4), the substantive impact is small because HDI ranges between zero and one (mean of .71, observed range of .55 to .84). Moving from our observed minimum to maximum (a major feat) would increase the expected percentage of women in the cabinet by 6.5%. A more realistic increase of one standard deviation (.07) would result in 1.6% more women in the cabinet.

Finally, we examine how diffusion (spread of ideas and norms) affects appointment of women (H7). The coefficients for all the time variables are negative, implying that present day cabinets are more likely to contain women (or have higher percentages of women) than earlier periods. In Model 1, all time coefficients, except the 1995–99 period, achieve statistical significance. All else being equal, the chance of an all-male cabinet was the same between 1995 and 1999 as today, but that chance was much greater in earlier periods than it is now. Given the trends

presented in Figure 1 this is not surprising—by the mid-1990s a president had to have at least one woman in his cabinet. This is similar to True and Mintrom’s finding that “momentum for adoption of gender mainstreaming built up in the 1990s” (2001, 47). All coefficients in Model 2 are statistically significant and substantively large. All else being equal, the model predicts that a cabinet appointed between 1980 and 1984 will contain 7.7 percentage points fewer women than a cabinet appointed between 2000 and 2003. In an average-sized cabinet (14 members), that decline represents one fewer woman minister and in the largest cabinet (26 members), it represents two fewer. That difference is still noticeable in the 1990s (when all third-wave democracies are in our dataset), as we would expect the percentage of the cabinet that is female to be 6.9% lower between 1990 and 1994 than 2000 and 2003. (See Appendix for robustness tests.)

We now turn to whether cabinet assignments differ by gender. Figure 1 shows a steady increase in the number of female ministers, but indicates that women have not done as well at obtaining top ministries, as most female ministers occupy low- or medium-prestige posts.

A common expectation is that when there are women in the cabinet they receive “soft” or low-prestige portfolios (Reynolds 1999; Rodriguez 2003; Skjeie 1991).<sup>27</sup> Is

<sup>26</sup>The difference between Secure Majority Presidents and Near Majority/Narrow Minority Presidents is significant based on a Wald chi-square test ( $\chi^2$  with one degree of freedom is 6.41, with  $p = .01$ ), which provides additional support for Hypothesis 4.

<sup>27</sup>Skjeie (1991) shows that this expectation is not accurate in Norway, where portfolios ranked as important by both male and female ministers and MPs include “women’s traditional portfolios” such as education and social services.

TABLE 2 Distribution of Ministries by Type, Time, and Gender

	1980s		1990s		2000s	
	Men	Women	Men	Women	Men	Women
<b>High Prestige Ministries</b>						
Defense and Public Security (including military)	117	0	166	9	77	3
Finance and Economy	142	1	229	8	84	7
Foreign Affairs	111	0	182	8	64	10
Government/Interior	108	2	165	2	60	2
Total for Category	478	3	742	27	285	22
	99.4%	0.6%	96.5%	3.5%	92.8%	7.2%
<b>Medium Prestige Ministries</b>						
Agriculture, Fisheries, and Livestock	126	2	178	7	74	2
Construction and Public Works	98	0	154	5	63	2
Education	82	24	140	33	51	21
Environment and Natural Resources	87	0	150	10	56	22
Health and Social Welfare	120	8	188	27	78	15
Industry and Commerce	91	2	115	6	44	6
Justice (inc. Attorney General)	67	8	114	14	41	6
Labor	103	4	152	14	57	8
Transportation, Communications, Information	59	3	79	5	27	5
Planning and Development	78	4	103	9	29	2
Total for Category	911	55	1373	130	520	89
	94.3%	5.7%	91.4%	8.6%	85.4%	14.6%
<b>Low Prestige Ministries</b>						
Children and Family	5	5	3	12	5	4
Culture	24	2	19	7	6	5
Reform of State, Temporary and Transient Ministries	0	0	11	0	2	0
Science and Technology	17	0	21	3	9	0
Sports	11	2	26	3	14	2
Tourism	33	3	53	5	14	6
Without Portfolio (including part of presidency)	52	0	93	4	33	3
Women's Affairs	0	5	0	4	0	18
Unclassifiable	6	3	26	1	9	0
Total for Category	148	20	252	39	92	38
	88.1%	11.9%	86.6%	13.4%	70.8%	29.2%

this true? Table 2 lists categories of ministerial positions by decade and whether they were assigned to a man or a woman. While women hold far fewer positions than men do in almost all categories (Women's Affairs and Children and Family are exceptions), the male/female ratios are not the same across decades or across categories of ministries within a decade. Women have been best represented in low-prestige posts. In the 1980s, women occupied only 12% of low-prestige ministries, by 2000 that had increased to almost 30%. Women have increasingly gained access to medium-prestige ministries, occupying 15% of these posts in 2000 compared to 6% in the 1980s, and women are most likely to head the ministries of ed-

ucation or health—ministries that control large budgets in Latin America, given the state's role as a public goods provider. In short, Table 2 suggests that women are still less successful at cracking the inner circle. Women held high-prestige ministries only three times during the 1980s (Interior and Police in the Dominican Republic in 1981 and 1982, and Economy and Commerce in Honduras in 1984). This increased to 3.5% in the 1990s, and women are 7% of high-prestige ministers so far since 2000.

The logic of the hypotheses tested in Table 1 should also be relevant for predicting when women break into the cabinet's inner circle, so we include the same variables. We do not include the number of cabinet positions because

the number of high-prestige positions remains relatively constant within a country. We add a count of the number of female ministers (of any type) in the previous year's cabinet as a control for women moving up the ranks in a cabinet.

Our dependent variable in Model 3 is whether any women hold high-prestige portfolios. There are only six instances where a cabinet had two women occupying high-prestige posts.<sup>28</sup> This rarity leads us to adopt a dichotomous measure of whether a cabinet contained any women in high-prestige posts. Again, we estimate the models for a binomial distribution and a logit link using GEE and correcting for first-order autocorrelation.

Of the supply variables in Model 3, the percentage of women in the chamber is the only significant predictor of women receiving high-prestige posts (see Table 3). Holding all other variables at their mean, when there is an average percentage of women in the chamber (9%), there is only a .05 chance that a woman will obtain a high-prestige post. However, the probability of a woman receiving one of these plum appointments skyrockets to .97 when the percentage of women in the chamber reaches the maximum observed value of 35.1%. This could be an example of advantages accruing to women when they achieve a "critical mass" in politics. Literature about representation argues that until a new group gains a threshold level of representation that goes beyond token status, they will not be able to get much done or be taken seriously (Kanter 1977; Thomas 1994; but see Studlar and McAllister 2002 for a dissenting view). Dahlerup (1989) hypothesized that achieving a critical mass of women would "legitimize the presence of women in legislatures, leading to even more women being chosen" (from Studlar and McAllister 2002, 234). Possibly, it also spills over into the selection of women for top cabinet posts. Davis (1997) found such an influence of critical mass on women's participation in cabinets in Western Europe. We cannot confirm here, however, whether this advantage accrues only after a threshold level of women members of the legislature is achieved, as would be predicted by critical mass theory, or if the increase is incremental.

Consistent with H2, if the president is to the left of the second-place finisher, the odds increase by 4.1 that a woman will be appointed to a high-prestige post. As in Models 1 and 2, the coefficient for Secure Majority presidents is negative, and is not significant, so again H3 lacks support. While the coefficient for Near Majority/Narrow Minority presidents is positive, it is not significant, so here we also find no support for H4. Neither party sys-

**TABLE 3 Predictors of the Appointment of Women to High-Prestige Positions**

Dependent Variable:	<i>Model 3<sup>A</sup> Any Woman in High Prestige Post</i>
<i>Supply variables</i>	
Percent of women enrolled in secondary education	-.034 (.026)
Percent of women in labor force	.087 (.095)
Percentage of chamber composed of women	.244*** (.067)
<i>Demand Variables:</i>	
President from left party	1.420** (.509)
Secure majority president	-.380 (.837)
Near majority/Narrow minority president	.798 (.548)
Human Development Index	-7.341 (6.094)
Number of years since first woman elected to legislature	.041 (.042)
Number of women in previous year's cabinet	.069 (.166)
<i>Control Variables</i>	
1980-1989	-1.655^ (.964)
1990-1999	-.952 (.589)
constant	-2.107 (4.327)
N	297
Wald $\chi^2$	22.49
$p > \chi^2$	(.021)
Pseudo R <sup>2B</sup>	.13

<sup>A</sup> $p > .10$ , \* $p > .05$ , \*\* $p > .01$ , \*\*\* $p > .005$ .

<sup>A</sup>Estimates produced using Stata's XTGEE command and specifying logit link, binomial family, and AR(1) correlation. Coefficients should be interpreted as logit coefficients.

<sup>B</sup>Squared correlation between the dependent variable and the predicted values from the model.

tem competitiveness (H4), nor the support base (or lack thereof) that a president has in the congress (H3) appears to influence whether a president appoints women to top cabinet posts.<sup>29</sup>

<sup>29</sup>We also do not find any difference between Secure Majority Presidents and Near Majority/Narrow Minority Presidents in their propensity to appoint women to top cabinet posts ( $\chi^2$  with one degree of freedom is 2.59, with  $p = .11$ ).

<sup>28</sup>These are Chile and Colombia (Defense and Foreign Relations) in 2003, Guatemala (Finance and Foreign Relations) in 1995-96, and Honduras (Finance, Interior, and Security) in 2001-02.

A country's HDI and the number of years since the first woman was elected to the legislature (H6 and H5, respectively) have no significant effect on whether a woman is appointed to a high-prestige post.<sup>30</sup> The number of women in the previous year's cabinet also does not effect the chance a woman will receive a high-prestige ministry.

Women are more likely to receive high-prestige posts now, than they were in the past.<sup>31</sup> The odds of a woman receiving a high-prestige ministry were 81% lower in the 1980s than in this decade. While the coefficient for the 1990s is negative, as expected, the difference is not statistically significant. Additionally, there is not a difference between the 1980s and 1990s (test statistic of .79  $p > .37$  following a  $\chi^2$  distribution with one degree of freedom), which underscores that it is only in recent years that women have regularly occupied positions in the inner circle of power. In sum, appointment of women to cabinets appears to be positively affected by period effects (models 1 and 2). International diffusion can thus be argued to be positively affecting women's representation in the executive branch, but any international diffusion effect on the chances of women being appointed to high-prestige cabinet posts (model 3) is very recent. (See Appendix for robustness tests.)

## Conclusion

Women are becoming more common in Latin American cabinets. It is now unusual for a cabinet not to have at least one woman of full ministerial rank, which suggests that the political cost of excluding women has become too high for presidents to ignore. The rising number of women ministers may also mean the political benefit to presidents of including women has increased. In the early 1980s, Latin America's established democracies (Colombia, Costa Rica, the Dominican Republic, and Venezuela) often had a token woman in the cabinet. Presidents of new, third-wave, democracies apparently were more concerned with other groups, as even a token woman was rare in their cabinets (Baldez 2002; Valenzuela 1998). By the late 1990s, however, presidents' decision calculus about

the mix of people needed in a cabinet had changed. At least one female minister had become the norm, and many cabinets had several women.

A higher percentage of women in the legislature decreases the chances a cabinet is all male and increases the percentage of the cabinet expected to be female. Cabinets are also expected to contain a larger percentage of women when societal education (HDI) is higher and when presidents are from leftist parties. Presidents facing a competitive partisan environment are more likely than are minority party presidents to include at least one woman in their cabinet.

Some of the same factors matter for appointment of women to cabinets in Latin America as in industrialized, established democracies. In particular, increasing representation of women in the legislature and left presidents both correlate positively with women's representation in the executive (Davis 1997; Moon and Fountain 1997; Siaroff 2000; Studlar and Moncrief 1997).<sup>32</sup> However, in other ways Latin America is a different political arena for women. Increasing the amount of women with education and workforce experience does not have the expected positive impact on representation of women in the executive branch, nor does time since women began to win election to the legislature. This may be due to the imprecision of the available indicators (e.g., secondary education rather than university or post-graduate degrees). However, it could also indicate that "labor force participation [and education] does not mean the same thing" in industrialized and less developed democratic countries (Matland 1998, 118).

While domestic factors do contribute to women joining the cabinet, international pressure (the diffusion effect) appears to be powerful in Latin America. Third-wave democracies faced intense pressure to increase representation of women in government. International pressure may complement pressure from women at home and may overwhelm the effect of more gradual domestic forces in creating a more women-friendly environment. It is likely not just the passage of time on its own that is benefiting women's chances at the highest echelons of the executive branch in Latin America, but rather the passage of this particular period of time in world events. In response to precipitating world events (such as the 1995 Beijing Conference) presidents in Latin America may perceive a benefit from moving rapidly to incorporate women. As True and Mintrom write, "much has gone on in the 1990s in

<sup>30</sup>We obtain substantively similar results if we use the number of years since women first got the vote instead of years since the first woman was elected, or illiteracy instead of HDI.

<sup>31</sup>We use dummy variables for decades in Model 3 (rather than five-year time increments as in Models 1 and 2) because there are no women in high-prestige posts from 1985 to 1989. This presents problems for model estimation, so we collapse 1980–84 and 1985–89 into a single category. For comparison, we also collapse 1990–94 and 1995–99 into a single category.

<sup>32</sup>Moon and Fountain (1997) find that the percentage of women ministers in Australia exceeds the percentage of women in the parliament. Studlar and Moncrief (1997) also find this to be the case in Canadian provincial parliaments.

[the gender] policy area and the building to and the aftermath of the Beijing conference in 1995 were characterized by unprecedented efforts by both the UN and large numbers of women's international- and national-level NGOs to place gender issues in the political limelight and to ensure that they stay there" (2001: 48). Htun and Jones (2001, 35) argue that a central cause of the rapid diffusion of gender quotas for elections in Latin American countries was pressure from women politicians domestically, paired with pressure produced by international norms, such as governments signing the Beijing Platform for Action. These same pressures may also be producing the rapid rise in representation of women in cabinets.

The dramatic increase in representation of women in cabinets since the mid-1990s indicates the presence of a strong regional contagion effect. In Latin America, representation of women in cabinets has increased rapidly, surpassed only by the record of the Scandinavian countries. Women have also recently begun to receive high-prestige posts with some frequency, which is different from the world norm (Davis 1997; Moon and Fountain 1997; Studlar and Moncrief 1999). International conferences and treaties have drawn attention to the need to increase participation of women in government. Such pressure appears to have shifted the demand side of the recruitment equation for the executive branch, by increasing the perceived political benefit to presidents of appointing women to their cabinet (Craske 1998, 107; Htun 2003, 121–22; Luciak 2001, 233; Sapiro 1981). As Sapiro noted, "the role of women may be used as a national sign of status or a symbol to other nations" (1981, 707). International pressure gives governments a reason to sign pro-women international conventions, and it may increase the perceived political value of appointing women to cabinet posts.

At the same time, there is room to expand women's participation in the executive branch. In 2003, women constituted an average of 18% of Latin American presidents' cabinets, but held high-prestige ministries in only six of 18 countries. Women have enjoyed the most success, in terms of numbers in the cabinet and the prestige of their posts, in Chile, Colombia, Costa Rica, the Dominican Republic, Guatemala, Honduras, Nicaragua, and Venezuela. That women have not received top cabinet posts in Argentina is interesting given Argentina's pioneering gender quota law and the Evita legacy in the Peronist Party (see Feijoó 1998, 43). We find that many of the same factors that increased women's participation in cabinets also determine whether they receive appointments that are more prestigious. A larger number of women in the legislature as well as presidents from left-leaning parties both increase the chances a woman receives a high-

prestige position. But, increasing women's education, societal education, or a competitive party system did not increase the chances a woman received a high-prestige post. The glass ceiling appears to be disappearing because international conditions are changing more than because of gradual changes in the domestic environment, but this has only been true very recently.

This article provides the first cross-national, time-series analysis of factors that influence the representation of women in cabinets in Latin America. It allows us to determine whether the same factors known to affect the participation of women elsewhere matter for Latin America. Some factors appear to have a universally positive impact (e.g., percentage of women in the legislature, presidents from left-leaning parties). However, in Latin America women appear to have quickly increased their numbers and the prestige of their executive posts through a regional push to empower women (a diffusion effect), rather than waiting through the slow process required for structural factors or societal attitudes toward women in government to change. Further research needs to determine if the same women are moving up the ranks in the cabinet and whether women ministers are former legislators or bureaucrats or held top posts in their party, or if women ministers are political outsiders.<sup>33</sup> Case studies would provide insight into the career trajectories of women in the top echelons of the executive branch, allowing us to better predict whether women will move toward parity in executive branch representation.

It is important for women's representation and equality in Latin America for women to have a presence in the highest levels of the executive branch, since the executive is often the leader in policymaking in Latin America. The high visibility of cabinet ministers and the power over resources and policy that medium- and high-prestige ministers have make it important to ensure that women have a fair shot at receiving these positions. Identifying the supply and demand factors that convince a president appointing women to their cabinet is a smart choice helps us understand when women will obtain top executive branch representation.

## Appendix

### Robustness Tests

We estimated several alternative specifications of Models 1 and 2. We dropped all pre-1990 observations to determine whether the effects were robust if we only

<sup>33</sup>Siaroff (2000) found in industrialized countries that political systems that appoint specialists, often political outsiders, rather than generalists advantage appointment of women to cabinets.

## Data Appendix: Summary Statistics for all Variables

Variable	Obs.	Mean	Standard Deviation	Minimum	Maximum
Any women in cabinet?	357	.672	.470	0	1
Percent cabinet that is female	357	7.970	7.805	0	50
Any women in high-prestige posts?	357	.129	.336	0	1
Percent of women enrolled in secondary education	357	53.499	19.018	17	114
Percent of women in labor force	357	31.106	4.440	20.1	41.54
Percentage of chamber composed of women	357	9.019	5.070	0	35.1
President from left party	312	.516	.500	0	1
Secure majority president	354	.186	.390	0	1
Near majority/Narrow minority president	354	.373	.484	0	1
Human Development Index	357	.713	.074	.548	.844
Number of years since first woman elected to legislature	357	39.521	10.818	14	70
Number of ministers in cabinet	357	14.776	3.520	8	26
Number of women in previous year's cabinet	339	1.106	1.107	0	5
1980–1984	357	.106	.309	0	1
1985–1989	357	.193	.395	0	1
1990–1994	357	.246	.432	0	1
1995–1999	357	.252	.435	0	1

consider the most recent period. The results obtained from this estimation for Model 1 are identical in terms of sign and significance except that the coefficient for Near Majority/Narrow Minority President is no longer significant, although it is still positive. For Model 2, all coefficients are identical in sign and significance. We also estimated the models including a lagged dependent variable. While we believe turnover within cabinets is sufficiently high that the specification we use is theoretically more desirable, we obtain substantively identical estimates in both models. The lagged dependent variable is not significant in Model 1, although it is significant in Model 2.

For Model 3 we estimated a model using only post-1990 observations and including five-year time dummies for 1990–94 and 1995–99 instead of the decade dummy. All variables that are statistically significant remain so and retain their signs and no additional variables become significant. The coefficient for 1990–94, while negative is not significant; however the coefficient for 1995–99 is both negative and significant at the .10 level. We also replaced “number of women in the previous cabinet” with a lag of the dependent variable. We obtain identical signs and significances for this model, except for the 1990s coefficient that is now negative and significant at the .10 level.

For all models, we ruled out the possibility that a single country was driving our results by estimating the model without each country. Our results remain substantively similar.

## References

- Alcántara Sáez, Manuel, and Flavia Freidenberg (eds.). 2001. *Partidos Políticos de América Latina [Political Parties in Latin America]*. Salamanca, Spain: Ediciones Universidad Salamanca.
- Amorim Neto, Octavio. 2002. “Presidential Cabinets, Electoral Cycles, and Coalition Discipline in Brazil.” In *Legislative Politics in Latin America*, ed. Scott Morgenstern and Benito Nacif. Cambridge: Cambridge University Press, pp. 48–78.
- Baldez, Lisa. 2002. *Why Women Protest: Women's Movements in Chile*. Cambridge: Cambridge University Press.
- Blondel, Jean. 1991. “Cabinet Government and Cabinet Ministers.” In *The Profession of Government Minister in Western Europe*, ed. Jean Blondel and Jean-Louis Thiébault. New York: St. Martin's Press, pp. 5–18.
- Blondel, Jean. 1987. *Political Leadership*. London: Sage.
- Blondel, Jean. 1985. *Government Ministers in the Contemporary World*. London: Sage.
- Blondel, Jean, and Jean-Louis Thiébault (eds.). 1991. *The Profession of Government Minister in Western Europe*. New York: St. Martin's Press.
- Carey, John M., and Matthew Soberg Shugart (eds.). 1998. *Executive Decree Authority*. New York: Cambridge University Press.
- Caul, Miki. 2001. “Political Parties and the Adoption of Candidate Gender Quotas: A Cross-National Analysis.” *Journal of Politics* 63(4):1214–29.
- Coppedge, Michael. 1997. “A Classification of Latin American Political Parties.” Working Paper #244. The Helen Kellogg Institute for International Studies, Working Paper Series, University of Notre Dame.

- Countries of the World and Their Leaders Yearbook*. 1980–2003. Detroit: Gale Research Company.
- Craske, Nikki. 1998. "Remasculinisation and the Neoliberal State in Latin America." In *Gender, Politics and the State*, ed. Vicky Randall and Georgina Waylen. London: Routledge, pp. 100–20.
- Dahlerup, Drude. 1989. "From a Small to a Large Minority: Women in Scandinavian Politics." *Scandinavian Political Studies* 11(2):275–97.
- Davis, Rebecca Howard. 1997. *Women and Power in Parliamentary Democracies: Cabinet Appointments in Western Europe, 1968–1992*. Lincoln: University of Nebraska Press.
- de Winter, Lieven. 1991. "Parliamentary and Party Pathways to the Cabinet." In *The Profession of Government Minister in Western Europe*, ed. Jean Blondel and Jean-Louis Thiébault. New York: St. Martin's Press, pp. 44–69.
- Drukker, David M. 2003. "Testing for Serial Correlation in Linear Panel-Data Models." *Stata Journal* 3(2):168–77.
- Duverger, Maurice. 1955. *The Political Role of Women*. Paris: United Nations Economic and Social Council.
- Feijoó, María del Carmen. 1998. "Democratic Participation and Women in Argentina." In *Women and Democracy: Latin America and Central and Eastern Europe*, ed. Jane S. Jaquette and Sharon L. Wolchik. Baltimore: The Johns Hopkins University Press, pp. 29–46.
- GenderStats database of Gender Statistics. 2003. The World Bank Group. <http://devdata.worldbank.org/genderstats/gender> (accessed December 30, 2003).
- Htun, Mala N. 2003. "Women and Democracy." In *Constructing Democratic Governance in Latin America*, 2nd. ed, ed. Jorge I. Domínguez and Michael Shifter. Baltimore: Johns Hopkins University Press, pp. 118–36.
- Htun, Mala N., and Mark P. Jones. 2001. "Engendering the Right to Participate in Decision-making: Electoral Quotas and Women's Leadership in Latin America." In *Gender and the Politics of Rights and Democracy in Latin America*, ed. Nikki Craske and Maxine Molyneux. London: Palgrave, pp. 32–56.
- Huntington, Samuel P. 1991. *The Third Wave*. Norman: University of Oklahoma Press.
- Inglehart, Ronald, and Pippa Norris. 2003. *Rising Tide: Gender Equality and Cultural Change around the World*. Cambridge: Cambridge University Press.
- IPU. 1995. "Women in Parliaments 1945–1995, A World Statistical Survey." Reports and Documents No. 23. Inter-Parliamentary Union, Geneva.
- IPU. 1999. "Participation of Women in Political Life." Reports and Documents No. 35. Inter-Parliamentary Union, Geneva.
- IPU. 2000. "Women in Politics 1945–2000, Information Kit." Reports and Documents No. 37. Inter-Parliamentary Union, Geneva.
- Jaquette, Jane S. 1997. "Women in Power: From Tokenism to Critical Mass." *Foreign Policy* 108(Autumn):23–37.
- Jaquette, Jane S., and Sharon L. Wolchik. 1998. "Women and Democratization in Latin America and Central and Eastern Europe: A Comparative Introduction." In *Women and Democracy: Latin America and Central and Eastern Europe*, ed. Jane S. Jaquette and Sharon L. Wolchik. Baltimore: Johns Hopkins University Press, pp.1–28.
- Jones, Mark P. 1996. "Increasing Women's Representation Via Gender Quotas: The Argentine Ley de Cupos." *Women and Politics* 16(4):75–98.
- Kanter, Rosabeth M. 1977. "Some Effects of Proportions on Group Life: Skewed Sex Ratios and Responses to Token Women." *American Journal of Sociology* 82(5):965–90.
- Kobayashi, Yoshie. 2004. "Has the Closed Door Opened for Women? The Appointment of Women Ministers in Japan." Symposium on Open Boundaries Workshop: Women and Politics in Comparative Perspective, APSAnet January 2004.
- Laver, Michael, and Kenneth A. Shepsle (eds.). 1994. *Cabinet Ministers and Parliamentary Government*. Cambridge: Cambridge University Press.
- Lovenduski, Joni, and Pippa Norris (eds.). 1993. *Gender and Party Politics*. London: Sage.
- Luciak, Ilja A. 2001. *After the Revolution: Gender and Democracy in El Salvador, Nicaragua, and Guatemala*. Baltimore: Johns Hopkins University Press.
- Mainwaring, Scott, and Matthew Soberg Shugart, 1997. "Conclusion: Presidentialism and the Party System." In *Presidentialism and Democracy in Latin America*, ed. Scott Mainwaring and Matthew Soberg Shugart. New York: Cambridge University Press, pp. 394–439.
- Matland, Richard E. 1998. "Women's Representation in National Legislatures: Developed and Developing Countries." *Legislative Studies Quarterly* 23(1):109–25.
- Matland, Richard E., and Donley T. Studlar. 1996. "The Contagion of Women Candidates in Single-Member District and Proportional Representation Systems: Canada and Norway." *Journal of Politics* 58(3):707–33.
- Moon, Jeremy, and Imogen Fountain. 1997. "Keeping the Gates? Women as Ministers in Australia, 1970–96." *Australian Journal of Political Science* 32(3):455–66.
- Morgenstern, Scott, and Benito Nacif (eds.). 2002. *Legislative Politics in Latin America*. Cambridge: Cambridge University Press.
- Norris, Pippa. 1997a. "Introduction: Theories of Recruitment." In *Passages to Power: Legislative Recruitment in Advanced Democracies*, ed. Pippa Norris. Cambridge: Cambridge University Press, pp. 1–14.
- Norris, Pippa. 1997b. "Conclusions: Comparing Passages to Power." In *Passages to Power: Legislative Recruitment in Advanced Democracies*, ed. Pippa Norris. Cambridge: Cambridge University Press, pp. 209–31.
- Norris, Pippa. 1987. *Politics and Sexual Equality: The Comparative Position of Women in Western Democracies*. Boulder: Rienner.
- Phillips, Anne. 1991. *Engendering Democracy*. University Park: The Pennsylvania State University Press.
- Reynolds, Andrew. 1999. "Women in the Legislatures and Executives of the World: Knocking at the Highest Glass Ceiling." *World Politics* 51(4):547–72.
- Rodriguez, Victoria E. 2003. *Women in Contemporary Mexican Politics*. Austin: University of Texas Press.
- Rose, Richard. 1987. *Ministers and Ministries: A Functional Analysis*. Oxford: Clarendon Press.
- Rule, Wilma. 1987. "Electoral Systems, Contextual Factors and Women's Opportunity for Election to Parliament in



- Twenty-Three Democracies." *Western Political Quarterly* 40(3):477-98.
- Sainsbury, Diane. 2004. "Women's Political Representation in Sweden: Discursive Politics and Institutional Presence." *Scandinavian Political Studies* 27(1):65-87.
- Sapiro, Virginia. 1981. "Research Frontier Essay: When Are Interests Interesting? The Problem of Political Representation of Women." *American Political Science Review* 75(3):701-16.
- Schwindt-Bayer, Leslie A. 2005. "The Incumbency Disadvantage and Women's Election to Legislative Office." *Electoral Studies* 24(2):227-44.
- Shugart, Matthew Soberg. 1998. "The Inverse Relationship between Party Strength and Executive Strength: A Theory of Politician's Constitutional Choice." *British Journal of Political Science* 28(1):1-29.
- Shvedova, Nadezdha. 1997. "Obstacles to Women's Participation in Parliament." *Women in Politics: Beyond Numbers*. Stockholm: International IDEA.
- Siaroff, Alan. 2000. "Women's Representation in Legislatures and Cabinets in Industrial Democracies." *International Political Science Review* 21(2):197-215.
- Skjeie, Hege. 1991. "The Rhetoric of Difference: On Women's Inclusion into Political Elites." *Politics and Society* 19(2):233-63.
- Studlar, Donley T., and Richard E. Matland. 1996. "The Dynamics of Women's Representation in the Canadian Provinces, 1975-1994." *Canadian Journal of Political Science* 29(2):269-93.
- Studlar, Donley T., and Ian McAllister. 2002. "Does a Critical Mass Exist? A Comparative Analysis of Women's Legislative Representation Since 1950." *European Journal of Political Research* 41(2):233-53.
- Studlar, Donley T., and Gary F. Moncrief. 1997. "The Recruitment of Women Cabinet Ministers in the Canadian Provinces." *Governance: An International Journal of Policy and Administration* 10(1):67-81.
- Studlar, Donley T., and Gary F. Moncrief. 1999. "Women's Work? The Distribution and Prestige of Portfolios in the Canadian Provinces." *Governance: An International Journal of Policy and Administration* 12(4):379-95.
- Thiébault, Jean-Louis. 1991. "The Social Background of Western European Cabinet Ministers." In *The Profession of Government Minister in Western Europe*, ed. Jean Blondel and Jean-Louis Thiébault. New York: St. Martin's Press, pp. 19-30.
- Thomas, Sue. 1994. *How Women Legislate*. New York: Oxford University Press.
- True, Jacqui, and Michael Mintrom. 2001. "Transnational Networks and Policy Diffusion: The Case of Gender Mainstreaming." *International Studies Quarterly* 45(1):27-57.
- United Nations Human Development Indicators. Human Development Reports 2003. <http://www.undp.org/hdr2003/indicator> (accessed December 11, 2003).
- Valenzuela, María Elena. 1998. "Women and the Democratization Process in Chile." In *Women and Democracy: Latin America and Central and Eastern Europe*, ed. Jane S. Jaquette and Sharon L. Wolchik. Baltimore: Johns Hopkins University Press, pp. 47-74.
- Weisberg, Herbert F. 1987. "Cabinet Transfers and Departmental Prestige: Someone Old, Someone New, Someone Borrowed. . ." *American Politics Quarterly* 15(2):238-53.
- Wooldridge, J.M. 2002. *Economic Analysis of Cross Section and Panel Data*. Cambridge: MIT Press.
- Zorn, Christopher J.W. 2001. "Generalized Estimating Equation Models for Correlated Data: A Review with Applications." *American Journal of Political Science* 45(2):470-90.