The Leading Ladies: How the Election of Women Executives Impacts Gender Diversity and Gender Equality in Subnational Bureaucracies

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Abstract

Do female executives contribute to the creation of public sector workforces that are more representative of the populations they serve? A more representative bureaucracy is expected to produce better outcomes, and thus understanding the role that leadership plays in diversifying the bureaucracy is important. Using data from over 5,000 municipalities in Brazil from 2000 to 2013, we examine whether the election of women mayors leads to the formation of executive bureaucracies that are more representative of the populations they serve. In addition, we test whether the presence of a woman chief executive leads to smaller gaps between men and women bureaucrats in municipal executive administration in terms of salary compensation. We find that the election of a woman mayor leads to increases in women bureaucrats' salaries and smaller gaps in the compensation of men and women bureaucrats. Further, this effect appears to be driven primarily by women and men mayors from centrist parties, as opposed to left-leaning or right-leaning women mayors.

Keywords: Brazil, women, representative bureaucracy, local government, gender inequality.

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1 Introduction

In 2006, Michelle Bachelet made history by becoming the first woman to be elected as President of Chile. This was a historic moment not only because a woman was elected to the highest political office in the nation, but also because during her campaign Bachelet promised to increase women's descriptive and substantive representation. She followed through on this promise by creating the first cabinet in the world to be composed of half men and half women. Other chief executives, including Evo Morales in Bolivia in 2010 and Justin Trudeau in Canada in 2015, have followed in Bachelet's footsteps by appointing an equal number of men and women to their executive cabinets. While Bachelet was proactive in the appointment of women to her cabinet, other women heads of state have been far less active in advancing women's representation. For instance, only 20 percent of the ministers appointed by Cristina Fernandez de Kirchner during her first administration in Argentina were women.

Whether elected executives use their power to make appointments that contribute to increasing gender diversity and gender equality in the bureaucracy is important. Previous literature suggests that bureaucracies that are more representative of the populations they serve produce better outcomes, especially for underserved or underrepresented groups (Meier 1975). In terms of gender, representative bureaucracy theory suggests that a bureaucracy with more gender diversity will be more representative of women's interests and better able to meet the needs to women. The theory is based on the notion that bureaucrats exercise discretion in their decisions and actions and bureaucrats are not neutral actors. Thus, the values, experiences, and preferences associated with a bureaucrat's identity may translate into bureaucratic outputs that lead to the active representation of citizen's interests. This process is especially likely if a bureaucrat's identity is relevant to the policy areas that the bureaucrat oversees.

Historically, women have been relegated to lower tiers of public organizations and segregated to certain segments of the public sector workforce, such as redistributive agencies

(e.g., health, welfare, education), that correspond to women's traditional roles in the private sphere. Further, redistributive agencies often pay less than other types of agencies (Choi 2015) and women public administrators are often given less authority than their men counterparts (Alkadry and Tower 2011), resulting in significant pay disparities between men and women bureaucrats. Women, at least in the United States, are making inroads into male-dominated sectors of public agencies and face less barriers to becoming public managers than in the past; however, there is still much room for improvement (Bowling, Kelleher, Jones and Wright 2006). Gender inequality in the bureaucracy is problematic not only for reasons of equity, but also because women's underrepresentation in top management positions and in traditionally male-dominated sectors likely indicates that women's interests and viewpoints are not being represented in these institutions and thus women's needs are not being met sufficiently by government agencies.

A bureaucracy that is responsive to the interests of all citizens is critically important given the extensive role of bureaucracies in providing government services and executing public policy in democratic societies. It is especially important that bureaucracies are responsive to women's needs and interests since women compose roughly half of the population. In recent decades, the importance of bureaucracies at subnational levels of government has increased as the responsibility for a number of policy areas, such as education, health care, roads, and sanitation, has been decentralized to local governments. Local governments, and thus local bureaucrats, play an ever increasing role in citizen's lives, which makes it critically important that local governments meet the needs of everyone they serve and provide representation for all groups under the local government's jurisdiction. This study examines the conditions under which women subnational chief executives contribute to increasing gender diversity and gender equality in subnational bureaucracies. Given the scarcity of women chief executives at the national level, an examination of the effect of women in

municipal executive leadership is ideal because women mayors are far more common than women presidents. Identifying what makes an executive more likely to diversify the

bureaucracy, and specifically whether women chief executives are more likely to close gaps in the public sector representation of men and women, is important. Gaps in public sector representation can manifest in a number of ways. There may be an underrepresentation of women employees in the bureaucracy overall. Or women may be equally represented in the bureaucracy numerically, but gaps may persist in terms of the types of jobs (e.g., high-versus low-prestige; masculine versus feminine) and amount of compensation they receive.

We explore whether women mayors contribute to increasing gender diversity and gender equality in the public sector workforce using a comprehensive dataset of all individuals employed in the formal sector workforce in Brazil. Given its federal structure and high levels of decentralization, along with the centrality of municipalities in providing services and implementing policy, Brazil provides a useful case in which to explore this question. Local governments in Brazil are important political units and subnational chief executives have substantial decision-making powers and authority (Falleti 2010). The Brazilian political system is designed so that local bureaucracies are responsible for delivering a number of important public services including healthcare, education, and sanitation. In addition, Brazilian municipal bureaucracies vary greatly in terms of their size, gender diversity, and gender equality. Our dataset includes all individuals employed by the municipal executive administration in nearly all of Brazil's 5,570 municipalities from 2000 to 2013. Using these finely grained data, we test whether the presence of a women chief executive leads to increases in women's representation in the bureaucracy, higher wages for women, and increases in women bureaucrats' wages relative to men bureaucrats.

Our results suggest that women mayors may have less flexibility to change the overall gender composition of the bureaucracy by hiring dramatically more women, however they do seem to have an effect on the positions women receive as well as their compensation relative to men. While city council members exert relatively little effect on the construction of more gender balanced bureaucracies, there is some indication that partisanship mattes with mayors from the political center being especially helpful for increasing women's representation.

2 Gender Representation in the Bureaucracy

Research suggests that a link exists between the passive (descriptive, numerical) and active (substantive) representation of women in the bureaucracy, especially if a gendered policy area is involved. Keiser, Wilkins, Meier and Holland (2002) categorize a policy area as gendered if it: (1) benefits women as a class, (2) is classified as a women's issue by the political process, or (3) the bureaucrat's gender impacts the relationship between the bureaucrat and the client. Evidence of active gender representation in the bureaucracy has been found in a number of contexts. Studies find that increasing women's bureaucratic representation in the United States leads to an increase in child support enforcements (Wilkins and Keiser 2006; Wilkins 2007), improvements in female students' math scores (Keiser, Wilkins, Meier and Holland 2002), a rise in the number of reports and arrests for sexual assaults (Meier and Nicholson-Crotty 2006), and better perceptions of government trustworthiness and fairness (Riccucci, Van Ryzin and Lavena 2014).

Active representation has also been found to transcend the basic purposes of the organization. For example, Atkins and Wilkins (2013) find that increasing the presence of female African-American teachers lowers the African-American teen pregnancy rate. Less research has been conducted in contexts outside of the United States. However, a few studies suggest that the link between women's passive and active representation in the bureaucracy exists outside of the U.S. as well. Park (2013) finds that increasing women's presence in the South Korean federal bureaucracy leads to increases in media attention to women's issues and increases in the social welfare budget. Andrews, Ashworth, and Meier (2014) find that fire service authorities in England are more effective organizations, offer more fire prevention services, and engage more with the community when gender (and minority ethnic) representation is increased. In the context of Brazil, Meier and Funk (Forthcoming) find that increasing women's presence in municipal elected and bureaucratic offices leads to an increase in the adoption of women-friendly policies and services.

Relatively less scholarly attention has been devoted to the determinants of gender di-

versity and gender (in)equality in the bureaucracy; however, the research that does exist suggests that women's positions in public agencies are often not on par with men's. Gender-based occupational segregation is prevalent throughout many types of public organizations. Women often fill the lower ranks of bureaucracies, dominate the more "feminine" redistributive agencies, and remain underrepresented in the more "masculine" distributive and regulatory agencies. Evidence from all levels of government in the United States suggests that gender gaps are prevalent throughout the public sector workforce. At the federal, state, and local levels, women are significantly underrepresented in top levels of bureaucratic leadership (Guy 1993; Reid, Miller and Kerr 2004; Miller, Kerr and Reid 2010; Smith and Monaghan 2013; Kerr, Kerr and Miller 2014) and clear differences emerge in the types of agencies that employ women versus men (Kelly and Newman 2001; Kerr, Miller and Reid 2002; Choi 2015). The underrepresentation of women of color throughout all sectors of the public workforce is even worse (Riccucci and Saidel 1997; Miller, Kerr and Reid 2010).

In addition to gaps in leadership and type of agency, research finds that women when women are employed, female public administrators receive on average lower compensation than their male counterparts. Wage gaps in the public sector have been identified across a number of contexts. Examples include: women hired to replace male school district superintendents receive lower compensation than their male predecessors (Meier and Wilkins 2002), women employees of the U.S. federal government are compensated less than men employees (Choi 2015), and women public procurement officials in the US report less earnings than men (Alkadry and Tower 2006). Gendered wage gaps exist across the public sector in Latin America as well, though the wage gap appears to be smaller in the public sector than in the private sector (Panizza, di Tella and Van Rijckeghem 2001; Panizza, Ugo and Christine Zhen-Wei Qiang 2005). Research has offered a number of reasons to explain the presence of a gender wage gap in the public sector, such as women are given less authority (Alkadry and Tower 2011), have less seniority (Choi 2015), and that the types of jobs that women occupy are associated with less compensation (Miller, Kerr and Reid 1999; Guy and Newman 2004).

While all of the above do point to reasons why on average women bureaucrats might be paid less than man bureaucrats, they also suggest a pervasive pattern of gender inequality and marginalization.

Does the representation of women in elected offices help close gender gaps in the public sector workforce? While evidence is limited, research suggests women elected officials are associated with increases in women's representation in higher-levels and male-dominated portions of the bureaucracy and smaller gender gaps in compensation. In her study of 174 U.S. cities, Saltzstein (1986) found that having a woman mayor was positively associated with women's representation in municipal jobs. Similarly, Smith (2015) finds that women are more likely to hold leadership positions in local education agencies when women are present in local elected offices. In the case of Brazil, Meier and Funk (Forthcoming) find that having women in local elected offices increases the probability that a woman will be appointed to head the municipal social assistance and health agencies. Perhaps the most comprehensive evidence is provided by Kerr, Miller and Reid (1998) who, using data from 23 U.S. cities over a 9-year period, find that having a woman mayor doesn't impact women's municipal employment in the aggregate, but is associated with an increase in women's representation in administrative positions in the municipal finance department.[1]

3 Theory and Hypotheses

Previous research has identified a link between passive representation in electoral institutions and passive representation in the bureaucracy for identities such as race, ethnicity, and gender (e.g., Eisinger 1982; Mladenka 1989; Meier and Nicholson-Crotty 2006). One suggested reason for this link is that, as electoral bodies become more representative of the population (in terms of demographics), elected officials put pressure on bureaucratic institu-

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[1]An increase in representation in the finance department is significant because economic policy and finance is usually thought of as a masculine policy domain in contrast to "home and hearth" areas such as social welfare.

tions to also become more representative (see Eisinger 1982; Mladenka 1989). This idea of "top-down" representation suggests that the executive leadership plays an important role in setting the tone for bureaucratic representation (both in descriptive and substantive terms). Elected executives, in this case mayors at the local level, not only provide visionary leadership for the executive branch, but also often exert direct control over day-to-day activities and bureaucratic processes, such as the hiring, firing, or repositioning of bureaucrats (within some limits). Thus, an elected executive who is committed to creating a representative and egalitarian bureaucracy likely has the ability to do so, even if at the margins.

However, the executive may not be the only elected official with a stake in creating representative bureaucracies. The legislative branch of government is often thought of as playing a primary role in providing representation for various interests, making it a natural venue in which questions of descriptive representation are studied. But, legislative branches also play an important role in providing oversight of the executive and the bureaucracy. This oversight can take many forms and be more or less direct, but it is not without teeth as legislatures control the power of the purse and can affect bureaucratic action both through policy and financing. Thus, women in a legislative body (city councilors or vereadores at the municipal level) may also push for a more representative bureaucracy.

Making a bureaucracy more representative can mean several things. On the one hand, it can certainly mean hiring more women. However, not all positions within the bureaucracy are equal or are equally important and responsive. For example, if women are hired predominantly as secretaries and assistants and men are hired predominantly as case managers and administrators, the overall composition of the bureaucracy might be gender balanced, but those responsible for leadership decisions and for the delivery of services might in fact not be representative of the population they serve. When this happens, even with balanced numbers overall, gaps in the equality of men and women may exist within the bureaucracy. Thus, while having a bureaucracy that is representative in overall terms is important, it is also important to look at other gaps that exist in representation and not only gaps in aggregate

representation. Specifically, we are interested in examining whether women are more evenly distributed across all bureaucratic ranks and leadership positions in the bureaucracy when women are elected as chief executives. By examining multi-faceted gaps in bureaucratic representation, we are able to obtain a richer, more nuanced picture of what leads to the creation of representative and egalitarian bureaucracies. It also allows us to unpack which gaps in bureaucratic representation are most likely to be closed by elected representatives and which require other mechanisms to close.

Our theoretical expectations can be formally stated as the following hypotheses (H):

H1a. The presence of a female executive (mayor) will increase women's overall representation in the bureaucracy.

H1b. The presence of a female executive (mayor) will increase women's representation in higher bureaucratic ranks.

H1c. The presence of a female executive (mayor) will increase women's representation in higher bureaucratic ranks, relative to male bureaucrats.

H2a. Increased percentages of women in the legislature (city council) will increase women's overall representation in the bureaucracy.

H2b. Increased percentages of women in the legislature (city council) will increase women's representation in higher bureaucratic ranks.

H2c. Increased percentages of women in the legislature (city council) will increase women's representation in higher bureaucratic ranks, relative to male bureaucrats.

4 Gender Representation and the Civil Service in Brazilian Subnational Governments

We test these hypotheses within the context of Brazilian subnational governments. Brazil has 5,570 municipalities and 26 states (plus a federal district) that have constitutional powers and policy- making authority. Subnational governments in Brazil vary greatly in terms of their size, level of development, and resources. Some parts of Brazil resemble major cities in the United States or Western Europe; however, other parts of Brazil, particularly the North and Northeast regions, and rural and indigenous areas, lack basic necessities, such as access to adequate water and housing. In terms of representation, Brazil has some of the lowest levels of women's representation in the

world, despite having elected a woman president in 2010. As of February 2016, Brazil ranked 154th out of 185 for its low levels of women's representation in the legislature (Inter-Parliamentary Union 2016). In 2016, women made up just 10% of the Chamber of Deputies and 16% of the Senate. Women's representation is low at subnational levels of government as well. Only one woman was serving as governor in 2016, Suely Campos in Roraima, and only 12% of mayors were women. Local city councils varied from zero to 86% women, with an average of 12%.

Women's representation in bureaucratic offices is much higher than in elected offices. As shown in Table 1, throughout the time period of this study (from 2000 to 2013), women composed an average of 62% of the municipal executive administration, an institution that includes all employees (appointed and non-appointed) working for the mayor's office. However, women's representation in the municipal executive administration is less than 50% in at least 10% of municipalities and ranged the full spectrum of zero to 100%. The average size of a municipal executive bureaucracy in Brazil is 40 bureaucrats per 1,000 residents. Again, however, there is significant variation. The smallest bureaucracy has less than one bureaucrat for every 1,000 citizens, and the largest indicates that over half of the munic-

ipal population is employed by the executive branch of the municipality—suggesting that patronage politics is likely at play.

There is also evidence that though executive bureaucracies are frequently majority female, women bureaucrats are likely underrepresented in important positions (according to their salaries) and thus limited in their abilities to meaningfully represent women and women's interests. On average, women bureaucrats' monthly salaries are R$62 (Brazilian Reais) less than men's salaries.[2] Over the course of a year, this difference amounts to more than the average monthly salary (R$557 per month in 2010)—meaning that the annual difference between men and women's salaries is equivalent to men receiving more than an extra month's pay compared to women, not including end-of-the-year bonuses or other job-related perks. Furthermore, since salaries in the Brazilian civil service are highly linked to rank/position, this wage gap indicates that women are filling the lower ranks of the municipal bureaucracy—secretaries and personal assistants—and lack access to the highest positions in the bureaucracy that have the most potential to impact policy and provide representation for citizens' interests—agency heads and top public managers.

The lack of women (and other minority groups) in elected offices and top-levels of public management is problematic for Brazilian democracy. Without women's presence in the upper echelons of political institutions, the democratic goals of fairness and equality cannot be met. In addition, given the robust finding that women representatives are more likely to advocate for women's interests (Mansbridge 1999; Schwindt-Bayer 2010; Escobar-Lemmon and Taylor-Robinson 2014)) and may differ in the ways they lead organizations (Johansen 2007; Jacobson, Palus and Bowling 2010; Funk 2015), this shortage of women's descriptive representation means that women's views, interests, and policy preferences are likely not being represented. Brazil, like many other countries, has been marked by highly patriarchal

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[2]During the period between 2000 and 2013, R$62 Brazilian reais (BRL) was equivalent to between $20 and $37 US dollars (USD). The exchange rate hit a low of 1.68 BRL to 1 USD in 2011 and a high of 3.12 BRL to 1 USD in 2003.

institutions and criticized for the marginalization and objectification of women in society. Brazil has high levels of violence against women (Waiselfisz 2015)) and women, particularly single mothers, make up a disproportionately large portion of the very impoverished (Barros, Fox and Mendoça 1997). For all of these reasons, it is important that women's voices are represented in both the electoral institutions that make policy and the bureaucratic institutions that implement it.

Women (and men) elected officials' abilities to diversify and equalize the bureaucracy in Brazil are limited in some ways. The career civil service at the national, state, and municipal levels has been professionalized. Anyone who wishes to make a career in the civil service must first pass a standardized exam (concurso publico). At the federal level, many career civil servants attend the National School of Public Administration (ENAP) or other preparatory schools to train for the concurso and prepare for their career in public service. In addition, the salaries of Brazilian civil servants are based on a pay grade scheme, so an increase in salary is usually tied to a promotion. A job in the civil service in Brazil is highly desirable. These positions come with good salaries, job stability, possibility of tenure, and generous pensions. The Brazilian civil service underwent an overhaul starting in 1995 under the leadership of the Minister of State Reform and Federal

Administration (*Ministério da Administração Federal e Reforma do Estado*, MARE), Luiz Carlos Bresser Pereira. These reforms expanded on Federal Law no. 8.112/1990, which regulates the civil service, and were intended to move Brazilian public administration closer to the Weberian ideal of professional and efficient bureaucracy.

While Brazilian civil service is mostly a meritocracy, there is room for patronage— especially at subnational levels of government. The civil service is made up of both permanent career civil servants and temporary civil servants who may be appointed by elected politicians. At subnational levels, laws regarding the hiring, firing, and promotion of civil servants, along with their compensation and benefits, are regulated by states and municipalities and these laws vary across subnational units. According to the 1988 constitution,

no public employee can earn more than a Supreme Court justice; however, there are legal loopholes to this stipulation and other wage laws, such as allowing civil servants to earn income from multiple sources or to draw a pension from a previous job while continuing to work in the civil service. End-of-the-year bonuses that provide civil servants with an extra month's pay (or two or three extra months) are also common in Brazil. Evidence of civil servants breaching legal salary ceilings has been documented in several instances. In 2012, The Economist reported that "[s]ome long-serving lift attendants in the Congress in Brasilia are said to earn 17,000 reais a month" (about $10,119 USD in 2011). The article also mentioned that then-mayor of Sao Paulo, Gilberto Kassab, joked that he will seek work in the municipal garages of the city's assembly after his term in office is over since it was revealed that a large portion of the city legislatures' employees earn more than 7,223 reais (approx. 4,299 USD in 2011) per month after tax (The Economist 2012).

According to Brazilian law, mayors have the power to appoint temporary civil servants, though they are limited in their ability to appoint or remove career civil servants who have tenure. However, evidence suggests that the civil service at subnational levels of government doesn't always work as intended by federal law. The presence of legal loopholes, variation in subnational laws, ability to make temporary appointments, flexibility in salary negotiations, and discretion in determining civil servants' salaries indicate that elected officials may have more sway over the municipal executive administration than do elected officials at the federal level of government. Analyzing how women chief executives impact gender representation and equality under this system provides an interesting case in which to test our hypotheses.

5   Data Sources and Description of Variables

The data used in this study were gathered from three different sources: the Annual Social Information Report (*Relação Anual de Informacoes Sociais*, RAIS), the Brazilian Superior Electoral Court (*Tribunal Superior Eleitoral*, TSE), and the Brazilian Institute of Geography

and Statistics (*Instituto Brasileiro de Geografia e Estatística*, IBGE). RAIS is an annual administrative, occupational and socioeconomic report containing unique information regarding Brazilian employers (establishments) and employees, collected by the Brazilian Ministry of Labor and Employment.[3] The annual reports are generated to supply governmental entities, especially those in dealing with social issues, with statistics and information about the Brazilian formal labor market. The reports provide individual-level data on employees' gender, race, level of education, seniority, work hours, earnings, contractual wages and salaries, and fluctuations in employment, covering all occupational groups of the Brazilian formal labor market according to the International Standard Classification of Occupations (ISCO-68). RAIS provides a high-quality census of the Brazilian formal labor market, comprised of both the private sector and the public sector. Thus, the data collected from RAIS includes information on employees in the federal public service, state-level public sector, and municipal public administration. By aggregating individual-level RAIS data to the municipal level, we are able to obtain detailed information about the structure of municipal executive bureaucracies, such as the size of the bureaucracy, percent women, average level of education, average salary, and the average wage gap between men and women bureaucrats.[4]

The political data on chief executives for all Brazilian municipalities were gathered from the Brazilian Superior Electoral Court (TSE), and include information from four municipal elections (2000, 2004, 2008, and 2012). From the TSE data, we are able to identify the

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[3]According to Decree No. 76.900 of 1975, all Brazilian establishments are required to make an annual declaration to the RAIS system hosted by the Brazilian Ministry of Labor and Employment. An employer who fails to deliver the RAIS within the legal deadline is subjected to a fine starting at R$425.64, plus an additional R$106.40 per every two months of delay, accumulating until the date that the employment report is delivered. According to the International Labour Organization, the non-response rate of RAIS is low and has been estimated to be approximately 10% of the Brazilian labor market.

[4]We use the unidentified version of the RAIS data for this article. The unidentified version reports more aggregated employment categories so as not to identify particular individuals. Thus, we are unable to disaggregate the municipal executive administration into particular ranks or positions and cannot determine the exact positions that men and women hold within the bureaucracy. Nonetheless, given that salary is often associated with rank, salary represents a reasonable proxy. Moreover, the aggregation to higher level categories in this version of the data makes for more comparable evaluations across municipalities as we are better comparing "like" with "like."

mayor's gender, level of education, and partisanship, along with the percentage of women on the city council (municipal legislators/*vereadores*). Socioeconomic data, such as municipal population and municipal gross domestic product (GDP), were gathered from the Brazilian Institute of Geography and Statistics (IBGE). Due to the availability of data from the sources described above, our sample includes information for over five thousand Brazilian municipalities from 2000 to 2013.

Since we theorize that the construction of a representative bureaucracy is a multi-faceted process, we use three dependent variables to measure different aspects of gender representation in the bureaucracy. The first is the percentage of the municipal executive administration that is female. The second is the average salary of female workers in the municipal executive administration. We use average salary as a proxy measure for women's rank/position within the bureaucracy. Leadership and high-status positions in Brazilian civil service are usually accompanied with higher pay, thus examining women's average salary provides a useful way to assess whether women hold leadership positions within the municipal executive bureaucracy. The wage gap between men and women in the municipal executive administration is our third dependent variable. Given numerical equality in the bureaucracy in terms of employment, and assuming that equal pay is a good way to judge equal treatment, this variable allows us to examine the extent to which women and men are employed in similar positions throughout the executive bureaucracy.

In order to measure women's leadership in elected executive positions, we include a dummy variable for whether the municipal executive (mayor/*prefeito*) is female. To measure women's representation in the legislative branch, we use the percentage of the city council (*Câmara de Vereadores*) that is female. In addition, we include controls for the ideology of the mayor and interaction terms between the mayor's gender and ideology to acknowledge that women are a heterogeneous group with varying preferences. Some women, particularly those from left-leaning parties, may have a greater interest in (and motivation to) increasing women's representation and equality more than others (i.e., women from cen-

trist or right parties). Left-leaning parties have traditionally been more friendly towards women's interests, and have made strides to increase women's representation in politics by adopting gender quotas. Thus, mayors from left-parties may have extra incentives to advance women's representation and equality. We classified party ideologies based on surveys and roll-call vote studies of Brazilian legislators (Power and Jr. 2009, 2012; Zucco Jr. and Lauderdale 2011; Samuels and Jr. 2014; Saiegh 2015).

We also include several control variables in our analyses. We expect better educated mayors to be more likely to reduce inequalities in their bureaucracies. We measure the mayor's education using a categorical variable, ranging from 0 to 6.[5] Brazilian municipalities vary greatly in terms of size, wealth, and composition of the local labor market. To account for this variation, we control for municipal population, municipal gross domestic product (GDP) per capita, size of the municipal executive bureaucracy, and percentage of formal sector workers employed by the municipal executive administration. The average size of a municipality in Brazil is slightly more than 30,000 inhabitants. The outlier is clearly Sao Paulo, with a population of more than eleven million people. Municipal wealth is measured using GDP per capita. The size of the executive bureaucracy is a count of the number of municipal employees per 1,000 residents. As indicated above, there are some municipalities in which over the half of the population is employed by the municipal executive branch. In municipalities where job opportunities are restricted, elected officials may be inclined to gain electoral support by distributing municipal jobs, i.e., partaking in patronage politics. Patronage is measured by dividing the number of workers in the municipal executive branch by the total number of workers in all sectors of the formal labor force (private and public). The variable "patronage" ranges from 0 to 1, where a value close to 0 means that the majority of job opportunities in the municipality are outside the public sector and a value close to 1 indicates that the municipal executive administration is the largest (or only if patronage=1)

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[5]Where 0=illiterate, 1=incomplete primary education, 2=complete primary education, 3=incomplete high school, 4=complete high school, 5=incomplete higher education, and 6=complete higher education.

employer in the municipality.[6]

6   Empirical Models and Results

Since our data are comprised of observations from multiple municipalities over time, we utilize the appropriate time-series cross-section (TSCS) methods (i.e., panel regression estimators) to test our hypotheses. In the first set of models (using Equation 1), we estimate regressions for each of our three dependent variables to examine whether women elected officials decrease inequalities in the representation and compensation of men and women in municipal public administration. In the second set of analyses (using Equation 2), we examine whether differences exist between mayors from different political parties by interacting the mayor's gender with his/her partisanship.

$$
\begin{aligned}
depvar_{it} = {} & \beta_1 + \beta_2 depvar_{i,t-1} + \beta_3 femalemayor_{it} + \beta_4 pctfemcouncils_{it} \\
& + \beta_5 left_{it} + \beta_6 right_{it} + \beta_7 mayoreducation_{it} + \beta_8 logpopulation_{it} \\
& + \beta_9 loggdppercap_{it} + \beta_{10} bureaucracysize_{it} + \beta_{11} patronage_{it} + \gamma_i + u_{it}
\end{aligned}
\tag{1}
$$

$$
\begin{aligned}
depvar_{it} = {} & \beta_1 + \beta_2 depvar_{i,t-1} + \beta_3 femalemayor_{it} + \beta_4 pctfemcouncils_{it} \\
& + \beta_5 left_{it} + \beta_6 right_{it} + \beta_7 mayoreducation_{it} + \beta_8 logpopulation_{it} \\
& + \beta_9 loggdppercap_{it} + \beta_{10} bureaucracysize_{it} + \beta_{11} patronage_{it} \\
& + \beta_{12}(femalemayor * left)_{it} + \beta_{13}(femalemayor * right)_{it} + \gamma_i + u_{it}
\end{aligned}
\tag{2}
$$

Our three dependent variables (*depvar*) are (1) percentage of female workers in municipal executive administration, (2) the average salary of female bureaucrats, and (3) the wage gap between men and women in municipal public administration. The subscripts i and t refer to unit (municipality) and time (year), respectively. The variables *population* and *GDP per capita* were log transformed in order to reduce the right-skewness of their distribution. We

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[6]Our data do not include workers in the informal labor force (e.g. street vendors, domestic workers), who are not formally registered with the government.

Table 1: Variables and Summary Statistics

Variable and Summary Statistics	Description
Dependent Variables:	
pctfempubadmin: $\mu = 61.94$, $\sigma = 9.47$, $N = 60,342$ $min = 0$, $max = 100$	Percentage of women in the municipal public administration
avgfemsalnom $\mu = 795.23$, $\sigma = 430.21$, $N = 60,275$ $min = 180$, $max = 20301.17$	Average female salary in the municipal public administration (in Reais)
wage gap: $\mu = 61.96$, $\sigma = 221.13$, $N = 60,222$ $min = -8483.35$, $max = 3225.02$	Wage gap between men and women in the municipal public administration
Independent Variables:	
femalemayor: $\mu = 0.07$, $\sigma = 0.26$, $N = 60,343$ $min = 0$, $max = 1$	Dummy variable for mayor sex: 1 = female; 0 = male
pctfemcouncils: $\mu = 12.13$, $\sigma = 12.29$, $N = 60,317$ $min = 0$, $max = 85.71$	Percentage of female councils (municipal women legislators)
left: $\mu = 0.23$, $\sigma = 0.42$, $N = 58,417$ $min = 0$, $max = 1$	Dummy for left leaning parties: 1 = left or far-left; 0 = otherwise
mayoreducation: $\mu = 4.34$, $\sigma = 1.80$, $N = 60,096$ $min = 0$, $max = 6$	Mayor's level of education: From 0 (illiterate) to 6 (higher education)
bureaucracysize: $\mu = 40.89$, $\sigma = 20.85$, $N = 60,342$ $min = 0.007$, $max = 519.67$	Size of the municipal administration (total number of workers in the municipal bureaucracy divided by the municipal population)
pop $\mu = 32,443.59$, $\sigma = 177,262.5$, $N = 60,342$ $min = 800$, $max = 11821876$	Population
gdppcap: $\mu = 6.48$, $\sigma = 8.96$, $N = 55,317$ $min = 0.71$, $max = 511.97$	Gross Domestic Product (GDP) Per Capita
patronage: $\mu = 0.40$, $\sigma = 0.27$, $N = 54,930$ $min = 0$, $max = 1$	Total number of workers in municipal public administration divided by the total number of workers in all sectors
right: $\mu = 0.28$, $\sigma = 0.45$, $N = 58,417$ $min = 0$, $max = 1$	Dummy for right leaning parties: 1 = right or far-right; 0 = otherwise
center: $\mu = 0.48$, $\sigma = 0.50$, $N = 58,417$ $min = 0$, $max = 1$	Dummy for center leaning parties: 1 = center; 0 = otherwise

Notes: μ = arithmetic mean; σ = standard deviation; N = number of observations; min = minimum value; max = maximum value.

also include a lagged dependent variable in each of the models in order to correct for serial autocorrelation. Also, in order to reduce the risk of omitted variable bias due to differences across municipalities, we included fixed-effects for i municipalities in the estimated models. Therefore, the term γ is the coefficient for municipality-specific effect. The error term is denoted by u. The only difference between equations 1 and 2 is the inclusion of interactive terms between the mayor's gender and party ideology, with mayors from center-leaning parties constituting the reference category. The results of our empirical models are presented in Table 2 and Table 3.

As we can see in Table 2 and Table 3, the results partially support our hypotheses. While the presence of a female mayor appears to have a positive effect on the salary increase of female bureaucrats and on the reduction of the wage gap between men and women, the expected effect of female mayors on the percentage of female workers in public administration is not supported by our results.

The estimate for female mayor in the additive model with the percentage of female bureaucrats (Model 1) is in the opposite direction from what we expected (h1a), although the coefficient is not significant. In this model, only the estimates for the presence of a left party, GDP per capita, patronage and the size of the bureaucracy are statistically significant. Additionally, the effect for left party is in the opposite direction from what we expected— suggesting that left party mayors decrease the percentage of female workers in the municipal public administration. Moreover, while we obtained some limited support for our first series of hypotheses regarding the effect of female leadership in the executive branch, we found no effect for increased female representation on the city council in any of the models presented in table 2.

In Model 2, having a female mayor and a mayor from a left party are statistically significant at the level 0.01. These results indicate that, on average, the presence of a female mayor increases the monthly salary of female bureaucrats by R$26.00, and that a left party in power in the municipal executive increases the monthly salary of female bureaucrats by

Table 2: Do Women Mayors Increase Women's Representation and Equality in the Bureaucracy?

Variables	(Model 1) % of Female Workers	(Model 2) Avg. Female Salary	(Model 3) Wage Gap
% of Female Workers$_{t-1}$	0.387*** (0.005)		
Avg. Female Salary$_{t-1}$		0.332*** (0.005)	
Wage Gap$_{t-1}$			0.173*** (0.005)
Female Mayor	-0.199 (0.127)	26.24*** (6.533)	-10.20** (4.529)
% of Female Councils	-0.003 (0.003)	0.105 (0.142)	-0.093 (0.098)
Left Party	-0.183** (0.084)	33.83*** (4.324)	-5.770 (2.994)
Right Party	0.138 (0.075)	7.892** (3.868)	8.092*** (2.679)
Mayor Education	-0.026 (0.020)	4.823*** (1.014)	-0.797 (0.703)
Population (log)	-0.240 (0.343)	553.7*** (18.10)	18.64 (12.28)
GDP Per Capita (log)	0.343*** (0.062)	251.7*** (3.592)	-31.95*** (2.206)
Patronage	3.266*** (0.370)	-242.8*** (19.51)	-27.10** (13.63)
Bureaucracy Size	-0.00617** (0.003)	3.258*** (0.151)	0.360*** (0.102)
Constant	39.14*** (3.238)	-5,118*** (170.0)	-80.28 (115.3)
N	41,883	41,811	41,753
R^2	0.162	0.475	0.034

All models include fixed-effects. Standard errors in parentheses. Two-tailed test.
*** p<0.01, ** p<0.05

Table 3: Does the Mayor's Partisanship Matter for Increasing Women's Representation and Equality in the Bureaucracy?

Variables	(Model 4) % of Female Workers	(Model 5) Avg. Female Salary	(Model 6) Wage Gap
% of Female Workers$_{t-1}$	0.387*** (0.005)		
Avg. Female Salary$_{t-1}$		0.332*** (0.005)	
Wage Gap$_{t-1}$			0.173*** (0.005)
Female Mayor	-0.294 (0.179)	26.78*** (9.234)	-11.03 (6.406)
% of Female Councils	-0.00335 (0.003)	0.106 (0.142)	-0.0927 (0.098)
Left Party	-0.205** (0.087)	33.57*** (4.482)	-6.205** (3.104)
Right Party	0.131 (0.078)	8.185** (4.000)	8.192*** (2.771)
Mayor Education	-0.0260 (0.020)	4.826*** (1.014)	-0.795 (0.703)
Population (log)	-0.244 (0.343)	553.8*** (18.11)	18.60 (12.28)
GDP Per Capita (log)	0.343*** (0.062)	251.7*** (3.592)	-31.95*** (2.206)
Patronage	3.268*** (0.370)	-242.7*** (19.51)	-27.01** (13.63)
Bureaucracy Size	-0.00618** (0.003)	3.258*** (0.151)	0.360*** (0.102)
Female × Left	0.313 (0.320)	3.598 (16.54)	6.096 (11.47)
Female × Right	0.0954 (0.270)	-3.907 (13.93)	-1.244 (9.654)
Constant	39.17*** (3.238)	-5,118*** (170.0)	-79.88 (115.3)
N	41,883	41,811	41,753
R^2	0.162	0.475	0.034

All models include fixed-effects. Standard errors in parentheses. Two-tailed test.
*** $p<0.01$, ** $p<0.05$

almost R\$34.00. Over the course of a year, the expected increase in female salaries from having a left-party mayor of R\$408.00 is slightly smaller than half of the current Brazilian minimum wage (R\$880.00). Interestingly, the estimate for right party suggests that right leaning parties also increase the average salary of female bureaucrats. Yet, the effect for right-leaning parties is substantively smaller with, an expected average increase of R\$8.00 in female monthly. Interestingly, the biggest negative effect on the average salary of female bureaucrats was found in the estimate for "patronage" (R\$-243.00). This suggests that the more job opportunities in the city are restricted to the municipal public sector, the more poorly paid female bureaucrats will be (lower salaries).

While the patronage potential of municipalities decreases the salaries of female bureaucrats, it also decreases the wage gap between women and men bureaucrats (see model 3). This apparently paradoxical result for patronage—simultaneously decreasing the average salary of female workers and reducing the wage gap—may reflect that when job opportunities for both men and women are restricted to the municipal public sector, overall pay rates can be lower. This downward compression in salaries may then close gaps and would be consistent with both the negative effect for the constant in model 2 and model 3. Still in Model 3, as we hypothesized, the presence of a female mayor also decreases the wage gap. Regarding the parties in the municipal executive power, although the coefficient for left party is in the expected direction—i.e., decreasing the wage gap—it is not significant in model 3 at standard thresholds. In contrast, however, the coefficient for right-leaning parties is positive and significant indicating that right-leaning parties reduce the wage gap between men and women more than do centrist parties.

Regarding other control variables, bigger cities seem to pay female bureaucrats more with an impressive increase in the average monthly salary of female bureaucrats of R\$553.70. Also, the richer the city (measured by GDP per capita), the higher the percentage of female workers in the public administration, the higher the average salary of female bureaucrats, and the smaller the wage gap.

The statistically significant coefficients for the autoregressive terms indicate, unsurprisingly, that past values of the dependent variables affect the current ones. This is not surprisingly both because we expect budget categories such as employment to be relatively sticky. Additionally, the employment protections that exist for public sector employees make major changes in the values of the dependent variables on a yearly basis unlikely.

In Table 3, we re-estimated the models discussed above, including a term for the interaction between the gender of the mayor and their partisanship. Recall that our expectation was that the combination of gender and partisanship should lead to female mayors from left parties being the most active in terms of closing gaps between men and women in the bureaucracy because they would have both the ability and the motivation to effect positive changes. The results in Table 3 are thus somewhat surprising in that the interactive terms fail to achieve statistical significance. In contrast to our expectations, female mayors from leftist parties do not create more gender representative bureaucracies and apparently they do not improve the position of women working within the bureaucracy either in terms of salary or wage gap. The same can be said for female mayors from right wing parties. Interestingly, female mayors from center parties seem to be the most active chief executives, at least in terms of improving women's salaries. Also, and consistent with our results in table 2, we do not find an effect for increased women's representation on city councils on any of the different representational gaps.

Male mayors from left parties, on the other hand seem to improve women's salaries and drive down the wage gap (effect estimated in the interactive models by $\beta_5 left$). However, male mayors from left parties also decrease the percentage of the bureaucracy that is female (Model 4). Perhaps, mayors from left parties are placing more women in high value positions, but undercutting street level representation, perhaps as an effort to showcase female leadership. Male mayors from right parties ($\beta_6 right$) also have no effect upon the composition of the bureaucracy. On the other hand, and interestingly, male mayors from right parties seem to increase women's salaries at the same time that they seem to increase the wage gap.

This finding suggests that these mayors increase everyone's salaries. Moreover, male mayors from center parties (estimated by the *constant* in the interactive models) seem to be the chief executives most responsible for a more representative bureaucracy in terms of hiring more female workers. They are responsible for positive effects on the employment gap. On the other hand, the results from Model 5 indicate that the presence of male mayor from a center party decreases the average female salary, albeit by a negligible value of R$5.00. Although the male mayor from the center parties also reduces the wage gap (Model 6), suggesting a possible reduction in the wage inequality between women and men bureaucrats, the coefficient is not statistically significant.

7   Discussion and Conclusion

Representative bureaucracies are a desirable thing as there seems to be agreement in the literature on the value that they add to clients. There is however, less agreement on the factors which facilitate their development. In this paper we theorized that the election of women to head the bureaucracy should play a role in increasing women's representation in bureaucratic bodies and in closing representational gaps between men and women. We also anticipated a secondary effect from increased female representation in legislative bodies as well.

In contrast to our expectations, and somewhat surprisingly, the composition of the legislature does not have an effect on women's representation in the bureaucracy and it does not aid in closing down gaps in equal treatment of women who already hold positions there. Thus, while we stop well short of concluding that city councils are not engaging in legislative oversight and while members of the city council may be very active in terms of obtaining positions in the bureaucracy for friend/supporters, that concern does not seem to extent to improving gender descriptive representation, at least not in a systematic way.

Although the presence of a female mayor does not seem to change the composition of

the municipal public administration to a more representative bureaucracy, female mayors do seem to be more attentive to the treatment and compensation of female bureaucrats. To the extent that salary is a proxy for prestige position, our results indicate that female mayors are promoting women within the bureaucracy and ensuring more egalitarian pay between men and women. This is certainly a positive sign as increasing the salary of female bureaucrats may have long-term positive impacts on the employment of women in the public sector and on the ability of women to gain leadership positions in the bureaucracy. Our optimism about the positive effect of female leadership long-term though is tempered by the fact that in instances where women are less represented in the bureaucracy (under 50% is female), and thus there should be the greatest opportunity to improve gender balance, female mayors do not actually do so, and in fact they decrease the percentage of women. Unpacking and better characterizing the threshold at which female mayors matter is an important step for future research.

In future research it is also important to identify how the size of the state and the importance of the bureaucracy as public employer may interact with female leadership to affect both the treatment of women in the bureaucracy and their employment levels. It particular, we believe it to be important to examine how the context in which women are employed affects the overall nature and shape of the bureaucracy by considering what happens when the bureaucracy becomes a more important source of employment in this municipality (situations in which high patronage is likely). If these are patronage appointments these may be instances where women are disadvantaged as they have traditionally had less access to clientelistic and patronage networks. Our findings suggest that women seem to constitute a large share of the employees in a municipality as the municipality becomes a more important employer. However, in those cases while the wage gap shrinks, it may be due to the fact that all salaries are falling. Additionally, as the municipality becomes a more important source of employment women are paid more. But, it appears men are paid more too as the gap between male and female salaries rises.

Other studies of public administration have found that the educational level of mayors is important in improving the quality of public service provision. We also obtain some interesting findings regarding overall education levels that merit future investigation. In cases where women have access to education and thus the overall average education level of women bureaucrats rises, this raises women's salaries and closes the wage gap. One interpretation of this result is that in contexts when women get access to education they are in fact able to rise up in the bureaucracy. Identifying whether this finding is context dependent (e.g. confined to large, urban centers where women might have the greatest access to education) is important. However, it does hold out the promise that while change through rising women's education may be slow, it would positively affect the representativeness of the bureaucracy.

Finally, our results point to important intersections between partisanship and gender. In contrast to expectations, neither women nor mayors from leftist parties are unambiguously good for achieving a gender-balanced bureaucracy. We found that male mayors from left parties decreased overall women's employment in the bureaucracy, but increased women's salaries, and decreased the wage gap. We had expected to find that female mayors from left parties were the most helpful for women but find they have no effect different from zero. Better understanding the lack of support for our expectation that being a woman and from a left party would have an effect on women's presence and equality within the bureaucracy is clearly needed, including identifying whether there are structural issues that make those municipalities that elect a left-leaning female mayor different or more difficult to improve women's representation in the bureaucracy.

We also found that center and right mayors could, under the right circumstances, improve women's representation in the bureaucracy. Male mayors from right parties increased women's salaries, but they also increased the wage gap. An important consideration thus, is whether they simply increase everyone's salary and thus do not have a particularly gendered impact. This would be consistent with the rising wage gap we observe. Our results sug-

gested that male and female mayors from center-leaning parties were most likely to improve women's representation. In future research we hope to be able to identify why this might be the case and whether the gains under centrist mayors are conditional upon context.

For those interested in the benefits that a more gender balanced bureaucracy can bring these results may be a source of disquiet. In the same way that some female presidents (like Michelle Bachelet) appointed parity cabinets, and others (most) do not, some female mayors appear to do more to improve the representation of women in particular by raising salaries and thus prestige within the organization, while others do not. At the same time some men (like Justin Trudeau) have also proven at the national level that they will take steps to advance women's representation in high-level positions. The same is also true at the local level. Women mayors are neither unambiguously good nor bad for a more gender balanced bureaucracy. The same is also true for men. Partisanship tells only part of the story as well suggesting that in fact moderate governments may stand the best chance of constructing representative bureaucracies.

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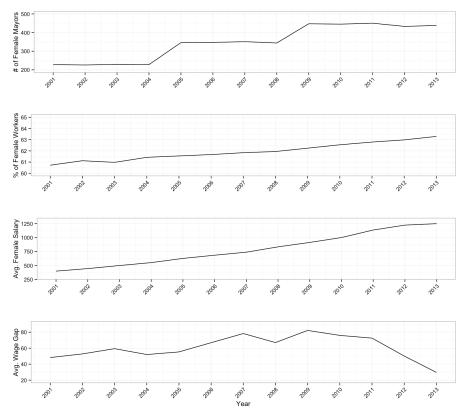Riccucci, Norma M, and Judith R. Saidel. 1997. "The Representativeness of State-Level

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Appendix A

Figure 1: Time Series of the Number of Female Mayors in Brazilian Municipalities, Percentage of Female Workers, Average Female Salary, and Average Wage Gap

Source: Elaborated by the authors, based on RAIS data.

Appendix B

Table 4. Interactive Models Including "Female Minority (<50%)"

VARIABLES	(Model 7) % of Female Workers	(Model 8) Avg. Female Salary	(Model 9) Wage Gap
% of Female Workers$_{t-1}$	0.312*** (0.00423)		
Avg. Female Salary$_{t-1}$		0.332*** (0.005)	
Wage Gap$_{t-1}$			0.172*** (0.005)
Female Mayor	0.008 (0.162)	28.91*** (9.329)	-10.71 (6.460)
Left Party	-0.194** (0.078)	33.56*** (4.481)	-6.074** (3.098)
Right Party	0.104 (0.069)	8.335** (4.000)	7.917*** (2.766)
Percentage of Female Councils	-0.00320 (0.002)	0.107 (0.142)	-0.0917 (0.098)
Mayor Education	-0.0281 (0.018)	4.831*** (1.014)	-0.793 (0.701)
Population (log)	-0.455 (0.308)	553.9*** (18.10)	17.42 (12.25)
GDP Per Capita (log)	0.245*** (0.055)	251.8*** (3.592)	-32.61*** (2.202)
Patronage	2.495*** (0.331)	-243.4*** (19.51)	-26.39 (13.61)
Bureaucracy Size	-0.0231*** (0.002)	3.278*** (0.151)	0.284*** (0.102)
Female Minority	-11.51*** (0.129)	23.96*** (7.388)	-60.72*** (5.106)
Female*Left	0.0382 (0.287)	2.430 (16.55)	5.742 (11.46)
Female*Right	-0.159 (0.242)	-4.418 (13.94)	-1.961 (9.640)
Fem. Minority*Female Mayor	-5.484*** (0.448)	-44.75 (26.47)	-0.120 (18.29)
Constant	47.86*** (2.902)	-5,122*** (170.0)	-60.42 (115.1)
N	41,883	41,811	41,753
R^2	0.328	0.476	0.038

All models include fixed-effects.
Standard errors in parentheses. Two-tailed test.
*** p<0.01, ** p<0.05

Appendix C

Table 5. Non-Interactive Model Including "Average Years of Education of Female Bureaucrats"

VARIABLES	(Model 10) % of Female Workers	(Model 11) Avg. Female Salary	(Model 12) Wage Gap
% of Female Workers$_{t-1}$	0.297***		
	(0.006)		
Avg. Female Salary$_{t-1}$		0.126***	
		(0.007)	
Wage Gap$_{t-1}$			0.0799***
			(0.007)
Female Mayor	-0.307**	27.39***	-8.444
	(0.156)	(9.716)	(6.782)
Left Party	-0.286***	15.16**	-11.41***
	(0.102)	(6.333)	(4.417)
Right Party	-0.014	-14.16**	2.779
	(0.092)	(5.710)	(3.982)
Percentage of Female Councils	0.000	-0.051	-0.257
	(0.003)	(0.200)	(0.139)
Female Avg. Years of Education	-0.027	55.97***	-4.868***
	(0.040)	(2.496)	(1.733)
Mayor Education	-0.023	2.134	0.301
	(0.025)	(1.536)	(1.072)
Population (log)	-0.660	374.7***	0.567
	(0.406)	(25.46)	(17.64)
GDP Per Capita (log)	0.444***	263.4***	-31.00***
	(0.060)	(4.158)	(2.610)
Patronage	1.778***	-219.7***	20.78
	(0.443)	(27.73)	(19.70)
Bureaucracy Size	-0.012***	0.161	0.137
	(0.003)	(0.220)	(0.154)
Constant	50.05***	-3,756***	145.2
	(3.844)	(239.6)	(165.9)
N	27,943	27,920	27,885
R^2	0.104	0.367	0.017

All models include fixed-effects.
Standard errors in parentheses.
*** $p<0.01$, ** $p<0.05$

Appendix D

Table 6. Interactive Model (Between Female Mayor and Party Ideology) Including "Average Years of Education of Female Bureaucrats"

VARIABLES	(Model 14) % of Female Workers	(Model 15) Avg. Female Salary	(Model 16) Wage Gap
% of Female Workers$_{t-1}$	0.297***		
	(0.00586)		
Avg. Female Salary$_{t-1}$		0.126***	
		(0.007)	
Wage Gap$_{t-1}$			0.0798***
			(0.007)
Female Mayor	-0.522**	22.59	-18.83**
	(0.219)	(13.61)	(9.491)
Left Party	-0.316***	15.86**	-13.66***
	(0.106)	(6.618)	(4.616)
Right Party	-0.0504	-16.02***	1.598
	(0.096)	(5.954)	(4.151)
Percentage of Female Councils	-0.001	-0.053	-0.261
	(0.003)	(0.200)	(0.139)
Mayor Education	-0.024	2.132	0.273
	(0.025)	(1.536)	(1.072)
Population (log)	-0.665	374.3***	0.495
	(0.406)	(25.46)	(17.64)
GDP Per Capita (log)	0.444***	263.3***	-31.00***
	(0.060)	(4.158)	(2.610)
Patronage	1.775***	-220.2***	20.97
	(0.443)	(27.74)	(19.71)
Bureaucracy Size	-0.012***	0.164	0.134
	(0.003)	(0.220)	(0.154)
Female Avg. Years of Education	-0.027	56.06***	-4.895***
	(0.040)	(2.497)	(1.733)
Female × Left	0.359	-9.381	26.76
	(0.370)	(23.07)	(16.11)
Female × Right	0.428	22.10	13.90
	(0.321)	(19.95)	(13.92)
Constant	50.12***	-3,753***	147.3
	(3.844)	(239.6)	(165.9)
N	27,943	27,920	27,885
R^2	0.104	0.368	0.017

All models include fixed-effects.
Standard errors in parentheses.
*** $p<0.01$, ** $p<0.05$