

Representation Behind Closed Doors: The Effect of Electing Women Mayors on Domestic Violence*

Maya Dalton[†] Giancarlo Visconti[‡]

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Abstract

Extensive research shows that electing women can improve the provision of public goods. Less is known about their influence on private issues with significant social implications, such as domestic violence. A key challenge in studying domestic violence is that increases in cases may reflect a greater willingness to report, a rise in incidence, or both. We address this using administrative data from Chile that distinguishes between citizen-reported and police-identified cases. The latter serves as a benchmark, as the police operate independently of local governments. Using a difference-in-differences design, we find that domestic violence reports increase a few years after the election of a woman mayor, while police-identified cases remain unchanged. This pattern suggests that the increase is driven by greater reporting rather than more violence. We explore potential mechanisms and find that women mayors place greater emphasis on gender-based violence in their policy proposals, which could facilitate reporting by victims.

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[†]Ph.D. Candidate, Department of Political Science, Pennsylvania State University; mad6821@psu.edu.

[‡]Assistant Professor, Department of Government and Politics, University of Maryland, College Park; gvis@umd.edu.

In recent decades, women's representation in elected office has expanded across the globe, prompting a growing body of research on how female politicians shape political behavior and policy outcomes. Much of this work has centered on highly visible areas such as education, health, and gender equality, highlighting the ways in which women leaders can influence different public policy outcomes ([Taylor-Robinson and Heath, 2003](#); [Htun and Weldon, 2010](#)). However, far less is known about whether and how women in office influence outcomes in less visible yet deeply consequential domains that disproportionately affect women, such as domestic violence

Domestic violence, though often hidden from public view, is a social problem with far-reaching public consequences. It includes physical, emotional, sexual, economic, and psychological abuse, and often limits victims' ability to fully engage in social, civic, and political life ([Heise, 1998](#)). Measuring changes in domestic violence presents a significant empirical challenge: observed increases in reported cases may reflect either an actual rise in violence or greater willingness and capacity to report it, or both.

In this short paper, we examine whether electing women mayors affects domestic violence outcomes in Chile. We focus on whether female leadership at the local level influences reporting behavior, one of the key obstacles to state intervention in domestic abuse cases. Local governments in many Global South countries, including Chile, play a critical role in service delivery and responsiveness to citizen needs ([Escobar-Lemmon and Funk, 2017](#)). This makes the municipal level a particularly relevant context for examining gendered patterns in governance.¹

To assess the impact of women's leadership on domestic violence, we use administrative data that distinguish between two types of reports: those initiated by citizens, typically the victim or a witness, and those independently identified by the police. Because Chile's national police force is institutionally independent of municipal governments, police-identified cases serve as a benchmark for actual incidence. In contrast, changes in citizen-initiated reports can reflect shifts in reporting behavior or accessibility of services. Using a dynamic difference-in-differences design,

¹See Appendix A for a broader discussion of gender-based violence and Appendix B for a discussion of the Chilean case.

we find that the election of a woman mayor leads to a significant increase in citizen-initiated domestic violence reports, with no corresponding effect on police-identified cases. We also explore mechanisms using administrative data and find evidence that women mayors pay greater attention to gender-based violence, reflecting improvements in substantive representation and potentially facilitating victims' willingness to come forward.

This study contributes to the gender and politics literature by studying strategies that can help to reduce violence against women (Arias, 2019; Green, Wilke and Cooper, 2020; Córdova and Kras, 2020; Lindsey, 2022), with a particular emphasis on private domains, offering insights into the role of local leadership in addressing gendered violence.²

Research Design

To uncover the effect of electing a woman mayor on domestic violence, we must address two main methodological challenges. Firstly, women mayors are not randomly assigned. Municipalities that elect women as heads of local government may differ from those that do not in numerous ways. A common approach is to adjust for observed characteristics, which can mitigate some of the associated biases. However, unobserved variables may still influence the results after adjustments, potentially biasing any conclusions. To address this issue, we employ a difference-in-differences (DiD) strategy, which allows us to draw causal inferences under the key identification assumption of parallel trends. This assumption posits that both the treatment and control groups would follow a similar trajectory in the absence of the treatment. As a robustness check, we also use a regression discontinuity design (RDD) in closely contested electoral races to estimate the effect of electing a woman mayor (see Appendix C for details and results).

Given the presence of multiple treatment periods (i.e., municipalities electing women mayors at

² This complements an extensive research on the effects of women's representation on political behavior and policies addressing women's issues (e.g., Franceschet, Krook and Piscopo (2012); Barnes and Burchard (2013); Esarey and Schwindt-Bayer (2019); O'Brien and Reyes-Housholder (2020)).

different times), we use a dynamic or event-study DiD approach ([Callaway and Sant'Anna, 2020](#)). This design aggregates effects over the length of treatment exposure, facilitating the interpretation of results. We focus on ten pre- and post-treatment periods, allowing us to evaluate parallel trends over a decade prior to the election of a woman mayor and to observe the dynamic effects of electing a woman over the subsequent decade.

To identify treated and control municipalities, we collected electoral data from Chile, covering results from four local elections from 2005 to 2020. Candidates' self-reported gender enables us to determine whether a mayor is a woman. Importantly, a dynamic DiD approach requires staggered treatment, meaning that once a unit is treated, it remains treated. In cases where municipalities elected a male mayor after previously electing a woman, we remove those municipality-years from the analysis to maintain the staggered design (though the entire municipality is not excluded). Additionally, municipalities that have continuously had a woman mayor since 2004 are excluded from the analysis because they lack pretreatment information (see Appendix D for more details about the research design).

A second methodological issue to address involves the measurement of domestic violence. An increase in domestic violence can have two distinct interpretations. On the one hand, the number of offenses may have increased, indicating that more acts of domestic violence are occurring in a given municipality-year. On the other hand, the number of reports may have increased without a corresponding rise in offenses; therefore, survivors are more willing to report the crime. As a result, it is challenging to determine whether an increase reflects higher reporting rates or a rise in the frequency of domestic violence. To address this issue, we leverage detailed administrative data from Chile, where domestic violence offenses are classified into two categories: (1) those reported to the police by the survivor or a witness, and (2) those directly identified by the police. An example of a citizen-reported case is a woman calling the police and asking for food (used as a code for domestic violence) ([La Cuarta, 2022](#)). An example of a police-identified case is a national police round resulting in multiple detentions for domestic violence ([Cooperativa, 2023](#)). These two indicators enable us to determine whether an increase in domestic violence stems from

changes in the willingness or opportunity to report or an actual rise in the number of offenses.

Importantly, police data serve as a particularly useful benchmark or placebo test since Chile's police force is autonomous from local governments, and there are no local or state police (Alberti, Díaz-Rioseco and Visconti, 2023). Consequently, mayors do not have the capacity to instruct police to focus more attention on domestic violence. To further ensure that women mayors are not indirectly improving policing capacity in their municipalities, we demonstrate in Appendix E that they do not affect common offenses and do not increase the number of security cameras or security booths when compared with their men counterparts.

To summarize, the structure of our dataset is as follows: the unit of analysis is the municipality-year. For each observation, we identify its treatment status (woman mayor or not) and the length of the treatment (number of years with a woman mayor). The outcomes are domestic violence against women reported by citizens and domestic violence against women identified by the police (both in standard deviation units). We also include a list of relevant pre-treatment characteristics (i.e., local development indicators, population, and vote share) in the difference-in-differences design.

Results: Difference-in-Differences

As a reminder, a dynamic difference-in-differences approach aggregates the effects based on the length of exposure and provides the average treatment effects for having a woman mayor during the first, second, and third, up to the tenth year consecutively. Some municipalities are never exposed to the treatment (i.e., they never elected a woman mayor), allowing us to construct a control group to compare with those municipalities that elected women at different times.

Figure 1 presents the main results of electing a woman mayor on domestic violence rates against women: (a) cases reported by citizens and (b) cases directly identified by the police. The grey markers represent the pre-exposure analysis. The absence of significant effects during this period for both outcomes supports the parallel trends assumption (i.e., both groups followed the same trajectory during the pre-treatment period). The black markers indicate the post-exposure analysis, reflecting the effects of electing a woman mayor based on the length of exposure.

We provide the overall post-treatment effect and the 95% confidence interval inside a box. This overall average treatment effect following the election of a woman mayor is our main piece of evidence, as it offers a more stable and interpretable summary of the impact. While the dynamic effects allow us to explore how the impact of electing a woman mayor evolves over time, these estimates should be interpreted with caution. Sample sizes diminish in later post-treatment periods, resulting in wider confidence intervals and less precise estimates. For this reason, the dynamic estimates serve as a useful tool to examine the trajectory of effects, but they should be viewed in light of the reduced statistical power in later years.

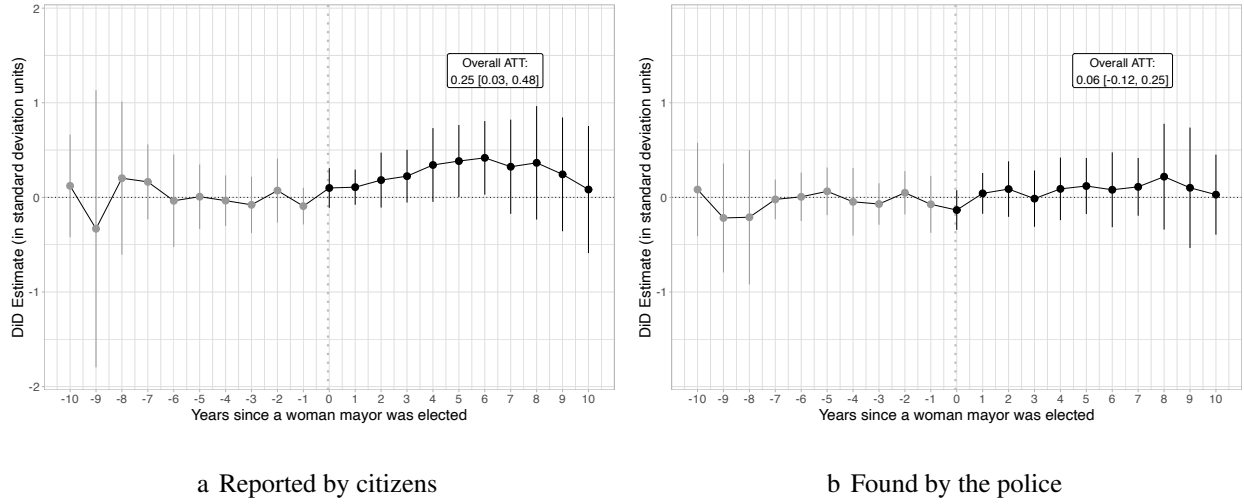


Figure 1: Average effect of having a woman mayor on violence against women by length of exposure. A length of exposure of -1 refers to the period before the first exposure, 0 to the first exposure, and 1 to the second exposure. The overall treatment effect and 95% confidence intervals are reported. $N = 5,042$ (municipality-year observations).

When examining domestic violence reported by citizens (Figure 1a), the average of the post-treatment coefficients indicates that a woman mayor has a positive effect on reports. On average, women mayors increase the number of domestic violence reports by 0.25 standard deviation units (95% confidence interval: [0.03, 0.48]). This represents an average increase in 51 reports of domestic violence per 100,000 people in a given municipality-year. When disaggregating the results by length of exposure, Figure 1a shows a statistically significant effect five years after the first ex-

posure (95% confidence interval: [0.00,0.76]). This impact diminishes over time, vanishing after ten years when the point estimate approaches zero (95% confidence interval: [-0.59, 0.75]). We provide these results in table format in Appendix F.

For domestic violence cases found by the police (Figure 1b), the average of the post-treatment coefficients provides no evidence that women mayors influence the number of cases directly identified by the police. The results show a non-significant increase of 0.06 standard deviation units in the number of found crimes. When disaggregating the results by length of exposure, Figure 1b indicates no instance in which the election of women mayors affects this particular outcome.

Therefore, our findings suggest that women mayors influence citizens' willingness to report domestic violence but not the actual number of crimes identified by the police. We interpret this as an effect on the willingness to report rather than on the occurrence of crimes.

Regarding the effects vanishing over time, in Appendix G, we provide preliminary evidence that contextual events do not drive the findings, and that the disappearance of the effects is not explained by male-led municipalities catching up. Given that gender-based violence is often rooted in deep cultural norms (Merry, 2009), we speculate that policy interventions may have medium-term impacts when they are not accompanied by deeper structural and cultural transformations, which typically require a longer time to materialize.

Mechanisms: Security Plans

A possible mechanism for the relationship between electing women mayors and domestic violence reports relies on women's substantive representation, such as the prioritization of women's issues and policies (we expand on the theoretical discussion of this mechanism in Appendix H). To analyze this, we collected 115 security plans from Chilean municipalities spanning 2011 to 2024. Security plans are documents provided by municipalities summarizing their main goals and strategies regarding public security. We explain in Appendix I how security plans were processed, as well as include the list of municipality-years included and variations of keywords. In both processing stages, we extracted the number of times the following keywords appeared in each security

plan: *woman/women*, *gender*, *domestic violence*, *gender violence*, and *femicide/s*. The final data frame includes each municipality's name, the year of the security plan, the number of pages, and a count of occurrences for each keyword in the document. We also included the gender of the mayor for the corresponding municipality and year.

The primary outcome of this analysis is the total number of keywords mentioned in each security document. As a robustness check, we divided the total number of mentions by the number of pages in the security plan document, creating a weighted version of the outcome. To evaluate whether having a woman mayor correlates with the frequency of these keyword mentions, we used a linear probability model with region-fixed effects:

$$Y_i = \beta_0 + \beta_1 \text{WomenMayor}_i + \mathbf{X}_i' \beta_2 + \gamma_r + \varepsilon_i$$

Where Y_i is the outcome variable for unit i (total and per-page number of keywords mentioned), WomenMayor_i is the binary indicator for whether the mayor is a woman (1 if woman, 0 otherwise), \mathbf{X}_i is a matrix of relevant pre-treatment characteristics (i.e., local development indicators, population, and vote share), γ_r represents region fixed effects, and ε_i is the error term. The coefficient of interest is β_1 .

Table 1: Regression results for security plans		
	Keywords	Keywords per-page
Woman mayor	33.41*	0.65*
	14.32	0.29
Controls	Yes	Yes
Region Fixed Effects	Yes	Yes
Observations	110	110
<i>Note: $p < 0.05$</i>		

These results show that women mayors use 33 more keywords related to violence against women and gender issues than male mayors, or 0.65 more keywords per page.

Additionally, in Appendix J, we provide further evidence of substantive representation, showing how women mayors improve community organizations, which can offer additional resources

for women to report instances of domestic violence. Taken together, these findings provide suggestive evidence that electing women mayors leads to improvements in substantive representation. When women mayors are elected, they prioritize and commit to more policy initiatives addressing gender issues and violence against women than their male counterparts.

Conclusion

Prior research has shown that women in office often behave differently than men, especially in national legislatures, but there is less evidence on whether and how these differences manifest in local governance. This gap is notable, given that local governments play a crucial role in service delivery and are often the first point of contact between citizens and the state – particularly for issues related to safety, welfare, and social support. Understanding how gender dynamics shape governance at this level is essential for assessing the full impact of women’s political representation.

By leveraging detailed administrative data from Chile, this study overcomes key methodological limitations that have hindered prior research. In particular, it distinguishes between citizen-initiated and police-identified reports of domestic violence, thereby disentangling changes in reporting behavior from changes in crime incidence.

Using a dynamic difference-in-differences design, we find that women mayors positively influence domestic violence reporting. Specifically, there is a sharp and significant increase in reports around the fifth year of having a woman mayor. Furthermore, we find no evidence that electing a woman mayor affects acts of domestic violence against women identified by the police. These findings suggest that reports from survivors increase, but the actual crime rates remain unchanged.

Electing a woman mayor may influence domestic violence reports through different mechanisms, but we focus on the role of substantive representation. Women leaders often prioritize public policies addressing women’s issues. These policies can include public security measures such as domestic violence hotlines, safehouses, and educational programming (e.g., media campaigns or community-wide initiatives). In the context of domestic violence, women mayors may articulate

survivors' interests on their behalf, creating accessible resources and avenues for reporting.

The findings of this study have implications beyond Chile, suggesting that the gender of elected officials can significantly affect citizens' well-being in other contexts as well. Future research could explore whether additional mechanisms are driving the increase in domestic violence reports. Similarly, scholars could investigate why this effect appears to diminish approximately a decade after a woman is elected mayor. Incorporating the effects of women mayors on violence against women in the Global South will contribute to a more comprehensive understanding of the causes and consequences of increasing women's representation in government.

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