

Female Mayors and Violence Against Women: Evidence from the U.S.

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1 Introduction

In the United States, more than one in three women experience sexual violence involving physical contact during their lifetimes (Centers for Disease Control, 2018). The estimated costs of rape offences exceed \$921 billion annually (Waechter and Ma, 2015). Importantly, the economic burden would be much larger after accounting for sexual violence excluding rapes.

Increasing women's empowerment economically and politically has been considered a fundamental way to reduce such injustice. Studies show that increasing female employment opportunity and income decreases women's exposure to domestic violence (Anderberg et al., 2016; Aizer, 2010). In terms of political empowerment, earlier studies mainly concentrate on how female leaders increase the targeting of benefits to women in education (Clots-Figueras, 2011; Beaman et al., 2012), which echo the seminal theory of Chattopadhyay and Duflo (2004). However, very little is known about the impact of female political leaders on violence against women.

This study contributes to the existing literature by adding something new to the picture. Particularly, this study uses the regression discontinuity (RD) design to identify the causal effects of female leadership on violence against women. Moreover, it investigates whether elections of female mayors affect behaviour of victims and police. Overall, this study intends to highlight the importance of female representation at the high level of governance in achieving gender justice.

2 Methodology

To investigate the relationship between female victories and homicides by the gender of victims, this study first matches election data to homicide data. Then it focuses on the implementation of the regression discontinuity design. The RD approach exploits a discontinuity in the treatment assignment to identify causality (Imbens and Lemieux, 2008; Lee,

2008). That is, the gender of a mayor changes discontinuously at the threshold between a female victory and loss.

The main endogeneity issue is that the assignment of mayor gender correlates with city characteristics, particularly in a city where female wins or loses by a large margin. However, under the assumption of continuity of city characteristics at the treatment threshold, the RD estimator identifies the local treatment effect at the specific cutoff value of the female win margin.

To examine the plausibility of the assumption, I perform the balanced covariate checks. The results suggest that the pre-characteristics are balanced across the female win-loss threshold. RD strategy also requires that the density of the running variable is balanced across the threshold. I implement the McCrary (2008) test, and the estimate is small and statistically insignificant.

To explore the effects on behaviour of victims and police, this study matches elections to survey responses on crime victimization. The same identification strategy is used, and the same exercise to examine the identification design's validity is repeated. The optimal bandwidth according to the methodology proposed by Calonico et al. (2014) is used throughout the analysis.

3 Findings

The RD estimates suggest that the female victories decrease homicides involving only female victims by around 2 homicides per 100,000 population, while they do not have a significant impact on homicides involving male victims. I interpret this result as evidence that there is no overall change in law conditions or institutional settings other than female victories that are driving my results. The effect is strong only for local elected leaders, while there is no effect for non-local leaders.

I perform a battery of checks to verify the robustness of the results. First, the estimates

are robust to using alternative bandwidths or higher-order polynomials. Second, the same exercise is repeated for the probability of homicide occurring and I find the consistent results. Third, I test the effects by the year of mayor's term and I find the persistent effect. Lastly, I test the relationship between pre-existing homicides and female victories and I do not find significant effects.

Moreover, female victories lead to an increase in the likelihood of the female victim reporting the crime to the police by approximately 30 percentage points. To shed light on the channel, I examine the effect of female victories on police action. The RD estimates indicate that police are more likely to arrest the offenders of violent crimes against women. There are no such effects for violent crimes against men.

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