

# Supplementary Materials

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## Contents

<b>1 Canadian Municipal Elections Database: Additional Detail</b>	<b>2</b>
1.1 Canadian Municipal Barometer Dataset . . . . .	2
1.2 Canadian Urban Democracy Dataset . . . . .	2
1.3 British Columbia Municipal Election Results . . . . .	3
1.4 Quebec Municipal Election Results . . . . .	3
<b>2 Women’s Electoral Performance: Regression Tables</b>	<b>4</b>
<b>3 Women’s Electoral Performance: Logistic Regression</b>	<b>5</b>
<b>4 Women’s Electoral Performance: Subsample Regressions</b>	<b>6</b>
<b>5 Women’s Electoral Performance: Vote Share</b>	<b>7</b>
<b>6 Women’s Electoral Performance: Elected Office</b>	<b>8</b>
<b>References</b>	<b>9</b>

# 1 Canadian Municipal Elections Database: Additional Detail

## 1.1 Canadian Municipal Barometer Dataset

In Alberta, British Columbia, and Quebec datasets were available from provincial governments or a non-governmental organization (British Columbia). Data were most commonly held centrally in a Provincial database that could be viewed but not downloaded, which was the case for Manitoba, New Brunswick, Newfoundland and Labrador, Ontario, and Quebec. In Nova Scotia, Saskatchewan, Yukon, and the Northwest Territories, elections data were available via individual municipal websites. In all cases, except when data were available for download, they were coded manually.<sup>1</sup> Additionally, some data sources were complete except for a gender variable. In these cases gender was manually coded using photographs found online, along with candidate self-descriptions and pronoun use online. We also manually generated a distinct ID code for each unique election.

## 1.2 Canadian Urban Democracy Dataset

The historical dataset was constructed in 2017 and 2018 primarily by Jack Lucas and a small team of excellent research assistants from published, archival, and newspaper sources (see notes on Toronto below for the main exception). In the subsections below, we provide additional information on relevant sources for each city. We would like to acknowledge excellent research assistance from Alexandra Champagne, Amber Chan, Mark Grosjean, Makda Habtagersa, Sonia Kelly, Andrew Klain, and Jessica Weber on this portion of the project.

### 1.2.1 Calgary

Calgary election results are taken from official election records in the Clerk's Correspondence, City Clerks Fonds, City of Calgary Archives. These records are mixed amongst other correspondence; the City of Calgary Archives Clerks Correspondence Finding Aid is necessary for locating election results for each year. More recent election results are available at Calgary Public Library and were provided to the author directly by the City of Calgary Elections Office. Candidate incumbency was verified using official results as well as Hunter (Hunter 2013).

Calgary's official election records do not include candidates' party affiliation. Thus we identified candidate party affiliation by examining newspaper coverage of Calgary elections using microfilm copies of the *Calgary Herald*. We examined coverage in a two-week window leading up to each general election; candidates whose party affiliation was unidentifiable from this coverage were listed as independent. Photographs and scans of newspaper coverage used for this partisan coding are available from the author.

### 1.2.2 Edmonton

Edmonton election results are taken from the records in Wayne Madden's excellent compilation of Edmonton election results from 1945-1998 (Madden 2000). This source provides election results and party affiliation. We have spot-checked these results against official records and newspaper coverage to verify their accuracy. Results from 1998-2018 were taken from the City of Edmonton website. Pre-1945 election results were reconstructed from newspaper coverage and the City of Edmonton's official published record of election results.

Partisan affiliation for candidates prior to 1945 was reconstructed in the manner described in the Calgary section above using microfilm copies of the *Edmonton Journal*.

### 1.2.3 Montreal

Montreal election results are manually digitized from the official paper records in the Archives Montréal.

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<sup>1</sup>The Government of Quebec has an interactive elections database as well as a downloadable dataset. The interactive database was used, and downloaded data was employed in subsequent data checking.

#### 1.2.4 Toronto

Toronto election results are manually digitized from the official paper records in the City of Toronto Archives. Most of these results were photographed by Jessica Weber from official reports in the City of Toronto Minute Books at the City of Toronto Archives and then manually digitized. A substantial portion of the Toronto results prior to 1920 were photographed and digitized by Zack Taylor and Saba Zanab from the same sources.

#### 1.2.5 Vancouver

Vancouver election results are taken from the records in the indefatigable Wayne Madden’s *Vancouver’s Elected Representatives*, which includes reliable election results (verified by checking a random sample of ten elections against official results in the City of Vancouver archives) as well as party affiliation for 1936-2002 (Madden 2003). Results for 2003-2018 were taken from online official results at the City of Vancouver website (some were accessed using Internet Archive’s “Wayback Machine”). Earlier results are taken from the election scrapbooks in the City of Vancouver Archives (Series S37 - Record of Elections, City of Vancouver Fonds), with partisan affiliation prior to 1936 collected in the manner described in the Calgary section above.

#### 1.2.6 Winnipeg

Winnipeg election results are taken from the official records printed in the city’s annual municipal handbook (available at the City of Winnipeg Archives), and after 1966, from the City’s digital database of election results available on the City of Winnipeg open data page. All partisan affiliation data are taken from newspaper searches of the *Winnipeg Free Press* in the manner described in the Calgary section above.

### 1.3 British Columbia Municipal Election Results

Local election results were downloaded from the CivicInfoBC website.

### 1.4 Quebec Municipal Election Results

Municipal election results for the Province of Quebec are available to download at Données Quebec. Unfortunately, most of these datasets do not specify whether candidates were elected by ward or at-large. For each general election, we thus checked Élections Québec to manually code each municipality for ward vs. at-large elections. For past elections, this required use of the Internet Archive’s Wayback Machine in order to access past lists of at-large and ward elections.

## 2 Women's Electoral Performance: Regression Tables

The table below provides a variety of specifications to illustrate the robustness of the finding reported in the main text, including a bivariate model, a model including only the incumbency covariate, models including year *or* municipality fixed effects, and models including year *and* municipality fixed effects. The final columns also demonstrate that the finding is consistent across the three major contemporary data sources in the Canadian Municipal Elections Database.

Table 1: Alternative Specifications and Samples

	Full (1)	Full (2)	Full (3)	Full (4)	Full (5)	CMB Only (6)	BC Only (7)	QC Only (8)
Woman	0.04*** (0.004)	0.07*** (0.004)	0.06*** (0.004)	0.06*** (0.004)	0.06*** (0.004)	0.06*** (0.01)	0.08*** (0.01)	0.05*** (0.01)
Incumbent		0.43*** (0.004)	0.34*** (0.004)	0.41*** (0.004)	0.34*** (0.004)	0.50*** (0.01)	0.41*** (0.01)	0.26*** (0.005)
Year FEs	No	No	No	Yes	Yes	Yes	Yes	Yes
Municipal FEs	No	No	Yes	No	Yes	Yes	Yes	Yes
Observations	73,373	61,319	61,319	61,319	61,319	10,449	9,728	36,974

*Note:*

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01  
Standard errors in parentheses.

### 3 Women's Electoral Performance: Logistic Regression

The table below provides results for a logistic regression model of electoral outcomes and gender. Coefficients are log odds.

Table 2: Logistic Regression Results

	(1)	(2)
Woman	0.17*** (0.02)	0.32*** (0.02)
Incumbent		1.97*** (0.02)
Observations	73,373	61,319
Log Likelihood	-50,354.66	-36,720.86
Akaike Inf. Crit.	100,713.30	73,447.71

*Note:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01  
Standard errors in parentheses.

## 4 Women's Electoral Performance: Subsample Regressions

To further test the robustness of the findings reported in the main text, these models report results for regional and population-size subsamples of the data.

Table 3: Regression Results: Regional Subsamples

	Full	Atlantic	Ontario	Quebec	West
	(1)	(2)	(3)	(4)	(5)
Woman	0.06*** (0.004)	0.06* (0.04)	0.05*** (0.01)	0.05*** (0.005)	0.08*** (0.01)
Incumbent	0.34*** (0.004)	0.48*** (0.04)	0.59*** (0.01)	0.37*** (0.005)	0.49*** (0.01)
Observations	61,319	761	5,599	41,152	13,762

*Note:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01  
Standard errors in parentheses.

Table 4: Regression Results: Population Subsamples

	Full	<25,000	25,000-50,000	50,000-100,000	100,000-250,000	250,000+
	(1)	(2)	(3)	(4)	(5)	(6)
Woman	0.06*** (0.004)	0.06*** (0.02)	0.08*** (0.02)	0.09*** (0.02)	0.04** (0.02)	0.07*** (0.02)
Incumbent	0.34*** (0.004)	0.42*** (0.02)	0.53*** (0.02)	0.58*** (0.03)	0.61*** (0.02)	0.71*** (0.02)
Observations	61,319	4,262	1,530	1,351	1,449	1,857

*Note:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01  
Standard errors in parentheses.

## 5 Women's Electoral Performance: Vote Share

In the main text, we argue that electoral outcomes (loss/victory) are a more methodologically appropriate and substantively meaningful quantity of interest than vote share. However, for comparison purposes, this table regresses vote share on gender and incumbency for all post-2000 single member plurality elections in the Canadian Municipal Elections Database. We find that women receive 3% additional vote share, on average, when compared with men, controlling for incumbency, election year, and municipality.

Table 5: Vote Share in Municipal SMP Elections

Woman	0.03*** (0.003)
Incumbent	0.21*** (0.003)
Year FEs	Yes
Municipal FEs	Yes
Observations	23,675

*Note:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01  
Standard errors in parentheses.

## 6 Women’s Electoral Performance: Elected Office

The table below provides a test of our main findings with elected office included (column 1), along with a set of subsample analyses for councillors (columns 2 and 4) and mayors (columns 3 and 5). Our findings suggest that we can be more confident that women’s electoral performance is stronger in council races than in mayoral races. While women do appear to receive higher vote share than men in mayoral races (column 5), our estimate of their probability of election is smaller than for councillors (column 3 vs. column 2) and not statistically significant.

Table 6: Results By Office

	All (1)	Council (2)	Mayor (3)	Council (VS) (4)	Mayor (VS) (5)
Woman	0.05*** (0.004)	0.05*** (0.005)	0.01 (0.01)	0.06*** (0.01)	0.01** (0.01)
Incumbent	0.33*** (0.004)	0.32*** (0.005)	0.37*** (0.01)	0.46*** (0.01)	0.18*** (0.01)
Mayor	-0.08*** (0.01)				
Year FEs	Yes	Yes	Yes	Yes	Yes
Municipal FEs	Yes	Yes	Yes	Yes	Yes
Observations	52,440	43,293	9,147	17,056	7,355

*Note:*

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01  
Standard errors in parentheses.



## References

Hunter, Frederick C. 2013. *The Mayors and Councils of the Corporation of Calgary*. Calgary: City of Calgary.

Madden, Wayne. 2000. *Edmonton City Council and School Boards Elected Representatives*. Edmonton: Wayne D. Madden.

Madden, Wayne D. 2003. *Vancouver's Elected Representatives*. Vancouver: Wayne D. Madden.