# Dynastic Impacts on Electoral Outcomes

Replication and Extension of Smith and Martin (2017)

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### Abstract

In this project, I analyze Smith and Martin (2017)'s "Political Dynasties and the Selection of Cabinet Ministers". I begin by replicating Smith and Martin (2017)'s figures and tables. While some of this output cannot be replicated due to missing data or the inability to reproduce in R (the authors used Stata), I find similar results to the authors in what was producible. From there, I extend the results by using their dataset to analyze the gendered impact of two covariates, dynasty and local experience, on winning election.

### Introduction

The importance of political dynasties in legislatures cannot be understated.

## Literature Review

Whether these dynastics are beneficial is another question entirely. Using economic data from India, Eapen George and Ponattu (2017) estiamte that dynastic rule tends to slow economic growth within each dynastic constituency, worsen the provision of public goods across constitutencies, and heighten ethnic polarization among voters. This evidence goes against the common refrain that

members of political dynasties are better at legislating because of a greater familiarity with the political system. Indeed, it may be the case that dynasties lead to worse governance. Tusalem and Pe-Aguirre (2013) conclude through their analysis of dynasties in the Philippines that provinces dominated by dynasties tend to spend money less effectively on infrastructure and health than other provinces, while they also have more crime and unemployment. Most strikingly, even though the presence of dynasties tends to incude higher levels of congressional earmarks, dynasties spend the money less effectively than their counterparts.

That said, there is reason to believe dynasties can be normatively beneficial. Lacriox et al (2019) analyze the French Parliament during the initial stages of World War Two and find that members of dynasties were significantly more pro-democratic in their voting records than non-dynasties. However, there were striking disparities between dynasties, leading the authors to conclude that there exist separate types of dynasties, each with their own goals toward coalescing power. While dynasties founded by or filled by members of a pro-democratic party (or non-affiliated members who openly supported a democratic France) tended to defend democratic rights, other dynasties acted no more democratic than non-dynasties.

## Why Ireland? (and a Review of Electoral Literature)

Ireland is an interesting case study to examine the impact of mostly exogenous covariates (dynastic status and local experience) on winning election. Its electoral system is classified as a proportional representation-based single transferable vote. Proportional representation (PR). Single transferable vote (STV). These two factors come together to create a very candidate-based process that I argue better allows us to identify how voters act according to their preferences. In a first-past-the-post system like the United States, there are many conflicting factors like ideology that make it tougher to discern voter preferences. For instance, liberal voters who would prefer to vote for a man rather than a woman faced a challenge in the 2016 Presidential Election because their ideological preferences did not match their gender heuristic. However, in a system where parties nominate multiple candidates or the parties are not as ideologically opposed, voters have more leeway to

make decisions based on their own personal preferences.

Reynolds (1999) comments on the variation in gender equality by electoral system. A first-past-thepost structure with single-member districts encourages parties to put forward candidates they feel have majority support, which can disincentivize fielding women or minorities. On the other hand, systems with proportional representation or multimember districts incentivize parties to nominate more diverse slates of candidates to maximize the chances of winning the most seats. In other words, when parties can win multiple seats, they can cater different candidates to different voter bases.

However, focusing only on the electoral systems ignores the roles of party leaders. Kunovich and Paxton (2005) dig deeper into the gender dynamics at play in this setting. They argue that in proportional systems, greater female leadership on the party level will translate into more female candidates in proportional systems, but only in non-proportional systems will female leadership have a direct effect on successful candidates. This is because when faced with a potentially sexist electorate, the party primary process in non-proportional, single-member systems has a gatekeeper effect that allows party leaders to circumvent voter preferences by influencing the nomination process to certain candidates' advantage. Paired with ideological differences between parties, the end result is a voter base that seemingly does not have any choice but to vote for a candidate they find distasteful on the basis of race, gender, orientation, religion, etc. This phenomenon provides an alternate pathway for greater gender equality in representation in non-proportional systems, but for the purposes of this project, it highlights that Ireland's electoral systems uniquely and directly expose voter preferences in ways that other systems do not. For this reason, even if a similar candidate dataset existed for the United States, Ireland may still be a useful case.

# Replication

Smith and Martin (2017) use Stata to create the 7 tables and 6 figures in the paper. As a result, my output does not perfectly match their paper cosmetically. That said, the results are mostly the same. It is entirely possible, though, that using ggplot2 makes the figures look better and that

some of the regression coefficients are off on the hundredths digit and beyond.

There are some tables and figures that could not be replicated. There was no replication code for Tables 1 and 2 in the Stata code. As a result, I did not attempt to replicate this portion of the paper. Table 1 is a list of the cabinets and governing parties in Ireland from 1944-2016. The cabinets, dates in office, and governing parties are not given in the data, although it would theoretically be possible to figure out whether Fianna Fail or Fine Gael had a majority in the Dail based on which party won more seats in the most recent election. However, the cabinet and Prime Minister would not be able to be determined from this data, so I left it untouched. Table 2 is a Stata summary table of the family relationships and generations among candidates and TDs. While this table is replicable in R, since the code to create it was not included, I decided to focus on replicating the other tables and figures. The figure not included in this replication is Figure 5, which was used to help explain the informational advantage by analyzing several different controls of experience, demographics, and education. This type of coefficient plot is possible in R, but getting the results to directly match the one in the paper was not possible (and would have looked too disjointed to include).

Those exceptions aside, Smith and Martin (2017)'s results replicate well. There were two major hurdles in replication: translating Stata code and managing multiple graphs. I was able to recreate most of the figures and tables using the ggplot2 and stargazer libraries, respectively. However, the majority of the replication code focused on cleaning the candidate dataset and adding new variables. Using the tidyverse, I was able to condense some of the hard-coding relative to the amount used in Stata. The foremost example of this was when the authors added regional data (to create regional fixed effects). In Stata, the authors had to individually assign each district to a region, but by using the case\_when function, I was able to assign multiple districts to a single region, which cut down the workload by a decent amount. The second hurdle was multiple graphs within the same figure. The majority of the authors' figures were comprised of three bar graphs, mostly reporting summaries of different attributes along the legacy scale. While there exist ways to save multiple graphs within the same figure, I decided it was best to keep each individual call for ggplot separate in case I wanted to call one graph and not another in the final paper.

# Figures

# **Tables**

Table 3. The Electoral Advantage of Legacy: Election Result

|                           |                             | Dependent variable: |                          |  |
|---------------------------|-----------------------------|---------------------|--------------------------|--|
|                           | Election Result             |                     |                          |  |
|                           | (1)                         | (2)                 | (3)                      |  |
| Noncabinet Legacy         | 0.378***<br>(0.017)         | 0.253***<br>(0.016) | 0.212***<br>(0.015)      |  |
| Cabinet Legacy            | 0.350***<br>(0.025)         | 0.238***<br>(0.024) | 0.199***<br>(0.022)      |  |
| Female                    |                             |                     | $-0.058^{***}$ $(0.014)$ |  |
| First Run                 |                             |                     | $-0.324^{***}$ (0.010)   |  |
| Constant                  | 0.335***<br>(0.005)         |                     |                          |  |
| Party-Year Fixed Effects? | No                          | Yes                 | Yes                      |  |
| Observations              | 8,715                       | 8,715               | 8,715                    |  |
| Adjusted $R^2$            | 0.069                       | 0.248               | 0.338                    |  |
| Residual Std. Error       | 0.470 (df = 8712)           | 0.422 (df = 8332)   | 0.396 (df = 8330)        |  |
| Note:                     | *p<0.1; **p<0.05; ***p<0.01 |                     |                          |  |

# Extension

I will extend Smith and Martin (2017) in two ways: analyzing the gendered effect of dynasties on winning election and looking at the effect of another potentially gendered covariate, local experience, on winning election.

Table 4. The Electoral Advantage of Legacy: Share of Quota

|                         | Dependent variable: |                   |                    |                   |     |
|-------------------------|---------------------|-------------------|--------------------|-------------------|-----|
|                         |                     | quotashare        |                    |                   |     |
|                         | (1)                 | (2)               | (3)                | (4)               |     |
| as.factor(legacyscale)1 | 0.294***            | 0.160***          | 0.291***           | 0.129***          |     |
| ,                       | (0.013)             | (0.010)           | (0.013)            | (0.009)           |     |
| as.factor(legacyscale)2 | 0.303***            | 0.182***          | 0.352***           | 0.153***          |     |
| , ,                     | (0.019)             | (0.015)           | (0.019)            | (0.014)           |     |
| female                  |                     |                   |                    | $-0.052^{***}$    |     |
|                         |                     |                   |                    | (0.009)           |     |
| firstrun                |                     |                   |                    | $-0.245^{***}$    |     |
|                         |                     |                   |                    | (0.006)           |     |
| Constant                | 0.451***            |                   |                    |                   |     |
|                         | (0.004)             |                   |                    |                   |     |
| Observations            | 8,693               | 8,693             | 8,693              | 8,693             |     |
| $R^2$                   | 0.081               | 0.456             | 0.237              | 0.547             |     |
| Adjusted $R^2$          | 0.081               | 0.431             | 0.149              | 0.526             |     |
| Residual Std. Error     | 0.346 (df = 8690)   | 0.272 (df = 8310) | 0.333  (df = 7797) | 0.248 (df = 8308) | 0.2 |

Note: \*p<0.1; \*\*p<0

Table 5. The Legacy Advantage in Cabinet Selection

|                           | Dependent variable:  Cabinet Appointment |                   |                   |                   |
|---------------------------|--|-------------------|-------------------|-------------------|
|                           |  |                   |                   |                   |
|                           | (1)                                      | (2)               | (3)               | (4)               |
| Noncabinet Legacy         | 0.034***                                 | 0.014**           | -0.014**          | $-0.023^{***}$    |
|                           | (0.007)                                  | (0.007)           | (0.007)           | (0.007)           |
| Cabinet Legacy            | 0.093***                                 | 0.072***          | 0.054***          | 0.039***          |
|                           | (0.011)                                  | (0.011)           | (0.010)           | (0.010)           |
| Election Wins             |  |                   | 0.025***          | 0.004*            |
|                           |  |                   | (0.002)           | (0.002)           |
| Election Wins Sq.         |  |                   | -0.0003           | 0.001***          |
| •                         |  |                   | (0.0002)          | (0.0002)          |
| Share of Droop Quota      |  |                   |                   | 0.147***          |
|                           |  |                   |                   | (0.009)           |
| Constant                  | 0.034***                                 |                   |                   |                   |
|                           | (0.002)                                  |                   |                   |                   |
| Party-Year Fixed Effects? | No                                       | Yes               | Yes               | Yes               |
| Observations              | 8,715                                    | 8,715             | 8,715             | 8,693             |
| Adjusted $R^2$            | 0.010                                    | 0.071             | 0.148             | 0.176             |
| Residual Std. Error       | 0.198 (df = 8712)                        | 0.192 (df = 8537) | 0.184 (df = 8535) | 0.181 (df = 8512) |

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table 6. Unpacking the Informational Advantage: Strength of the Dynasty?

|                         | Dependent variable: |                   |                   |
|-------------------------|---------------------|-------------------|-------------------|
|                         | cabappt             |                   |                   |
|                         | (1)                 | (2)               | (3)               |
| as.factor(legacyscale)2 | 0.083***            | 0.077***          | 0.078***          |
|                         | (0.019)             | (0.018)           | (0.018)           |
| cwins                   | 0.053***            | 0.053***          | 0.053***          |
|                         | (0.008)             | (0.008)           | (0.008)           |
| cwins2                  | -0.003***           | -0.003***         | -0.003***         |
|                         | (0.001)             | (0.001)           | (0.001)           |
| generation              | -0.005              |                   |                   |
|                         | (0.008)             |                   |                   |
| samename                |                     | $-0.045^*$        |                   |
|                         |                     | (0.025)           |                   |
| samedistrict            |                     |                   | -0.006            |
|                         |                     |                   | (0.017)           |
| Observations            | 1,210               | 1,208             | 1,208             |
| $\mathbb{R}^2$          | 0.203               | 0.205             | 0.203             |
| Adjusted $\mathbb{R}^2$ | 0.116               | 0.118             | 0.116             |
| Residual Std. Error     | 0.264 (df = 1090)   | 0.263 (df = 1088) | 0.264 (df = 1088) |

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table 7. Unpacking the Informational Advantage: Party Strongholds?

|                         | $Dependent\ variable:$      |                   |  |
|-------------------------|-----------------------------|-------------------|--|
|                         | $\operatorname{cabappt}$    |                   |  |
|                         | (1)                         | (2)               |  |
| as.factor(legacyscale)1 | 0.023***                    | -0.005            |  |
|                         | (0.008)                     | (0.008)           |  |
| as.factor(legacyscale)2 | 0.073***                    | 0.055***          |  |
| , _ ,                   | (0.012)                     | (0.012)           |  |
| cwins                   |                             | 0.025***          |  |
|                         |                             | (0.002)           |  |
| ewins2                  |                             | -0.0003           |  |
|                         |                             | (0.0002)          |  |
| Observations            | 8,715                       | 8,715             |  |
| $\mathbb{R}^2$          | 0.224                       | 0.289             |  |
| Adjusted $R^2$          | -0.016                      | 0.070             |  |
| Residual Std. Error     | 0.201 (df = 6661)           | 0.192 (df = 6659) |  |
| Note:                   | *p<0.1; **p<0.05; ***p<0.01 |                   |  |

### Gendered Effect of Dynasty

Smith and Martin (2017) note that "legacies of both types are more likely to be women, which suggests that dynasties may be a significant pathway into politics for female candidate in an otherwise male-dominated parliament" (p. 151). This observation inspired me to dig deeper into the gendered effects of being in a political dynasty. Does being in a dynasty help female candidates counteract the gender gap in winning elections?

To answer this question, I manipulated the Smith and Martin (2017) dataset to include a binary varible, dynasty, that was coded 1 if the candidate qualified as a dynasty. I then regressed election result on that and the candidate's sex. I ended up with three models: one that had no fixed effects, one that used the party-year fixed effects from Smith and Martin (2017), and one that used the authors' district-year fixed effects. That output is below in Table X.

That said, it must be mentioned that this analysis is not unique. After creating my models, I found that one of the co-authors of the initial paper, Daniel Smith, currently has a working paper that studies this same topic with a similar dataset using approximately the same modeling technique. As a result, this portion of the extension should be characterized as a replication of Folke, Rickne, and Smith (2017) since, while I did not know it at the time, they were the first to flesh out this idea. This portion of the extension also serves as a replication of Folke, Rickne, and Smith (2017) who, with a similar dataset to Smith and Martin (2017), question whether there is a gender-specific impact to being a legacy in terms of winning election.

The major difference between my analysis and Folke, Rickne, and Smith (2017) is that they restrict their sample to Ireland's three major parties (Fianna Fail, Fine Gael, and Labour). They justify this decision because those parties have been consistently nominating candidates in most districts. However, I think the results should still hold without subsetting the data in this fashion because (a) there is still a model that creates party-year fixed effects and (b) since Ireland's electoral system places an emphasis on individual candidates, it should not necessarily matter that a party was consistently nominating in each district.

## Loading required package: Matrix

##

## Please cite as:

## Hlavac, Marek (2018). stargazer: Well-Formatted Regression and Summary Statistics Tables.

## R package version 5.2.2. https://CRAN.R-project.org/package=stargazer

Table X: Gendered Effect of Dynasty

|                     |                   | Dependent Variable: |                   |
|---------------------|-------------------|---------------------|-------------------|
|                     | Election Result   |                     |                   |
|                     | (1)               | (2)                 | (3)               |
| Female              | -0.180***         | -0.108***           | $-0.134^{***}$    |
|                     | (0.017)           | (0.017)             | (0.019)           |
| Dynasty             | 0.360***          | 0.249***            | 0.391***          |
|                     | (0.016)           | (0.015)             | (0.017)           |
| Female * Dynasty    | 0.119***          | 0.037               | 0.082*            |
| Ç Ç                 | (0.041)           | (0.037)             | (0.044)           |
| Constant            | 0.354***          |                     |                   |
|                     | (0.006)           |                     |                   |
| Fixed Effects?      | No                | Party-Year          | District-Year     |
| Observations        | 8,715             | 8,715               | 8,715             |
| $\mathbb{R}^2$      | 0.080             | 0.263               | 0.131             |
| Adjusted $R^2$      | 0.080             | 0.247               | 0.032             |
| Residual Std. Error | 0.467 (df = 8711) | 0.422  (df = 8536)  | 0.479 (df = 7817) |

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

# Gendered Effect of Local Experience

I then wondered whether other covariates could have differing effects by gender. I thought local political experience was an interesting covariate to study because there seem to be two schools of thought surrounding its gendered effects.

The first is pessimistic. Okimoto and Brescoll (2010) observe that female candidates seen as ambitious are punished by voters, while male candidates seen in a similar light are not penalized. Excluding a general "feeling" potential voters could get after meeting a candidate face-to-face or watching them in a debate, local experience seems to be the best signal for ambition available to study. While the overall effect of holding local office is positive for men, the effect for women would be expected to be diminished or even negative if the "ambition hypothesis" holds.

The second possibility is more optimistic about the effect of local experience on female representation, even though it relies on a sexist electorate. Survey data from Fox (2003) demonstrates that fewer women run for office than men because they are more pessimistic about their qualifications. Additionally, research from Huddy and Terkildsen (1993) suggests that female candidates are held to a higher standard than male candidates in elections. It follows, then, that local experience can both incentivize better female candidates to run and give them the extra qualifications necessary to beat male candidates. In fact, if the assumptions prove true, female candidates should gain more benefit from local experience than male candidates do since the electorate seemingly demands more qualifications from women before voting them into office. As a result, the effect of women holding local office should counteract the gender gap.

To determine which of these hypotheses most accurately reflected the data, I recreated the models from the first extension and applied them to the interaction between candidate sex and local political experience. Again, three models were created: one without fixed effects, one taking party-year effects into account, and one taking district-year effects into account. As in the first extension, I did not subset the data to only include the major parties. The results of the models are summarized below in Table X.

# **Appendix**

Below are the figures and tables included in Smith and Martin (2017) that I chose not to display in the "Replication" portion of the paper.

Table Y: Gendered Effect of Local Experience

|                           | Dependent Variable:  Election Result |                   |                   |
|---------------------------|--------------------------------------|-------------------|-------------------|
|                           |                                      |                   |                   |
|                           | (1)                                  | (2)               | (3)               |
| Female                    | $-0.242^{***}$                       | $-0.114^{***}$    | $-0.149^{***}$    |
|                           | (0.031)                              | (0.030)           | (0.034)           |
| Local Experience          | 0.150***                             | 0.100***          | 0.166***          |
| -                         | (0.014)                              | (0.014)           | (0.016)           |
| Female * Local Experience | 0.102**                              | 0.024             | 0.095**           |
| •                         | (0.041)                              | (0.039)           | (0.044)           |
| Constant                  | 0.510***                             |                   |                   |
|                           | (0.011)                              |                   |                   |
| Fixed Effects?            | No                                   | Party-Year        | District-Year     |
| Observations              | 5,754                                | 5,754             | 5,754             |
| $\mathbb{R}^2$            | 0.042                                | 0.228             | 0.178             |
| Adjusted $\mathbb{R}^2$   | 0.041                                | 0.206             | 0.027             |
| Residual Std. Error       | 0.483 (df = 5750)                    | 0.439 (df = 5590) | 0.486 (df = 4856) |

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

# References

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