

Incumbency Advantage in the Northwest Territories



A preliminary regression discontinuity design

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Outline

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1. Background
2. Data and Descriptive Statistics
3. Research Design
4. Preliminary Results
5. Discussion
6. Limitations and Potential Solutions



1.

Background

Consensus Government in the Northwest Territories

- ▷ A **non-partisan** adaptation of Westminster parliamentary government
- ▷ 19 electoral districts, with all candidates running as independents
- ▷ With lack of political parties, elections are largely decided on the personal vote



N.W.T votes 2015 | Voters deliver a blunt demand for change

With 8 sitting MLAs out, the next Legislative Assembly will be a different place

[Chris Windeyer](#) · CBC News · Posted: Nov 24, 2015 5:30 AM CT | Last Updated: November 24, 2015



Newly elected Yellowknife Centre MLA Julie Green, left, celebrates her victory Monday night with Nigit'Stil Norbert, who lost to Bob McLeod on election night. (CBC)

Research Questions

- ▷ What is the strength of incumbency advantage in the Northwest Territories?
- ▷ What factors are most associated with electoral success in the NWT?

2

Data and Descriptive Statistics

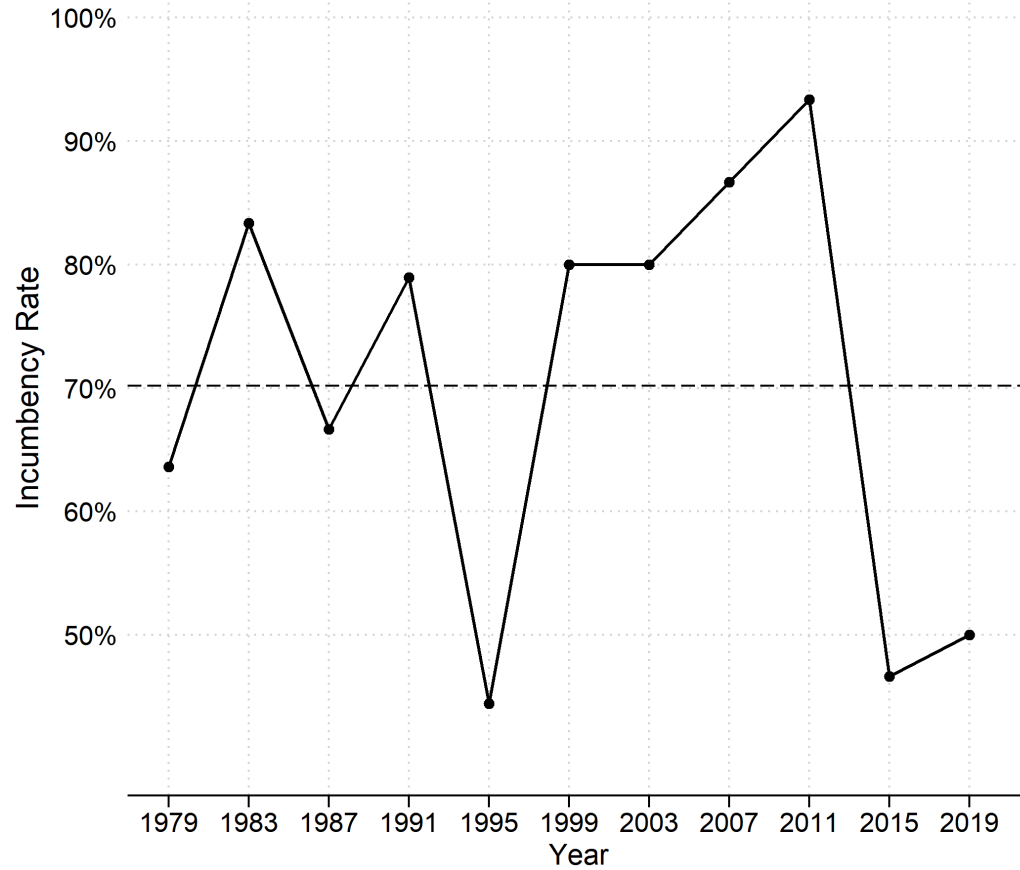
Data

- ▷ NWT Elections results from 1975 to 2019
- ▷ Data obtained through publicly available sources
- ▷ Coded various variables
 - Riding Characteristics (e.g. Urban-Rural)
 - Election Characteristics (e.g. Number of challengers)
 - Candidate Characterizes (e.g. Gender)
- ▷ Unit of observation: NWT election candidates

NWT Elections Dataset

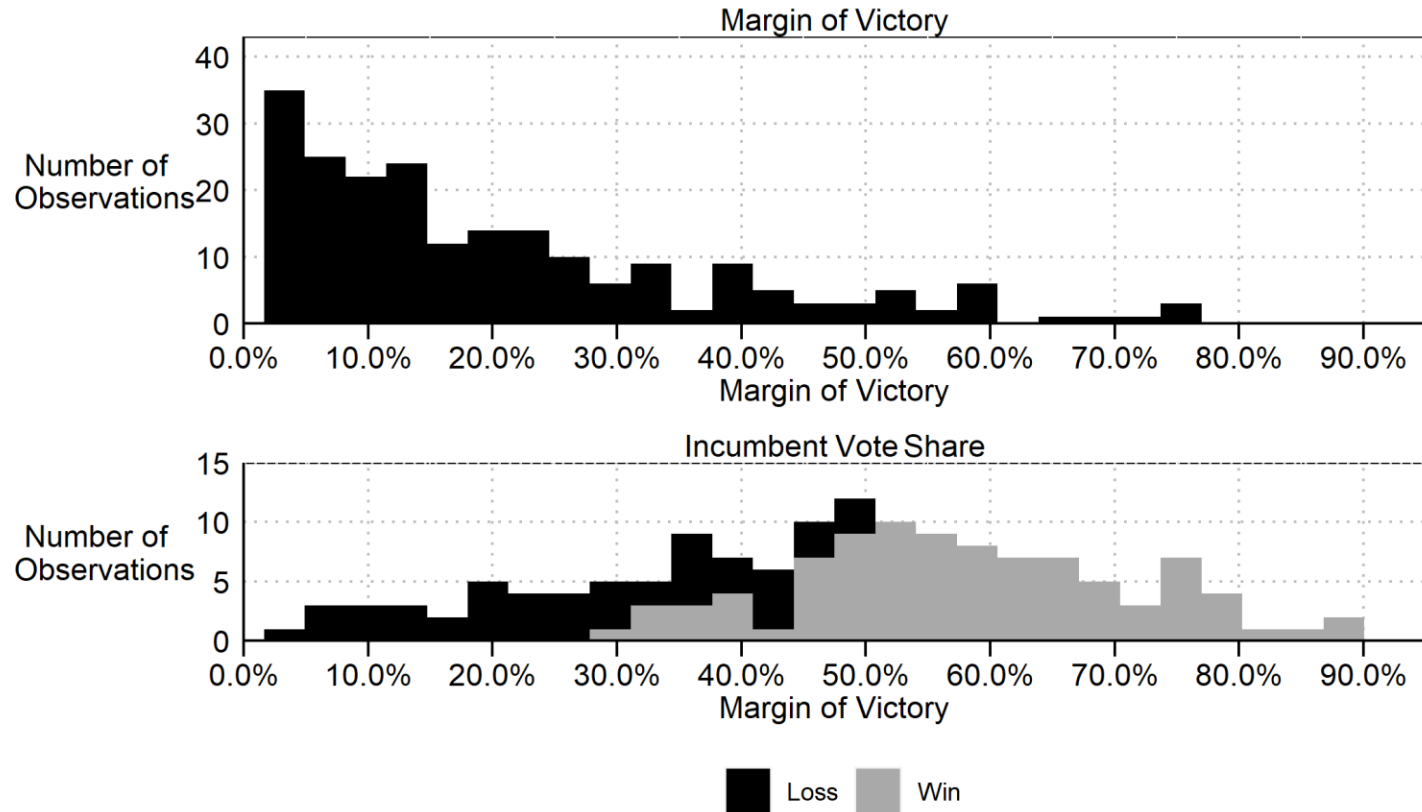
Name	candidate_id	id	year	riding_name	riding_number	riding_total_votes	riding_rejected_and_declined_ballots
Alfred Moses	10	24	2015	Inuvik Boot Lake	18	415	2
Arnold McCallum	26	207	1983	Slave River	9	1275	19
Arnold McCallum	26	229	1979	Slave River	9	874	14
Bill Braden	48	79	2003	Great Slave	17	651	1
Bill Lyall	51	214	1979	Central Arctic	26	813	9
Bob Bromley	55	49	2011	Weledah	20	724	21
Bob MacQuarrie	58	209	1983	Yellowknife Centre	10	882	2
Bob McLeod	59	32	2015	Yellowknife South	16	695	2
Bob McLeod	59	57	2011	Yellowknife South	16	NA	NA
Brendan Bell	65	95	2003	Yellowknife South	16	NA	NA

Incumbency Rates in the NWT (1979-2019)



-- Overall Incumbency Rate

Figure 4: Descriptive Statistics



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Research Design

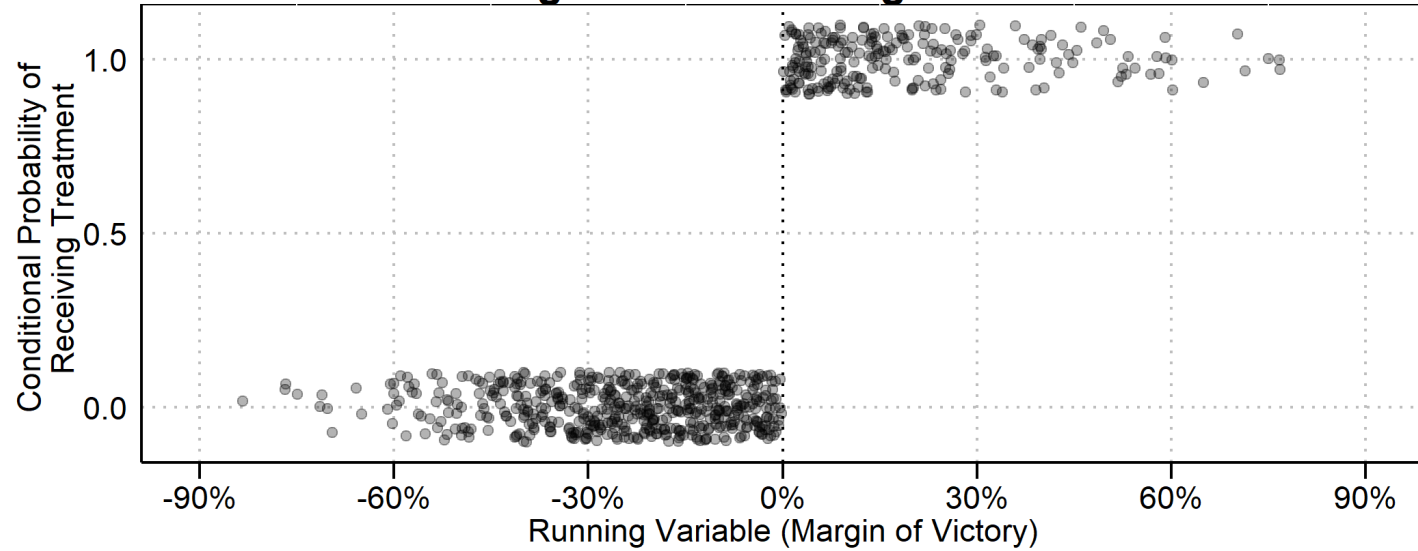
Methods

1. Sharp research discontinuity (SRD) design
2. Naïve linear probability model

SRD Design

- ▷ Quasi-random assignment
- ▷ Assignment: Margin of victory in the previous election ($t-1$)
- ▷ Outcome Variable: Whether the candidate won (1) or lost (0) the election
- ▷ Linear probability model
- ▷ Controlling for gender, number of challengers, riding type (urban-rural), interacted with the incumbency dummy

Figure 3. SRD Design Cutoff



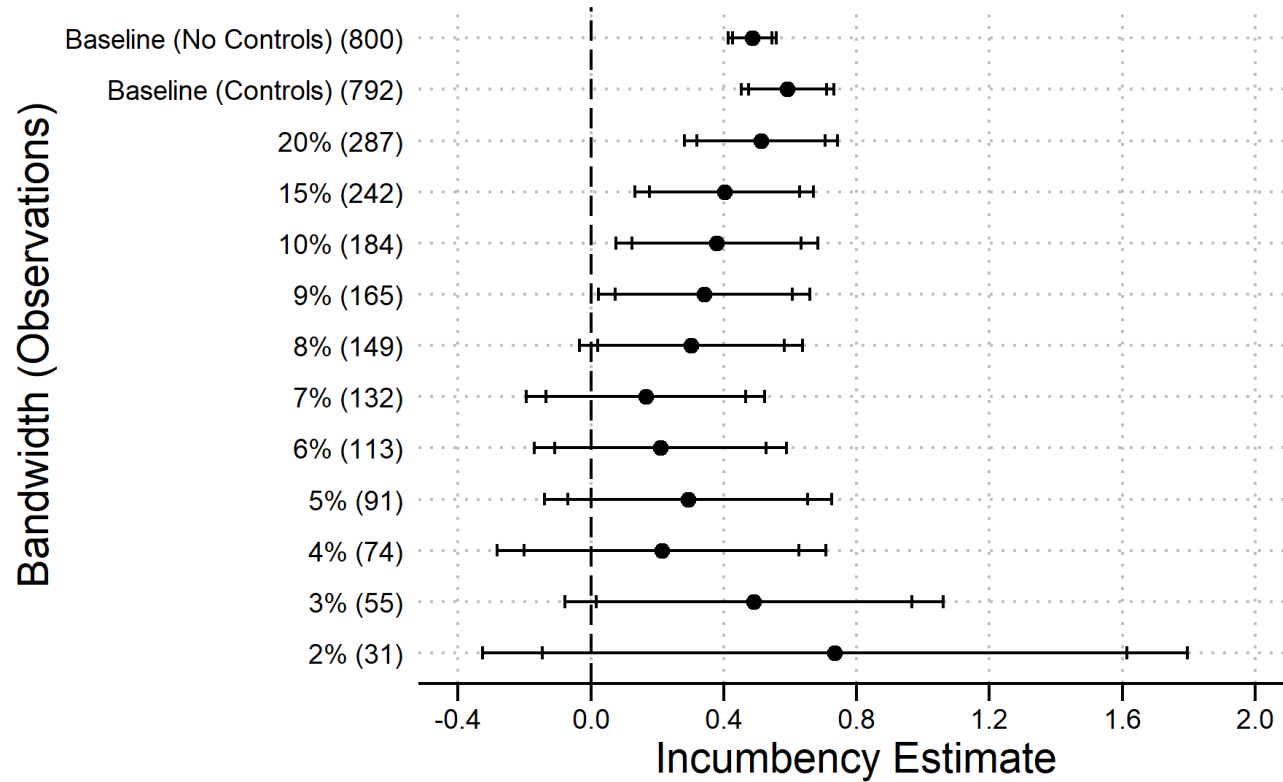
Naïve LPM

$$y_i = \beta_0 + \beta_1 Incumbent + \beta_2 Woman_i + \beta_3 PC_i + \beta_4 Challengers_i + \beta_5 (PC \times Incumbent)_i + \beta_6 (Challengers \times Incumbent)_i + \beta_7 (Woman \times Incumbent)_i$$

4

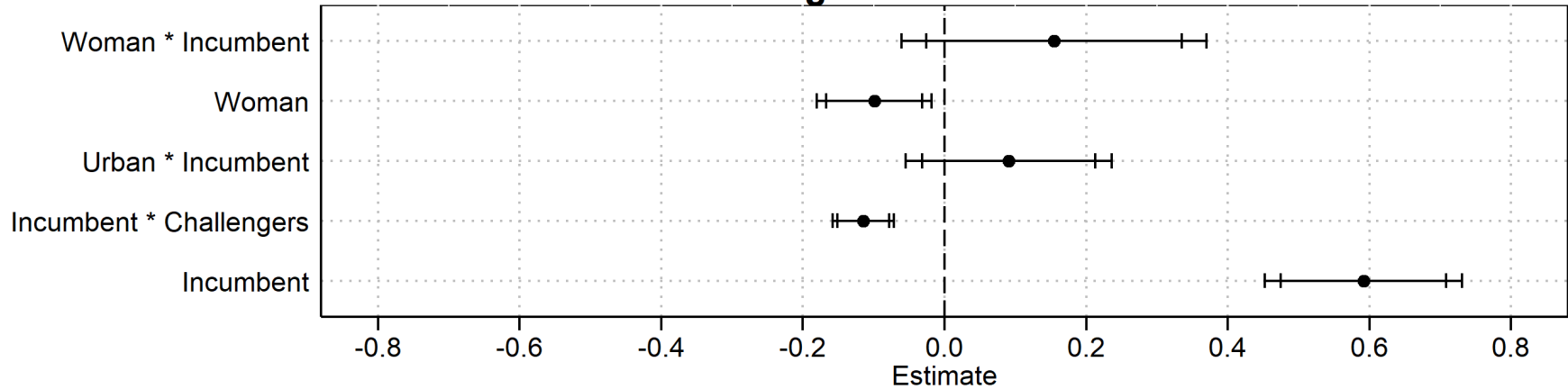
Preliminary Results

Figure 5. Incumbency Estimates at Various Bandwidths



Note: Estimates with 90% and 95% confidence intervals, with controls.

Figure 6. Naive OLS



Note: Lower order terms for Population Centre and Number of Challengers were excluded from the figure for readability (since they are meaningless when not interacted with other covariates). However, they were included in the model.

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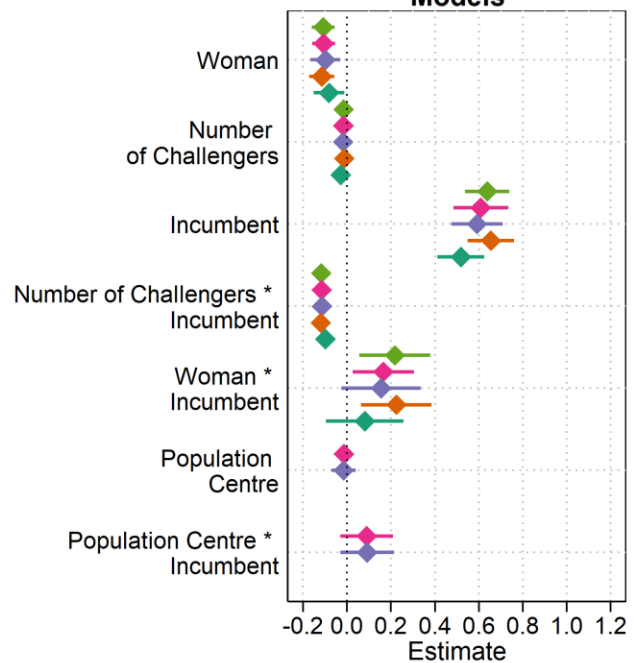
Discussion

Table 1. Alternative Models for Robustness

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Incumbent	0.49*** (0.04)	0.59*** (0.07)	0.62*** (0.06)	0.59*** (0.07)	0.59*** (0.08)	0.62*** (0.07)
Woman		-0.10* (0.04)	-0.10* (0.04)	-0.10* (0.04)	-0.10* (0.04)	-0.14** (0.05)
Urban * Incumbent		0.09 (0.07)			0.10 (0.08)	0.14 ^ˆ (0.08)
Yellowknife * Incumbent			0.08 (0.09)			
Urban or Iqaluit * Incumbent				0.09 (0.07)		
Incumbent * Challengers		-0.11*** (0.02)	-0.12*** (0.02)	-0.11*** (0.02)	-0.12*** (0.02)	-0.11*** (0.02)
Woman * Incumbent		0.15 (0.11)	0.17 (0.11)	0.15 (0.11)	0.15 (0.11)	0.15 (0.11)
Incumbent * Recent						-0.30** (0.10)
Woman * Recent						0.16 ^ˆ (0.10)
Nunavut * Incumbent					0.02 (0.10)	
Controls	No	Yes	Yes	Yes	Yes	Yes
R ²	0.18	0.24	0.24	0.24	0.24	0.25
Adj. R ²	0.18	0.23	0.23	0.23	0.23	0.24
Num. obs.	800	792	792	792	792	792

Note: Lower order terms are included in the model but excluded from the table for readability purposes.

Figure 8. Fixed Effects Models



Note: Featuring 90% confidence intervals.

Table 3. Coverage and Representativeness of Various Margins of Victory

	Bandwidth												
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	15%	20%	100%
Percent of races	1.75	7.60	11.70	15.20	18.13	21.64	24.56	28.65	30.99	35.09	46.20	56.73	100.00
Average winner vote margin	0.66	1.22	1.81	2.22	2.61	3.17	3.66	4.06	4.49	4.97	6.81	8.45	16.44
% of total districts with 1+ obs	8.33	33.33	44.44	52.78	55.56	58.33	66.67	72.22	72.22	75.00	88.89	94.44	100.00
% of races that are pop. centres	66.67	54.84	38.60	33.77	39.36	35.34	32.35	33.33	33.73	33.51	36.69	37.88	35.21
% of races that are in Yellowknife	0.00	29.03	19.30	16.88	21.28	23.28	19.85	17.65	15.98	17.55	18.95	20.14	18.33
% of races that are now Nunavut	33.33	6.45	19.30	27.27	24.47	24.14	28.68	29.41	28.40	29.26	31.85	31.40	28.12
% of election years with 1+ obs	18.18	72.73	81.82	90.91	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

*Table based on Hainmueller, Hall, and Snyder Jr. (2015)

Strategic Exit

	<i>Dependent variable:</i>
	Incumbent Running t+1
Margin t	1.046 (1.021)
Woman	1.358 (1.956)
Population Centre	0.639 (1.691)
Woman*Margin	0.969 (1.028)
Margin*Population Centre	0.988 (1.027)
Intercept	2.057 (1.473)
Observations	189
Log Likelihood	-99.307
Akaike Inf. Crit.	210.613

*Method based on Kendall and Rekkas (2012)

Note: *p<0.1; **p<0.05; ***p<0.01

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Limitations and Potential Solutions

Limitations

Sample Size

Limited sample size presents a challenge, especially with the RD design

Potential for Omitted Variable Bias

Lack of available data, especially candidate characteristics, means potential for OVB

Potential Solutions

Sample Size

- The inclusion of Nunavut election results in the data

Potential for Omitted Variable Bias

- Additional coding of variables
- Fixed effects

Sources

- Cain, Bruce E., John E. Ferejohn, and Morris P. Fiorina. 1984. The Constituency Service Basis of the Personal Vote for U.S. Representatives and British Members of Parliament. *The American Political Science Review*, 78(1), 110-125. https://www.jstor.org/stable/1961252?seq=1#metadata_info_tab_contents
- Cain, Bruce E., John E. Ferejohn, and Morris P. Fiorina. 1987. The Personal Vote Constituency Service and Electoral Independence. Harvard University Press.
- CBC News. 2016. “MLA Says N.W.T. Should Consider Ban on Corporate Election Donations,” May ., <https://www.cbc.ca/news/canada/north/corporate-election-donations-nwt-1.3569382>.
- CBC News. 2019. “Here’s the Final List of Who’s Running in the N.W.T. Election.” CBC. 2019. <https://www.cbc.ca/news/canada/north/nwt-election-2019-whos-running-1.5263030>.
- CBC News. n.d. “N.W.T. Minister of Justice Louis Sebert Loses Confidence Vote After Midterm Review.” CBC. Accessed December 16, 2021. <https://www.cbc.ca/news/canada/north/nwt-ministers-cabinet-midterm-review-1.4342145>.
- Bryant, Mike. 2019. “The good and bad of consensus government.” *NNSL Media*, September 18. <https://www.nns1.com/election-2019/the-good-and-bad-of-consensus-government/>
- Dunbar, Stephen. 2008. “Seeking unanimous consent: consensus government in the Northwest Territories.” Master of Arts Thesis, Department of Political Science, Carleton University, Canada. <https://curve.carleton.ca/fbab2f8e-0758-407f-81dc-9b58162d0713>
- Dür Andreas, Leonardo Baccini and Manfred Elsig. 2014. “The Design of International Trade Agreements: Introducing a New Database.” *The Review of International Organizations* 9(3): 353-375.
- Eggers, Andrew and Jens Hainmueller. 2009. “MPs for Sale? Returns to Office in Postwar British Politics.” *American Political Science Review* 103, no. 4: 1-21.
- Fenno, Richard. 1977. U.S. House Members in Their Constituencies: An Exploration. *The American Political Science Review*, 71(3): 883-917. doi:10.2307/1960097
- Fiorina, Morris. 1977. The Case of the Vanishing Marginals: The Bureaucracy Did It. *The American Political Science Review*, 71(1): 177-181. doi:10.2307/1956961
- Flanagan, Tom. 2014. *Winning Power: Canadian Campaigning in the Twenty-First Century*. Montreal and Kingston: McGill-Queens University Press.

Sources (Continued)

- Fouirnaies, Alexander, and Andrew B. Hall. 2014. "The Financial Incumbency Advantage: Causes and Consequences." *The Journal of Politics* 76, no. 3: 711–24. <https://doi.org/10.1017/s0022381614000139>.
- Gelman, Andrew, and Gary King. 1991. Estimating Incumbency Advantage without Bias. *American Journal of Political Science*, 34(4): 1142-1164. doi:10.2307/2111475
- Government of the Northwest Territories. 2020. *NWT Housing Action Plan 2019-2022*. Yellowknife: Government of the Northwest Territories.
- Green-Pederson, Christoffer, Peter B. Mortenson, and Gunnar Thesen. 2015. "The Incumbency Bonus Revisited: Causes and Consequences of Media Dominance." *British Journal of Political Science*. 47 (1): 131-148. <https://www.cambridge.org/core/journals/british-journal-of-political-science/article/incumbency-bonus-revisited-causes-and-consequences-of-media-dominance/FBBB67ECE47414264F983071DEBD52D1#article>
- Hainmueller, Jens, Andrew B. Hall, and James M. Snyder. 2015. "Assessing the External Validity of Election RD Estimates: An Investigation of the Incumbency Advantage." *The Journal of Politics* 77, no. 3: 707-720. <https://www.journals.uchicago.edu/doi/10.1086/681238>
- Hall, Andrew B. and James M. Snyder Jr.. 2013. "How Much of the Incumbency Advantage is Due to Scare-Off?" *Political Science Research and Methods*. 3 (3): 493-54. <https://www.cambridge.org/core/journals/political-science-research-and-methods/article/how-much-of-the-incumbency-advantage-is-due-to-scareoff/CF097C69C4B2B775D1704FEC11BCCC00>
- Imbens, Guido and Karthik Kalyanaraman. 2012. "Optimal Bandwidth Choice for the Regression Discontinuity Estimator." *The Review of Economic Studies* 72 (3): 933-959. <https://academic.oup.com/restud/article/79/3/933/1533189?login=true>
- Johnson, Anna, Erin Tolley, Melanee Thomas, and Marc André Bodet. 2021. "A New Dataset on the Demographics of Canadian Federal Election Candidates." *Canadian Journal of Political Science* 54(3): 717-725. <https://www.cambridge.org/core/journals/canadian-journal-of-political-science-revue-canadienne-de-science-politique/article/new-dataset-on-the-demographics-of-canadian-federal-election-candidates/62FE243F387DA88718C825961AB24C10>
- Kam, Cindy D. and Elizabeth J. Zechmeister. 2013. "Name Recognition and Candidate Support." *American Journal of Political Science*. 54 (4): 971-986. <https://onlinelibrary.wiley.com/doi/epdf/10.1111/ajps.12034>
- Kendall, Chad, and Marie Rekkas. 2012. "Incumbency Advantages in the Canadian Parliament." *The Canadian Journal of Economics / Revue Canadienne d'Economie* 45, no. 4: 1560–85. <http://www.jstor.org/stable/23270183>.

Sources (Continued)

- Krehbiel, Keith and John R. Wright. 1983. "The Incumbency Effect in Congressional Elections: A Test of Two Explanations." *American Journal of Political Science*. 27 (1): 140-57. https://www.jstor.org/stable/2111057?refreqid=excelsior%3A4c3a95c463aee87acf73d9f2749d2926&seq=1#metadata_info_tab_contents
- Marland, Alex, Thierry Giasson, and Anna Lennox Esselment. 2017. *Permanent Campaigning in Canada*. Vancouver: UBC Press.
- Marland, Alex. 2016. *Brand Command: Canadian Politics and Democracy in the Age of Message Control*. Vancouver: UBC Press.
- Marland, Alex. 1998. "The Electoral Benefits and Limitations of Incumbency." *Canadian Parliamentary Review* 21, no. 4: 33-36. <http://www.revparl.ca/english/issue.asp?param=69&art=124>
- Mercer, Tim. 2015. "Consensus Government in the Northwest Territories: Westminster with a Northern "Twist." The Canadian Study of Parliament Group. *Studies of Provincial and Territorial Legislatures*. http://cspg-gcep.ca/pdf/CSPG_NWT_Legislature-e.pdf
- Moncrief, G.. 1994. Professionalization and Careerism in Canadian Provincial Assemblies: Comparison to U. S. State Legislatures. *Legislative Studies Quarterly*, 19(1), 33-48. Retrieved from <http://www.jstor.org/stable/439798>
- Norris, Pippa. 1997. "The Puzzle of Constituency Service." *The Journal of Legislative Studies* 3, no. 2: 29-49.
- Northwest Territories Legislative Assembly. 2018. Special Committee to Increase the Representation of Women in the Legislative Assembly. Final Report. 3d sess., 19th Assembly, 2018, Committee Report 17-18(3) https://www.assembly.gov.nt.ca/sites/default/files/19-06-04_cr-17-183_-_final_report_-_scriw_0.pdf
- Northwest Territories Legislative Assembly. N.d. "Candidate Reporting." <https://www.electionsnwt.ca/en/candidate-reporting>
- Northwest Territories Legislative Assembly. n.d. b "Pay and Benefits." <https://www.ntassembly.ca/meet-members/accountability/pay-and-benefits>
- Richardson Jr, Lillian E., and Patricia K. Freeman. 1995. "Gender Differences in Constituency Service among State Legislators." *Political Research Quarterly* 48. No.1: 169-179.
- Stats NWT. 2018. Income Statistics. Yellowknife: NWT Bureau of Statistics. <https://www.statsnwt.ca/labour-income/income/index.html>
- Szakonyi, David. 2017. "Businesspeople in Elected Office: Identifying Private Benefits from Firm-Level Returns." *American Political Science Review* 112, no. 2; 322-338.

Sources (Continued)

Thomas, Sue. 1992. "The Effects of Race and Gender On Constituency Service." *Political Research Quarterly* 45 (1): 169-180.
<https://journals.sagepub.com/doi/abs/10.1177/106591299204rri500112>

Van Onselen, Peter and Wayne Errington. 2007. "The Democratic State as a Marketing Tool: The Permanent Campaign in Australia." *Commonwealth and Comparative Politics* 45: 78-94.

White, Graham. 1991 "Westminster in the Arctic: The Adaptation of British Parliamentaryism in the Northwest Territories." *Canadian Journal of Political Science* 24, no. 3: 499-523. <https://doi.org/10.1017/s0008423900022666>.

White, Graham. 2016. "The Territories." In *Big Worlds: Politics and Elections in the Canadian Provinces and Territories*. Toronto: University of Toronto Press, 2016.

Wong, Vivian C. and Coady Wing. 2016. "The Regression Discontinuity Design and the Social Corruption of Quantitative Indicators." *Observational Studies* 2 (3): 183-209.

Quenneville, Guy. 2015. "Nominations Close for 2015 N.W.T. Election." *CBC News*. 2015. <https://www.cbc.ca/news/canada/north/nwt-territorial-election-candidates-1.3288160>.

Quenneville, Guy. 2016. "N.W.T. MLAs Won't Forgive Bobby Villeneuve's Remaining Debt from False Residency Claim." December 2, 2016.
<https://www.cbc.ca/news/canada/north/nwt-mlas-won-t-forgive-bobby-villeneuve-s-remaining-debt-1.3831843>.