Does Divided Government Control Unilateral Policymaking? Evidence from Chair Elections

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Abstract

Unilateral action serves as a vital component in formulating presidential policy. However, a consensus on how executive-legislative relationships impact this remains to be reached. We implemented a Regression Discontinuity (RD) design to analyze 4,898 chairperson elections within 790 municipal governments in Japan. We found no significant influence of executive-legislative dynamics on unilateral action. Hence, this study suggests that the applicability of existing theories may be limited to certain temporal, geographical, and methodological circumstances. (3,999 words)

Key words

Presidency, Legislature, Unilateral action, Regression discontinuity, Japan politics

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1 Introduction

In a presidential system, legislative and executive power is divided between the legislature and the president, and they are expected to check and balance each other (Montesquieu, 1949; Hamilton, Madison and Jay, 2009). In recent years, however, presidents have increasingly sought to enact policy without working with the legislature. It is called unilateral action and has become one of the most important means of policy formation for the president (Moe and Howell, 1999*b*,*a*; Howell, 2003; Lowande and Rogowski, 2021; Bolton and Thrower, 2022).

Unilateral policymaking has been most studied in the American federal government (Lowande and Rogowski, 2021) although some studies focus on the American state governments (Cockerham and Crew, 2017; Barber, Bolton and Thrower, 2019), Latin America (Pereira, Power and Rennó, 2005; Neto, 2006; Shair-Rosenfield and Stoyan, 2017, 2018; Palanza, 2019) and Africa (Opalo, 2020). Political commentators often perceive unilateral policymaking as an alternative to Congressional legislation (Stein, Werner and Merle, 2020; Zengerle, 2020). For this reason, previous studies mainly focus on the impact of executive-legislature relations (Deering and Maltzman, 1999; Howell, 2003; Fine and Warber, 2012; Chiou and Rothenberg, 2017; Lowande and Rogowski, 2021).

In this research, we reassess the influence of executive-legislative dynamics on unilateral policymaking by employing a causal inference approach, focusing on Japanese municipal governments. Most previous studies have tackled this subject through the typical Ordinary Least Square (OLS) method (Deering and Maltzman, 1999; Howell, 2003; Fine and Warber, 2012; Lowande, 2014; Chiou and Rothenberg, 2017) or the fixed effect models with panel data (Cockerham and Crew, 2017; Barber, Bolton and Thrower, 2019; Shair-Rosenfield and Stoyan, 2017, 2018). However, this study introduces a deviation by applying a regression discontinuity (RD) design to analyze 4,898 chair elections within 790 Japanese municipal governments. We find no evidence that the executive-legislature relationship significantly alters the executive's unilateral policymaking.

2 Debate and Hypotheses

Consensus is elusive among scholars regarding the executive's dependence on unilateral policymaking in the context of divided or unified government (Chiou and Rothenberg, 2017; Lowande and Rogowski, 2021). First, executive orders and memoranda are frequently interpreted as expressions of unilateral policymaking, especially noticeable during periods of divided government. The theoretical grounding for this standpoint rests upon the president's first-mover advantage, postulated by Moe and Howell (1999*b*,*a*). Within this framework, the president can shape policy outcomes proactively, circumventing the necessity for immediate legislative consent.

This dynamic exhibits significant potency amidst Congressional gridlock. The president may resort to unilateral policymaking to alter the prevailing equilibrium, exploiting Congressional incapacity to establish consensus on regulating or neutralizing presidential actions. Empirical corroboration for this theoretical construct is provided by several quantitative (Deering and Maltzman, 1999) and qualitative (Mayer, 2002; Howell, 2003) studies. Therefore,

H+: The executive issues more presidential directives when divided government

Conversely, another line of quantitative studies posits that presidents are more likely to resort to unilateral policymaking when the executive branch and Congress are unified (Howell, 2003; Fine and Warber, 2012; Chiou and Rothenberg, 2017). This perspective argues that even when the legislative branch is unable to reach consensus, it can still exert control over the executive's unilateral policymaking through effective oversight (Chiou and Rothenberg, 2017; Shair-Rosenfield and Stoyan, 2017; Barber, Bolton and Thrower, 2019; Bolton and Thrower, 2022). Therefore,

H-: The executive issues more presidential directives when in a unified government

3 The Context of Municipal Governments in Japan

Local governments in Japan employ a presidential system. As chief executive officers of city governments, Japanese mayors hold a wide range of responsibilities, including policy creation and implementation, budget management, and the appointment and oversight of city officials (Hijino, 2021; Isozaki, Kanai and Ito, 2020; Kitamura, Aoki and Hirano, 2017; Uga, 2023). Critically, mayors can issue *senketsu shobun*, a form of unilateral policymaking[1]. This allows them to make policy decisions independently in urgent situations or when consensus within the municipal assembly is not readily achievable (Tsuji, 2019; Uga, 2023). Senketsu shobun can draw criticism for bypassing democratic processes and potentially undermining principles of democracy and transparency (Iwamoto, 2011; Tsuji, 2019). Table 1 shows several cases where mayors' senketsu shobuns were criticized by media and municipal assemblies.

Table 1: Examples of Mayors' Use of Senketsu-shobun

Prefecture	**City**	**Year**	**Content**
Tokyo	Koganei	2022	Mayor Shinichiro Nishioka (Independent) used senketsu shobun to abolish two preschools in the city to cut the governments spending. The municipal assembly, led by the chair Shigeo Suzuki (CDP), was against the senketsu shobun because parents were also against the mayor's plan. Then, the mayor resigned.
Ohsaka	Ohsaka	2021	Mayor Ichiro Matsui (JIP), has frequently bypassed the municipal assembly deliberations to unilaterally allocate a total of 400 billion yen for COVID-19 measures.
Kagoshima	Akune	2010	Mayor Shinichi Takehara (Independent) unilaterally converted councilor remuneration to a daily rate and appointed a deputy mayor, without convening the assembly. This led to a recall petition by residents, resulting in his resignation and subsequent defeat in the ensuing mayoral election.

On the other hand, municipal assemblies, which adopt the unicameral system, deliberate

[1]Senketsu shobun is classified into Local Autonomy Law's Article 179 and 180 senketsu shobun. Mayors make policy decisions unilaterally on behalf of municipal assemblies in cases of urgency with Article 179 senketsu shobun while they issue Article 180 senketsu shobun for more trivial purposes (Uga, 2023). Therefore, in this study, we focus on the former senketsu shobun as significant senketsu shobun.

on proposals and serve as a check on the mayor's executive power. Assembly members, often elected as independents, frequently join factions, or *kaiha*, gaining increased influence, shared resources, and networking opportunities. Some factions in municipal assemblies have connections to national political parties (Muramatsu and Ito, 1986; Tsuji, 2008, 2019; Isozaki, Kanai and Ito, 2020).

4 Estimation strategy and Data

4.1 Regression discontinuity (RD)

Identifying the causal effect of the executive-legislature relationship on unilateral policymaking is not easily solved through typical OLS methods. It is unlikely that OLS will be able to account for unobservable differences that affect both whether the government is divided or unified and how many senketsu shobuns mayors issue.

To address these concerns, we use a regression discontinuity (RD) design to analyze close chair elections between candidates related and not related to the governing party. In legislative politics, a chair plays an important role in setting the agenda and passing legislation (Cox and McCubbins, 2005, 2007) and scrutinizes the executive's unilateral policymaking. This dynamic also holds true in the Japanese context, where municipal assembly chairs can supervise mayors' use of senketsu shobun, as detailed in Table 1. In addition, the assembly chairs often have superior access to information (Tsuji, 2019) and the authority to hire and fire legislative staff (Uno, Nagano and Yamazaki, 2022).

The core assumption of the design is that in close chair elections, which candidate wins is thought to be as-if randomly assigned so long as there is some unpredictability in the ultimate vote (Lee, 2008). Because of this presumed randomness, municipalities on either side of the election threshold are anticipated to exhibit substantial congruity in both observable and unobservable characteristics, with the singular distinguishing element being the state of their government – divided or unified.

4.2 Japanese municipal assembly chair elections dataset

While previous studies have examined the elections of mayors and members of municipal assemblies in Japan (McClean, Forthcoming; Natori et al., 2016), determining which party holds sway in a municipal assembly remains challenging. Many assembly members in Japan run as independents in elections (Tsuji, 2019), though they are generally regarded as conservative (Muramatsu and Ito, 1986, pp. 84–86). Consequently, party dominance in local assemblies across Japan isn't easily inferred from the assembly election outcomes.

To counteract the challenge, we have curated an innovative dataset, drawing upon assembly records and email interviews, with an emphasis on chair elections in municipal assemblies spanning from 2010 to 2021. This dataset incorporates exhaustive information pertaining to candidates, election modalities (either nomination or majority voting)[2], national political party affiliations[3], factions, and the interrelationships existing amidst parties and factions. Our dataset furnishes data regarding 12,986 candidates who engaged in 5,954 elections dispersed across 790 cities. The data concentration from 2010 to 2021 is necessitated by the momentous municipal mergers that unfolded in the 2000s. Appendix A-2 examines competitiveness of the chair elections.

4.3 Supervised machine learning for predicting the faction-party relationship

Unfortunately, many municipal assemblies often do not readily provide specific details regarding the connection between the factions and national parties. This limitation can pose a challenge to comprehensively examining the implications of the executive-legislature relationship. To deal with the problem, we exploit bag-of-words and supervised machine learning

[2]In the practice of majority voting, the constituents of chair candidacy often encompass all members of the assembly in a number of elections. Under these circumstances, our analysis is principally directed towards those candidates who have accrued no less than one vote.

[3]We utilize supplementary information sourced from `go2senkyo.com` and `seijiyama.jp`. In instances where incongruences or gaps are detected within the acquired data, we seek clarification from the city's Election Administration Commission via emails.

approach to classify the factions into the related national parties (Appendix A-3) and check the performance (Appendix A-4). Appendix A-5 demonstrates that around 1,300 members who report that they are independent belong to the LDP related factions in municipal assemblies. then, we exclude the cases where lottery decides the next chair because it violates the assumptions of the sharp RD.

4.4 Main variables

We use the background information of mayors listed in The Japan Research Institute for Local Government's *Zenkoku Shucho Meibo* (*Directory of Heads of Local Governments in Japan*). The directory includes the mayors' name, national political party[4][5] and the date of the election.

Then, we make the independent variable *Divided government* which denotes 1 when a mayor and a chair do not belong to the same party.

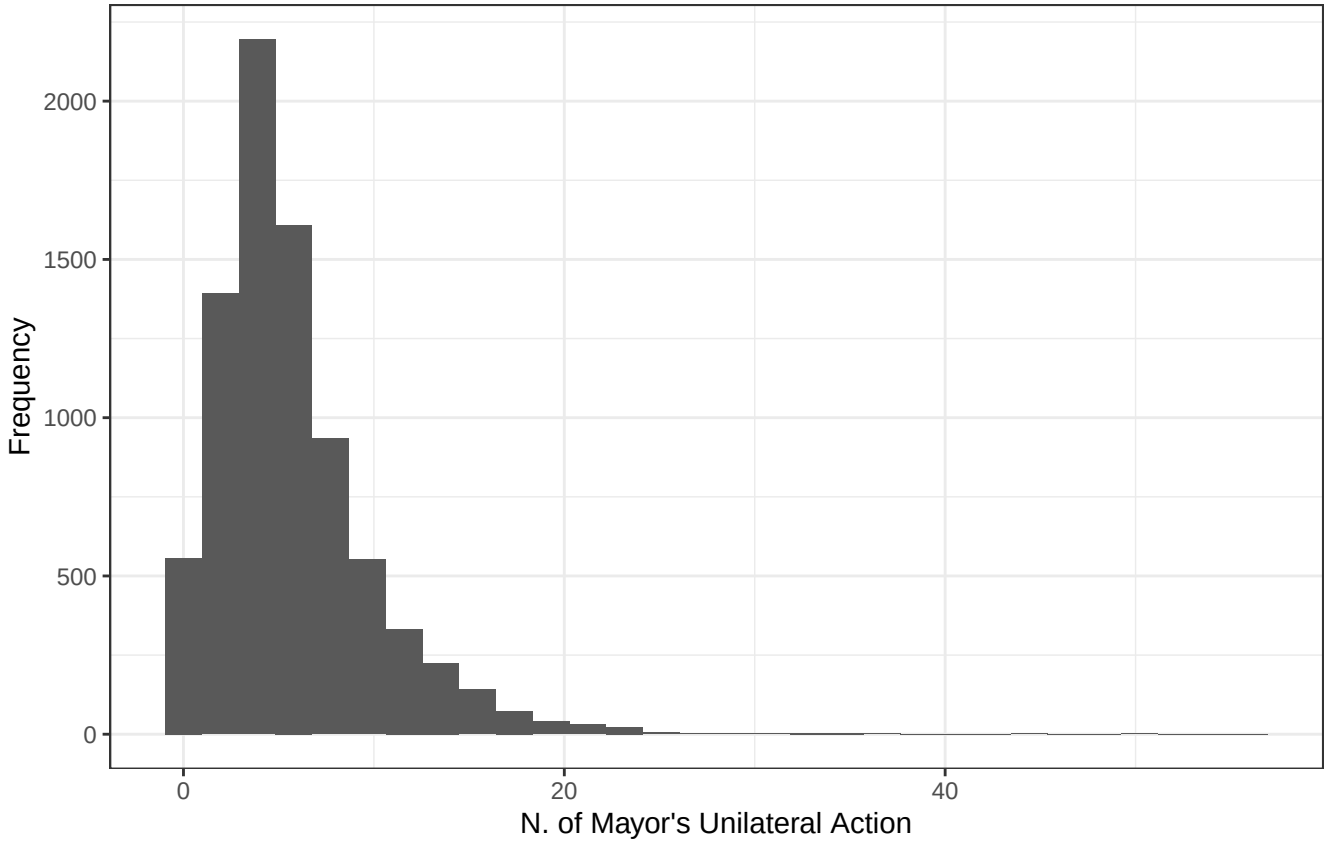
For senketsu shobun, we employ the data from The National Associations of Chairpersons of City Council (NACCC). The organization publishes *Shigikai no katsudo ni kansuru jittai chousa no kekka* (*Results of the Survey on the Activities of the Municipal Assemblies*). The survey tabulates significant senketsu shobun[6] from all the municipal governments since 2012 by four categories: ordinance, budget, audit, and others. We calculate the total number of senketsu shobun for each city and year, standardize it, and use it as dependent variable. Figure 1 graphically represents the yearly usage of senketsu shobun by incumbent mayors.

[4]Within the purview of Japanese mayoral elections, a significant cohort of candidates position themselves as independents. Nonetheless, it is common for them to garner extensive endorsements, or other forms of backing, from national political parties. Such data has been meticulously captured in this directory, with coding employed to specify the respective political party affiliations of the candidates.

[5]For 2018 and 2019, Japan Innovation Party (JIP) is not listed in the directory, so we check whether mayors are related to the JIP with its website.

[6]Article 179 senketsu shobun. Check Footnote 2.

Figure 1: Most Mayors Use Senketsu Shobun at Least Once within Annual Cycle



4.5 Evaluating Assumptions in Our RD Approach

We consider the potential for manipulation of the running variable around the cutoff. In Appendix B, McCrary (2008) and Cattaneo, Jansson and Ma (2018) manipulation tests indicate that there is no evidence of sorting among the candidates related and not related to the governing parties at the election threshold.

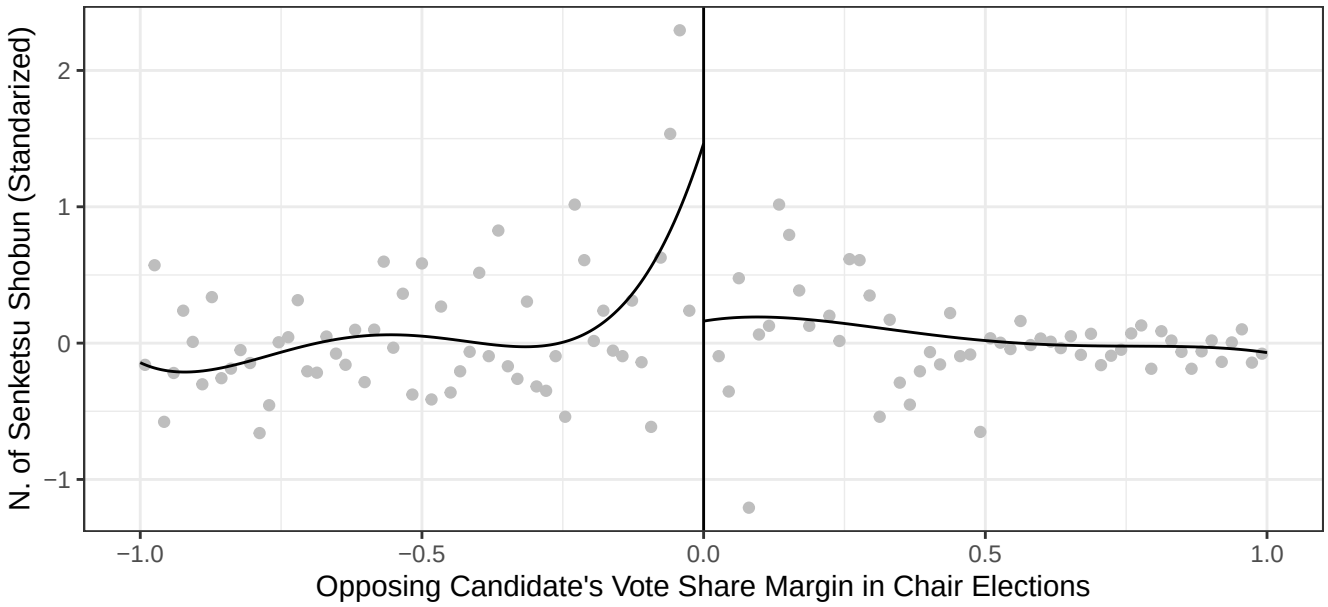
5 Result and Robustness Check

5.1 Result

Figure 2 graphically illustrates the RD results for chair elections featuring candidates unaffiliated with the governing parties. The y-axis denotes the count of senketsu shobun that

a mayor issues either in the election year or the subsequent year[7], and the x-axis signifies the vote share margin for unaffiliated candidates. Figure 2 insinuates that the executive-legislative conflict curtails the mayor's employment of senketsu shobun, although this reduction lacks statistical significance. For formal verification, Table 2 displays the models of the RD effect. Local polynomial methods necessitate the selection of the bandwidth, the kernel function, and the polynomial order (Cattaneo, Keele and Titiunik, 2023). Subsequently, the results are tested for robustness across each kernel function and polynomial order, and numerous control variables[8]. The findings do not denote that *Divided Government* either amplifies or diminishes the mayors' use of senketsu shobun.

Figure 2: Divided Government Decreases Unilateral Policymaking



Note: The solid line is a fourth order polynomial of the number of senketsu shobun on the vote share margin, fitted separately for candidates above and below the cutoff.

[7]Chair elections are held annually in several municipal governments. Therefore, when the election is held in and before June, we use the number of senketsu shobun in the year. When the electon is held in and after July, we use the number of senketsu shobun one year later

[8]We add the variables like whether the city is prefecture capitol, the population (log), and whether the mayor works for the first term.

Table 2: The Executive-Legislature Relationship Does not Increase or Decrease Unilateral Policymaking in Statistical Significance

	(1)	(2)	(3)	(4)	(5)	(6)
Divided Government	−0.245	−1.122	−1.042	−0.974	−1.850	−2.361
	(0.577)	(1.047)	(1.020)	(1.193)	(1.562)	(1.622)
Polynomial.Order	1	1	1	2	2	2
Kernel	Uniform	Triangular	Uniform	Uniform	Triangular	Uniform
Bandwidth	0.428	0.346	0.268	0.469	0.45	0.363
Control			X			X
N	242	152	113	316	288	166

Note: Dependent variable is the number of the mayor's use of senketsu shobun. The optimal bandwidth (h) is chosen to minimize mean square error. *p <.1; **p<.05; ***p<.01

5.2 Robustness check

We conduct a robustness check (Lee and Lemieux, 2010; Cattaneo, Keele and Titiunik, 2023). We check the sensitivity of our results to different bandwidths (Appendix C-1) and the uncertainty associated with the application of supervised machine learning predictions (Appendix C-2). In addition, in situations where multiple candidates contend for the chair position, the winner occasionally garners less than 50% of the vote share. To deal with this problem, we reexamine the result, focusing on the cases where the winner secures majority vote (Appendix C-3). In summary, our findings remain robust across these rigorous checks.

6 Comparing the Result with Previous Studies

Our findings simultaneously give rise to potential criticisms. First, our initial focus on local Japanese governments might limit the overall scope of our findings. By their nature, local governments do not engage in national security or foreign diplomacy, thus excluding the consideration of unilateral policymaking within these domains from our analysis.

Second, the possibility exists that our conclusions may be specific to Japan or Asia more broadly due to unique political and institutional characteristics, such as prevalent mayor-dominance (*shucho yui*, in Japanese) (Tsuji, 2017; Soga, 2019; Isozaki, Kanai and Ito, 2020;

Table 3: Only in the U.S. Federal Governement, Divided Government Decreases Unilateral Policymaking Significantly

Analysis	Data	Governent	N. of Units	Period	Method	Result
Bolton and Thrower (2016)	Bolton and Thrower (2016)	American federal	1	1945–2013	OLS	-**
Barber, Bolton and Thrower (2019)	Barber, Bolton and Thrower (2019)	American states	50	1979–2015	FE	+/-
Appendix C	Shair-Rosenfield and Stoyan (2018)	Latin America	4	2000–2016	FE	+
Section 5	Original Data	Japanese municipal	166	2012–2021	RDD	-

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Note: We compare previous and our findings on whether divided government increases/decreases unilateral policymaking. Only in the U.S. federal governement, divided government affects unilateral policymaking significantly. FE means fixed effect models with panel data, and RDD means regression discontinuity design.

Kitamura, Aoki and Hirano, 2017).

Considering potential counterarguments, we revisit earlier assertions about the role of divided government in unilateral policymaking. A summary of this reassessment is encapsulated in Table 3. Prior research posits a correlation between a divided government and a decline in presidential unilateral policymaking, but contends that this effect is contingent upon conditions within the U.S. federal government (Bolton and Thrower, 2016) and state governments (Barber, Bolton and Thrower, 2019). Furthermore, the replication of Shair-Rosenfield and Stoyan (2018)indicates that the governmental status—divided or unified—does not significantly affect the issuance of presidential decrees in Latin America (Appendix D).

A closer look at research designs and methods reveals a significant association between the state of government (divided or not) and unilateral policymaking, but this is only evident in OLS models. In contrast, fixed-effect models with panel data and our regression continuity design do not exhibit this association or causal relationship. This discrepancy may hint at the hypothesis testing for the U.S. federal government potentially being susceptible to omitted-variable bias.

Consequently, our analysis corroborates the idea that only in the U.S. federal government does a divided government significantly reduce unilateral policymaking. Other countries and methodological approaches do not offer substantial evidence to support this result.

7 Conclusion

In the realm of presidency studies, the impact of divided government on the executive's utilization of unilateral directives has been statistically tested primarily through conventional OLS methods or fixed effect models with panel data. Our research, utilizing a RD design, finds no statistically significant effect of the executive-legislative relationship on unilateral policymaking.

Our finding holds not only for Japanese municipal governments but also extends to comparative investigations of Latin American central governments (Shair-Rosenfield and Stoyan, 2018) and U.S. state governments (Barber, Bolton and Thrower, 2019). Only in the U.S. federal governement, divided government decreases unilateral policymaking significantly (Bolton and Thrower, 2016).

These observations invite substantial skepticism towards the hypothes and evokes two critical points of concern. Firstly, the association between the executive-legislative relationship and the unilateral policymaking could be weaker and more context-dependent than earlier postulated. Secondly, the empirical testing for the U.S. federal government can be susceptible to omitted-variable bias.

Future research should follow the examples set by prior studies, which have begun to elucidate these complexities and explore the potential factors influencing unilateral policymaking in various contexts (Chiou and Rothenberg, 2017; Shair-Rosenfield and Stoyan, 2017, 2018; Barber, Bolton and Thrower, 2019; Christenson and Kriner, 2017*a*,*b*; Thrower, 2023), moving beyond the traditional focus on the executive-legislative relationship . These directions of inquiry promise a more comprehensive understanding of unilateral policymaking processes and should be further pursued.

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Does Divided Government Control Unilateral Policymaking?

Online Apendix

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A Data and Classification Details

A.1 Data Sources

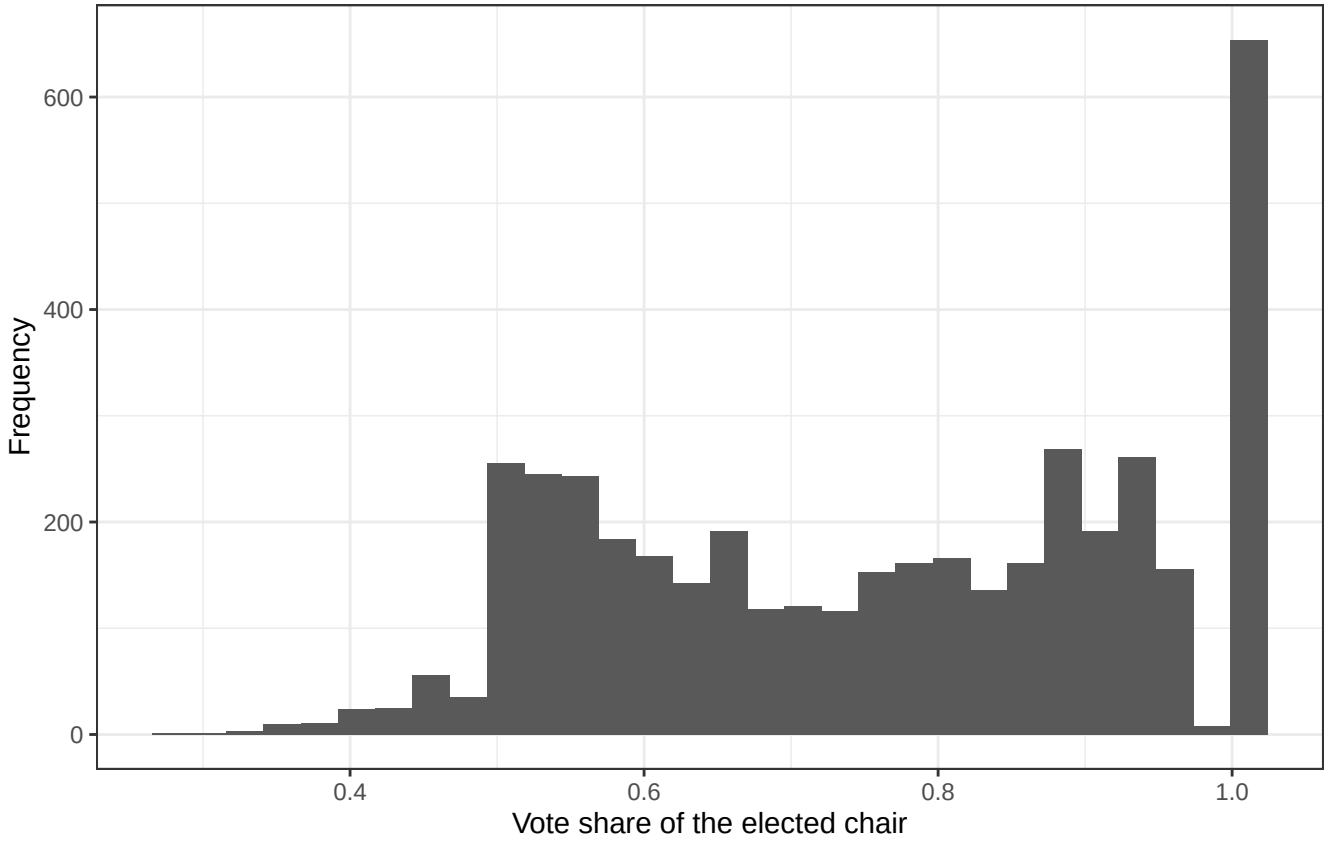
Appendix Table 1

Data	Sources
Chair Candidate's Background and Election Results	Original Dataset
Each Party's Vote in Upper House Elections	Ministries of Internal Affairs and Communications, *Sangiin tsujo senkyo kekka shirabe* (*Results of Upper House Elections*)(2016 and 2019) and (Natori et al., 2014) (2010 and 2013)
Population and Aging Rate	Ministries of Internal Affairs and Communications Statistics Bureau, *Kokusei chosa* (*Population Census*) (2010, 2015 and 2020)
Industrial Production and N. of Industrial Employees	Ministry of Economy, Trade, and Industry, *Kogyo tokei chosa* (*Census of Manufactures*)
N. of Senketsu shobun	The National Associations of Chairpersons of City Councils, *Shigikai no katsudo ni kansuru jittai chousa no kekka* (*Results of the Survey on the Activities of the Municipal Assemblies*)
Mayor's Background	The Japan Research Institute for Local Government, *Zenkoku Shucho Meibo* (*Directory of Heads of Local Governments in Japan*)

A.2 Competitiveness of the municipal assembly chair elections

Appendix Figure 1 delineates the extent of competition in the chair elections across various municipal assemblies. It is noteworthy that in excess of 1,000 elections, the chairs who were elected garnered less than 60% of the total votes. Conversely, in upwards of 2,000 elections, the elected chairs received more than 80% of the total votes or were outrightly uncontested. In the instances where chairs received less than 60% of the votes, it is palpable that the chair position garners considerable interest among members and factions in the assemblies.

Appendix Figure 1: In More than 1,000 Elections, Elected Chairs Receives Less than 60% of the Total Votes



Note: The figure shows the elected chairs' margins in the chair elections (majority voting) held between 2012 and 2021.

A.3 Classification process

First, we transform the factions' names to the bag of words (BOW) (Grimmer and Stewart, 2013). The words which occur only in one faction's name are useless for prediction, so we remove the words. Then, we make the document frequency matrix including 10651 factions and 992 words. For example, "Nishitokyo Municipal Assembly Members' Group of the Liberal Democratic Party" is transformed into "nishi," "tokyo," "municipal," "assembly member," "group," "liberal," "democratic," "party."

To probe the relationship between faction names and national political parties, we have employed a supervised machine learning approach. This method not only takes into account the names of the factions but also incorporates additional variables such as candidate information (party affiliations and vote share) and city characteristics[1] to enhance prediction accuracy. Consequently, the data is divided into training and testing subsets.

Considering that factions often have ties with multiple political parties, we construct models not based on a single party-faction relationship analysis, but rather create separate models for each political party[2] to ascertain their connections to various factions.

We make several statistical models to learn the relationship between the words and the party labels. We employ random forest, one of the most famous algorithms for supervised machine learning. In random forest, researchers can decide the number of features to use to build each tree[3]. We choose the best model from the 19 models based on the accuracy for each party.

A.4 Performance check

We check the performance of the models with test data. The models can classify the factions relatively correctly. Appendix Table 2 shows the results. The models can classify the factions

[1]Included variables are population size (log), aging rate, vote share of national parties in Upper House elections, the number of industry employees per capita, and industry production (log).

[2]The political parties are the LDP, the former DPJ, Komei Party, Social Democratic Party, Japan Communist Party, Japan Restoration Party, and Your Party.

[3]**mtry** in **caret** package in R

relatively correctly. For example, the model to examine the relationship with the LDP the ratio of True Positive/(True Positive + False Positive) is around 0.9, and True Negative/(True Negative + False Negative) is over 0.95.

Appendix Table 2: Performance Evaluation of Binary Classification Models

(a) Liberal Democratic Party

	P. LDP	P. not LDP
A. LDP	235	13
A. not LDP	44	818

(b) Former Democratic Party of Japan

	P. ex-DPJ	P. not ex-DPJ
A. ex-DPJ	11	3
A. not ex-DPJ	17	1079

(c) Komei Party

	P. Komei	P. not Komei
A. Komei	117	2
A. not Komei	2	989

(d) Social Democratic Party

	P. SDP	P. not SDP
A. SDP	8	0
A. not SDP	2	1100

(e) Japan Restoration Party

	P. JRP	P. Not JRP
A. JRP	6	1
A. not JRP	0	1103

(f) Japan Communist Party

	P. JCP	P. not JCP
A. JCP	280	0
A. not JCP	0	830

(g) Your Party

	P. YP	P. not YP
A. YP	1	0
A. not YP	0	1109

Note: A. means "Actual', and P. means "Predicted"

A.5 Chair candidates' relationship with the LDP and the LDP related factions

Appendix Table 3 shows the result for the Liberal Democratic Party (LDP), a governing party in a long period. The left side demonstrates that only 1,131 members ran for elections as LDP. Then, the right side shows that 2,470 members belong to the factions related to the

Appendix Table 3: More Chair Candidates Are Labled as LDP Based on Factions

	Party (reported)	Party (predicted based on faction)
LDP	1,131	2,470
Others (including Independent)	11,855	10,516

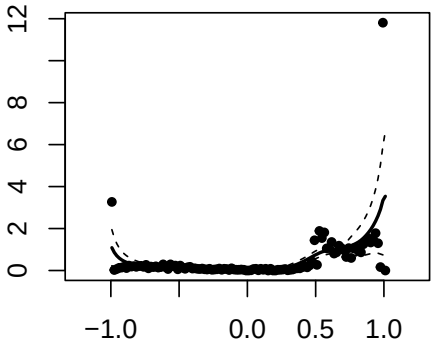
Note: Candidates for municipal assemblies report which party they belong to Electoral Commissions. However, many candidates who actually have ties with natinal political parties report they are independent. This table's first column shows that only 1,131 chair candidates report that they belong to the LDP. However, our classification of the factions into national parties (the second column) reveal that 2,470 chair candidates actually belong to the LDP related factions in the assemblies.

LDP. Based on our prediction, around 1,300 members who report that they are independent belong to the LDP related factions in municipal assemblies.

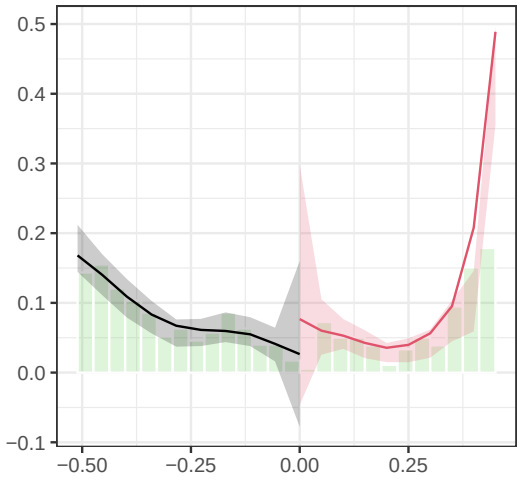
B Manipulation Check

To employ a regression discontinuity design, scholars should check whether treatment is an as-if random assignment near the election threshold. In the Appendix Figure, McCrary (2008) and Cattaneo, Jansson and Ma (2018) manipulation tests indicate that there is no evidence of sorting among the candidates related and not related to the governing parties at the election threshold.

Appendix Figure 2: Manipulation Test



(a) McCrary's Sorting Test (McCrary, 2008)



(b) Cattaneo, Jansson and Ma's Manipulation Test (Cattaneo, Jansson and Ma, 2018)

Note: Each plot depicts the jump in the density of the running variable at the respective threshold. The p-values for the difference in densities returns p-values of .38 in McCrary's test, rejecting the hypothesis that municipal assemblies are able to strategically manipulate the election results. Cattaneo, Jansson and Ma's manipulation test also suggests that manipulations are less likely.

C Robustness Check

C.1 Appendix C-1: Bandwidth

First, we check the sensitivity of our results to different bandwidths around the cutoff. Appendix Table 4–9 show that our results remain consistent across a range of reasonable bandwidth choices, reinforcing our confidence in the robustness of our findings.

Appendix Table 4: Retesting the Result of Model (1)

	0.5h	0.8h	1.3h	1.5h
Divided Government	−1.431	−0.748	−0.200	−0.195
	(1.315)	(0.758)	(0.419)	(0.359)
Polynomial.Order	1	1	1	1
Kernel	Uniform	Uniform	Uniform	Uniform
Bandwidth	0.214	0.342	0.556	0.642
Control				
N	90	151	913	1441

Appendix Table 5: Retesting the Result of Model (2)

	0.5h	0.8h	1.3h	1.5h
Divided Government	−2.382	−1.442	−0.568	−0.441
	(1.954)	(1.334)	(0.749)	(0.631)
Polynomial.Order	1	1	1	1
Kernel	Triangular	Triangular	Triangular	Triangular
Bandwidth	0.173	0.277	0.45	0.519
Control				
N	76	117	288	527

Appendix Table 6: Retesting the Result of Model (3)

	0.5h	0.8h	1.3h	1.5h
Divided Government	−2.556	−1.297	−0.750	−0.214
	(2.002)	(1.279)	(0.749)	(0.614)
Polynomial.Order	1	1	1	1
Kernel	Uniform	Uniform	Uniform	Uniform
Bandwidth	0.134	0.214	0.348	0.402
Control	X	X	X	X
N	53	91	152	210

Appendix Table 7: Retesting the Result of Model (4)

	0.5h	0.8h	1.3h	1.5h
Divided Government	−3.626	−2.199	−0.553	−0.388
	(2.459)	(1.580)	(0.846)	(0.709)
Polynomial.Order	2	2	2	2
Kernel	Uniform	Uniform	Uniform	Uniform
Bandwidth	0.234	0.375	0.609	0.703
Control				
N	99	174	1250	1813

Appendix Table 9: Retesting the Result of Model (6)

	0.5h	0.8h	1.3h	1.5h
Divided Government	−3.888	−1.993	−0.922	−0.771
	(2.990)	(2.008)	(1.163)	(0.946)
Polynomial.Order	2	2	2	2
Kernel	Uniform	Uniform	Uniform	Uniform
Bandwidth	0.182	0.29	0.472	0.545
Control	X	X	X	X
N	80	127	330	759

Appendix Table 8: Retesting the Result of Model (5)

	0.5h	0.8h	1.3h	1.5h
Divided Government	−3.237	−2.324	−1.052	−0.793
	(2.847)	(1.961)	(1.139)	(0.960)
Polynomial.Order	2	2	2	2
Kernel	Triangular	Triangular	Triangular	Triangular
Bandwidth	0.225	0.36	0.585	0.675
Control				
N	97	166	1094	1657

C.2 RD Analysis without Supervised Machine Learning Prediction

Additionally, we address the uncertainty associated with the application of supervised machine learning predictions. Within this study, these predictions are deployed to construct the independent variable. Despite the potential effectiveness of this methodology, it may invite criticism due to inherent uncertainties and possible inaccuracies. To mitigate such concerns, comprehensive validation tests are performed, indicating an achievement rate approaching 95% for both True Positives and True Negatives across various various political parties (Appendix A-4). An exception is noted with the Former DPJ, failing to meet the 80% threshold for True Positives. Consequently, in the construction of the independent variable, the variable associated with the Former DPJ is temporarily excluded for additional robustness check (Appendix Table 10). Additionally, we carry out an alternative analysis using solely the party affiliation, reported to each city's Election Administration Commission, thereby eliminating the prediction of machine learning (Appendix Table 11). The alignment of the results derived from both analyses underlines the robustness of our research methodology.

Appendix Table 10: Analysis Excluding the Former DPJ

	(1)	(2)	(3)	(4)	(5)	(6)
Divided Government	−0.274	−0.867	−1.004	−0.753	−1.508	−1.649
	(0.617)	(1.013)	(0.976)	(0.931)	(1.520)	(1.488)
Polynomial.Order	1	1	1	2	2	2
Kernel	Uniform	Triangular	Uniform	Uniform	Triangular	Uniform
Bandwidth	0.422	0.366	0.278	0.578	0.473	0.39
Control			X			X
N	213	148	104	1021	297	174

Appendix Table 11: Analysis Excluding Faction-Party Relationship

	(1)	(2)	(3)	(4)	(5)	(6)
Divided Government	−0.516	−1.582	−1.353	−1.945	−2.396	−2.510
	(0.770)	(1.316)	(1.153)	(1.540)	(1.820)	(1.963)
Polynomial.Order	1	1	1	2	2	2
Kernel	Uniform	Triangular	Uniform	Uniform	Triangular	Uniform
Bandwidth	0.374	0.319	0.272	0.418	0.441	0.343
Control			X			X
N	146	115	96	194	222	124

C.3 RD Analysis for Cases Where Elected Chairs Receives 50% or More

In situations where multiple candidates contend for the chair position, the winner occasionally garners less than 50% of the vote share. In such scenarios, even if the chair and the mayor belong to the same party, designating the assembly as a unified government becomes a contentious issue. Therefore, we restrict our analysis to instances where the chair secures over no less than 50% of the votes, implementing an RD. Under these specific conditions, the primary conclusions of the study remain consistent (Appendix Table 12).

Appendix Table 12: Results of Cases Where Elected Chairs Receives 50% or More

	(1)	(2)	(3)	(4)	(5)	(6)
Divided Government	−0.176	−1.099	−0.148	−1.734	−2.373	−2.069
	(0.505)	(1.146)	(0.534)	(1.587)	(2.011)	(1.778)
Polynomial.Order	1	1	1	2	2	2
Kernel	Uniform	Triangular	Uniform	Uniform	Triangular	Uniform
Bandwidth	0.621	0.403	0.593	0.476	0.486	0.43
Control			X			X
N	1162	129	983	175	180	148

D FE Analysis for Latin America Context

We draw upon data from Shair-Rosenfield and Stoyan (2018). Although their original hypotheses do not include specific indicators for divided government, they consider a similar variable–the size of the governing parties' coalition. We repurpose this variable to represent *Divided Government*, defined as whether the ruling parties' proportion in the parliament falls below 0.5 and test the hypotheses with fixed effect models. The results do not significantly increase or decrease the president's unilateral policymaking.

Appendix Table 13: In the Latin American Governments, the Executive-Legislative Relationship Does not Affect Unilateral Policymaking

	(1)	Model (2)
Divided Government	3.641	3.207
	(6.708)	(3.660)
Num.Obs.	169	156
FE: year	X	X
FE: country	X	X
Control		X

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