Party Nomination Strategy and its Representational Consequences in Interactive Mixed-Member Majoritarian Systems *

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First Version: 28 Jun, 2024
This Version: 6 Dec, 2024

Abstract

I argue that interactive mixed-member majoritarian systems (interactive MMMs), a variant of mixed member systems where parties can nominate the same candidates in both majoritarian and proportional representation (PR) tiers (dual listing), diminish the representational advantages commonly associated with PR systems. Analyzing comprehensive, candidate-level data of Japan's lower house elections, I show that parties give higher list ranks to senior candidates, incumbents, and dual-listed candidates. Furthermore, incumbents are more likely to be dual-listed than non-incumbents. These patterns apply across parties, but are less applicable to situations of intra-party disputes and government transitions, where seniors and incumbents may give their way to newcomers. My analysis suggests that interactive MMMs sustain representational inequalities between groups by reducing the electoral prospects of newcomers and making legislative turnover less frequent.

*This paper was previously entitled and circulated as "Youth Underrepresentation and Parties' Nomination Strategy in Mixed-Member Electoral Systems". Earlier versions of this paper were presented at the 2024 summer meeting of the Japanese Society for Quantitative Political Science (JSQPS) and 2024 Annual Meeting of Americal Political Science Association (APSA). I thank Dan Smith for sharing the latest version of his data, and Serika Atsumi, Yuki Atsusaka, Amy Catalinac, Kentaro Fukumoto, Yusaku Horiuchi, Junko Kato, Kenneth McElwain, Mayuko Toba, Masahiro Yamada, Hironao Yoda for their comments.

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1 Introduction

2 Theory

2.1 Theoretical Expectations

2.2 Case: Japan's Mixed-Member Majoritarian System

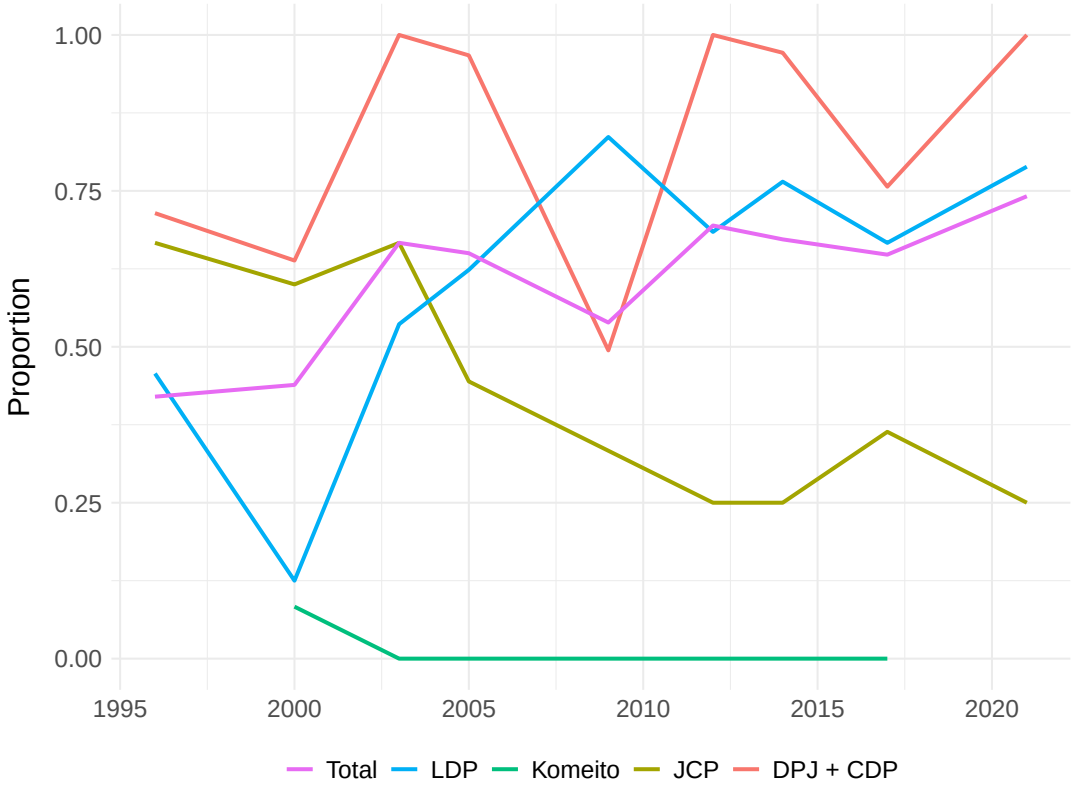

Figure 1: Share of Dual-Listed Candidates among PR Winners

Valid								Invalid	
List A		List B		List C		List D		List E	
Rank	Dual	Rank	Dual	Rank	Dual	Rank	Dual	Rank	Dual
1	-	1	-	1	✓	1	✓	1	-
2	-	2	✓	1	✓	1	✓	1	-
3	-	2	✓	1	✓	3	✓	3	-
4	-	2	✓	1	✓	3	✓	4	✓
5	-	2	✓	5	-	5	-	5	✓
6	-	6	✓	6	-	6	-	6	-
7	-	7	✓	7	-	7	-	7	-
8	-	8	✓	8	-	8	-	8	-

Note. This table presents five hypothetical party lists that may be submitted in the PR tier of Japan's mixed member majoritarian system. Dual-listed candidates are denoted by ✓. Lists A, B, C, and D are all valid. List E is invalid, as pure-PR candidates cannot be ranked equal.

Table 1: Valid and Invalid List Structures in Japan's MMM system

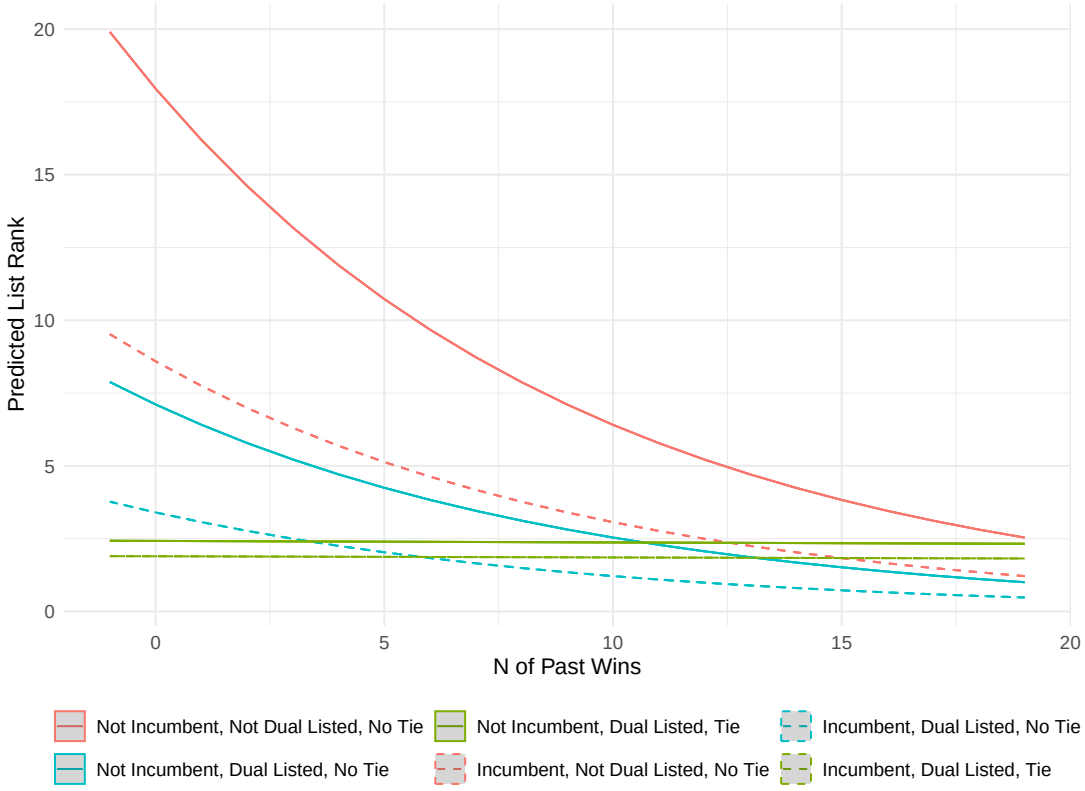

Figure 2: Marginal Effects of Seniority, Incumbency, Dual Listing, and Tie Status on List Rank

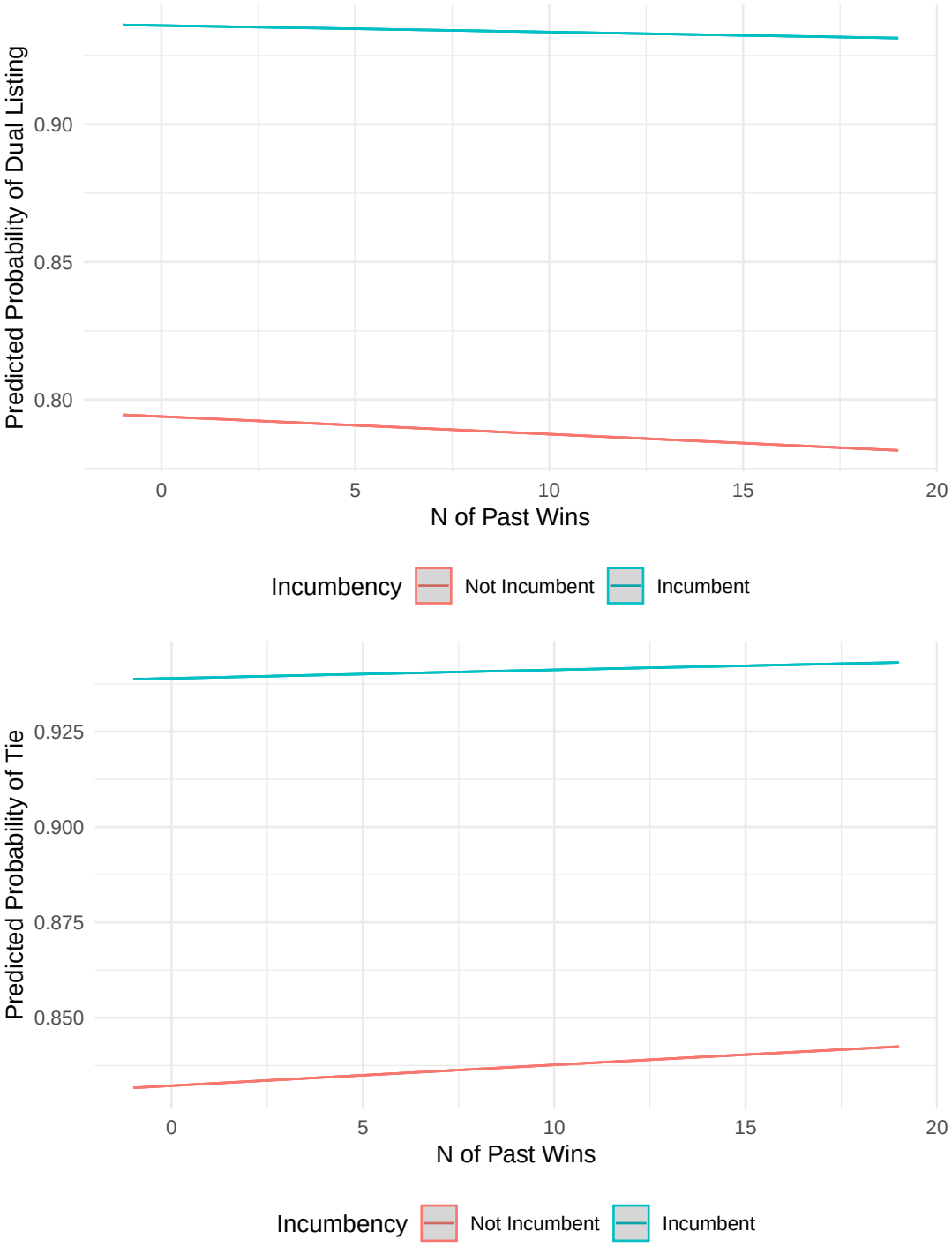

Figure 3: Marginal Effects of Seniority and Incumbency on Dual Listing

	List Rank				Dual Listing			Dual Listing (Tie)		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Total Wins	−0.15***			−0.14***	0.19***		0.01	0.19***		0.02
	(0.01)			(0.01)	(0.02)		(0.02)	(0.02)		(0.02)
Incumbency		−1.26***		−0.87***		1.64***	1.65***		1.60***	1.57***
		(0.04)		(0.07)		(0.11)	(0.14)		(0.11)	(0.14)
Dual Listing			−2.00***	−1.52***						
			(0.03)	(0.13)						
Tie				−3.27***						
				(0.66)						
Female				−0.17**			−0.58**			−0.70***
				(0.05)			(0.18)			(0.17)
Block Magnitude				0.01***			0.05***			0.05***
				(0.00)			(0.01)			(0.01)
Total Wins x Tie				0.14***						
				(0.01)						
Tie x Incumbency				0.71***						
				(0.08)						
Tie x Dual Listing				2.51***						
				(0.67)						
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Party FE	No	No	No	No	No	No	No	No	No	No
AIC	16370.59	15871.58	14270.41	13692.05	2639.55	2491.96	2442.14	2712.74	2572.15	2513.64
BIC	16436.29	15937.28	14336.11	13805.53	2699.27	2551.68	2519.78	2772.47	2631.88	2591.28
Log Likelihood	−8174.30	−7924.79	−7124.21	−6827.03	−1309.77	−1235.98	−1208.07	−1346.37	−1276.08	−1243.82
Deviance	2920.43	2822.00	2377.49	2344.53	2619.55	2471.96	2416.14	2692.74	2552.15	2487.64
Num. obs.	2900	2900	2900	2900	2900	2900	2900	2900	2900	2900

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$. Standard errors in parentheses.
Dependent variable: candidate i's list rank (columns 1-4) dual listing status (columns 5-7), and whether the candidate has a tie on the list (columns 8-10).
Estimated models: negatige binomial (columns 1-4) and logit (columns 5-10).

Table 2: Regression Results for LDP Candidates

	List Rank				Dual Listing			Dual Listing (Tie)		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Total Wins	−0.15***			0.04	0.38***		0.18*	0.30***		0.15*
	(0.01)			(0.04)	(0.07)		(0.07)	(0.06)		(0.07)
Incumbency		−0.84***		−1.46***		1.50***	1.05***		1.17***	0.77**
		(0.05)		(0.15)		(0.23)	(0.28)		(0.20)	(0.25)
Dual Listing			−2.61***	−2.38***						
			(0.05)	(0.27)						
Tie				−0.30						
				(0.27)						
Female				−0.06			−0.07			−0.19
				(0.05)			(0.21)			(0.20)
Block Magnitude				0.02***			0.04**			0.03**
				(0.00)			(0.01)			(0.01)
Total Wins x Tie				−0.05						
				(0.04)						
Tie x Incumbency				1.34***						
				(0.16)						
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Party FE	No	No	No	No	No	No	No	No	No	No
AIC	9118.31	9030.19	7149.22	6995.05	1106.75	1101.45	1087.57	1177.03	1175.42	1165.20
BIC	9180.42	9092.30	7211.33	7096.68	1163.21	1157.91	1160.97	1233.49	1231.88	1238.60
Log Likelihood	−4548.16	−4504.10	−3563.61	−3479.53	−543.37	−540.72	−530.79	−578.51	−577.71	−569.60
Deviance	1838.19	1806.51	1115.73	1105.82	1086.75	1081.45	1061.57	1157.03	1155.42	1139.20
Num. obs.	2093	2093	2093	2093	2093	2093	2093	2093	2093	2093

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$. Standard errors in parentheses.
Dependent variable: candidate i's list rank (columns 1-4) dual listing status (columns 5-7), and whether the candidate has a tie on the list (columns 8-10).
Estimated models: negatige binomial (columns 1-4) and logit (columns 5-10).

Table 3: Regression Results for DPJ / CDP Candidates

	2005			2012	
	List Rank	Dual Listing	Tie	List Rank	Dual Listing
Total Wins	−0.01	0.03	0.06	0.02	0.61*
	(0.02)	(0.09)	(0.08)	(0.04)	(0.25)
Incumbency	−2.03***	1.76***	1.47***	−0.23	1.48
	(0.16)	(0.46)	(0.42)	(0.28)	(1.21)
Dual Listing	−1.77***			−3.41***	
	(0.17)			(0.09)	
Tie	−3.26**				
	(1.01)				
Female	−0.56***	0.52	−0.31	−0.06	0.57
	(0.10)	(0.59)	(0.48)	(0.12)	(0.69)
Block Magnitude	0.04***	0.04	0.05*	0.04***	0.10***
	(0.00)	(0.02)	(0.02)	(0.00)	(0.03)
Total Wins x Tie	0.01				
	(0.02)				
Tie x Incumbency	2.00***				
	(0.18)				
Tie x Dual Listing	3.11**				
	(1.02)				
Year FE	Yes	Yes	Yes	Yes	Yes
Party FE	No	No	No	No	No
AIC	1418.21	276.68	310.14	910.24	227.80
BIC	1460.19	295.77	329.23	944.33	246.73
Log Likelihood	−698.10	−133.34	−150.07	−446.12	−108.90
Deviance	228.28	266.68	300.14	84.16	217.80
Num. obs.	336	336	336	326	326

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$. Standard errors in parentheses.
Dependent variable: candidate i's list rank (columns 1 / 4), dual listing status (columns 2 / 5), and whether the candidate has a tie on the list (column 3).
Estimated models: negatige binomial (columns 1 / 4) and logit (columns 2, 3, and 5). *Note.* All dual-listed LDP candidates in the 2012 general election had ties on the list.

Table 4: Regression Results for LDP Candidates in 2005 and 2012

3 Data and Method

4 Result

4.1 Aggregate-Level Analysis

4.2 Party-Specific Analysis

4.3 Election- / Party-Specific Analysis

5 Discussion

5.1 Legislative Turnover

5.2 Representation

Country	Eligibility	Average	% U30	% U40	% U45
Canada	18	50	1.95	16.88	30.19
France	18	49	4.85	26.52	37.95
Germany	18	47	8.83	28.94	41.98
Italy	25	49	1.25	16.25	35
Japan	25	55	0.22	6.02	17.2
UK	18	51	3.69	21.69	34
USA	25	57	0.46	10.42	20.14

Note. Age demographics of lower house members in the G7 countries, as of January 2023. Eligibility is the minimum age to run for the house.
Source. Inter-Parliamentary Union (2024).

Table 5: Age Demographics of Lower Houses in the G7 Countries

6 Conclusion

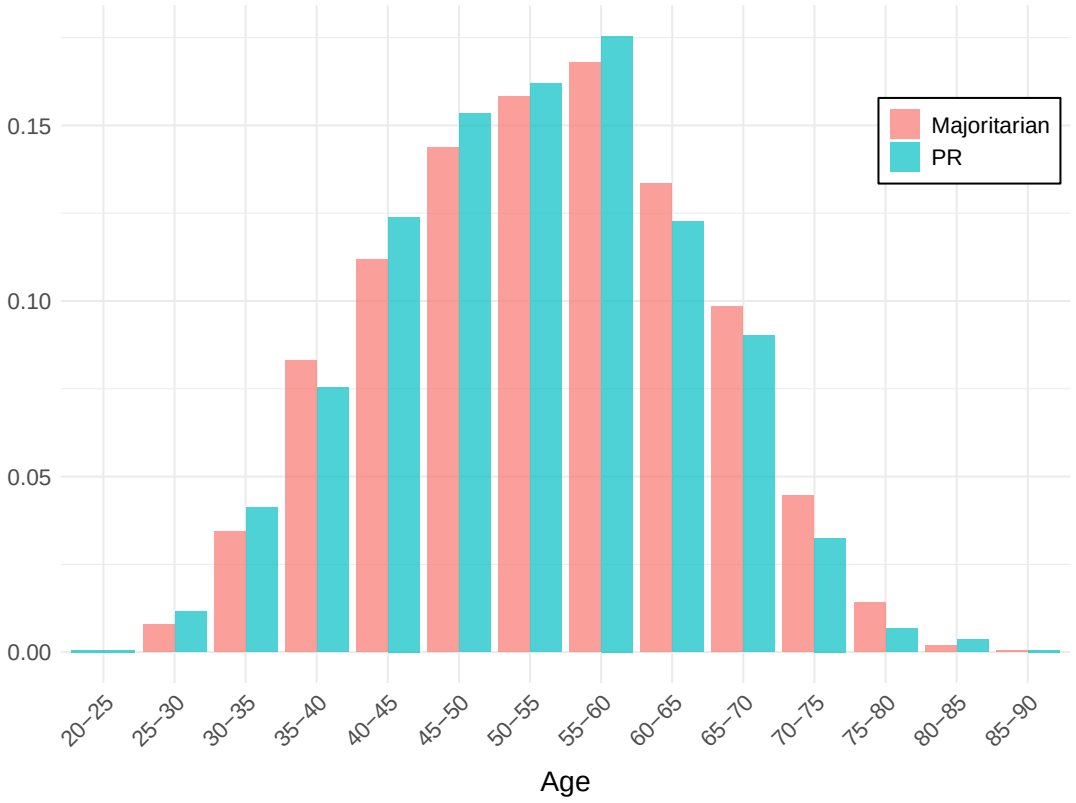

Figure 4: Age Composition of Legislators Elected from the Two Tiers

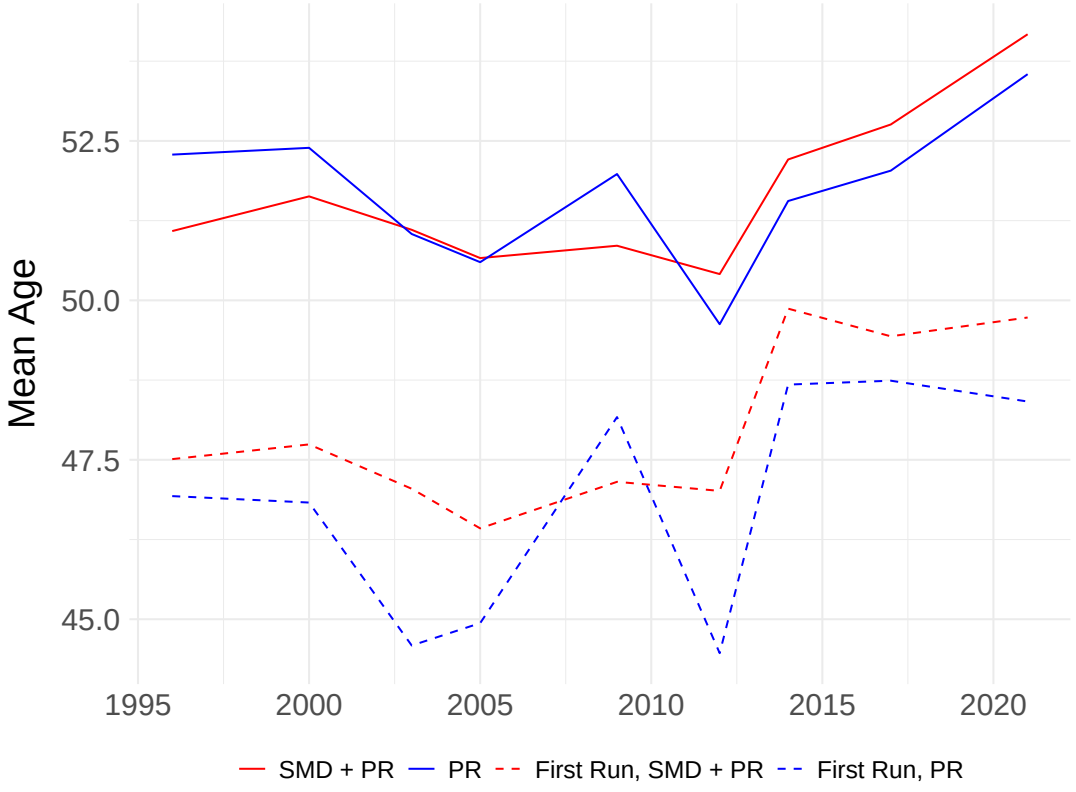

Figure 5: Age Comparison: Average vs. New Candidates

Year	1947	1949	1952	1953	1955	1958	1960	1963	1967
Mean age	48.7	47.4	54.6	52.3	52.2	49.0	48.4	47.1	46.1
Proportion (%)	100	47.4	43.8	14.6	16.1	15.0	13.1	14.6	21.0
Mean age (all)	48.7	48.6	52.8	52.6	53.9	54.6	55.6	56.1	56.2
Year	1969	1972	1976	1979	1980	1983	1986	1990	1993
Mean age	45.3	47.8	48.0	49.0	45.2	48.7	48.4	48.9	44.1
Proportion (%)	19.3	18.9	24.3	14.5	6.9	16.4	12.7	26.0	26.2
Mean age (all)	55.1	55.3	55.0	55.8	56.1	56.0	56.9	56.4	54.3
Year	1996	2000	2003	2005	2009	2012	2014	2017	2021
Mean age	48.7	46.4	44.5	44.4	46.3	44.8	47.2	47.7	50.3
Proportion (%)	23.0	22.1	20.8	21.0	32.9	38.3	9.1	12.0	8.6
Mean age (all)	55.2	54.6	53.1	52.4	52.2	51.9	53.0	54.7	55.5

Mean age and proportion of MPs elected for the first time, and mean age of All MPs elected in each general election.
Data source: Reed and Smith (2017)

Table 6: Data of First-Time Winners

7 Bibliography

Inter-Parliamentary Union (2024). Data on age: By country. https://data.ipu.org/age-brackets/.

Ministry of Internal Affairs and Communications (2024). Election (Senkyo). https://www.soumu.go.jp/menu_seisaku/senkyo/index.html.

Reed, S. R. and Smith, D. M. (2017). The Reed-Smith Japanese House of Representatives Elections Dataset.

A Summary Statistics

A.1 Candidate-Level Summary Statistics

Year	N	Proportion (%)				N of Wins		
		Incumbents	Dual-Listed	Tie	Female	Mean	SD	Median
1996	809	38.2	70.1	62.1	9.3	1.78	2.90	0
2000	904	43.8	77.3	70.7	11.4	1.71	2.59	1
2003	745	49.3	82.1	76.8	10.3	1.70	2.27	1
2005	778	51.9	81.7	76.1	10.8	1.95	2.49	1
2009	887	47.1	73.5	70.5	14.4	1.84	2.48	1
2012	1117	37.2	81.2	79.3	12.9	1.41	2.16	0
2014	841	51.4	72.4	69.1	14.9	2	2.51	1
2017	855	45.4	71.5	67.5	17.0	1.96	2.47	1
2021	818	46.3	76.3	72.2	17.4	1.59	2.52	0
Total	7754	45.3	76.3	71.8	13.2	1.76	2.49	1

Note: Summary statistics for the candidates who ran in the PR tier of each general election.
Data source: Reed and Smith (2017)

Table A1: Summary Statistics

A.2 Magnitudes of PR Blocks, 1996 - 2021

Bloc	1996	2000	2003	2005	2009	2012	2014	2017	2021
Hokkaido	9	8	8	8	8	8	8	8	8
Tohoku	16	14	14	14	14	14	14	13	13
Kita-kanto	21	20	20	20	20	20	20	19	19
Tokyo	19	17	17	17	17	17	17	17	17
Minami-kanto	23	21	22	22	22	22	22	22	22
Hokuriku Shinetsu	13	11	11	11	11	11	11	11	11
Tokai	23	21	21	21	21	21	21	21	21
Kinki	33	30	30	30	29	29	29	28	28
Chugoku	13	11	11	11	11	11	11	11	11
Shikoku	7	6	6	6	6	6	6	6	6
Kyushu	23	21	21	21	21	21	21	20	20

Magnitudes of each PR regional district for elections 1996 - 2021.
Data source: Reed and Smith (2017); Ministry of Internal Affairs and Communications (2024)

Table A2: Magnitudes of PR Blocks

A.3 Distribution of List Rank

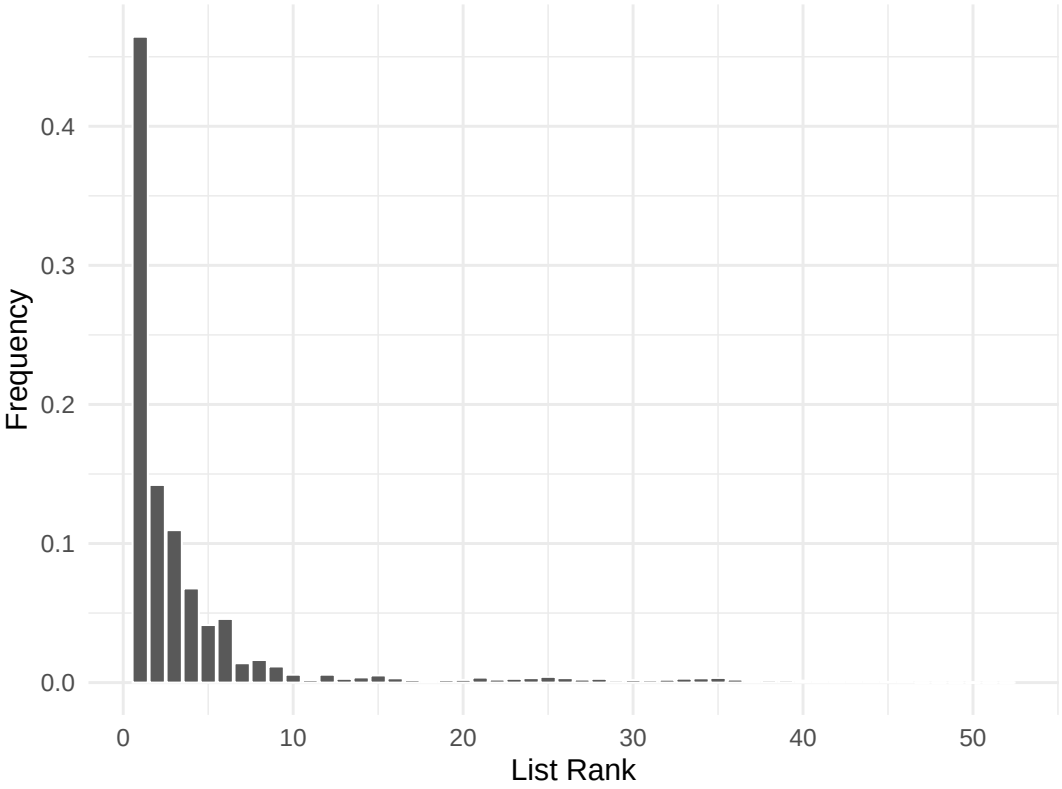

Figure A1: Distribution of List Rank

A.4 Age of Winners

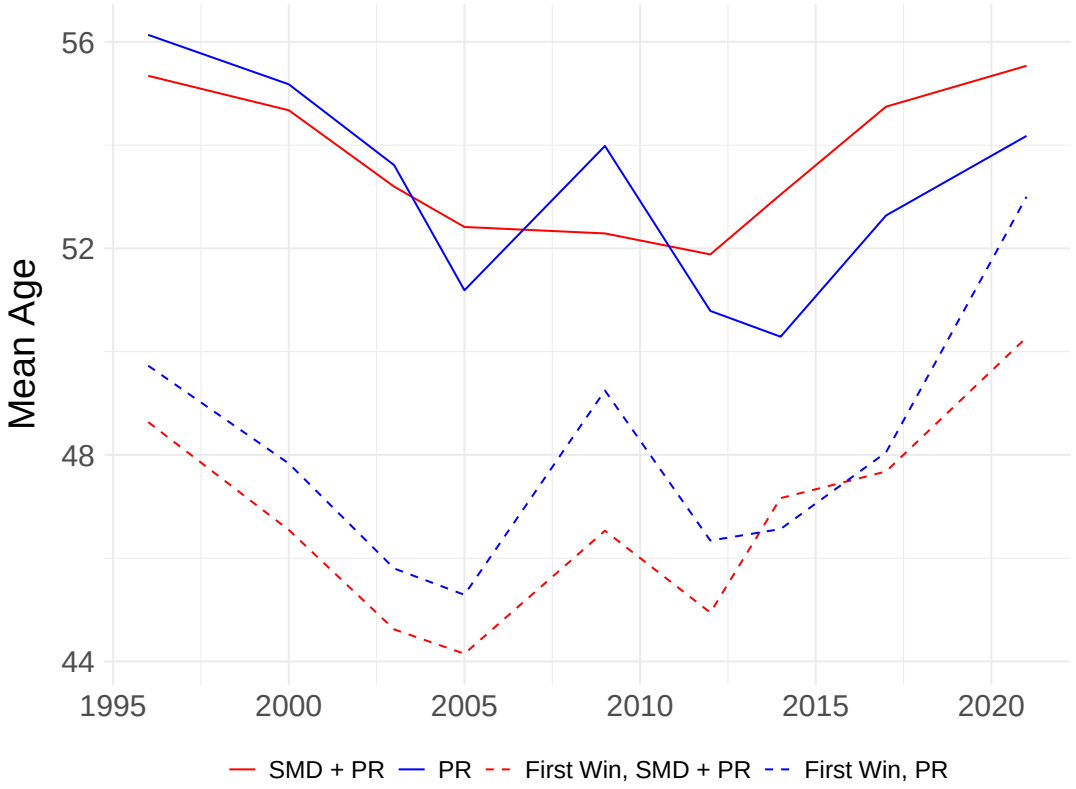

Figure A2: Age Comparison: Average vs. New Legislators

B Additional Analyses

B.1 Aggregate-level Regression Table

	List Rank				Dual Listing			Dual Listing (Tie)		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Total Wins	−0.15***			−0.10***	0.16***		−0.00	0.14***		0.00
	(0.01)			(0.02)	(0.04)		(0.02)	(0.04)		(0.02)
Incumbency		−1.02***		−0.74***		1.33***	1.33***		1.16***	1.13***
		(0.12)		(0.11)		(0.28)	(0.28)		(0.32)	(0.31)
Dual Listing			−1.82***	−0.93***						
			(0.25)	(0.27)						
Tie				−1.92*						
				(0.86)						
Female				−0.07			−0.24*			−0.40***
				(0.04)			(0.12)			(0.11)
Block Magnitude				0.02***			0.04***			0.04***
				(0.01)			(0.01)			(0.01)
Total Wins x Tie				0.10***						
				(0.02)						
Tie x Incumbency				0.49**						
				(0.18)						
Tie x Dual Listing				0.84						
				(0.91)						
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Party FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
AIC	37167.39	36446.03	33098.42	31652.57	5886.23	5697.89	5629.09	5949.29	5803.79	5729.36
Log Likelihood	−18536.69	−18176.02	−16502.21	−15771.28	−2897.12	−2802.94	−2765.54	−2928.64	−2855.90	−2815.68
Num. obs.	7754	7754	7754	7754	7754	7754	7754	7754	7754	7754

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$. Standard errors clustered at the party level in parentheses.
Dependent variable: candidate i's list rank (columns 1-4) dual listing status (columns 5-7), and whether the candidate has a tie on the list (columns 8-10).
Estimated models: negatige binomial (columns 1-4) and logit (columns 5-10).

Table A3: Regression Results

B.2 Party-level Analysis

Komeito

	List Rank				Dual Listing			Dual Listing (Tie)		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Total Wins	−0.21***			−0.12***	0.32		0.12	0.34		0.38
	(0.02)			(0.03)	(0.19)		(0.27)	(0.24)		(0.34)
Incumbency		−0.79***		−0.46***		1.50	1.21		1.17	0.35
		(0.07)		(0.12)		(0.88)	(1.15)		(1.25)	(1.70)
Dual Listing			−0.26	0.20						
			(0.23)	(0.30)						
Tie				−1.63						
				(1.96)						
Female				−0.13			−0.49			1.06
				(0.10)			(1.19)			(1.45)
Block Magnitude				0.04***			−0.06			−0.05
				(0.01)			(0.06)			(0.10)
Total Wins x Tie				0.64						
				(0.71)						
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Party FE	No	No	No	No	No	No	No	No	No	No
AIC	18.00	1134.87	1264.37	1042.07	57.30	56.69	61.28	38.40	39.19	43.55
BIC	52.05	1168.92	1298.42	1098.83	87.57	86.96	102.91	68.67	69.46	85.18
Log Likelihood	0.00	−558.43	−623.18	−506.04	−20.65	−20.35	−19.64	−11.20	−11.59	−10.78
Deviance	180.36	195.93	309.02	91.14	41.30	40.69	39.28	22.40	23.19	21.55
Num. obs.	325	325	325	325	325	325	325	325	325	325

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$. Standard errors in parentheses.
Dependent variable: candidate i's list rank (columns 1-4) dual listing status (columns 5-7), and whether the candidate has a tie on the list (columns 8-10).
Estimated models: negatige binomial (columns 1-4) and logit (columns 5-10).

Table A4: Regression Results for Komeito Candidates

JCP

	List Rank				Dual Listing			Dual Listing (Tie)		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Total Wins	−0.22***			−0.10***	−0.03		−0.04	−2.19*		−1.40
	(0.02)			(0.03)	(0.05)		(0.08)	(0.98)		(1.13)
Incumbency		−0.95***		−0.72***		−0.12	−0.17		−19.85	−17.22
		(0.08)		(0.11)		(0.23)	(0.34)		(2367.75)	(2043.44)
Dual Listing			0.07	−0.06						
			(0.06)	(0.06)						
Tie				−0.03						
				(0.11)						
Female				0.04			−0.12			−0.99*
				(0.05)			(0.21)			(0.46)
Block Magnitude				0.05***			0.07***			0.13***
				(0.00)			(0.01)			(0.04)
Total Wins x Tie				0.29						
				(0.51)						
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Party FE	No	No	No	No	No	No	No	No	No	No
AIC	1775.10	1750.64	1897.57	1568.00	628.43	628.60	610.54	178.03	180.35	162.47
BIC	1820.69	1796.23	1943.16	1638.45	669.87	670.04	664.42	219.48	221.79	216.34
Log Likelihood	−876.55	−864.32	−937.78	−767.00	−304.21	−304.30	−292.27	−79.02	−80.18	−68.23
Deviance	385.60	372.88	423.51	191.69	608.43	608.60	584.54	158.03	160.35	136.47
Num. obs.	466	466	466	466	466	466	466	466	466	466

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$. Standard errors in parentheses.
Dependent variable: candidate i's list rank (columns 1-4) dual listing status (columns 5-7), and whether the candidate has a tie on the list (columns 8-10).
Estimated models: negatige binomial (columns 1-4) and logit (columns 5-10).

Table A5: Regression Results for JCP Candidates