Online Appendix: Party collapse and new party entry

Denise Laroze

October 17, 2017

	Country	Election Date	Party Name	Vote Share (t-2)
1	Latvia	1990-04-29	Popular Front of Latvia	68.20
2	Romania	1990-05-20	National Salvation Front	66.30
3	Malta	1947-10-27	Malta Labour Party	59.90
4	Bulgaria	1997-04-19	United Democratic Forces	52.26
5	Czech Republic	1990-06-09	Civic Forum	49.50
6	Italy	2001-05-13	Freedom Pole	45.57
7	Lithuania	1992-11-25	Democratic Labour Party of Lithuania	43.98
8	Greece	2009-10-04	Panhellenic Socialist Movement	43.90
9	Bulgaria	1994-12-18	Bulgarian Socialist Party	43.50
10	Hungary	2006-04-09	Hungarian Socialist Party	43.20
11	Canada	1988-11-21	Progressive Conservative Party of Canada	42.67
12	Ireland	2007-05-24	Fianna Fail (Soldiers of Destiny)	41.60
13	Spain	1979-03-01	Union of the Democratic Centre	35.10
14	Belgium	1965-05-23	Francophone Christian Social Party and Flemish Christian People's Party	34.45
15	Poland	1997-09-21	Solidarity Electoral Action	33.83
16	Latvia	1993-06-06	Latvian Way	32.41
17	Estonia	1995-03-05	Coalition Party and Rural Union	32.23
18	Lithuania	1996-10-20	Homeland Union	31.34
19	Italy	1948-04-18	Popular Democratic Front	31.00
20	Slovenia	2008-09-21	United List – Social Democrats	30.45
21	Romania	1996-11-03	Romanian Democratic Convention	30.17
22	Italy	1992-04-05	Christian Democrats	29.70
23	Slovakia	1990-06-09	Public against Violence	29.30
24	Lithuania	2004-10-24	Labour Party	28.40
25	Japan	1996-10-20	New Frontier Party	28.04
26	Belgium	1977-04-17	Belgian Socialist Party	27.00
27	Austria	1999-10-03	Freedom Party of Austria	26.90
28	Italy	1987-06-14	Communist Party	26.60
29	Slovakia	1998-09-26	Slovak Democratic Coalition	26.30
30	France	1946-11-10	Popular Republican Movement	26.00
31	France	1973-03-04	Gaullists	26.00
32	Hungary	1990-04-08	Hungarian Democratic Forum	24.70
33	Bulgaria	2005-06-25	National Movement Simeon II	22.90
34	Slovenia	2004-10-03	Liberal Democracy of Slovenia	22.80
35	United Kingdom	1987-06-11	SDP–Liberal Alliance	22.60
36	Bulgaria	1997-04-19	Democratic Left	22.07
37	Estonia	1992-09-20	National Coalition Party "Pro Patria"	22.00
38	France	1951-06-17	Gaullists	22.00
39	Latvia	1990-04-29	Communist Party of the Soviet Union	21.50
40	Lithuania	1992-11-25	Sajudis coalition	21.17
41	Belgium	1968-03-31	Liberal Party	20.90
42	New Zealand	1981-11-28	Social Credit / Democratic Party	20.65
43	Canada	1988-11-21	New Democratic Party	20.22

Table 1: Table listing the largest parties that collapsed in the sample. The table includes all collapsed parties that previously held $> 20\%$ of the votes. Some alliances such as Freedom Pole Italy 2001 are included, because the sum of alliance members lost at least 50% of their votes in the next election.

	A.M1 Pooled	A.M2 pooled	A.M3 pooled	A.M4 RE	A.M5 FE	A.M6 Two-way	A.M7 Interaction
% votes collapsed party (t-2)	0.26***						
	(0.04)						
Log % votes collapsed party (t-2)		0.28***	0.25***	0.28***	0.10·	0.12*	0.12·
		(0.06)	(0.05)	(0.06)	(0.05)	(0.06)	(0.07)
Location collapsed party (t-2)	−0.53·	−0.09*	−0.09·	−0.09*	−0.08·	−0.10*	−0.10*
	(0.31)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
FPTP (dummy - Yes)							−1.09***
							(0.21)
FPTP * log % collapsed party (t-2)							0.04
							(0.10)
Log of population	−0.06	−0.03	−0.02	−0.03	2.25**	1.18	1.04
	(0.36)	(0.05)	(0.04)	(0.05)	(0.72)	(0.87)	(0.83)
% change in GDP	−0.01	−0.00	−0.00	−0.00	−0.00	−0.00	−0.01
	(0.05)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Log inflation (+2)	−1.25	−0.09	−0.08	−0.09	−0.16	−0.13	−0.11
	(0.81)	(0.09)	(0.09)	(0.10)	(0.10)	(0.13)	(0.13)
Number of parties (t-1)	0.16	0.01	0.01	0.01	−0.08***	−0.10**	−0.11**
	(0.17)	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.04)
Log time (+ 1)	−1.84	−0.18	−0.17	−0.18	−0.26		
	(1.12)	(0.12)	(0.11)	(0.12)	(0.34)		
Mean Dist. Mag.	0.00	0.00	0.00	0.00	−0.04*	−0.04**	
	(0.01)	(0.00)	(0.00)	(0.00)	(0.02)	(0.01)	
Turnout	−0.03	−0.01·	−0.01·	−0.01·	0.01	0.02	0.02
	(0.07)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)
Compulsory voting (Yes)	1.03	0.27·	0.25·	0.27·	−0.63*	−0.61·	−0.90*
	(1.29)	(0.16)	(0.15)	(0.16)	(0.29)	(0.33)	(0.36)
Log vote share NP (t-1)			0.07		−0.06	−0.04	−0.03
			(0.05)		(0.05)	(0.04)	(0.04)
Intercept	11.59	2.61*	2.49*	2.59*			
	(10.78)	(1.13)	(1.07)	(1.12)			
R^2	0.18	0.15	0.15	0.15	0.06	0.06	0.07
Adj. R^2	0.16	0.12	0.12	0.12	-0.07	-0.17	-0.16
Num. obs.	333	333	333	333	333	333	334

$^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$, $^{\cdot}p < 0.1$ Arellano-Bond s.e. in parenthesis

Table 2: Empirical models on the association between size of party crash, its location and interaction of size with electoral system. The dependent in M1 is the sum of votes obtained by new parties in the first legislative election they participated. Model M2-7 use a logged version of the dependent variable (+1)

	A.M8 Pooled	A.M9 FE	A.M10 FE Interaction
Log % votes collapsed party (t-2)	0.25***	0.18**	0.17**
	(0.07)	(0.06)	(0.06)
Location collapsed party (t-2)	−0.03	−0.07	−0.07
	(0.06)	(0.05)	(0.05)
FPTP (dummy - Yes)	0.03	−0.45	−0.55
	(0.30)	(0.60)	(0.75)
FPTP * log % collapsed party (t-2)			0.07
			(0.22)
Log of population	0.01	−2.35	−2.36
	(0.07)	(2.24)	(2.25)
% change in GDP	−0.00	−0.01	−0.01
	(0.01)	(0.01)	(0.01)
Log inflation (+2)	−0.19	−0.08	−0.08
	(0.15)	(0.24)	(0.24)
Log time (+ 1)	−0.39*		
	(0.19)		
Turnout	−0.00	0.05*	0.05*
	(0.01)	(0.02)	(0.02)
Compulsory voting (Yes)	0.27	−0.28	−0.29
	(0.19)	(0.32)	(0.32)
Threshold	0.06***	−0.01	−0.02
	(0.02)	(0.06)	(0.08)
ENEP	0.04	−0.13	−0.13
	(0.07)	(0.09)	(0.09)
Log vote share NP (t-1)	0.04	−0.09	−0.09
	(0.07)	(0.06)	(0.06)
Intercept	1.49		
	(1.28)		
R^2	0.29	0.10	0.10
Adj. R^2	0.24	-0.29	-0.30
Num. obs.	199	199	199

$^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$, $^{\cdot}p < 0.1$ Arellano-Bond s.e. in parenthesis

Table 3: Alternative control variables for models M1-3 in the main text

	A.M11 Pooled	A.M12 Int. Size	A.M13 Int. Location
Log % votes collapsed party (t-2)	0.15**	0.13*	0.14**
	(0.05)	(0.05)	(0.05)
Location collapsed party (t-2)	−0.10*	−0.08·	−0.08·
	(0.05)	(0.05)	(0.04)
Log % votes * East Europe		0.39	
		(0.25)	
Location * East Europe			−0.32
			(0.20)
East Europe (dummy - Yes)	1.57***	0.37	2.19***
	(0.31)	(0.85)	(0.43)
Log of population	0.01	0.02	0.01
	(0.04)	(0.04)	(0.04)
% change in GDP	−0.00	−0.00	−0.00
	(0.01)	(0.01)	(0.01)
Log inflation (+2)	−0.10	−0.08	−0.13
	(0.08)	(0.09)	(0.09)
Number of parties (t-1)	0.01	0.01	0.01
	(0.01)	(0.01)	(0.01)
Log time (+ 1)	0.22·	0.24·	0.21·
	(0.12)	(0.12)	(0.12)
Mean Dist. Mag.	−0.00	−0.00	−0.00
	(0.00)	(0.00)	(0.00)
Turnout	0.00	0.00	0.00
	(0.01)	(0.01)	(0.01)
Compulsory voting (Yes)	0.24	0.25	0.24
	(0.16)	(0.17)	(0.16)
Log vote share NP (t-1)	0.01	−0.01	0.01
	(0.04)	(0.04)	(0.04)
Intercept	−0.08	−0.20	0.05
	(0.99)	(1.03)	(0.99)
R^2	0.23	0.23	0.23
Adj. R^2	0.20	0.20	0.20
Num. obs.	333	333	333

$^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$, $^{\cdot}p < 0.1$ Arellano-Bond s.e. in parenthesis

Table 4: Pooled linear models controlling for the impact of elections in post-soviet (East European) countries, their interaction with the size of the collapsed party and location. The dependent variable is the log share of votes for new parties (+1).

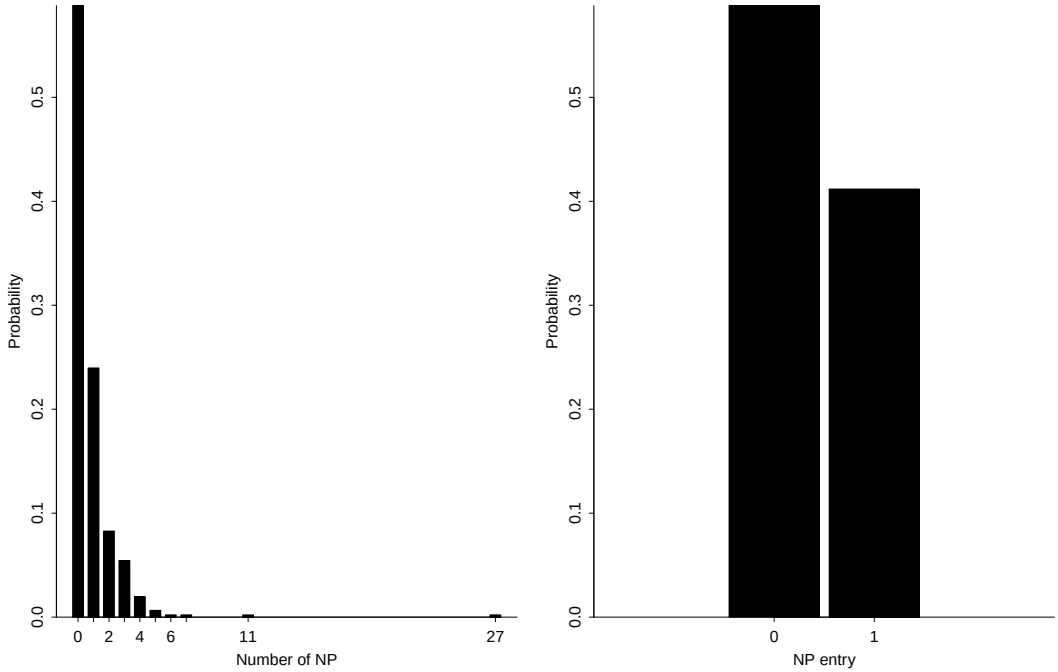

Figure 1: Histogram of alternative definitions of the dependent variable. On the left is a count of significant new parties (i.e. those that obtained enough votes win a seat). On the right is the dummy variable indicating the existence of a significant new party entry.

	A.M14 Logit	A.M15 Logit int	A.M16 Neg. Bino.	A.M17 Neg. Bin. int
Log % votes collapsed party (t-2)	0.25*	0.23·	0.19**	0.18*
	(0.11)	(0.12)	(0.07)	(0.07)
Location collapsed party (t-2)	−0.04	−0.05	−0.14*	−0.14*
	(0.10)	(0.10)	(0.07)	(0.07)
FPTP (dummy - Yes)	−0.79*	−0.93*	−0.86**	−0.94**
	(0.39)	(0.46)	(0.28)	(0.34)
FPTP * log % collapsed party (t-2)		0.14		0.08
		(0.24)		(0.18)
Log of population	0.10	0.10	0.16*	0.16*
	(0.10)	(0.10)	(0.07)	(0.07)
% change in GDP	−0.01	−0.01	0.00	0.00
	(0.01)	(0.01)	(0.01)	(0.01)
Log inflation (+2)	0.15	0.14	0.02	0.02
	(0.19)	(0.19)	(0.12)	(0.12)
Number of parties (t-1)	0.05	0.05	0.04·	0.04·
	(0.04)	(0.04)	(0.03)	(0.03)
Log time (+ 1)	−0.04	−0.06	0.03	0.02
	(0.29)	(0.29)	(0.19)	(0.19)
Turnout	−0.02*	−0.02*	−0.01	−0.01
	(0.01)	(0.01)	(0.01)	(0.01)
Compulsory voting (Yes)	0.66*	0.68*	0.35	0.35
	(0.33)	(0.34)	(0.22)	(0.22)
Existence NP (t-1)	−0.03	−0.04	0.24	0.24
	(0.26)	(0.26)	(0.17)	(0.17)
Intercept	−0.73	−0.65	−3.18*	−3.15*
	(2.00)	(2.01)	(1.25)	(1.25)
AIC	439.65	441.33	760.21	762.04
BIC	485.38	490.87	809.76	815.40
Log Likelihood	-207.83	-207.66	-367.11	-367.02
Deviance	415.65	415.33	311.98	311.74
Num. obs.	334	334	334	334

$^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$, $^{\cdot}p < 0.1$

Table 5: Count models on the existence of successful new parties and the number of successful new parties that enter. A successful new party is defined as one that obtains enough votes to gain a seat in the legislature.

	A.M18 Pooled	A.M19 FE	A.M20 FE Interaction
Log % votes collapsed party (t-2)	0.33^{***}	0.21^{**}	$0.15^{\cdot}$
	(0.06)	(0.07)	(0.08)
Location collapsed party (t-2)	-0.06	-0.07	$-0.08^{\cdot}$
	(0.05)	(0.05)	(0.05)
FPTP (dummy - Yes)			-1.09^{**}
			(0.37)
FPTP * log % collapsed party (t-2)			0.23
			(0.16)
Log of population	-0.03	1.48	1.35
	(0.04)	(1.01)	(1.01)
% change in GDP	0.00	-0.00	-0.00
	(0.01)	(0.01)	(0.00)
Log inflation (+2)	-0.08	-0.13	-0.11
	(0.09)	(0.10)	(0.10)
Number of parties (t-1)	0.01	-0.09^{*}	-0.10^{*}
	(0.02)	(0.04)	(0.04)
Log time (+ 1)	-0.14		
	(0.13)		
Mean Dist. Mag.	0.00	$-0.04^{\cdot}$	
	(0.00)	(0.02)	
Turnout	$-0.01^{\cdot}$	0.01	0.02
	(0.01)	(0.01)	(0.01)
Compulsory voting (Yes)	0.21	-0.46	-0.80
	(0.14)	(0.48)	(0.50)
Log vote share NP (t-1)	0.06	-0.07	-0.05
	(0.06)	(0.06)	(0.06)
Intercept	2.44^{*}		
	(1.07)		
Num. obs.	333	333	334

$^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$, $^{\cdot}p < 0.1$

Table 6: Empirical models on the association between size of party crash, its location and interaction of size with electoral system. With collapsed parties defined as those that completely exit electoral competition. That is, they do not compete in the next election. The dependent variable is the logged vote share for new parties

	A.M21 Pooled	A.M22 FE	A.M23 FE Interaction
Log % votes collapsed party (t-2)	0.33^{***}	0.20^{**}	0.17^{*}
	(0.05)	(0.07)	(0.08)
Location collapsed party (t-2)	$-0.08^{\cdot}$	-0.10^{*}	-0.11^{*}
	(0.05)	(0.05)	(0.05)
FPTP (dummy - Yes)			-1.11^{**}
			(0.37)
FPTP * log % collapsed party (t-2)			0.17
			(0.15)
Log of population	−0.03	1.28	1.12
	(0.04)	(1.01)	(1.01)
% change in GDP	−0.00	−0.00	−0.00
	(0.01)	(0.01)	(0.00)
Log inflation (+2)	−0.09	−0.13	−0.11
	(0.09)	(0.10)	(0.10)
Number of parties (t-1)	0.00	-0.09^{*}	-0.10^{**}
	(0.02)	(0.04)	(0.04)
Log time (+ 1)	−0.12		
	(0.12)		
Mean Dist. Mag.	0.00	$-0.04^{\cdot}$	
	(0.00)	(0.02)	
Turnout	$-0.01^{\cdot}$	0.01	0.02
	(0.01)	(0.01)	(0.01)
Compulsory voting (Yes)	0.22	−0.47	−0.79
	(0.14)	(0.48)	(0.50)
Log vote share NP (t-1)	0.05	−0.06	−0.05
	(0.05)	(0.06)	(0.06)
Intercept	2.30^{*}		
	(1.06)		
Num. obs.	333	333	334

$^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$, $^{\cdot}p < 0.1$

Table 7: Empirical models on the association between size of party crash, its location and interaction of size with electoral system. With party collapse defined as a party that looses more than 70% of the vote share it held in the past election.The dependent variable is the logged vote share for new parties

A set of bootstrapped estimations are conducted to control for any other outliers or characteristics of the sample that could bias results. Figures 2 and 3 present histograms of bootstrapped coefficients for size and location, produced by 10,000 estimations of randomly selected countries from the sample. The vertical lines in the graphs mark the 95% confidence level. The coefficients for size are systematically positive and significantly different from zero. However, that is not the case for location. Equivalent results are produced in estimations that randomly select among elections in the sample (results in Online Appendix). The results provide evidence of an effect for size of the collapsed party, but not for its location. It is likely that the significant effects of location in the first models are capturing its relevance in East European countries, but this is not sustained for other countries in the sample.

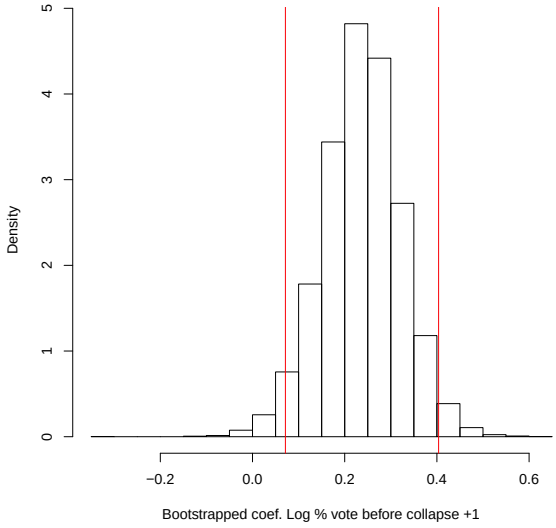

Figure 2: Bootstrap coef. on collapsed party size.

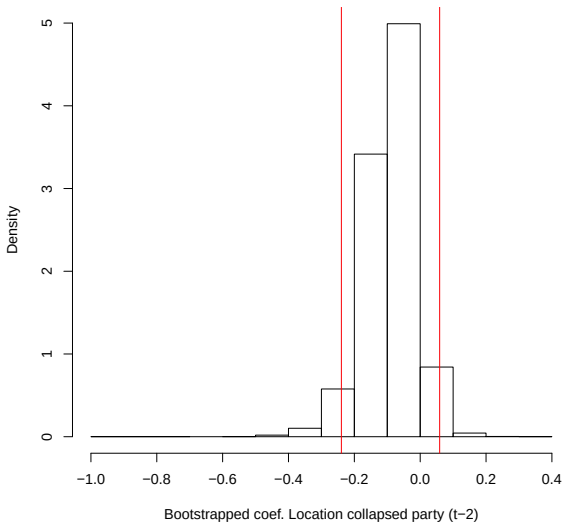

Figure 3: Bootstrap coef. on collapsed party location.

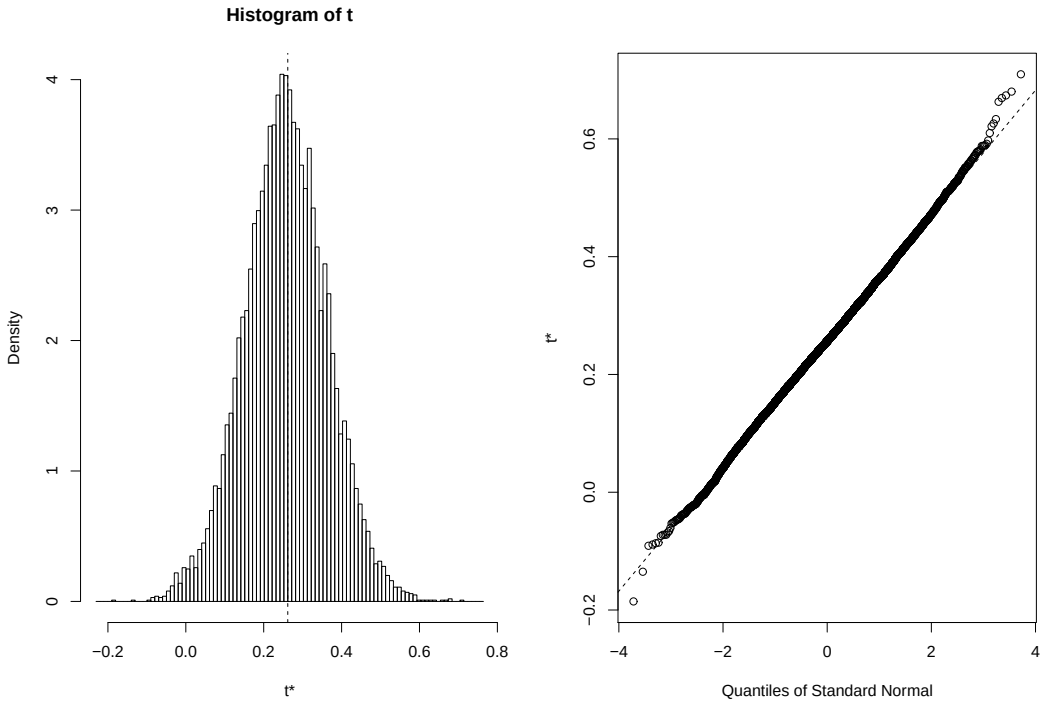

Figure 4: Bootstrap coefficients on the share of votes. Bootstrapped taking a random sample of elections.

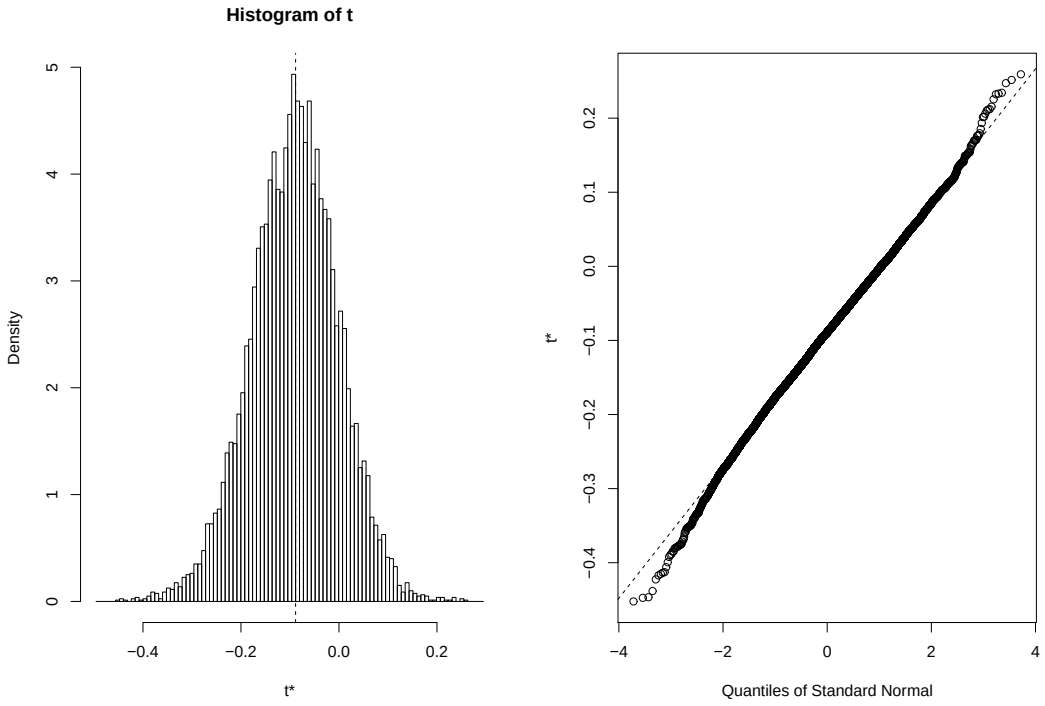

Figure 5: Bootstrap coefficients on collapsed party location. Bootstrapped taking a random sample of elections.

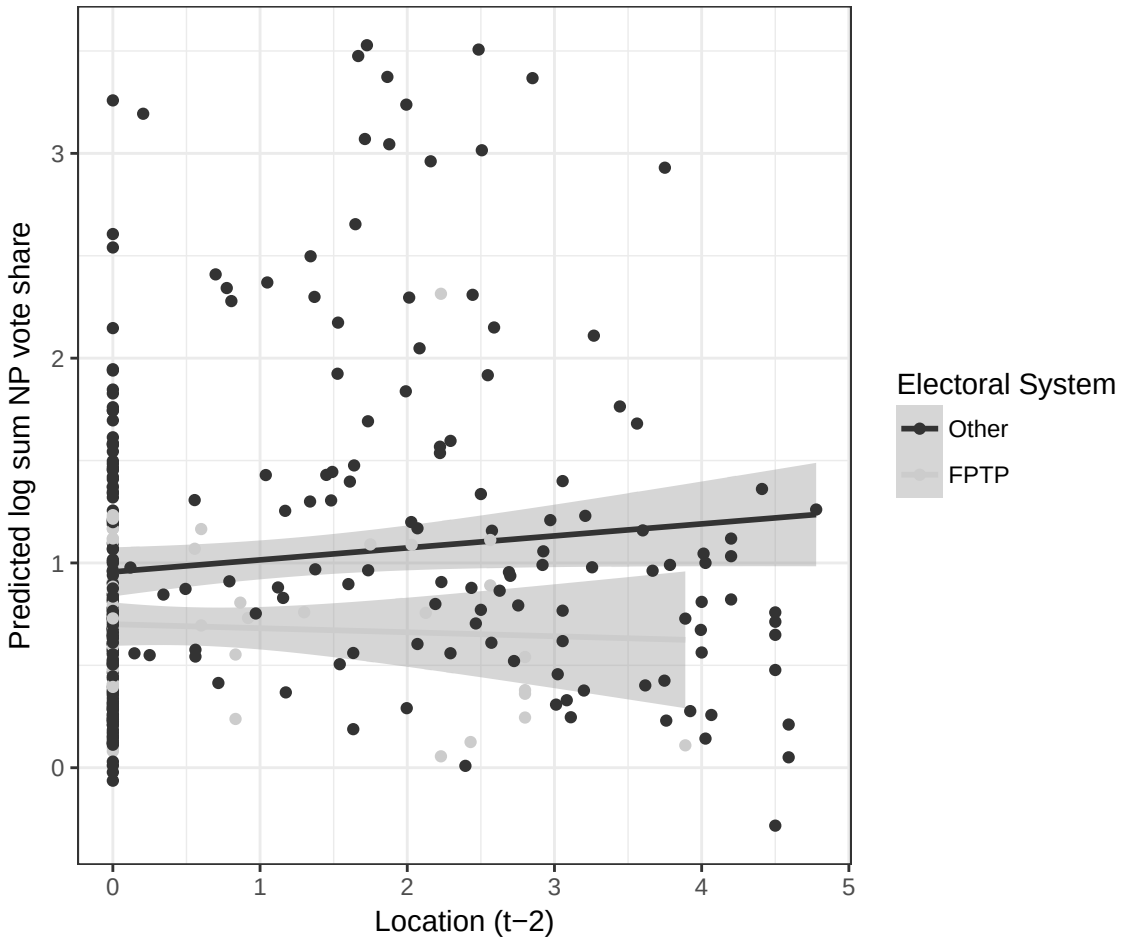

Figure 6: Interaction effect of collapsed party location and first-past-the-post electoral formula.