## The Contraction Effect: How Proportional Representation Affects Mobilization and Turnout\*

Gary W.  $Cox^{\dagger}$  Jon H. Fiva<sup>‡</sup> Daniel M. Smith<sup>§</sup>

## **Online Appendix**

## Abstract

A substantial body of research examines whether increasing the proportionality of an electoral system increases turnout, mostly based on cross-national comparisons. In this study, we offer two main contributions to the previous literature. First, we show that moving from a single-member district system to proportional representation in multimember districts should, according to recent theories of elite mobilization, produce a contraction in the distribution of mobilizational effort across districts, and hence a contraction in the distribution of turnout rates. Second, we exploit a within-country panel data set based on stable subnational geographic units before and after Norway's historic 1919 electoral reform in order to test various implications stemming from the contraction hypothesis. We find significant support for the predictions of the elite mobilization models.

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<sup>&</sup>lt;sup>†</sup>William Bennett Munro Professor, Department of Political Science, Stanford University, 100 Encina Hall West, 616 Serra St., Stanford, CA 94305. E-mail: gwcox@stanford.edu.

<sup>&</sup>lt;sup>‡</sup>Professor, Department of Economics, BI Norwegian Business School, 0442 Oslo. E-mail: jon.h.fiva@bi.no.

<sup>&</sup>lt;sup>§</sup>Assistant Professor, Department of Government, Harvard University, 1737 Cambridge Street, Cambridge, MA 02138. E-mail: danielmsmith@fas.harvard.edu.



Figure A.1: Cross-sectional Voter Turnout Distributions 1909-1927

Note: The figure shows the distribution of district-level voter turnout by election year. Two-round elections were used from 1909-1918, proportional representation from 1921-1927. The width of each bin is 5 percentage points. The level of observation is the pre-reform district structure (n=92).

Figure A.2: Frequency of Observations by Average Pre-Reform Margin



Note: The figure shows the average difference in vote shares obtained by the front-runner and runner-up in the first round. The width of each bin is 2.5 percentage points. The level of observation in the data is based on the pre-reform district structure (n=92).



Figure A.3: Kernel Density Plot of Index of Competition, Pre- and Post-Reform

Note: The figure shows separate kernel density plots (Epanechnikov kernel with optimal bandwidth) of the Grofman-Selb (2009) Index of Competition. The data set is based on the pre-reform district structure.



Figure A.4: Average Number of Parties Running 1909-1927

Note: The figure shows the average number of parties running in each election. Two-round elections were used from 1909-1918, proportional representation from 1921-1927. In the pre-reform period, the number of parties running in the first round is reported. The data set is based on the pre-reform district structure.

	(1)	(2)	(3)	(4)	(5)	(6)
Margin	0.529	0.520			0.300	0.618
	(0.067)	(0.067)			(0.072)	(0.071)
	[0.083]	[0.088]			[0.071]	[0.098]
$Margin_{1918}$			0.244			
			(0.063)			
			[0.074]			
$Margin_{Final}$				0.444		
0				(0.084)		
				[0.120]		
$\Delta NoP$	-0.004			. ,		
	(0.011)					
	[0.013]					
$\Delta NoB$		0.003				
		(0.013)				
		[0.015]				
PR District FE	Yes	Yes	Yes	Yes	Yes	Yes
N	92	92	92	92	92	92
$R^2$	0.770	0.769	0.667	0.725	0.674	0.694

Table A.1: Sensitivity Analyses Based on Specifications with PR District Fixed Effects

Note: The dependent variable in columns (1) - (4) is the change in voter turnout from 1918 to 1921 using final-round turnout in the pre-reform period. The dependent variable in column (5) is the change in voter turnout from 1918 to 1921 using first-round turnout in the pre-reform period. The dependent variable in column (6) is the change in average voter turnout from 1909-1918 to 1921-1927 using final-round turnout in the pre-reform period. Heteroscedasticity-robust standard errors in parentheses, cluster-robust standard errors in squared brackets.