Where Unions Fell: A Historical Geography of Union Formation in the U.S.

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LERA at ASSA Conference 2023

January 8th, 2023

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Union Elections in the News

Amazon workers in upstate New York file for union election

By HALELUYA HADERO August 16, 2022

Union wins right to represent Starbucks workers in its Seattle hometown

By Chris Isidore, CNN Business
Published 8:03 PM EDT, Tue March 22, 2022

Research Question

How has the geography of union petitions evolved over time?
Is there evidence of local contagion?

Representation Elections

NLRB certification elections are valuable microdata

- Industry disaggregation from 1963-2011
- City disaggregation from 1963-present
- High frequency and detail (compared to early surveys)
- Still likely the dominant form of organizing
- Flow can be mapped to stock of union members (Dickens and Leonard, 1985; Schaller, 2022)

Our Contribution

1. Merging and cleaning election data
2. Generating maps and descriptive analysis
3. Estimating local contagion effects

Merging and Cleaning Election Data

- Merging data from NLRB, Farber and Western (2001), Lee and Mas (2012), Holmes (2006)
  - Variables include: votes for/against union, eligible employees, unit type, election type, employer and union names (sometimes), and closing date
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- Linking to demographic variables at county and commuting zone levels
  - Census: race, gender, age
  - QCEW: employment, establishments

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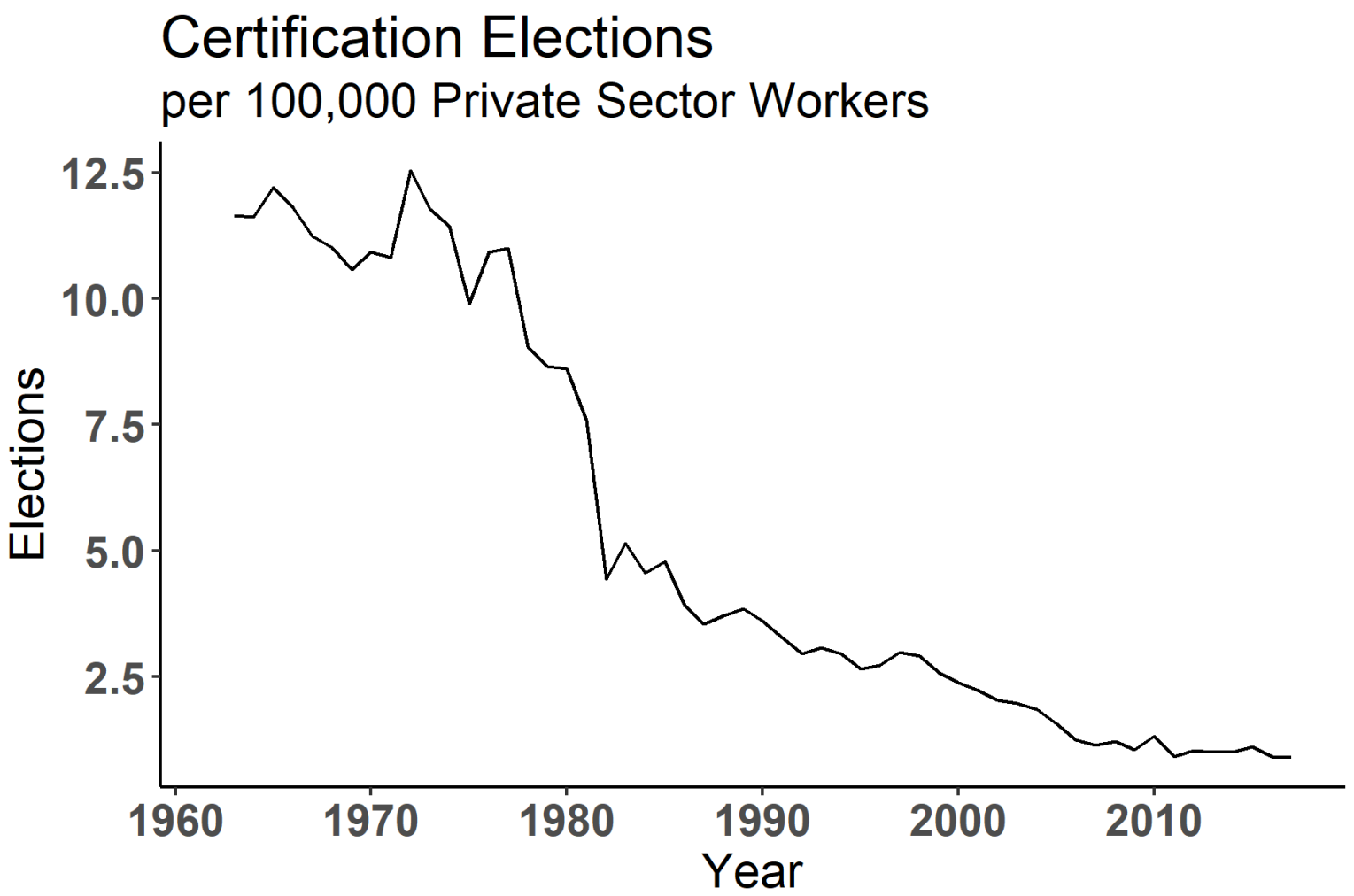
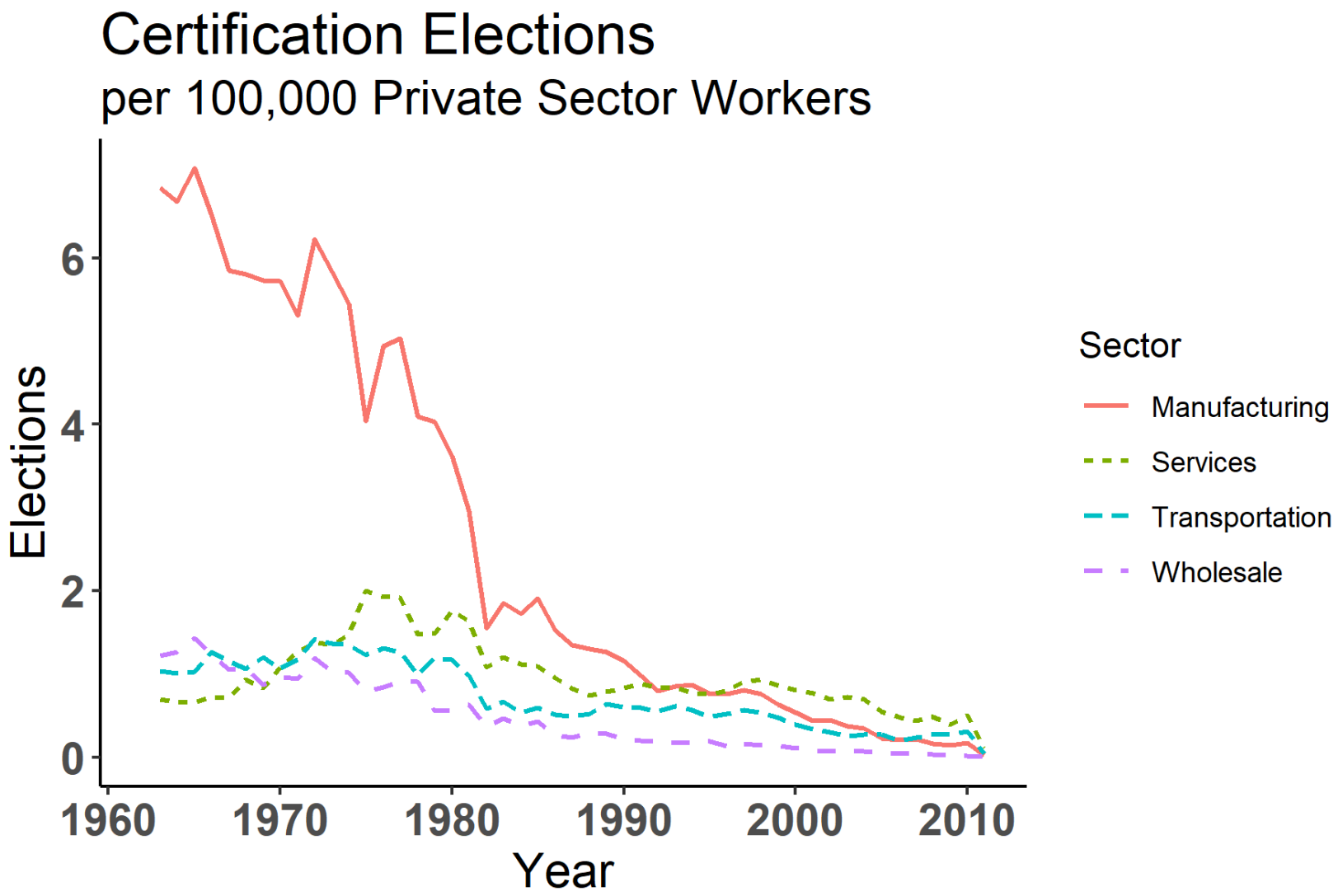
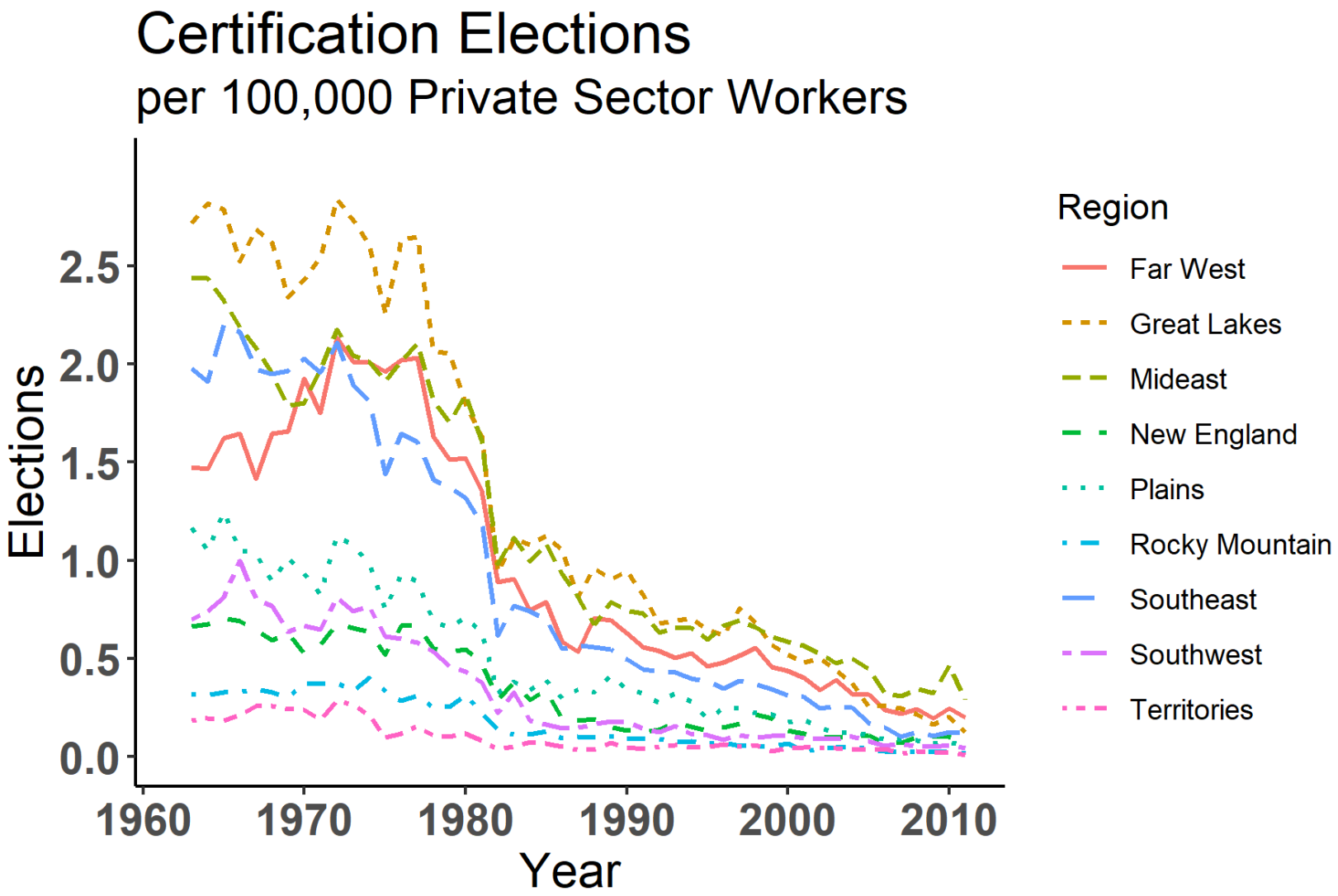
Elections Over Time



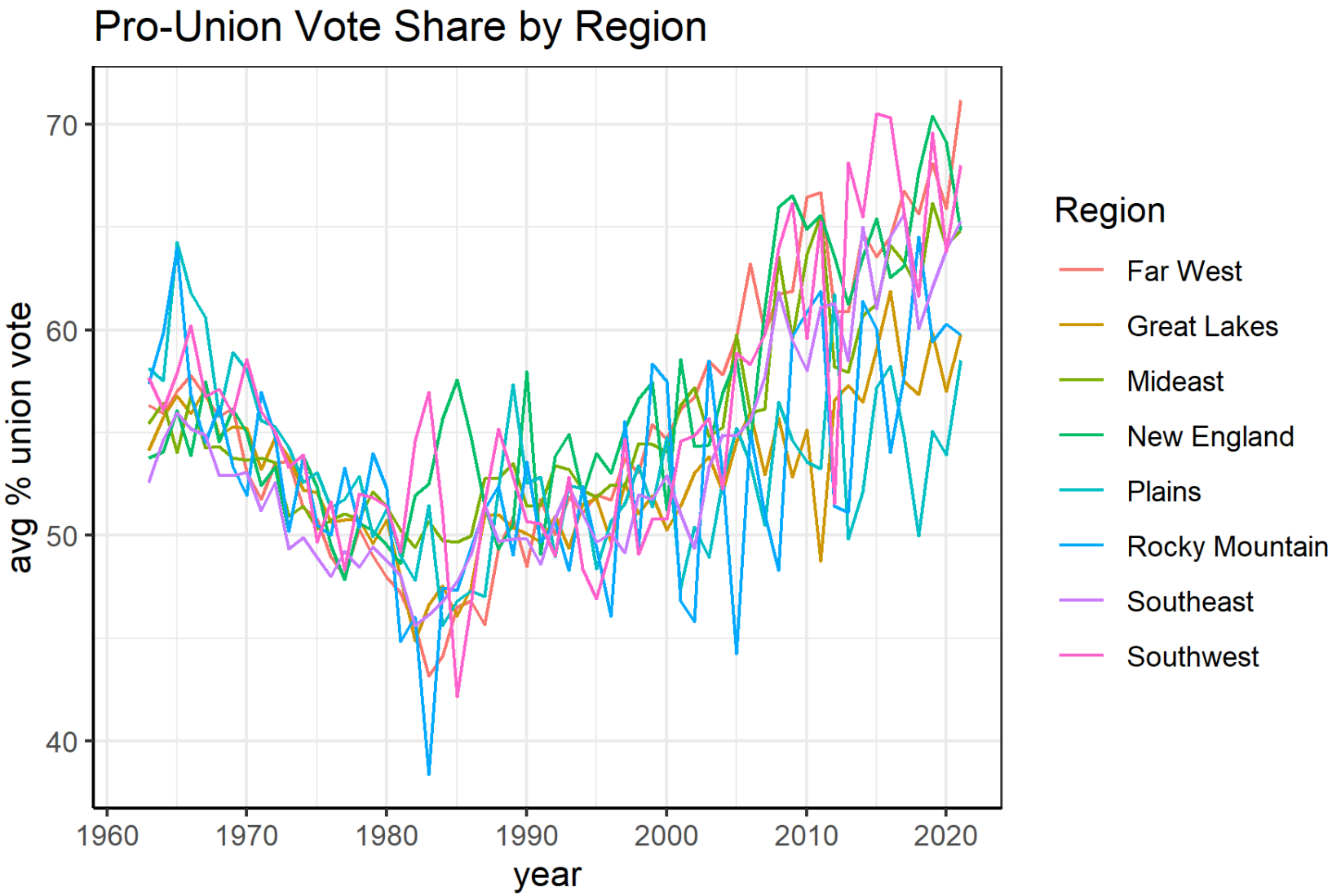
Elections by Sector

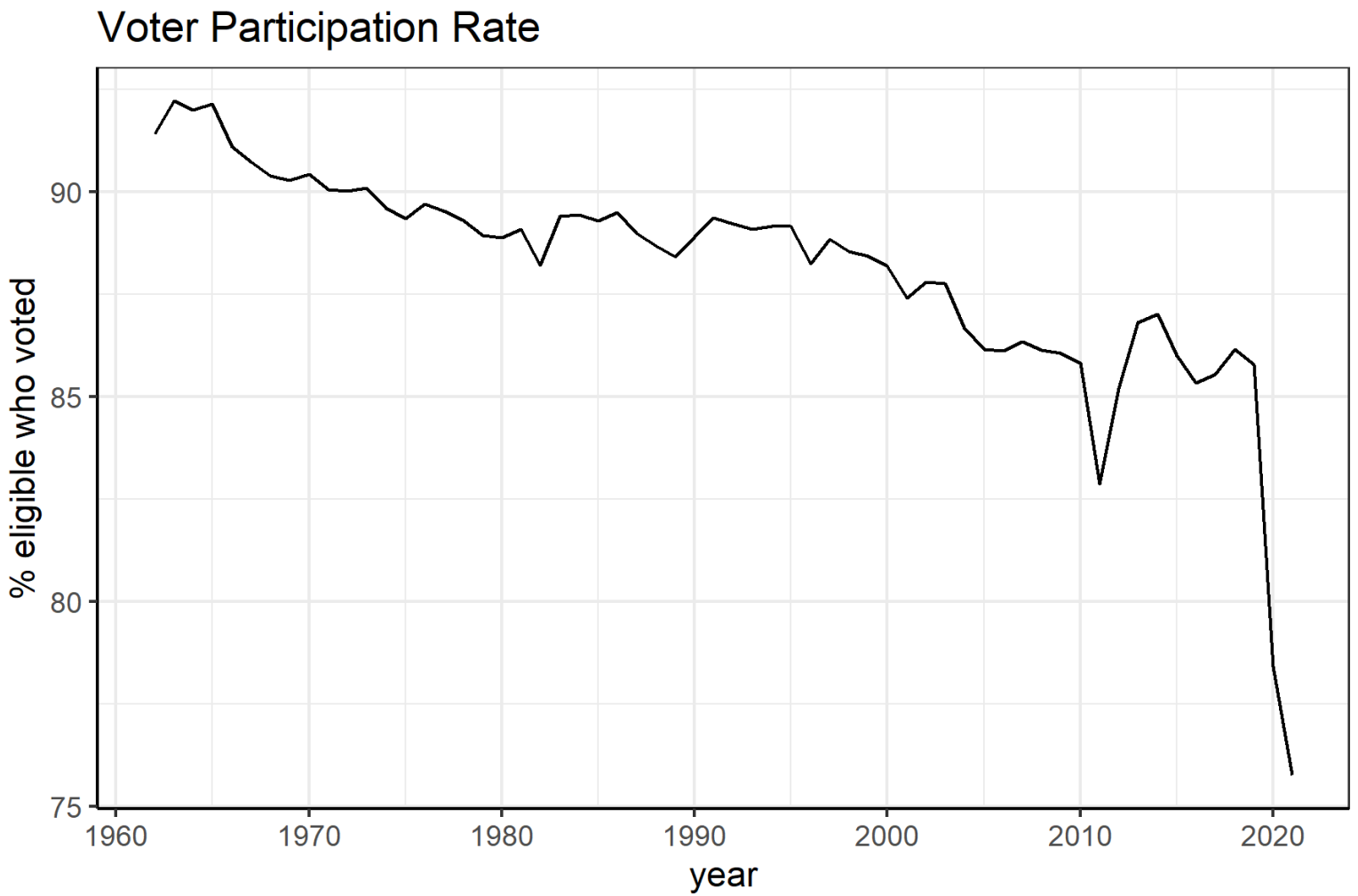


Elections by Region



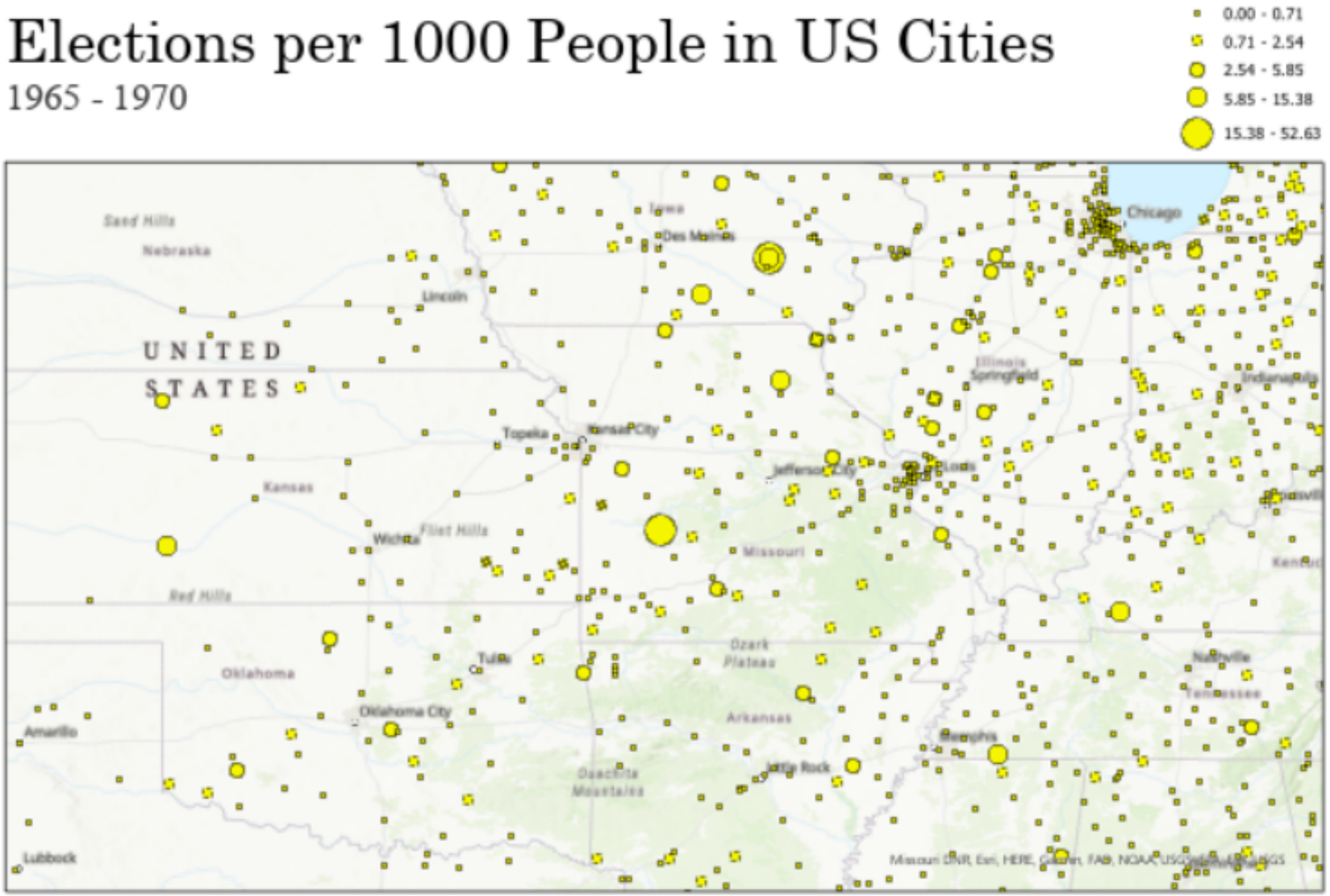
Election Success Rate
% union victory
60
50
40
1960
1970
1980
1990
2000
2010
2020
year


Pro-Union Vote Share by Region
avg % union vote
70
60
50
40
1960
1970
1980
1990
2000
2010
2020
year
Region
Far West
Great Lakes
Mideast
New England
Plains
Rocky Mountain
Southeast
Southwest


Voter Participation Rate
% eligible who voted
90
85
80
75
1960
1970
1980
1990
2000
2010
2020
year

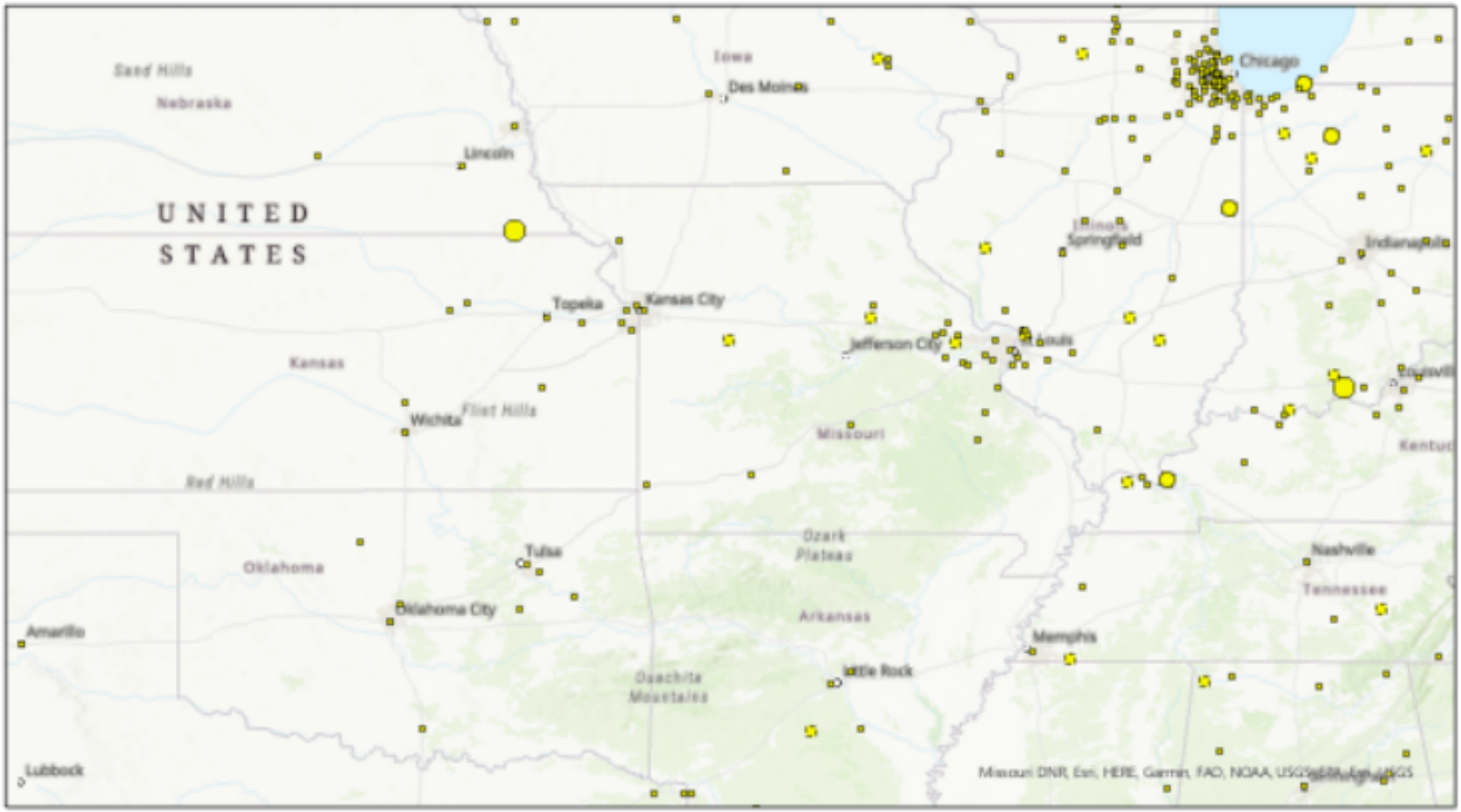
Elections per 1000 People in US Cities

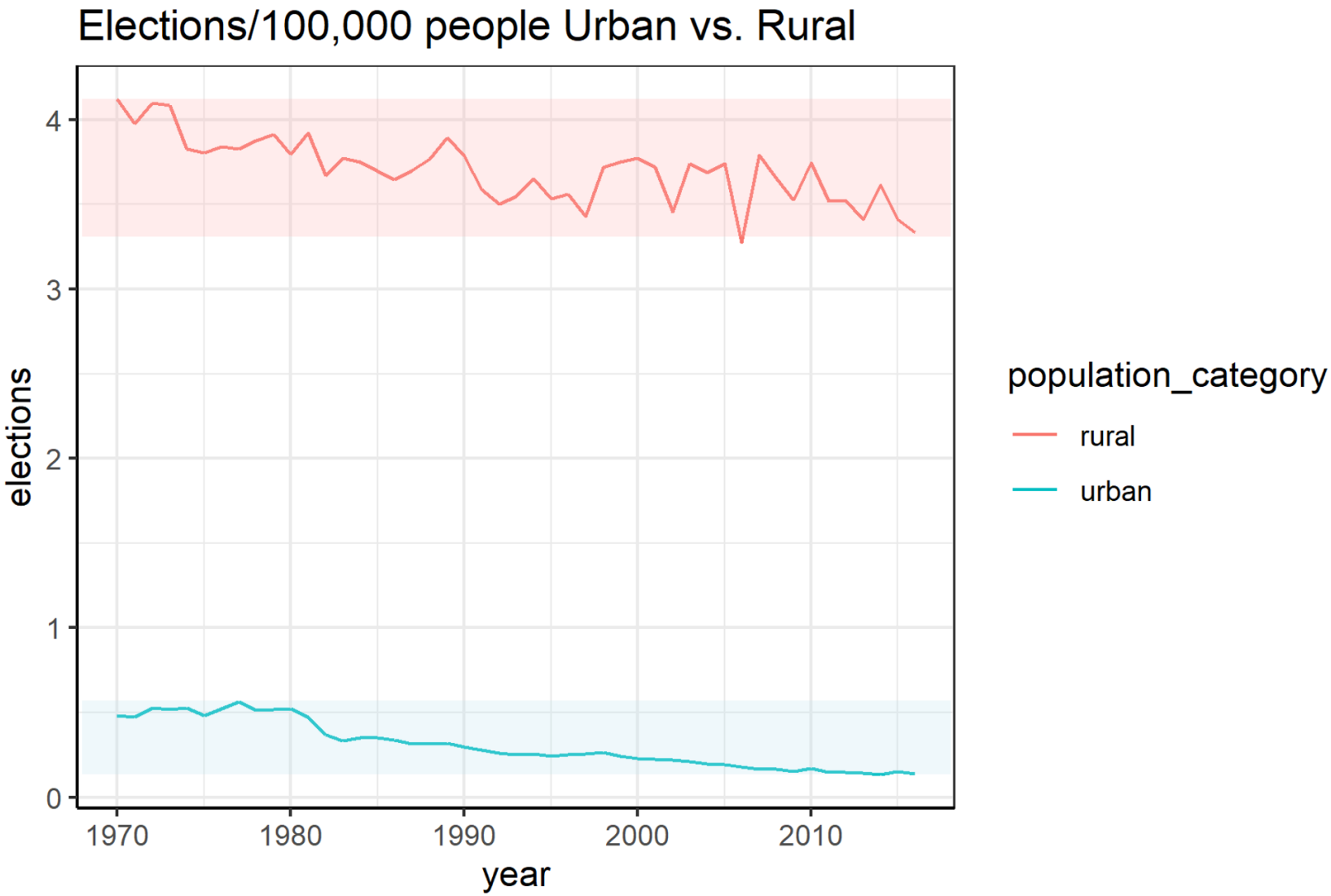
1965 - 1970



Elections per 1000 People in US Cities

2015 - 2020




Elections/100,000 people Urban vs. Rural
elections
0
1
2
3
4
1970
1980
1990
2000
2010
year
population_category
rural
urban

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Empirical Model

$$logit(Election_{cm}) = \beta_1 Elect_{zm-6:1} + \beta_2 Emp_{cm} + \delta Year + \gamma_c + \varepsilon_{cm}$$

Alternatively use six month period instead of one month period for dependent variable

Alternatively use pro-union vote share as dependent variable (OLS)

Counties that never had an election were dropped

Results: Election Petitions

	Dependent variable: had election			
	t = month		t = 6 month	
	(1)	(2)	(3)	(4)
spillover	0.002***	0.002***	0.001***	0.001***
	(0.00003)	(0.00003)	(0.0001)	(0.0001)
employment	−0.059***	−0.060***	−0.001*	−0.001***
	(0.001)	(0.001)	(0.0005)	(0.0005)
year	−0.001***		−0.005***	
	(0.00001)		(0.00005)	
county FE	yes	yes	yes	yes
year FE	no	yes	no	yes
Observations	1,508,076	1,508,076	251,346	251,346
R^2	0.030	0.011	0.058	0.001
F Statistic	15,470***	8,569***	5,074***	89***
Note:				*p<0.1; **p<0.05; ***p<0.01

Results: Vote Share

	Dependent variable: mean pct union vote share			
	t = month		t = 6 month	
	(1)	(2)	(3)	(4)
spillover	−0.002	−0.009*	−0.004	−0.005
	(0.005)	(0.005)	(0.008)	(0.008)
employment	1.200***	1.237***	0.255***	0.247***
	(0.132)	(0.133)	(0.037)	(0.037)
year	0.203***		0.196***	
	(0.009)		(0.010)	
county FE	yes	yes	yes	yes
year FE	no	yes	no	yes
Observations	92,593	92,593	50,195	50,195
R^2	0.014	0.001	0.016	0.001
F Statistic	428.221***	50.439***	262.641***	24.243***
Note:				*p<0.1; **p<0.05; ***p<0.01

Conclusion

- The decline in elections is common to every sector and every part of the country
- Rates of decline, however, might vary considerably by industry, geography, and demography
- Union formation has become concentrated in urban centers
- We find evidence that elections have very small local contagion effects (odds of having an election in a given county in a given month increase from about 11.5% to 11.7%