Summary Statistics on Union Elections in the U.S., 1980-2020

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This document provides a short summary and comparison of our new dataset covering union elections in the US for the period 1980 to 2020. An observation in the dataset is a full description of an NLRB election. The election information includes the election results (votes for and against unionization) of a bargaining unit within a firm including the number of eligible voters which corresponds to the size of the bargaining unit. Along with the electoral results we also know the address of the firm, date of election, and the date the results were tallied. Separately, via publicly available NLRB information, we construct the partisan leaning of the members of the National Labor Relations Board (NLRB) at the time of the election. The main novelty of our dataset in comparison to existing ones is that we extend the coverage period to 2010-2020.

1 Data Sources and Descriptives

We collect our data from four different sources:

1. Elections occurring from 1980-1999 were collected by Thomas J. Holmes;[1]

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[1]Used in Holmes (2006) with data provided here: http://users.econ.umn.edu/~holmes/data/geo_spill/

2. Elections occurring from 2000-2009 were collected by J.P. Ferguson;[2]

3. For election occurring from 2010-2020, we submitted a Freedom of Information Act for NLRB election data for that time period;[3]

4. The partisan leaning of the NLRB was determined by using the list provided on the NLRB website.[4] A row in the list represents the composition of the board from one date to another. This list was processed to label each election occurring during a Republican, Democratic, or Independent/Split board.

Although the first two sources have been utilized in previous work, this dataset is the first to extend the union election data beyond 2009. This was done through a FOIA request.[5] Adding coverage from 2009-2020 adds about 6,000 elections to our dataset. For a discussion of the cleaning procedure, please see the companion readme document.

Figure 1 shows that the prevalence of union elections has declined over time. The additional data we have added post 2009 shows that the number of elections per year has recently plateaued. In general, the middle years of the 2010s showed a slight uptick in activity around unions. The NLRB reports on its webpage[6] a similar pattern using cases as their measure of activity rather than elections[7].

Figure 2 presents a box and whisker plot that shows the distribution of election sizes. Elections in our full sample have an average of 94 voters and a median of 51 voters. The skew here is expected as the distribution of firm sizes within the United States has a similarly long right tail even after censoring at 1,000 workers (Kondo et al., 2018). In practice, this means firms likely have significant information about the preferences of the workers in the

[2]Used in Ferguson (2008) with data found here: https://github.com/jpfergongithub/nlrb-cats

[3]FOIA request NLRB-2021-000031

[4]Accessed here: https://www.nlrb.gov/about-nlrb/who-we-are/the-board/members-of-the-nlrb-since-1935

[5]In fact, the first FOIA request we submitted revealed internal errors in the underlying NLRB database. After some correspondence, we were able to rectify the issues.

[6]https://www.nlrb.gov/reports/nlrb-case-activity-reports/representation-cases/election/election-statistics accessed August 26, 2021.

[7]Cases and elections are not exactly identical because there may be multiple elections per case.

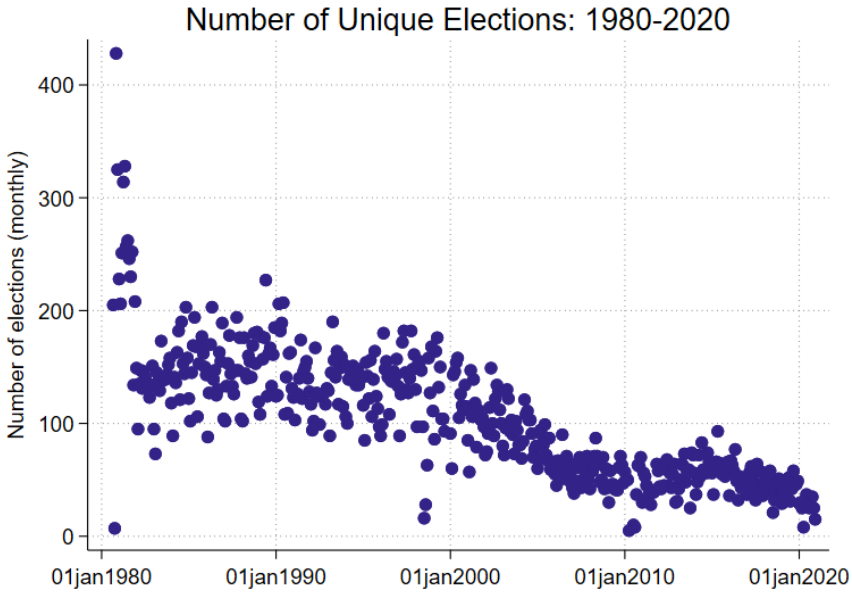

Figure 1: Number of unique elections from 1980-2020.

bargaining unit since the bargaining units are small. There is quite some variation in the size of union elections, however (the standard deviation of bargaining unit size is 169). The largest election in our sample involved 12,328 voters.

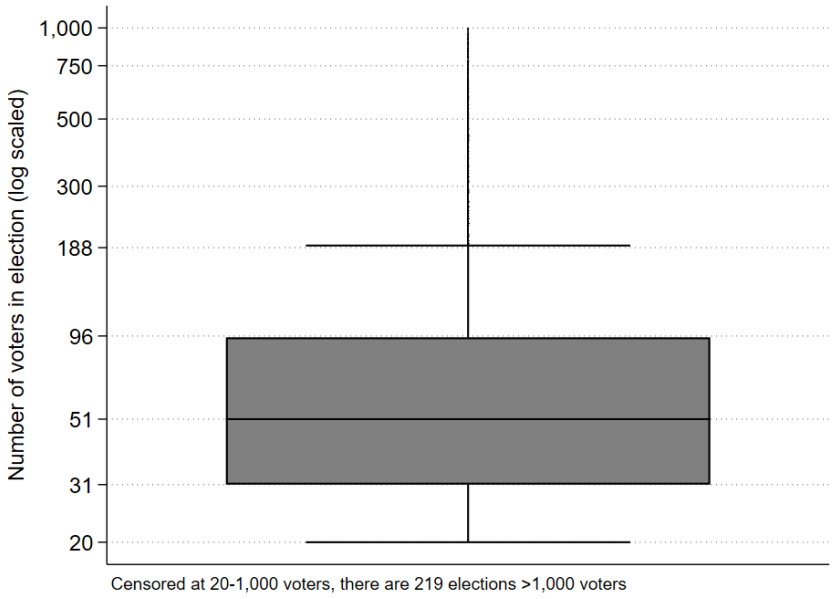

Figure 2: Box and whisker plot that visualizes the distribution of size of elections. The 25^{th}, 50^{th}, 75^{th} and 90^{th} percentiles are 31, 51, 96, and 189 respectively.

There is not a noticeable time trend in the average unit size within firms unionizing, as shown in Figure 3. The same is true for the turnout in those union elections. While national measures of labor market concentration have grown over the last 40 years, measures of local labor market concentration have not shown the same pattern (Rinz, 2022). One explanation is that a few "superstar" firms (e.g. Amazon, Walmart) have entered many labor markets where local employment was concentrated in a single smaller and more localized firm. Since the NLRB determines appropriate bargaining units in part on the basis of a shared "community of interest" within a firm, one might expect cross-establishment bargaining units (employees at multiple Amazon warehouses, for example) to be more frequently occurring in recent years which could also make matching on addresses more difficult. The lack of an increase in size of the bargaining unit over time is suggestive evidence that this is likely not the case.

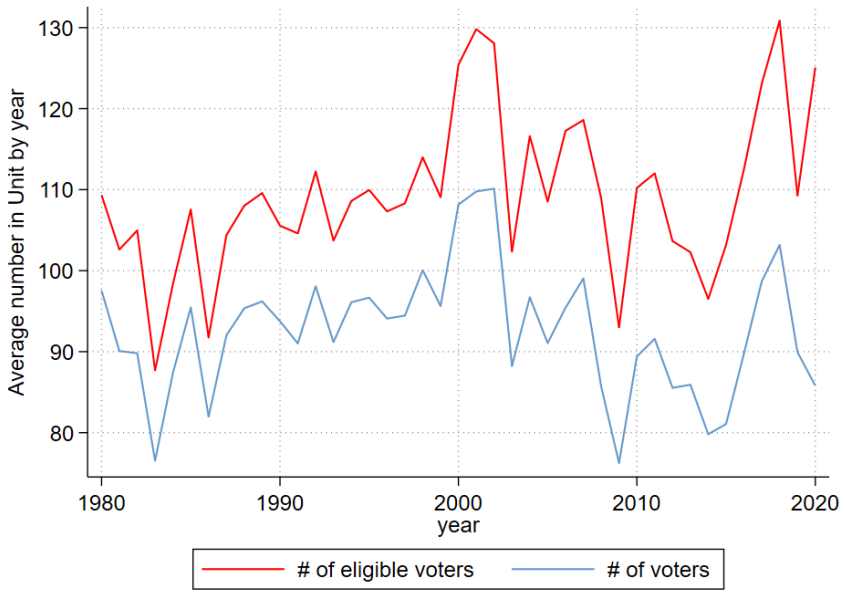

Figure 3: Annual average number of voters both eligible and participating within a bargaining unit

Union support can be measured in various ways. The top panel in Figure 4 shows the average fraction of successful union elections plotted with the average vote share for unionization by year. The bottom panel shows the average difference in votes by year. All

three indicators show that union support (conditional on there being an election held) was somewhat flat until ∼2005 where a noticeable upward trend can be observed. However, paired with the fact that the number of elections has declined dramatically in the same time period the total number of successfully formed unions per year dropped from 800-1,000 in the early 1980s to 200-300 in recent years as shown in Figure 5. Again, there are interesting dynamics occurring post-2009 that differ than those observed during the time period covered by previous literature.

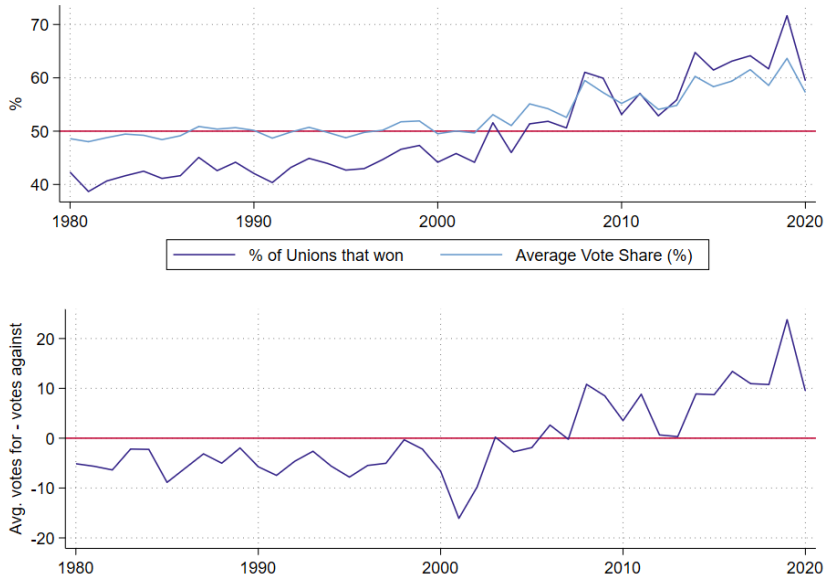

Figure 4: Top: Time trends of annual average % of elections won by union and the annual average vote share. Bottom: The annual average vote difference as measured by votes against unionization subtracted from votes for unionization.

Columns (1)-(3) Table 1 shows the average union vote share, number of unions votes minus votes against, the fraction of successful union drives, number of participants, and the fraction of elections that occurred under a Republican leaning NLRB in each source. Column (4) shows that the recent trends in the data are statistically significantly different than the data used in previous works. Given that the majority of the additional years of data coverage were under Democratic administrations, this is in part expected.

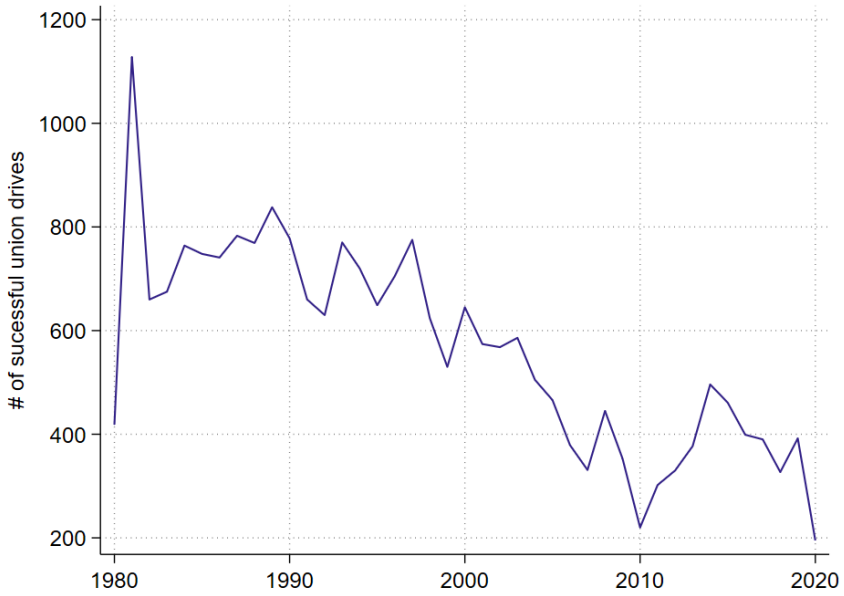

Figure 5: The annual average number of union drives

Variable	(1) Holmes	(2) JP-Ferg	(3) FOIA	(4) Diff FOIA vs. Holmes + JP-Ferg
Vote Share Union	0.49	0.52	0.58	0.08***
	(0.24)	(0.24)	(0.24)	(0.00)
Votes for-Votes against	-4.89	-3.32	8.76	13.29***
	(84.32)	(108.39)	(68.72)	(1.21)
Fraction elections won by unions	0.43	0.49	0.60	0.16***
	(0.49)	(0.50)	(0.49)	(0.01)
Total participants	92.04	97.94	88.64	-4.75**
	(154.37)	(203.15)	(148.19)	(2.26)
Fraction elections under Rep. Control	0.71	0.72	0.26	-0.45***
	(0.45)	(0.45)	(0.44)	(0.01)
Observations	33,738	10,010	6,070	49,818

Table 1: Balance table showing summary statistics over each source of our data.

References

Ferguson, John Paul, "The eyes of the needles: A sequential model of union organizing drives, 1999-2004," *Industrial and Labor Relations Review*, 2008, *62* (1), 3–21.

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