The Influence of Police Unions in Local Elections. Evidence from U.S. Cities Spending and Performance *

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Abstract

Despite growing attention to local policies governing public safety issues, and mounting reports of police union spending to local candidates, the role of police unions in local politics remains understudied. We address this gap by assembling a novel, large-scale dataset on campaign finance in U.S. mayoral elections, covering 2,303 races across 1,073 cities from 2001 to 2019. We document that police unions frequently donate to mayoral candidates—especially in mid-sized and large cities—targeting likely winners and incumbents, and without displaying clear partisan bias. Using a within-city design that accounts for heterogeneous treatment effects in presence of staggered treatment timing, we find that the election of a police union—backed mayor leads to an expansion in police department size. However, despite additional resources, police performance weakly worsens in these cities, consistent with unions' political support reducing incentives for effort and accountability.

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1 Introduction

The role of police unions as a powerful interest group has attracted increasing scrutiny in the U.S. media and in public discourse. The common perception is that "in many cities [...] police unions are a political force, their endorsements and campaign donations coveted by both Republicans and Democrats. The legislation they support tends to get passed, their candidates elected" (Finnegan, 2020). At the same time, high-profile cases of police brutality have contributed to putting police conduct and potentially excessive spending on police departments under the spotlight. As highlighted in a recent New York Times article, the political influence of police unions is considered a significant impediment to reforming the police system, with police unions emerging as "one of the most significant roadblocks to change" (Scheiber et al., 2020). In the words of Levin (2020), "in an era of declining labor power, police unions stand as a success story."

Despite the pressing importance of these issues, scholars have largely overlooked how police unions influence policing and municipal budget decisions (Anzia, 2022b). As a result, we know little about how frequently police unions engage in local politics or how effective their political activity is (DiSalvo, 2022), despite evidence that local public employees and their unions rank among the most politically active groups in U.S. local politics (Anzia and Trounstine, 2025). More broadly, little is known about the role of interest groups in local campaign finance (Anzia, 2022a,a; Kaplan and Naidu, 2025). A major obstacle to empirical research in this area has been the lack of comprehensive data on police union involvement in local politics (Anzia, 2022b; DiSalvo, 2022).

In this paper, we make progress on this front in three ways. First, we present the first large-scale dataset on local campaign finance in U.S. mayoral elections. The data covers 1073 cities and 2303 elections between 2001 and 2019, for which we manually identified all donations from a police union. Second, we leverage this new dataset to provide a detailed descriptive portrait of police union involvement in local elections, documenting the extent of their participation in financing mayoral campaigns and the candidate characteristics associated with greater support. Third, exploiting within-city variation in the election of a candidate backed by police unions, we causally identify the influence of police unions on the size and compensation of police departments, and on police performance, complementing extensive qualitative work and case studies on the topic (Bies, 2017; DiSalvo, 2015; Levin, 2020; Epp, 2010).

Police union involvement in mayoral campaign finance is both frequent and tar-

geted. Police unions donate in 44 percent of the elections in our sample above 200,000 people, and in one quarter of elections between 60,000 and 200,000 people, while their involvement decreases monotonically for smaller cities. Police unions are active when compared to other groups of donors, with their involvement being higher than that of teachers' unions and somewhat lower than that of firefighters' unions. More broadly, public sector unions—including police—rank among the top three categories of donors in local elections, alongside construction firms and real estate developers. Police union contributions are also highly targeted, with unions supporting only one of the top two candidates in 93 percent of races. Police unions are more likely to support winning candidates and incumbents, consistent with an "investor" model of political giving (Bonica, 2016). Although Democratic candidates are more likely to receive donations overall, in head-to-head contests between Democrats and Republicans, police unions are equally likely to support candidates from either party.

We study how electing a mayor who received donations from a police union affects police spending and performance. We interpret our treatment as a compound measure that captures both influence-seeking and preference-alignment strategies, whereby unions donate either to cultivate access or to support candidates aligned with their policy goals. We theorize that electing a police union-backed mayor increases the likelihood of higher police spending, as unions pursue greater influence within fiscal constraints. Regarding performance, the effect is ambiguous: political alignment may reduce effort if officers expect favorable treatment regardless of performance (captured patronage), but it may also enhance outcomes by improving resources (resources), boosting morale (morale), or incentivizing strategic effort to support an aligned mayor (strategic effort).

Leveraging a within-city design that accounts for heterogeneous treatment effects in presence of staggered treatment timing, we identify a large effect of the election of a police union—backed mayor on the size of the police department: cities electing these mayors experience a sizable increase in police employment, consistent with our theoretical expectation that unions seek to expand staffing as a means of increasing influence. However, we do not find evidence that these additional resources improve police performance. If anything, performance declines, supporting the theoretical mechanism of captured patronage, in which political support from unions reduces incentives for effort and accountability.

¹As pointed out by Becher and Stegmueller (2023), both channels are arguably relevant to explain why organized interest groups contribute to unequal representation.

This paper makes two primary contributions. First, we present new evidence on two longstanding questions on public sector unions and local politics: *i*) the extent and determinants of police union involvement in local elections, and *ii*) what is the impact of police unions' political involvement on policy. Our findings underscore the influential role of public sector unions—and interest groups more broadly—in shaping local policy outcomes. Second, we introduce newly collected data on campaign contributions to mayoral elections in the U.S.. These data open avenues for future research on a broad set of local interest groups.

This paper contributes to two main strands of literature. First, we bring new evidence on the budgetary and policy impact of police unions. We complement DiSalvo (2015) by bringing new data to quantitatively assess the relationship he describes between police union involvement in local politics and police spending. Police unions can affect policy outcomes through two avenues: collective bargaining and politics. Anzia and Moe (2015) and DiSalvo and Kucik (2018) focus on the former, showing a positive relationship between collective bargaining and spending on police. We focus on the latter, bringing new data that allow us to provide causal evidence to inform the debate on the relevance of police unions in city politics.² While existing studies have not looked at police unions' political activity, a literature on the determinants of police performance is emerging.³ Grumbach et al. (2025) highlights the relevance of political-institutional features of U.S. politics in explaining the low performance of American police. Wirsching (2022) shows that NYPD police officers reduce effort in districts of non-aligned city councilors. A number of studies have investigated the impact of unionization and collective bargaining on police productivity, finding mixed findings (Bies, 2017; Cunningham et al., 2021; Goncalves, 2021). More broadly, our findings highlight the growing relevance of unions as political actors, contributing to a renewed scholarly focus on their role in shaping political representation and policy outcomes (Ahlquist, 2017; Becher and Stegmueller, 2025; Fourraies, 2024; Frymer and Grumbach, 2021; Kaplan and Naidu, 2025; Kim and Margalit, 2017).

Second, we contribute to a large body of work looking at local interest groups'

²As noted by Anzia and Moe (2015), unions "can exercise power in two basic ways. One is through collective bargaining.[...] The other is through politics, including elections, where the unions can make endorsements, provide campaign contributions, deploy activists, generate publicity, engage in lobbying activities, and in other ways seek to influence official decisions on matters related to jobs.".

³In a recent study, Gaudette (2023) looks at police unions' endorsements in local elections in an experimental setting. She shows that, absent information on partisan affiliation, voters consider candidates endorsed by police unions to be more conservative.

⁴See Rad et al. (2023) for a recent review.

political activity. Our paper is most closely related to Anzia (2022b), who provides the first comprehensive assessment of interest groups' political activity at the local level in the U.S. We complement her work in several ways, especially by providing an alternative and not self-reported measure of interest groups involvement, and by focusing on police unions specifically.⁵ As noted by DiSalvo (2022), a research agenda on public sector unions has emerged (Anzia and Moe, 2019, 2015; DiSalvo and Kucik, 2018; DiSalvo, 2015; Hartney and Kogan, 2024; Hartney and Flavin, 2011; Hertel-Fernandez, 2018; Moe, 2011, 2015; Paglayan, 2019), but it has mostly focused on teachers unions. Due to paucity of data, large-scale empirical studies of the effects of interest groups' political activity at the local level are few, with the exception of a growing body of work on real estate developers (Gaudette and de Benedictis-Kessner, 2024; Ouasbaa et al., 2022; Yu, 2022).⁶

2 Theoretical Expectations

In this article, we examine the impact of electing a mayor backed by police union on the size and compensation of the police workforce and on police performance (number of crimes, the share of crimes cleared by the police, and the number of arrests carried out by the police).

2.1 Police Spending

A natural starting point for theorizing about police budgets is to consider the institutional interests of police departments. All else equal, police prefers higher levels of public spending on policing, whether through increased compensation or expanded staffing. Realizing these preferences requires bargaining with municipal governments. To enhance their leverage in this bargaining process, police can organize collectively, most commonly through unions (Anzia and Moe, 2015). Indeed, protective service

⁵Anzia (2022b) obtains data on interest group local political involvement by fielding an original survey of elected officials and candidates in hundreds of U.S. municipal governments across the United States. Respondents were asked to assess the overall presence of interest group activity in their cities and the political involvement of specific types of groups.

⁶Yu (2022) shows that residential developers' donations to mayoral campaigns significantly influence supply in local housing markets, and Gaudette and de Benedictis-Kessner (2024) find that developers' donations increase permitting of multi-family housing in South Carolina and Washington. Ouasbaa et al. (2022) show that the entry of a real estate developer in California's city councils increases the number of housing units permitted.

workers —among them police officers— rank among the most highly unionized occupational groups in the United States (Bureau of Labor Statistics, 2025), with police unionization rates around 80% in some states (Goncalves, 2021). While unionization facilitates direct negotiation over compensation and working conditions, police unions can also exert influence through the political arena (Anzia, 2022b; DeLord and York, 2017; Kaplan and Naidu, 2025). In particular, they can shape the electoral environment in ways that enhance their ability to secure favorable policy outcomes. Two complementary strategies are available: first, police organizations can provide endorsements or campaign contributions to secure influence over candidates who, once elected, may deliver favorable outcomes regardless of their prior policy positions. Second, they can strategically support candidates who are ex-ante aligned with their preferences for increased police funding. Our treatment of interest—the election of a police union—backed candidate—captures this compound strategy, serving as a proxy for both channels of influence.

What should we expect when a police union–backed candidate is elected? The theoretical logic is straightforward: police unions prefer higher spending on law enforcement, while local governments face binding budget constraints. The election of a union-backed mayor increases the likelihood that the preferences of the police will be represented more directly in the budgeting process. As a result, we expect total police spending to increase following the election of a candidate supported by the police union.

Disaggregating total police spending into its two main components—compensation and employment—leads to less clear-cut expectations. On one hand, police officers have a clear interest in higher compensation, and unions are generally responsive to these demands. This responsiveness is reinforced by the competitive landscape of police union representation: unlike more centralized labor organizations, local police unions are fragmented across affiliations such as AFSCME, SEIU, the Fraternal Order of Police, and the International Union of Police Associations (Kearney and Mareschal, 2017). On the other hand, unions also have an institutional incentive to expand police employment. A larger force increases potential membership, thereby enhancing the union's political and organizational power. Ideally, unions would pursue both higher wages and greater employment, but they must operate within the fiscal limits imposed by municipal budgets. As Anzia and Moe (2015) point out, unions often confront a trade-off between maximizing benefits for current members and expanding their organizational

influence. The extent to which they prioritize one goal over the other is ultimately an empirical question. However, because compensation is typically renegotiated only at discrete intervals, tied to the expiration of collective bargaining agreements, we expect the more immediate and flexible margin of adjustment to be employment. Thus, we anticipate stronger and more observable effects on police staffing levels than on compensation in the short run.

Police unions, like other public sector unions, prioritize personnel policies as their core area of influence (DiSalvo, 2022). While this includes wages, a substantial and often underappreciated component involves fringe benefits—such as health insurance, pensions, and other post-employment compensation. These forms of compensation are less visible to voters than wages and thus attract less political scrutiny (Anzia and Moe, 2015; Hunter and Rankin, 1988). Public sector unions are therefore incentivized to emphasize benefits over wages in bargaining, exploiting what Bawn et al. (2012) term an "electoral blind spot." This logic suggests that the most pronounced policy effects of electing union-backed candidates are likely to emerge in the domain of benefits. Although our data do not allow us to directly test this proposition, we present suggestive evidence consistent with this expectation in section 6.1.

2.2 Police Performance

To theorize the potential impact of a police union—backed mayor on police performance, we draw on the literature on ideological alignment between politicians and bureaucrats (in our case, the mayor as the political principal and the police as the bureaucratic agents). This literature suggests that alignment can shape bureaucratic behavior, though the direction of the effect may vary depending on the underlying mechanism.

Our core theoretical expectation centers on a *captured patronage* dynamic: police unions, seeking favorable treatment, such as increased hiring or compensation, may use political support (e.g., campaign donations or endorsements) as a substitute for job performance. Under this mechanism, the election of a union-backed mayor weakens incentives for police to exert effort, leading to lower performance. In other words, if political loyalty secures favorable outcomes, officers have less reason to demonstrate their value through performance. Our theoretical expectation of captured patronage relies on political science models of pay-to-play and interest-group capture, in which campaign contributions or endorsements serve as currency for favorable bureaucratic treatment—even when performance is weak or effort is minimal. While no existing

study looking at bureaucrats specifically shows that their performance is worsened by their electoral involvement, empirical work shows that political donations can reduce the accountability pressure on non-bureaucratic public service providers, making performance less necessary as a source of leverage (e.g. Colonnelli et al. 2020; Gulzar et al. 2025; Fazekas et al. 2023; Harding et al. 2024; McCarty and Sumner 2024; Ruiz 2017). A similar dynamic appears in Foy (2024), who shows that teachers perform better following union decertification, suggesting that union power can reduce individual incentives for effort. Like campaign contributions, unionization serves as a tool bureaucrats can use to strengthen their bargaining position with elected officials, potentially substituting political influence for performance. This logic aligns with theories of clientelism, which posit that material political support, such as endorsements or donations, can serve as a substitute for programmatic effectiveness in winning political favor (Hicken, 2011; Kitschelt and Wilkinson, 2007).

At the same time, the opposite effect is theoretically plausible under several alternative mechanisms. First, performance could improve almost mechanically through resource effects: if union-backed mayors allocate more funding to the police department, this may enhance operational capacity and effectiveness. Second, alignment may produce a morale effect, whereby officers exert greater effort under a mayor who shares their values or vision for policing (Besley and Ghatak, 2005; Spenkuch et al., 2023). Third, police may engage in strategic effort, increasing performance to boost the electoral fortunes of a politically aligned mayor. As Moe (2012) notes, this channel is largely absent from existing formal models of bureaucratic behavior—likely because most bureaucrats' performance is not directly visible to voters. However, police are an important exception: they are the largest group of municipal employees (Bee and Moulton, 2015), and their highly visible, street-level work makes their performance electorally consequential. Emerging empirical work supports the plausibility of this channel; for instance, Wirsching (2022) documents electoral responsiveness within the NYPD. In sum, while our central prediction is that performance will decline due to captured patronage, the net effect ultimately depends on the empirical strength of these competing mechanisms in the context we study.

3 A New Dataset on Police Unions' Donations in Local Elections

To investigate the influence of police unions' donations in local politics, we construct a novel dataset that combines information from multiple sources: (i) campaign contributions in local elections, (ii) candidate characteristics and electoral outcomes, (iii) municipal budgets and public employment data, and (iv) crime rates and policing outcomes. This section provides a summary of the data construction process; comprehensive details are available in the Data Appendix.

3.1 Local Campaign Finance Data

A persistent challenge in the study of campaign finance in U.S. local elections has been the lack of comprehensive and standardized data on political donations. A central contribution of this paper is the construction of a new dataset covering a large number of mayoral elections across the United States between 2001 and 2019. We focus on elections in which at least one of the top two candidates—the winner or the runner-up—received campaign contributions. For these elections, we collect information on donations received by the two leading candidates in the two years preceding each election.⁷

Our dataset draws on two primary sources. First, we compile data from campaign finance databases maintained by seven states: Connecticut, Iowa, Illinois, Oregon, South Carolina, Virginia, and Washington. These databases include detailed records of monetary contributions, in-kind contributions, and loans made to political committees supporting candidates in various local elections. We match political committees to the candidates they supported and extract donation data for the top two candidates in mayoral contests. The Data Appendix provides detailed information on the data collection procedures and sources for each of these seven states. Second, we incorporate data from Yu (2022), which contains hand-collected records of mayoral campaign contributions in 36 additional states. This dataset was assembled from original campaign disclosure reports housed in local government offices, municipal archives, and boards of elections. By combining these two sources, we construct a comprehensive dataset covering 2,303 mayoral elections in 1,073 cities.

⁷In a small number of cases when the general election was not held, we consider the top two candidates in the primary election.

For the purpose of this paper, we exclude 34 cities that do not have municipal police departments. Our final sample comprises 2,249 elections across 1,039 cities in 43 states, involving 3,251 unique candidates and 709,687 individual donations.

Table 1 provides a breakdown of the dataset by state. An important strength of our data is its broad coverage across municipalities of varying sizes. The smallest jurisdiction in the sample is Pawleys Island, South Carolina, with a population of 106 as of the 2017 election; the largest is New York City. Figure 1 illustrates the distribution of covered elections by population size, highlighting the dataset's capacity to capture electoral dynamics in both small and large urban contexts.

For each election, we observe the candidate's name, the election date, the name of each contributor (whether an individual or an organization), and the amount donated. As described in the following sections, we further enrich this dataset by merging it with additional sources of information.

3.2 Identifying Donations by Police Unions

To identify campaign contributions made by police unions, we implement a two-step process combining automated keyword detection with manual verification.

First, we apply a string-matching algorithm to the names of contributors recorded in the campaign finance data. This automated step uses a set of predefined keywords—"Police," "Detectives," "Sergeants," "Lieutenants," and "Captains"—to flag contributions plausibly originating from police-affiliated organizations. The goal of this step is to capture a broad set of potential police union donors while minimizing false negatives. We then manually review the flagged entries to remove contributions erroneously attributed to police unions.

Second, we conduct a comprehensive manual review of all remaining contributor names to identify additional police union donations potentially missed by the keyword filter. This step allows us to account for naming irregularities, acronyms, and idiosyncratic spellings that may obscure police union affiliations.⁸ To guide this process, we conduct targeted searches of known police unions across the cities and states represented in our dataset, which informed additional keywords and the identification of acronyms.

By combining systematic detection with human oversight informed by local context

⁸For example, "Fraternal Order of Police" often appears in the contribution records with the acronym "FOP".

and naming conventions, this two-step approach reduces both Type I and Type II errors in classification. As a result, the final set of identified police union donations achieves a high degree of accuracy and reliability, which is critical for the validity of our empirical analysis.

3.3 Election results and candidates' characteristics

We augment the campaign finance data with information on election outcomes and candidate characteristics. Specifically, for each election, we collect data on: (i) the vote share and total number of votes received by the top two candidates, (ii) the candidate's partisan affiliation, and (iii) the incumbency status of each candidate.

Election results are assembled from a combination of sources. We first incorporate data from Ferreira and Gyourko (2009), Jerch et al. (2017), and de Benedictis-Kessner et al. (2023). For cities not included in these datasets, we collect results directly from county and city election offices, often via official websites. When these are unavailable, we consult newspaper archives to retrieve historical election outcomes.⁹

Identifying candidates' partisan affiliations presents a particular challenge in non-partisan elections, where formal party labels do not appear on the ballot. In order to identify the partisan leaning of the candidates in these elections, we rely on a combination of sources, including local newspaper coverage, candidate websites, and official documents. We also examine whether candidates had previously contested partisan elections or received formal party endorsements within a proximate time window. Full details on this coding process are provided in the Data Appendix.

We classify approximately 26 percent of the candidates in our sample as Democrats, 20 percent as Republicans, 12 percent as independents, and 9 percent as affiliated with other parties. The remaining 33 percent could not be reliably classified due to insufficient public information on their partisan alignment. For the purposes of our analysis, we code these unclassified candidates as independents, as the absence of any clear partisan signal in publicly available sources suggests a more moderate or nonpartisan orientation.

Finally, we obtain information on the form of government from the International City and County Management Association (ICMA)'s Municipal Form of Government Surveys. Since not all cities are surveyed in every wave, we assign to each election

⁹The Data Section in the Appendix describes how we deal with write-in candidates in order to code the total number of votes in the election.

the form of government recorded in the most recent survey year in which the city was included. 10

3.4 Municipal budgets, municipal public employment, and crime outcomes

We further enrich our dataset with city-year level variables measuring the size and compensation of police departments, and public safety outcomes.

First, we obtain data on police department staffing from the Law Enforcement Officers Killed and Assaulted (LEOKA) dataset. This source provides annual figures on the number of personnel employed by each law enforcement agency, disaggregated into sworn officers and civilian employees.

Second, we use data from the FBI's Uniform Crime Reporting (UCR) Program to measure crime incidence and clearance rates. Specifically, we calculate the number of reported index crimes per capita—separately for violent and property crimes—as well as the share of these offenses cleared by the police. In addition, we include the number of arrests for non-index crimes, also expressed as a share of the municipality's population.¹¹

Third, we draw on the U.S. Census Bureau's Annual Survey of Public Employment and Payroll (ASPEP) to capture compensation levels in police departments. The ASPEP provides data on the total number of police personnel and the aggregate gross monthly wage bill, with separate figures for sworn officers and civilian employees. The wage bill includes all gross salaries, wages, fees, commissions, and overtime paid to employees, as well as incentive payments that are paid at regular pay intervals. It excludes the employer share of fringe benefits. We compute the average wage by dividing total payroll by the number of employees within each category. Due to the survey's structure, however, wage data are only available for most cities at five-year intervals, resulting in lower temporal resolution relative to the other sources.

¹⁰We have missing data for 9 percent of elections in our sample. 49 percent of elections are in cities with a mayor-council form of government, and 42 percent are in cities with a council-manager or commission form of government. One election in our sample, Oak Park, IL, has a town meeting form of government.

¹¹We accessed this data using Jacob Kaplan's Crime Data Tool, available at https://crimedatatool.com. We downloaded this data separately for each city in our data, provided that the reporting agency was a city police department (as opposed to, for instance, the County Sheriff).

4 Descriptive Patterns in Police Unions' Donations in Local Elections

This section presents descriptive evidence on two dimensions: (i) the extent of police union involvement in mayoral campaign financing, and (ii) the types of candidates most likely to receive their support.

Police unions make campaign contributions in 233 out of the 2,249 mayoral elections in our sample, representing 10.4 percent of races. In the vast majority of these instances (93 percent), police unions contribute to only one of the top two candidates. The median donation amount from police unions is \$500—comparable to the median contribution from other committees, and higher than the median contribution from individuals (\$200). For comparison, Carreri et al. (2024) report donation rates of 15.7 percent and 5.9 percent for firefighter and teachers' unions, respectively. Overall, public sector unions rank among the top three categories of donors in local races, alongside construction businesses and real estate developers.

Figure 2 documents a strong relationship between city size and the likelihood of police union contributions. The share of elections with union donations rises monotonically with population. While police unions are rarely active in municipalities with fewer than 10,000 residents, the probability of contribution increases to 3.5 percent in cities with 10,000–20,000 residents, 5 percent in those with 20,000–30,000, 8 percent for 30,000–40,000, and 14 percent for 40,000–60,000. In cities with populations between 60,000 and 200,000, police unions contribute in approximately one-quarter of elections, and in 44 percent of races in cities above 200,000. As shown in Figure A1 of the Supplementary Appendix, this relationship is approximately linear in log population: a 10 percent increase in population size is associated with a 0.75 percentage point increase in the probability of a police union contribution.

Table 2 examines which candidate characteristics correlate with receiving police union support. The unit of analysis is the candidate-election, and all specifications include election fixed effects, allowing for within-race comparisons. Column 1 shows that police unions are significantly more likely to support the winning candidate. This pattern is consistent with an "investor" model of campaign contributions, in which donors seek to back likely winners in order to secure future returns—mirroring pat-

¹²For ease of interpretation, we multiply the dependent variable by 100, so that each coefficient can be interpreted as the percentage points change in the probability of observing a police union's donation if the candidate falls in the specific category.

terns observed in corporate PAC behavior (Bonica, 2016). However, Figure A2 in the Supplementary Appendix shows that while the probability of donation increases with a candidate's relative vote share (panel a), there is no discontinuity at the zero margin of victory cutoff (panel b).¹³ This suggests that, while police unions might have a tendency to donate to the winner, they are not more likely to support the winner in competitive elections.

Column 2 indicates that incumbents are more likely to receive donations, although column 3 reveals that this relationship is largely driven by incumbents' stronger electoral performance. Column 4 shows that Democratic candidates are more likely than Republicans to receive contributions from police unions. This finding runs counter to expectations based on Gaudette (2023), who shows experimentally that voters tend to associate police endorsements with Republican candidates. However, as shown in column 5, in races where a Democrat directly competes against a Republican, there is no clear partisan preference in union support.

Table A1 in the Supplementary Appendix presents additional heterogeneity in donation patterns by city characteristics. Police unions are more active in cities with a mayor-council form of government—consistent with the greater formal powers of the mayor in such systems (Carreri and Payson, 2021)—and in cities holding nonpartisan elections. We find no significant difference in union activity between on-cycle and off-cycle elections. This result is at odds with theoretical predictions and with empirical evidence from Anzia (2013), but aligns with more recent evidence in de Benedictis-Kessner and Warshaw (2023). Finally, we find that police unions are significantly more likely to donate in states without right-to-work laws—consistent with the greater institutional strength of public sector unions in these contexts (DiSalvo and Kucik, 2018)—though this association disappears once we control for city size.

¹³In the sample of 722 elections decided by a margin of victory of 10 percentage points or less, the winning candidate is not significantly more likely to receive a donation from a police union relative to the runner-up. A local linear regression with a 10 percentage points bandwidth, controlling for election year and state fixed effects, gives an estimate of 2.36 (p-value of 0.427).

 $^{^{14}}$ The sample in columns 2 and 3 is restricted to consecutive elections, which allows us to measure incumbency status.

¹⁵The excluded category includes candidates categorized as independents or belonging to a third party, or candidates that could not be associated with any party through our extensive search.

5 Empirical Design

Our objective is to estimate the effect of electing a mayor who received campaign contributions from a police union on three main outcomes: (i) the size of the police department, (ii) compensation levels of police personnel, and (iii) measures of police performance. We implement two complementary empirical strategies to address this question: a two-way fixed effects model and a stacked event-study design that accounts for staggered treatment timing.

5.1 Treatment

Our treatment captures the election of a police union-backed mayor, defined as a candidate who received a campaign donation from a police union. As discussed in Section 2, police unions pursue two distinct goals through their political engagement: influence-seeking, where donations are aimed at cultivating access or leverage with the winning candidate irrespective of policy alignment, and preference alignment, where unions support candidates who are ex ante more closely aligned with their policy priorities. We conceptualize our treatment as a compound one that potentially reflects both channels. While we are unable to empirically disentangle these mechanisms, descriptive evidence presented in Section 4 suggests that influence-seeking likely plays a significant role. Specifically, police unions are more likely to donate to winning candidates. To the extent that likely victors are not systematically more pro-police, this pattern is consistent with a strategy aimed at securing access to political power.

Throughout the paper, we interpret police union donations as a strong signal of support—functionally similar to an endorsement—given that unions contribute to only one of the top two candidates in 93 percent of races. However, we emphasize the analytical value of studying donations rather than formal endorsements. Donations are typically less visible to the broader electorate and may serve as what we term an inward-facing endorsement: a signal directed toward the candidate and the police workforce, rather than to the public. This subtle form of support may be particularly salient in races where Democratic candidates—whose base may be skeptical of police unions—quietly receive union donations while avoiding the potential backlash associated with public endorsements. This dynamic aligns with findings from Gaudette (2023), who shows that voters often interpret police union endorsements as signaling a Republican affiliation, likely due to the partisan composition of police forces themselves (Ba et al., 2023;

5.2 Two-way fixed effects estimation

A central concern in estimating the causal effect of police-union-backed mayors is endogeneity: cities where police unions support winning mayoral candidates may differ systematically from other cities in ways that are correlated with policing outcomes. For example, cities with stronger or more politically active police unions may also exhibit larger police forces or distinct crime trends, regardless of who is elected mayor.

To address these concerns, we exploit within-city variation across multiple mayoral election cycles. Many cities in our dataset are observed over time, and some experience changes in whether the winning mayor received police union donations. This allows us to examine changes in outcomes within the same city, before and after the election of a police-backed mayor. We estimate the following equation:

$$y_{ct} = \alpha_c + \gamma_{ts(c)} + \delta_{\tau s(c)} + \beta PoliceMayor_{ct} + X_{ct}\theta + \epsilon_{ct}$$
 (1)

where y_{ct} is the outcome of interest for city c, measured in year t. The key explanatory variable, $PoliceMayor_{ct}$, is an indicator equal to one if the mayor in office received campaign contributions from a police union in the most recent election. We include city fixed effects (α_c) to absorb any time-invariant city characteristic, and State-by-calendar-year fixed effects $(\gamma_{ts(c)})$, which account for time-varying shocks common to all cities within the same state. In addition, we include State-by-term-year fixed effects $(\delta_{\tau s(c)})$, which control for the fact that cities hold elections in different years and may be at different points in their mayoral term cycles. Finally, X_{ct} includes controls for mayoral partisanship (indicators for Democratic and Republican affiliation) and the mayor's margin of victory, as both characteristics are associated with the likelihood of police union support, as shown in Section 4. Standard errors are clustered at the city level to account for serial correlation over time within the same city.

5.3 Stacked event study design

As emphasized by a recent literature on difference-in-differences with staggered adoption (e.g., Goodman-Bacon, 2021; De Chaisemartin and d'Haultfoeuille, 2020; Borusyak et al., 2024; Cengiz et al., 2019), the standard two-way fixed effects estimator may yield biased estimates when treatment timing varies across units and treatment effects are

heterogeneous. Specifically, part of the identifying variation comes from comparisons between "already-treated" and "not-yet-treated" units, which can introduce bias if treatment effects evolve over time.

To address this issue, we implement a version of the stacked event study design proposed by Cengiz et al. (2019). We identify as treated units those cities that switch from having a mayor not financed by police unions in election cycle $\tau - 1$ to one financed by police unions in cycle τ . For each treated city k, we construct a control group consisting of cities in the same state whose mayors never received police union donations during the same period. Each treated-control group pair defines an "event," indexed by k, and we stack all such events into a common dataset. We then compare pre-post changes in outcomes in each treated city k to pre-post changes in outcomes, over the same time window, in the cities that serve as its control group. Specifically, this amounts to estimating the following equation:

$$y_{ctk} = \alpha_{ck} + \gamma_{tk} + \beta Treated_{ck} \times Post_{tk} + \epsilon_{ctk}$$
 (2)

where y_{ctk} is the outcome of interest for city c, in year t, within event k. City-event fixed effects, α_{ck} , absorb time-invariant differences between treated and control cities, and year-event fixed effects, γ_{tk} , absorb time-specific shocks common to all cities in the event. The indicator variable $Treated_{ck}$ indicates treated cities, and the indicator $Post_{ck}$ equals one in the years following the treatment (i.e. in the years in which the mayor supported by a police union is in office). The coefficient β captures the average treatment effect of electing a police-union-backed mayor. Standard errors are clustered at the city level.

Given that police unions tend to support candidates who are more electorally competitive and more likely to be Democrats (as shown in Section 4), it is important to account for potential confounding due to mayoral ideology or electoral strength. We therefore also estimate an augmented version of equation 2 that includes controls for mayoral partisanship and margin of victory, each interacted with the post-treatment indicator.

To trace the dynamic evolution of the treatment effect and assess potential differential pre-trends between treated and control cities, we also estimate a non-parametric event study specification:

$$y_{ctk} = \alpha_{ck} + \gamma_{tk} + \sum_{s=-3}^{4} \beta_s Treated_{ck} \times D^{sk} + \epsilon_{ctk}$$
 (3)

where D^{sk} is a set of relative event-time dummies (ranging from 3 years before to 4 years after the election, with the year of the election as the omitted category). The coefficients β_s capture the differential evolution of the outcome in treated versus control cities in the years before and after treatment.

The sample size varies by outcome due to differences in data availability across years and cities. For example, the sample includes 35 treated cities and 130 control cities for arrest rates (non-index crimes), and up to 55 treated cities and 269 control cities for police employment outcomes.

6 Results

Leveraging these empirical designs, we investigate how the election of a mayor financed by a police union impacts police personnel spending and the performance of the police department.¹⁶

6.1 The impact of police-union-financed mayors on police personnel spending

We begin our analysis by examining how the election of a police-union-financed mayor affects the size and compensation of police department personnel.

Panel A of Table 3 presents the estimated effects on the size of the police workforce. Columns 1, 4, and 7 report results from the two-way fixed effects model (Equation 1), while the remaining columns show estimates from the stacked event study design (Equation 2), with and without additional covariates. Across specifications, we find a consistently positive relationship between police union support and police employment, with larger estimated effects under the stacked event study design—suggesting that correcting for staggered treatment timing is empirically important.

The estimate in column 3 reveals that electing a police-backed mayor is associated with an increase of approximately 0.12 police department employees per 1,000 residents,

¹⁶To reduce the influence of outliers, we top-code all outcome variables at the 99th percentile.

equivalent to an increase of 10 percent of the standard deviation of the outcome. This increase is significant for both sworn officers (an increase of 7 percent of a standard deviation) and civilian personnel (an increase of 14 percent of a standard deviation). Importantly, the inclusion of controls for mayoral partisanship and electoral margin does little to attenuate the estimates, suggesting the effect is not driven by observable political or electoral characteristics of the mayor correlated with police unions' support.

Figure 3 presents the corresponding event study estimates (bottom panels) alongside raw group averages (top panels). There are no significant differential pre-trends between treated and control cities, providing support for the identifying assumption of our design. The treatment effect appears promptly in the first year of the mayor's term and remains stable in subsequent years.¹⁷ Notably, the raw trends reveal a slight decline in police employment across all cities prior to the election, followed by a sharp and sustained increase in treated cities—both in sworn officers and civilian employees—after a police-backed mayor is elected.

Panel B of Table 3 examines average compensation in police departments. While the estimated coefficients are positive, they are imprecisely estimated, likely due to two factors. First, the ASPEP data used to measure wages are only available at five-year intervals for several cities in the sample. Second, police salaries are often negotiated through collective bargaining agreements and may not adjust annually, resulting in more muted short-term effects.

In the supplementary appendix, we provide several robustness checks. In Table A2, we control for total campaign contributions received by the mayor (normalized by city population), interacted with the post-treatment indicator. The results remain virtually unchanged, suggesting that the estimated effects are not simply capturing the fact that police-backed mayors receive more campaign contributions overall—potentially reflecting broader donor support that could itself be correlated with increased police spending. We further control for whether the mayor received contributions from fire-fighters' or teachers' unions; again, the estimates are unaffected, indicating that the observed increase in police employment is not a generic effect of being backed by public sector unions. To reinforce this point, Table A3 presents placebo tests using support from firefighters' unions. We replicate our event study design by identifying cities that switch from electing a mayor not backed by firefighters' unions to one who is, and compare them to cities in the same state whose mayors were never supported by

 $^{^{17}}$ Notice that a subset of cities has a 2-years electoral term. For these cities, the "post" period ends in period 2.

firefighters during the same period. We find no corresponding increase in police employment following the election of a firefighter-backed mayor. This suggests that the observed effects are specific to police union support, rather than reflecting a broader alignment with public safety unions more generally. Finally, in columns 3, 6, and 9 of Table A2, we present estimates from a stacked event study design where, instead of comparing cities in the same state, we compare cities with similar populations.¹⁸ Our results are robust to this alternative choice of the control group.

In addition to wages, total police compensation includes non-salary benefits. Because these benefits are less visible to voters, police unions may be particularly effective in securing improvements to this component of compensation through lobbying efforts (Anzia and Moe, 2015). While ICMA's Municipal Form of Government Surveys provide data on police department benefit expenditures, the limited coverage of these data precludes a full within-city analysis of this outcome. Nonetheless, in Table A4 in the supplementary appendix, we report suggestive evidence of a positive association between the election of a mayor who received a police union's donation and the level of benefits provided to police employees. Conditional on year and state fixed effects, and controlling for log population, we find that municipalities led by a union-supported mayor spend substantially more on health, hospital, disability, and life insurance programs for police (while the association with social security and retirement benefits, while positive, is not statistically significant).

6.2 The impact of police-union-financed mayors on police performance

In Table 4 and Figure 4, we turn to investigating whether the election of a mayor who received donations from a police union is associated with changes in police performance. We focus on "index crimes," a standard set of eight serious offenses used by the FBI as primary measures of crime: homicide, rape, robbery, aggravated assault, burglary, theft, motor vehicle theft, and arson. We examine both the incidence of these crimes and the share that are cleared by the police.

We find a negative, albeit imprecisely estimated, effect on clearance rates follow-

¹⁸Specifically, we compare treated and control cities that belong to the same population bracket, and we specify four brackets: less than 10,000 inhabitants, between 10,000 and 50,000, between 50,000 and 100,000, and more than 100,000.

¹⁹The survey was mailed only to municipalities with populations above 10,000, it had a response rate of about 50 percent, and it was discontinued in 2013.

ing the election of a police-union-financed mayor. Despite the substantial increase in police department staffing documented earlier, cities governed by police-backed mayors experience a decline in clearance rates of approximately 0.13 standard deviations. In addition, using our stacked event study design, there is a small and statistically insignificant increase in the number of index crimes per capita. In Table A5 in the supplementary appendix, we show that the decline in clearance rates holds for both violent crimes (homicide, rape, robbery, and aggravated assault) and property crimes (burglary, theft, motor vehicle theft, and arson).

In columns 7–9 of Table 4, we examine arrests for non-index crimes offenses such as drug possession and public intoxication, where police officers typically have greater discretion in enforcement. We find that these arrests decline following the election of a police-union-financed mayor, with a reduction in arrests per 1,000 inhabitants of about 0.25 of a standard deviation in our most stringent specification.

In summary, cities that elect a police-union-supported mayor do not experience improved public safety outcomes, despite a measurable increase in staffing levels within the police department. If anything, the evidence suggests a decline in police effort, with lower clearance rates and fewer arrests for discretionary offenses. This pattern is consistent with a "capture" interpretation: when the mayor is aligned with police unions, officers may anticipate reduced oversight or diminished pressure to meet performance targets. As a result, the increase in police personnel does not translate into more effective policing and may instead reduce incentives for effort or accountability.

7 Conclusion

Some of the most pressing policy issues in the United States today, such as public safety, housing, and local budgeting, are responsibilities of local governments (Anzia, 2022b; Trounstine, 2020, 2009). Yet the political forces shaping these outcomes at the municipal level remain understudied. Nowhere is this gap more evident than in the realm of local campaign finance, where the rules are looser, oversight is weaker, and the potential for interest group influence is arguably greater than at the state or federal level. Despite frequent media attention to the sums donated by police unions, we still know surprisingly little about how often these organizations contribute to local campaigns, which candidates they support, whether their political involvement affects the policies that local governments adopt, and finally how this affects police behavior

(DiSalvo, 2022).

This paper addresses that gap by assembling and analyzing the first large-scale dataset of local campaign finance in U.S. mayoral elections, covering over 2,300 contests in more than 1,000 cities between 2001 and 2019. Using these data, we explore patterns in the frequency, targeting, and partisanship of police union political activity, providing the first comprehensive descriptive portrait of their involvement in local campaign finance. We then leverage within-city variation in the election of union-backed candidates to estimate the causal effects of such support on police department size, compensation, and performance, using a staggered difference-in-differences model that accounts for treatment heterogeneity over time.

Causally, we show that cities that elect union-backed mayors see substantial increases in police employment, consistent with theoretical expectations that unions seek to expand their influence through police spending (Anzia and Moe, 2015; DiSalvo and Kucik, 2018). Yet we find no evidence that these additional resources improve police performance. If anything, performance deteriorates, consistent with a captured patronage mechanism, whereby political alignment reduces accountability and officer effort. Descriptively, we find that police unions are active and strategic political players in local elections. Their campaign contributions are relatively frequent, particularly in mid-sized and large cities, and they tend to concentrate resources on likely winners and on incumbents, consistent with investor models of interest group behavior. Police unions support both Democratic and Republican candidates at comparable rates in partisan races, echoing recent findings on their pragmatic approach to electoral politics (Gaudette, 2023).

Our findings underscore the importance of public sector unions, and interest groups more broadly, in shaping the policy process at the local level. The scale and consequences of the involvement of police unions in mayoral elections demonstrate that campaign finance is not simply a national concern. It is a vital and understudied aspect of city governance that has tangible consequences for institutional design, budgetary priorities, and service delivery. As debates about the structure and oversight of policing in America continue, understanding the political channels through which police departments operate is essential.

de Benedictis-Kessner et al. (2025a) show that, in contrast to virtually every other policy area and spending category examined, mayoral partisanship has no causal impact on police employment, expenditures, crime rates, or arrest numbers. Our findings suggest that, in the realm of policing, it is the political activity of police unions, not local partisan politics, that offers a more informative lens through which to understand variation in policy outcomes.²⁰

Future research on local governance should take interest group activity more seriously—not as a side note, but as a central force in democratic accountability and policy outcomes. It should more directly examine other interest groups that are highly active at the local level but whose political involvement remains understudied, such as firefighters' and teachers' unions. A particularly promising starting point is the political role of teachers' unions, whose endorsements and donations in school board elections may shape school spending and education policy.

²⁰See de Benedictis-Kessner and Warshaw (2016) and de Benedictis-Kessner and Warshaw (2020) for the impact of partisanship - of mayors and county legislator - for municipal and county fiscal policy respectively; Gerber (2013) for municipal partisanship and local climate policies; Macartney and Singleton (2018) for partisanship in school boards and school segregation; de Benedictis-Kessner et al. (2025b) for mayoral partisanship and housing policy.

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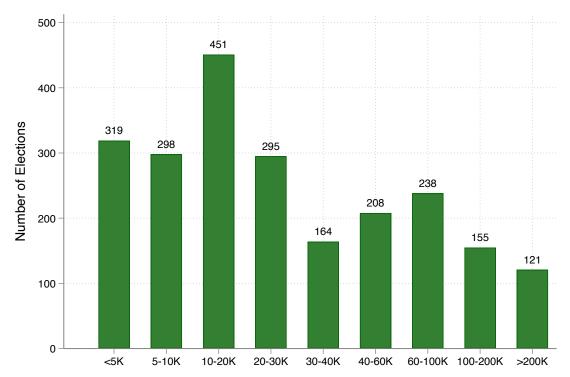
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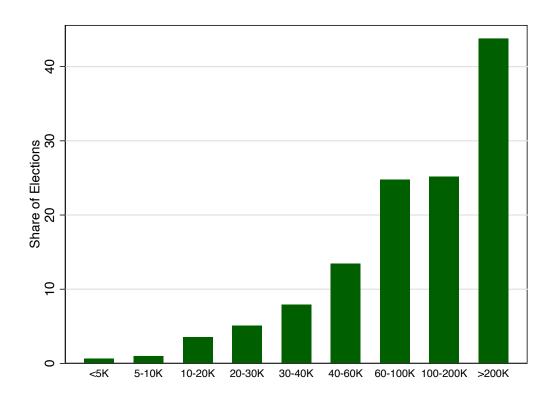
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Figure 1: Number of elections in the contributions data, by population



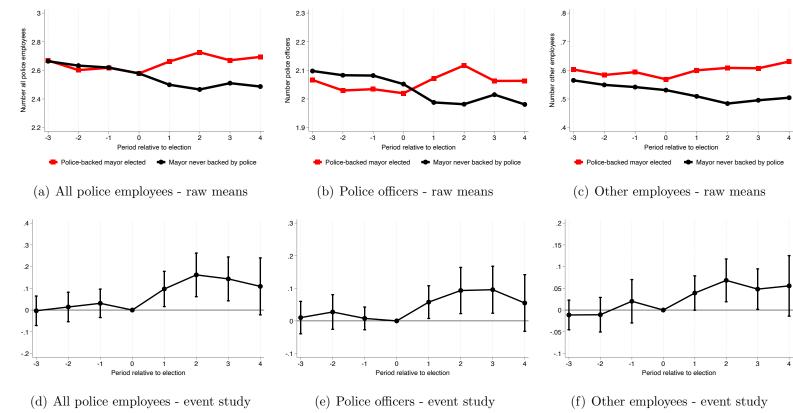
Notes: the figure shows the number of elections covered by our local campaign finance dataset in each of the population brackets on the x-axis. The population of a city is measured in the year of the election.

Figure 2: Share of elections with police unions' donations by population bracket



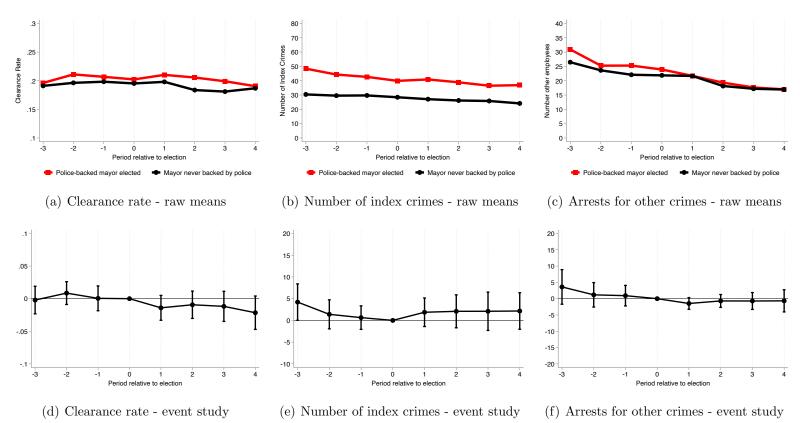
Notes: the figure shows the share of elections in each bracket of city population (indicated on the x-axis) in which police unions donate to one of the top two mayoral candidates. Population is measured in the year of the election.

Figure 3: Event study: size of the police department



Notes: The top panels show the average of each dependent variable in the "treated cities," i.e. the group of cities where a police-financed mayor is elected in period 0 (in red) and in the "control cities," i.e. the group of cities where the mayor was never financed by the police during this period (in black). The bottom panels show estimates of the coefficients β_s from equation 3, together with 95% confidence intervals based on standard errors clustered at the city level. The dependent variables are: the total number of employees of the police department per 1,000 inhabitants (panels a and d), the number of police officers per 1,000 inhabitants (panels b and e), the number of civilian employees of the police department per 1,000 inhabitants (panels c and f).

Figure 4: Event study: police performance



Notes: The top panels show the average of each dependent variable in the "treated cities," i.e. the group of cities where a police-financed mayor is elected in period 0 (in red) and in the "control cities," i.e. the group of cities where the mayor was never financed by the police during this period (in black). The bottom panels show estimates of the coefficients β_s from equation 3, together with 95% confidence intervals based on standard errors clustered at the city level. The dependent variables are: the clearance rate for index crimes (panels a and d), the number of index crimes per 1,000 inhabitants (panels b and e), the number of arrests for other, non-index, crimes per 1,000 inhabitants (panels c and f).

Table 1: Summary of the contributions data for each state

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1)	(2)	(3)	(4)	(5)	Earliest	Latest	(6) Minimum	Maximum
State	Elections	Cities	Candidates	Donations	year	year	population	population
AK	1	1	2	317	2013	2013	32,386	32,386
AR	1	1	$\frac{2}{2}$	252	2016	2016	43,864	43,864
AZ	9	7	18	10,044	2017	2010 2017	7,204	1,469,796
CA	151	89	259	157,039	2001	2017	5,133	3,975,788
CO	5	4	10	1,275	2001	2013 2017	30,775	132,582
$^{\rm CC}$	12	7	20	9,604	2003 2011	2017	28,742	132,382
FL	49	25	83	32,414	2011	2019	1,201	262,588
GA	49	2	6	400	2001	2013	59,141	94,699
IA	162	$\frac{2}{74}$	219	13,292	2003	2017	821	215,243
ID	3	2	5	330	2003	2019	50,802	53,884
IL	752	262	934	103,549	2001	2019	562	2,819,117
IN	18	12	33	15,934	2001	2015	1,759	827,664
KS	3	1	5 5	194	2003	2019	11,060	11,179
KY	2	1	3	599	2001	2009	55,034	56,552
LA	143	85	239	37,342	2004	2008	274	383,940
MA	30	12	42	89,073	2001	2013	29,897	687,788
MD	9	5	42 15	3,975	$\frac{2005}{2005}$	2017	14,989	64,420
ME	5	3	7	1,003	2003	2015 2015	18,727	66,825
MI	9	6	15	1,995	2011	2015 2015	22,073	837,407
MN	16	12	31	3,154	2002	2013	7,931	287,873
MO	6	5	12	4,289	2001	2016	9,075	462,368
MS	1	3 1	2	4,209	2003 2014	$\frac{2010}{2014}$	172,014	172,014
NC	24	20	44	5,515	2003	2014 2017	1,602	825,668
ND	1	1	2	4	2010	2017	15,427	15,427
NE	5	3	9	2,122	2010	2015	50,051	407,985
NH	1	1	2	$\frac{2,122}{258}$	2007	2013 2007	87,308	87,308
NJ	72	32	114	15,182	2001	2019	2,653	281,752
NM	2	2	4	376	2007	2013	82,824	90,468
NV	4	3	7	145	2012	2016	4,151	54,147
NY	50	25	82	46,851	2007	2017	6,732	8,396,091
ОН	3	3	6	4,125	2007	2017	29,717	276,688
OK	1	1	$\frac{\circ}{2}$	572	2007	2007	106,533	106,533
OR	152	74	237	17,589	2008	2018	1,292	642,720
PA	1	1	2	390	2017	2017	121,047	121,047
RI	8	4	12	6,356	2005	2016	42,838	178,733
SC	307	147	416	29,027	2007	2019	106	137,566
SD	1	1	2	322	2010	2010	153,888	153,888
TN	3	2	5	1,676	2005	2016	56,563	165,924
TX	13	9	$\frac{3}{24}$	13,312	2003	2010 2017	34,068	2,286,908
UT	16	8	26	2,062	2001	2017	22,137	96,406
VA	49	25	72	5,659	2004	2018	2,253	450,983
WA	141	57	215	64,951	2004	2019	2,975	728,661
WI	4	3	6	6,689	2003	2013	29,879	236,908
** 1	1	9	3	0,000	2000	2011	20,010	200,000
All states	2,249	1,039	3,251	709,687	2001	2019	106	8,396,091
					_			

Notes: number of elections, cities, candidates, and donations covered by our local campaign finance dataset, together with the earliest and latest election year and minimum and maximum population for each state.

Table 2: To which candidates are police unions more likely to donate?

	(1)	(2)	(3)	(4)	(5)
	Depender	nt variable	: Donation	by police	(× 100)
Winner	3.447***		5.270***		
	(0.764)		(1.296)		
Incumbent		3.154**	1.443		
		(1.464)	(1.543)		
Democrat				6.433***	1.223
				(1.906)	(2.087)
Republican				3.021**	
				(1.474)	
Observations	3,888	1,650	1,650	3,888	654
Cities	1006	482	482	1006	222
Mean dep. var.	4.2	6.0	3.3	2.4	8.0

Notes: The unit of observation is an election-candidate. The outcome is equal to 100 if a police union donated to the candidate, and 0 otherwise. Winner is an indicator equal to 1 if the candidate won the election. Incumbent is an indicator equal to 1 if the candidate was the incumbent. Democrat is an indicator equal to 1 if the candidate is a Democrat. Republican is an indicator equal to 1 if the candidate is a Republican. All specifications include election fixed effects. The sample in columns 2 and 3 is restricted to consecutive elections. The sample in column 5 is restricted to elections in which a Republican ran against a Democrat. "Mean dep. var." is the mean of the outcome when the indicators included in the regression are equal to 0. Standard errors clustered by city in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01

Table 3: The Impact of mayors backed by police unions on size and pay of the police department

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
		Pa	nel A: Siz	e of the Po	olice Depa	rtment (per	r 1,000 cap	oita)		
	All employees				Police office	rs	Other employees			
Police union mayor	0.067***	0.117**	0.118**	0.035**	0.065*	0.063*	0.032**	0.053***	0.055***	
	(0.025)	(0.049)	(0.049)	(0.017)	(0.034)	(0.035)	(0.013)	(0.018)	(0.018)	
Observations	7,391	9,852	9,774	7,391	9,852	9,774	7,391	9,852	9,774	
Cities	1003			1003			1003			
Cities treated		55	55		55	55		55	55	
Cities control		269	269		269	269		269	269	
Mean dep. var.	2.7	2.6	2.6	2.2	2.0	2.0	0.5	0.5	0.5	
Sd dep. var.	1.4	1.2	1.2	1.2	0.9	0.9	0.4	0.4	0.4	
			P	anel B: Av	erage Pay	of Employ	ees			
	All employees				Police office	rs	Other employees			
Police union mayor	84.975	177.506*	155.421	92.854	167.679	162.448	2.687	96.062	73.915	
	(76.957)	(95.718)	(98.744)	(90.724)	(103.521)	(107.281)	(79.511)	(103.002)	(105.987)	
Observations	4,788	6,289	6,258	4,983	6,361	6,324	4,712	6,217	6,186	
Cities	862			930			841			
Cities treated		54	54		54	54		55	55	
Cities control		256	256		262	262		256	256	
Mean dep. var.	5652.9	5917.3	5918.2	6463.8	7198.2	7204.7	3399.5	3148.4	3148.1	
Sd dep. var.	1696.8	1381.9	1382.1	2082.9	1590.1	1582.9	1395.8	1352.0	1354.6	
Controls	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	

Notes: The table presents estimates of β from equation 1 (columns 1, 4, 7) and from equation 2 (columns 2, 3, 5, 6, 8, 9). The outcome of each regression is indicated in the column title. The standard deviation and the mean of the outcome are calculated in the sample of cities without a mayor supported by a police union. Controls include an indicator if the mayor is republican, an indicator if the mayor is democrat, and the margin of victory of the mayor (interacted with the *Post* indicator in columns 2, 3, 5, 6, 8, 9). Standard errors clustered by city in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01

Table 4: The impact of mayors backed by police unions on police performance

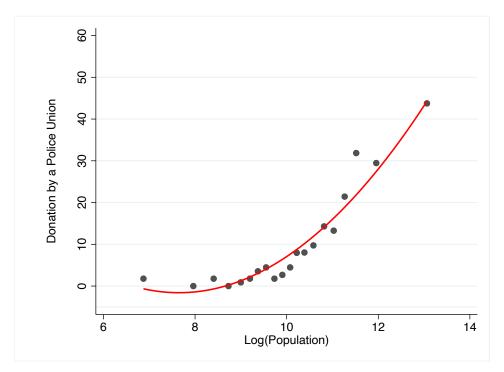
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)		
		Index crimes:						Other crimes:			
	Cl	earance ra	ate	Number per 1,000 capita			Arrests per 1,000 capita				
Police union mayor	-0.007	-0.015	-0.014	-0.613	0.717	1.108	-0.275	-2.072	-3.372*		
	(0.006)	(0.010)	(0.010)	(0.901)	(1.601)	(1.660)	(1.052)	(1.841)	(1.748)		
Observations	4,885	1,468	1,450	6,591	7,865	7,787	4,109	1,238	1,223		
Cities	846			955			722				
Cities treated		39	39		52	52		35	35		
Cities control		161	161		262	262		130	130		
Mean dep. var.	0.23	0.19	0.19	35.0	27.5	27.5	29.5	20.8	20.5		
SD dep. var.	0.12	0.11	0.11	22.9	18.3	18.3	22.2	13.1	12.8		
Controls	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes		

Notes: The table presents estimates of β from equation 1 (columns 1, 4, 7) and from equation 2 (columns 2, 3, 5, 6, 8, 9). The outcome of each regression is indicated in the column title. The standard deviation and the mean of the outcome are calculated in the sample of cities without a mayor supported by a police union. Controls include an indicator if the mayor is republican, an indicator if the mayor is democrat, and the margin of victory of the mayor (interacted with the *Post* indicator in columns 2, 3, 5, 6, 8, 9). Standard errors clustered by city in parentheses. * p < 0.1, *** p < 0.05, **** p < 0.01

SUPPLEMENTARY ONLINE APPENDIX

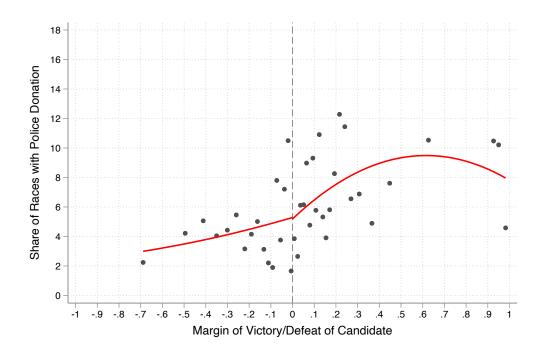
A.1 Additional results

Figure A1: Relationship between police unions' donations and log population



Notes: the figure shows the relationship between an indicator equal to one if a police union donates to one of the top two mayoral candidates in the election and the log of the city population, dividing the distribution of log population into 20 equal-sized bins and calculating the average of the the indicator for police donations within each population bin. The best-fit line is estimated on the underlying data. Population is measured in the year of the election.

Figure A2: Police union donations and margin of victory/defeat of the candidate



Notes: the figure shows the absence of a discontinuity in probability of receiving a police union's donation at the zero margin of victory cutoff. The binscatter is produced after partialling out election year and state fixed effects.

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Table A1: In which elections are police unions more likely to donate?

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Dependent variable: Donation by police (× 100)							
Mayor-council	3.204*	5.276***						
	(1.778)	(1.570)						
Non partisan election			5.500***	3.053*				
			(1.913)	(1.640)				
On cycle election					1.539	-2.514		
					(2.961)	(2.735)		
No right to work							8.015***	1.818
							(1.567)	(1.500)
Observations	2,037	2,037	2,205	2,205	2,205	2,205	2,249	2,249
Population	No	Yes	No	Yes	No	Yes	No	Yes
Cities	916	916	1032	1032	1027	1027	1039	1039
Mean dep. var.	9.2	9.2	7.8	7.8	10.3	10.3	4.9	4.9

Notes: The unit of observation is an election. The outcome is equal to 100 if a police union donated to the candidate, and 0 otherwise. Mayor-council is an indicator equal to 1 if the city has a mayor-council form of government. Non partisan election is an indicator equal to 1 if the election is non-partisan. On cycle election is an indicator equal to 1 if the election is not located in a right-to-work state. All specifications include election-year fixed effects. Odd columns include a control for log population. "Mean dep. var." is the mean of the outcome when the indicator included in the regression is equal to 0. Standard errors clustered by city in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01

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Table A2: The impact of mayors backed by police unions on size and pay of the police department - robustness to additional controls

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
	Panel A: Size of the Police Department (per 1,000 capita)									
	All employees			I	Police officer			Other employees		
Police union mayor	0.121**	0.129**	0.119**	0.063*	0.069*	0.071**	0.058***	0.060***	0.051***	
	(0.050)	(0.051)	(0.050)	(0.036)	(0.037)	(0.036)	(0.019)	(0.019)	(0.018)	
Observations	9,774	9,774	9,019	9,774	9,774	9,019	9,774	9,774	9,019	
Cities treated	55	55	55	55	55	55	55	55	55	
Cities control	269	269	269	269	269	269	269	269	269	
Mean dep. var.	2.6	2.6	2.5	2.0	2.0	2.0	0.5	0.5	0.5	
SD dep. var.	1.2	1.2	1.2	0.9	0.9	0.9	0.4	0.4	0.4	
	Panel B: Average Pay of Employees									
	All employees			I	Police officer	'S	Ot	Other employees		
Police union mayor	164.582*	159.631	184.101	180.951*	179.780	255.551*	63.798	42.474	12.593	
	(98.865)	(108.754)	(113.161)	(108.664)	(125.495)	(135.090)	(107.041)	(116.115)	(97.067)	
Observations	6,258	6,258	6,621	6,324	6,324	6,661	6,186	6,186	6,583	
Cities treated	54	54	54	54	54	54	55	55	55	
Cities control	256	256	268	262	262	268	256	256	267	
Mean dep. var.	5918.2	5918.2	5885.0	7204.7	7204.7	7046.3	3148.1	3148.1	3290.1	
SD dep. var.	1382.1	1382.1	1440.0	1582.9	1582.9	1682.7	1354.6	1354.6	1376.7	
Total amount received	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Firefighters+teachers support	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	
Within-population bracket	No	No	Yes	No	No	Yes	No	No	Yes	

Notes: The table presents estimates of β from equation 2. The outcome of each regression is indicated in the column title. In columns 1, 4, 7 we add a control for the log of (one plus) the total amount of donations per inhabitant received by the mayor, interacted with the *Post* indicator. In columns 2, 5, 8 we additionally control for an indicator equal to one if the mayor was supported by a firefighters' union and for an indicator equal to one if the mayor was supported by a teachers' union, interacted with the *Post* indicator. In columns 3, 6, 9, we compare cities in the same population group (less than 10,000 inhabitants, between 10,000 and 50,000, between 50,000 and 100,000, and more than 100,000), rather than in the same state. The standard deviation and the mean of the outcome are calculated in the sample of cities without a mayor supported by a police union. Standard errors clustered by city in parentheses. * p < 0.1, *** p < 0.05, **** p < 0.01

Table A3: Placebo test: mayors backed by firefighters unions do not increase the size or pay of the police department

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
		Par	nel A: Size	of the Po	lice Depar	tment (per	1,000 cap	$_{ m ita)}$		
	A	All employees			Police office	ers	Ot	Other employees		
Firefighters union mayor	-0.016	-0.058	-0.059	-0.018	-0.045	-0.049	0.002	-0.014	-0.012	
	(0.026)	(0.044)	(0.044)	(0.019)	(0.031)	(0.032)	(0.011)	(0.017)	(0.017)	
Observations	7,391	14,588	14,542	7,391	14,588	14,542	7,391	14,588	14,542	
Cities	1003			1003			1003			
Cities treated		81	81		81	81		81	81	
Cities control		260	260		260	260		260	260	
Mean dep. var.	2.8	2.5	2.5	2.2	2.0	2.0	0.5	0.5	0.5	
SD dep. var.	1.4	1.0	1.0	1.2	0.8	0.8	0.4	0.4	0.4	
			Pa	anel B: Av	erage Pay	of Employe	ees			
	A	all employe	es		Police office	ers	Ot	her employ	rees	
Firefighters union mayor	80.284	98.036	96.237	95.186	85.781	83.324	$\overline{12.745}$	60.368	56.486	
	(62.379)	(81.275)	(83.611)	(73.533)	(102.444)	(104.292)	(64.070)	(81.526)	(91.182)	
Observations	4,788	8,846	8,826	4,983	8,994	8,974	4,712	8,694	8,674	
Cities	862	,	,	930	,	•	841	,	,	
Cities treated		80	80		80	80		80	80	
Cities control		251	251		256	256		248	248	
Mean dep. var.	5589.3	5797.7	5795.9	6397.5	7043.6	7041.4	3351.0	3117.8	3116.2	
SD dep. var.	1665.5	1371.9	1372.9	2070.9	1606.5	1606.8	1365.8	1340.1	1341.1	
Controls	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	

Notes: The table presents a version of Table 3, focusing on donations by firefighters' union to the mayor. The standard deviation and the mean of the outcome are calculated in the sample of cities without a mayor supported by a firefighters' union. Standard errors clustered by city in parentheses. * p < 0.1, *** p < 0.05, **** p < 0.01

Table A4: Mayors backed by police unions and spending on benefits

	(1)	(1) (2)		(4)	
	Health/h	ospital/disability/life insurance	Social security/retiremen		
		benefits per capita	benefits per capit		
Police union mayor	9,521**	8,197*	2,019	3,114	
	(4,096)	(4,395)	(3,989)	(5,283)	
Observations	750	746	608	605	
Cities	272	268	234	231	
Year fixed effects	Yes	Yes	Yes	Yes	
State fixed effects	No	Yes	No	Yes	
Mean dep. var.	30605	30639	38692	38457	
SD dep. var.	13937	13952	22660	22320	

Notes: The table presents estimates of a regression of the dependent variable indicated in the column title on an indicator equal to one if the mayor was financed by a police union, including year fixed effects, log city population, and state fixed effects (in columns 2 and 4). Standard errors clustered by city in parentheses. * p < 0.1, *** p < 0.05, **** p < 0.01

Table A5: The impact of mayors backed by police unions on clearance rates for violent and property crimes

	(1)	(2)	(3)	(4)	(5)	(6)		
	Clearance rate for:							
	Vie	olent Crir	nes	Pro	Property Crimes			
Police union mayor	-0.005	-0.023	-0.023	-0.006	-0.014	-0.014		
	(0.011)	(0.016)	(0.016)	(0.005)	(0.010)	(0.009)		
Observations	4,875	1,486	1,468	4,883	1,468	1,450		
Cities	845	1,100	1,100	846	1,100	1,100		
Cities treated	0.10	41	41	0.10	39	39		
Cities control		162	162		161	161		
Mean dep. var.	0.49	0.48	0.48	0.19	0.17	0.16		
SD dep. var.	0.22	0.23	0.22	0.11	0.10	0.10		
		Num	ber per	1,000 capi	ta of:			
	Vie	olent Crir	nes	Pro	Property Crimes			
Police union mayor	-0.070	-0.028	0.063	-0.531	0.715	1.010		
	(0.155)	(0.206)	(0.207)	(0.813)	(1.486)	(1.542)		
Observations	6,673	7,964	7,886	6,591	7,865	7,787		
Cities	961	.,001	.,000	955	.,000	.,		
Cities treated		54	54		52	52		
Cities control		264	264		262	262		
Mean dep. var.	4.1	2.8	2.8	30.8	24.7	24.6		
SD dep. var.	4.0	3.0	3.0	19.8	16.1	16.1		
Controls	Yes	No	Yes	Yes	No	Yes		

Notes: The table presents estimates of β from equation 1 (columns 1, 4) and from equation 2 (columns 2, 3, 5, 6). The outcome of each regression is indicated in the column title. The standard deviation and the mean of the outcome are calculated in the sample of cities without a mayor supported by a police union. Controls include an indicator if the mayor is republican, an indicator if the mayor is democrat, and the margin of victory of the mayor (interacted with the *Post* indicator in columns 2, 3, 5, 6). Standard errors clustered by city in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01

A.2 Data collection for donations data

This section describes the sources and steps to collect the campaign finance data for the 7 states that maintain campaign finance databases (Connecticut, Iowa, Illinois, Oregon, South Carolina, Virginia, and Washington).

Common steps and data checks:

We removed contributions which have been 'amended' (and thus superseded) by subsequent reports, keeping only the latest amounts for all contributions.

As individual candidates may be supported by multiple electoral committees in some states, we also removed contributions/transfers between committees supporting the same candidate, to avoid double-counting amounts transferred between committees.

Connecticut

This dataset of contributions comes from the state of Connecticut's *State Elections Enforcement Commission*. It contains a list of contributions (including in-kind contributions and loans) made towards political committees supporting candidates running for mayor starting from 2011. The contributions are matched with a dataset on political committees to retrieve the name of the mayoral candidate supported by the committee in the data. Based on the name of the candidate and the election year, the election city was searched and manually inputted along with the relative electoral information of interest.

Iowa

This dataset of contributions comes from the state of Iowa's *Open Data* platform and it contains contributions (including loans and in-kind contributions) data starting from 2003. We exported the entire dataset available online in csv format.

The name of the candidate supported by the committees in the data, along with the city of the associated electoral contest, are not included in the dataset. We retrieved this information online by searching for a committee name and election date. Only municipal elections have been included in the final election results.

After having retrieved a list of candidates and related municipal races for the available committees, we searched and inputted all the relative electoral information.

Illinois

This dataset of contributions comes from the *Illinois State Board of Election*'s Downloadable Campaign Disclosure Data, and was downloaded by selecting the 'All receipts' option. It includes individual contributions, transfers, loans, in-kind contributions, and

'other' contributions made to political committees. The data is available for the entire sampling frame, although data availability may depend on whether individuals file on-paper or online. The same source provides auxiliary crosswalks to link committees to the individual candidates which they supported. Those are used to retrieve the name of the mayoral candidate supported by the committees in the data. Another auxiliary file provides information on candidates and individual elections, allowing us to identify mayoral contests and where they were held. We then searched and inputted all the relative electoral information of interest.

All total amounts from the final dataset have been cross-checked with the totals available by searching each candidate individually on the Campaign Disclosure data platform. As some of the candidates in our data only filed their campaign disclosure forms 'on paper' (30 candidate-year observations in total), and in a few cases some contributions were missing from the data downloadable online despite appearing on the online database (9 observations), some contributions were missing from the receipts dataset. To preserve these observations and the related elections, the total amounts received in the election year and in the preceding one have been manually recorded as a single contribution for the total amount, with the exception of contributions coming from safety unions which have been recorded separately to be identified as such.

Moreover, if the total yearly amount recorded in our dataset differed from the one available online by more than 10% of the amount in our dataset, we labeled the observation as 'incomplete' and dropped the related election from our final sample.

Oregon

This dataset of contributions comes from the Oregon's Secretary of State website, and was downloaded committee by committee after filtering for Mayoral races. It contains contributions (including in-kind contributions and loans) starting from 2007. The election city is derived from the office sought by the candidates. We derived a list of mayoral races in which at least one candidate received non-zero contributions, and searched and inputted all the relative electoral information.

South Carolina

This dataset of contributions comes from the South Carolina State Ethics Commission campaign contributions database, and was downloaded after filtering the results to only include mayoral races. It contains contributions (including in-kind contributions and loans) starting from 2008. The election city is derived from the office sought by the candidates. We derived a list of mayoral races in which at least one candidate received non-zero contributions, and searched and inputted all the relative electoral information.

Virginia

This dataset of contributions comes from the *Virginia Department of Elections*'s Campaign Finance Reports and was obtained by choosing the 'reports total' option, and then filtered to keep mayoral elections only. It contains contributions (including inkind contributions and loans) starting from 2012. The same source provides auxiliary crosswalks to link committees to the individual candidates supported. The election city is derived from the office sought by the candidates. We derived a list of mayoral races in which at least one candidate received non-zero contributions, and searched and inputted all the relative electoral information.

Washington

This dataset of contributions comes from the Washington State's *Public Disclosure Commission* and was downloaded after filtering the results to only include mayoral races. It contains contributions (including in-kind contributions and loans) starting from 2007. The election city is derived from the office sought by the candidates. We derived a list of mayoral races in which at least one candidate received non-zero contributions, and searched and inputted all the relative electoral information.

A.3 Calculating total votes in the election

Most general local elections in the United States give voters the possibility to express a preference for a candidate not explicitly mentioned on the ballot. These are called write-ins, as the voter effectively writes the name of their preferred candidate. Cities, counties, and electoral reports in general, differ on the reporting standards of such write-ins, even within the same state, causing inconsistencies in the results data. In particular write-ins, when allowed, may be reported, explicitly omitted, or implicitly omitted (the total votes reported are the sum of the votes received by the candidates on the ballot, meaning that write-ins may either be zero (rarely) or simply omitted). Since we are unaware of a systematic way to retrieve write-ins when excluded (most of the times they are simply unavailable), we have chosen to report total votes both including and excluding write-ins. The mechanism of the reporting system is the following:

- Votes excluding write-ins are always reported, as they are always retrievable by subtracting the write-ins if included, or by reporting the number reported if these are excluded.
- Votes including write-ins are reported when write-ins are present (even if they are zero, in which case the two numbers are obviously the same).
- When write-ins are explicitly excluded the variable including write-ins is coded as missing, as there is no way to retrieve them.
- When write-ins are implicitly excluded the variable is left as missing both because there is no way to retrieve them, as mentioned above, and also because there is no way to know with certainty if and why they were left out (they may be zero, the may not be allowed, or they may simply be excluded).

A.4 Coding of partisan affiliation

This appendix summarizes the decisions that have been made in coding the party affiliations of the candidates. Candidates have been coded as either: DEMOCRAT, INDEPENDENT, OTHER PARTY, or REPUBLICAN.

The main distinction regarding party affiliation concerns partisan and non-partisan elections. In the latter, electoral rules prohibit candidates to display their (potential) party affiliation on the ballot. Hence, party affiliations have to be retrieved differently, generally through newspaper articles or official documents online. All sources have been saved and reported. For the sake of consistency and transparency, we employed the following criteria to search and classify party affiliations:

- Whenever we found a source explicitly mentioning the party of the candidate (e.g. "Republican candidate X"), the candidate has been classified as belonging to that party.
- A second method employed was to look at whether the candidate has run in other (partisan) elections in a time-span relatively close to that of the election of interest, thus classifying them with their official affiliation in those partisan elections.
- Finally, we looked at whether the candidate was endorsed by official bodies of a party (e.g. the official party organization of the county in which the election takes place).
- When all these methods failed, the party affiliation has been coded as missing.

For partisan elections we relied on the ballot affiliation, whenever available. The input criteria is as follows:

- Whenever the party affiliation is shown on the ballot, it has precedence over any other source of information and the candidate is classified as such.
- Illinois represents a special case given the high number (with respect to other states) of local parties, personal parties, or ad-hoc electoral parties. For this reason an additional variable (Partisanshipillinois) has been created in order to link candidates who run under local parties or as independent to a Democratic or Republican affiliation, using the same procedure employed to find party affiliation in non-partisan elections. Moreover, this variable also contains candidates affiliations retrieved online for candidates who ran as independent in partisan elections.
- If the party is not shown despite being a partisan election, it has been retrieved following the same procedure of non-partisan elections.

Finally, one last issue has been analyzed, namely candidates that choose to explicitly distance themselves from all other parties in their statements.²¹ These are candidates that are difficult to classify using standard keywords procedures, as they run by expressing what they are not rather than what they are. In our view, however, their explicit decision to distance themselves from any kind of traditional party, effectively classifies them as independent.

²¹An example of such willingness would be the following statement: "I'm not a Democrat. For the record, I'm not a Republican either. Or a Libertarian. Or a Green. I'm not a member of any political party, a holdover from my service in the military and at NASA."