America's Mayors: Who Serves and How Mayors Shape Policy

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ABSTRACT

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This dissertation asks three fundamental questions about representation in American cities. Who serves as mayor? How do voters select mayors? And, do mayors shape policy? Responsible for funding and providing essential services, municipal governments have a huge impact on the public's safety and quality of life. As chief elected officials, mayors are unquestionably important but also understudied political actors. A number of rich and detailed case studies provide valuable insights on individual mayors and their influence, but quantitative cross-city studies have yielded mixed findings on mayors' abilities to affect outcomes. To date, efforts to comprehensively and systematically study mayors have been hampered by a lack of data.

To overcome these data limitations, I amassed an original dataset that includes detailed background information on more than 3,200 mayoral candidates, covering nearly 300 U.S. cities over the last 60 years. My data reveal that mayors, like politicians at higher levels of government, are not very representative of their constituents—they are much more likely to be white and male, with prior political experience and white-collar careers. Business owners and executives are especially well represented in American city halls, accounting for about 32% candidates and mayors.

This study provides compelling new evidence that mayors can and do influence policy outcomes. Using a regression discontinuity design, I find that business executive mayors shape spending priorities, leading to significantly lower levels of spending on redistributive programs and greater investment in infrastructure. Perhaps counterintuitively, electing a business executive mayor appears to have little effect on the overall size of government. However, suggestive evidence indicates that they may increase local revenue, but in the form of fees and charges rather than taxes.

My findings suggest that business executives preside over policy changes with implications for the distribution of both costs and benefits of local government.

In another component of the dissertation, I employ a conjoint survey experiment to investigate why voters so often elect business executives. The experimental results suggest that a candidate's experience as a business owner or executive is likely to influence voters preferences and evaluations. These findings are consistent with longstanding claims that voters rely on candidate characteristics, such as race, ethnicity, or incumbency, as information shortcuts in the absence of party cues. Notably, the cues they use may vary with party identification. In nonpartisan contests, political experience has an even stronger influence on the preferences of Democratic respondents, while Republicans give more weight to occupation.

Overall, my experimental results suggest that electoral institutions may interact with voters' preferences to shape descriptive representation. At the same time, my analyses of new observational data on mayoral candidates document striking deficits of descriptive representation in America's cities and suggest that who serves in office has meaningful policy consequences.

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Part I

Introduction

Chapter 1

Introduction

1.1 Overview

Questions about representation are fundamental to the study of politics. This dissertation examines representation in the context of American cities, addressing three essential questions about mayors and local politics. Who serves as mayor? How do voters select mayors? And, does it matter who voters choose? That is, to what extent do mayors systematically influence policy outcomes? Although city halls may lack the prestige of the White House or the U.S. Capitol, policy choices and outcomes in American cities are hardly trivial. Combined, U.S. local governments account for over \$1.6 trillion in spending per year—nearly 10% of the nation's GDP—and raise more than \$900 billion in annual revenue from local sources (as of 2012; see Barnett, Sheckells and Tydings 2014). Responsible for funding and providing essential services, municipal governments also have a huge impact on the public's safety and quality of life.

As chief elected officials, mayors are unquestionably important but also understudied political actors. A number of rich and detailed case studies provide valuable insights on individual mayors and their influence. These studies tend to portray individual mayors as crucial actors with considerable sway over how their cities respond to the challenges of local governance (e.g., Ferman 1985; Stone 1989; DeLeon 1995; Fuchs 1992; Inman 1995; Bissinger 1997). In contrast, quantitative cross-city studies have yielded mixed findings on mayors' abilities to affect outcomes (e.g., Fer-

reira and Gyourko 2009, 2014; Gerber and Hopkins 2011; Hopkins and McCabe 2012). To date, however, efforts to understand the role and influence of mayors have been hampered by a lack of data to support the comprehensive and systematic study of mayors across cities and over time.

To overcome existing data limitations, I collected and compiled data from newspapers, government documents, and historical archives to construct a comprehensive dataset of American mayoral candidates, with details about race, ethnicity, and gender, as well as political and occupational experience. This original dataset includes more than 3,200 mayoral candidates from 248 U.S. cities in 44 states and spans the time period 1950 to 2007. Drawing on these extensive data, I provide a detailed account of descriptive representation in American cities. My data reveal that mayors, like politicians at higher levels of government, are not very diverse—they are very likely to be white and male, with prior political experience and white-collar careers. Business owners and executives are especially well represented in American city halls, accounting for about 32% of the candidates and mayors in my dataset.

Given the formidable role of business interests in canonical theories of urban politics, it might not be particularly surprising to find that business owners and executives make up a plurality of mayoral candidates. Business leaders were key advocates of the municipal reform movement, which introduced the notion that city governments should be run like businesses (Karnig and Welch 1980; Bridges 1997). Moreover, scholarly accounts suggest that municipal reforms often empowered business interests. Although the reform movement was partly a response to the excesses of political machines, local businesses were often both influential supporters and beneficiaries of the machine (Shefter 1976; Erie 1988). Business interests have more recently been described as key players in a local growth machine (Logan and Molotch 1987) or partners in an informal governing regime (Stone 1989). Business leaders have long been portrayed as potent actors pursuing distinct policy agendas designed to promote economic growth. This emphasis on growth typically implies strong preferences for low taxes and minimal redistribution combined with high-quality services and amenities. Yet, despite the prominence of business interests in the study of urban politics, few claims have been tested empirically.

After documenting who runs for office and who serves, I investigate why executive business

experience is so common among mayors. Are business owners more likely to run for mayor? Are they more likely to win? I consider why business executives might run for mayor and why voters might select candidates with experience in business. Although business executives do not seem to win elections at higher rates, I find some evidence to suggest that they may be more likely to run for mayor in cities with reform institutions. To better understand how institutions may interact with voters' preferences, I employ a conjoint survey experiment to assess the effect of a key reform institution—nonpartisan elections. This approach allows me to investigate how multiple attributes, such as occupation, political experience, race, and gender influence voters' choices with and without party labels. When party affiliations are unknown, respondents perceive business owners and executives as quite likely, compared to candidates with other backgrounds, to produce more conservative public policy. This result perhaps helps to explain why, in the absence of party labels, Republican respondents do—and Democratic respondents do not—prefer candidates with experience as a business owner or executive.

Notably, survey respondents' evaluations of business owners are similar to those outlined in influential theories of urban politics. Both generally anticipate that mayors with business backgrounds will keep taxes low, maintain essential services, and promote growth. Do business executive mayors live up to these expectations? Assessing the impact of business executives on public policy presents considerable methodological challenges. Mayors are not randomly assigned to cities, and the factors that determine the type of mayor a city elects also may be related to policy outcomes. Using a regression discontinuity design (RDD) to mitigate the threat of endogeneity, I find that business executive mayors do shape city spending priorities. Electing a business owner or executive leads to significantly lower levels of spending on redistributive programs and greater investment in infrastructure. Some suggestive evidence also indicates that they may increase revenue from local sources, but likely in the form of user fees and charges rather than taxes.

In this dissertation, I draw on an original dataset of mayoral candidates to provide fresh insight on representation in American cities. These comprehensive data document a stunning lack of diversity among mayoral candidates, at the same time revealing the overrepresentation of business owners and executives in city halls across the United States. I present findings which suggest

that business owners and executives may be more likely to run for mayor in cities with reform institutions. Perhaps most importantly, however, I empirically evaluate the causal effect of electing a business executive mayor. My findings suggest that business executives preside over policy changes with implications for the distribution of both the costs and benefits of local government.

1.2 Chapter Summaries

1.2.1 Descriptive Representation in U.S. Cities

In Chapter 2, I examine descriptive representation in U.S. cities. Drawing on an original dataset that includes gender, race, occupational background, and political experience for more than 3,200 mayoral candidates, I provide a comprehensive account of who runs for mayor and who serves. Covering 248 cities and more than 50 years, these data indicate that like politicians at higher levels of government, mayors tend to be white and male with prior political experience and white-collar careers. Business owners and executives are especially well represented, accounting for about 32% of the candidates in the sample.

Despite their numbers, I find little evidence to suggest that business owners and executives win at higher rates than other candidates. However, business owners and executives make up a larger share of mayoral candidates in cities with reform institutions. In particular, candidates in council-manager cities are systematically more likely to have a background as a business owner or executive than candidates from cities with a mayor-council government.

1.2.2 Candidate Choice without Party Labels

Chapter 3 investigates how nonpartisan elections may affect voters' choices at the ballot box. Nonpartisan elections are a defining feature of local elections in the United States. In the absence of party labels, voters must use other information to determine whom to support. The institution of nonpartisan elections, therefore, may impact voter choice by increasing the weight that voters place on candidate dimensions other than partisanship. We hypothesize that in nonpartisan elections,

voters will exhibit a stronger preference for candidates with greater career and political experience, as well as candidates who can successfully signal partisan or ideological affiliation without directly using labels.

To test these hypotheses, we conducted conjoint survey experiments on both nationally representative and convenience samples that vary the presence or absence of partisan information. The primary result of these experiments indicates that when voters cannot rely on party labels, they give greater weight to candidate experience. We find that this process unfolds differently for respondents of different partisan affiliations: Republicans respond to the removal of partisan information by giving greater weight to job experience while Democrats respond by giving greater weight to political experience.

1.2.3 The Business of Being Mayor

From mundane tasks like plowing snow and picking up garbage to preventing crime and fighting fires, city governments provide essential services that are central to the public's safety and quality of life. As a city's chief executive, the mayor is the highest profile local politician, but can mayors influence policy choices and outcomes? Although case studies of American cities often carve out a prominent role for mayors, quantitative studies examining the effects of mayors on a range of outcomes have yielded mixed results.

Chapter 4 examines the relationship between mayors and fiscal outcomes, focusing on mayors' occupational experience. Specifically, do cities that elect mayors with executive business experience exhibit systematically different fiscal policy outcomes? To identify the effect of mayors' backgrounds on fiscal outcomes, I draw on an original dataset containing information on the occupational and political experience of more than 3,200 mayoral candidates and employ a regression discontinuity design. I find that mayors with executive business experience do shape municipal fiscal policy by shifting the allocation of expenditures across policy areas, cutting spending in redistributive policy areas while increasing funding for infrastructure.

Part II

Dissertation Chapters

Chapter 2

Descriptive Representation

"HELP WANTED: CEO for financially distressed 146 year-old limited partnership drowning in long term debt and enough past due bills to choke a goat. Successful applicant will be responsible for managing the needs, wants, safety and endless complaints of 74,000 customers while juggling chronic deficits, anemic revenues, suffocating union contracts and crippling legacy costs using a business model that hasn't evolved since the advent of indoor plumbing. ANNUAL SALARY: $50,000. Seriously. That is not a typo" (Kelly 2013).

—excerpt from op-ed in the Scranton *Times-Tribune*, January 13, 2013.

2.1 Introduction

As the end of his third term approached, Scranton (PA) mayor, Chris Doherty, announced he would not seek a fourth term. In his comments, Mayor Doherty emphasized his major accomplishments, namely the revitalization of the city's parks and downtown and a reduction in crime (Krawcze-niuk 2013). However, local media coverage also included speculation that failed policy initiatives to control spending precipitated property tax increases which undermined the mayor's reelection prospects. Days after the mayor's announcement, the Scranton *Times-Tribune* published an op-ed advocating higher pay for the mayor, reasoning that in light of the demands and challenges of the job, the best option for attracting a qualified, capable candidate was to offer a higher salary and the potential for performance bonuses (Kelly 2013). The op-ed included a mock-up of a classified advertisement for the position of mayor (quoted above) that captures the challenges facing mayors

across the country, and as a former city council member and a partner in a marketing firm, Doherty has quite a bit in common with mayors from cities across the US and over time.

Perhaps it should not be surprising to find business owners and executives serving it city hall, especially given the significant role of business interests in canonical theories of urban politics. Dating back to early sociological studies such as Floyd Hunter's *Community Power Structure* (1963), business leaders and business interests are often depicted as potent influences in local politics. Indeed, business leaders are at the center of Floyd's elite theory. With a strong emphasis on promoting growth and economic development, the theory of the city as a "growth machine" casts business interests as the dominant force in local politics even when they operate behind the scenes (Logan and Molotch 1987). An alternative perspective portrays business leaders as senior partners in a durable governing coalition. Within the framework of Stone's (1989) regime theory, business leaders have significant political power but not unchecked influence. Business leaders were key advocates of the reform movement and in some cities emerged as dominant political actors post-reform (Welch and Bledsoe 1988; Bridges 1997). Yet, local business interests were were also both supporters and beneficiaries of the political machines the reformers sought to undermine (Shefter 1976; Erie 1988). However, the notion that business leaders and interests are preeminent forces in local politics has not gone unchallenged (cf. Dahl 2005).

Despite the prominent role of business interests in the study of urban politics, many claims have not been rigorously tested. Few, if any, empirical studies have examined the role of business owners and executives as politicians. Are business leaders overrepresented in city politics? Are business owners and executives more likely to preside over cities with reform insitutions? Although rich case studies have provided invaluable insights on mayors and their influence (see e.g., Ferman 1985; Stone 1989; DeLeon 1995; Fuchs 1992), we know relatively little about who runs for mayor and who serves as mayor in cities across the United States. At the same time, considerable evidence from a variety of political contexts suggests that who serves in office can influence public policy (e.g., Whitby 1997; Besley and Case 2003; Chattopadhyay and Duflo 2004; Carnes 2013). This paper investigates descriptive representation in American cities, providing new details on who serves as mayor as well as a glimpse of the role of business leaders in local politics. Perhaps

not surprisingly, business owners and executives are especially well represented in American city halls. But, conditional on running for office, are business leaders more likely to win?

When business owners and executives run for public office they often campaign on promises to make government more efficient and business-like while at the same time drawing on insights from business to promote economic growth. Today's campaign rhetoric about applying business principles to improve the effectiveness and efficiency of government is virtually interchangeable with the claims that municipal reformers made more than 100 years ago. Progressive-era reformers advocated a set of municipal institutions aimed at removing politics from local government. They argued that municipal government's key purpose was to provide essential services, which required technical and management expertise rather than political skills or partisan loyalty. This emphasis on efficiency was, in part, a response to the corruption and excesses associated with political machines. Reformers advocated fundamental changes in local government institutions, including adoption of commission and council-manager forms of government with mayors selected from and by a city council elected at-large via nonpartisan ballots in off-cycle elections. The reform movement had a lasting impact on municipal governments in the United States. Indeed, city managers and off-cycle elections are common in cities across the country, and nonpartisan ballots are a defining feature of local elections.

Despite reformers' emphasis on efficiency and effectiveness, their overarching goal seemed to be reshaping representation at the local level—in particular, whose interests were represented. One strategy was using electoral rules to limit participation in local politics to undermine the electoral prospects of minorities and the working class (Bridges 1997; Welch and Bledsoe 1988). Reform institutions, such as nonpartisan ballots and at-large elections were also expected to weaken the links between elected officials and constituents, as each council member represents the entire city rather than a district or ward and no party infrastructure exists to connect voters and politicians. Although these institutions were ostensibly designed to serve the common good and to prevent waste and corruption, reformers also hoped to curtail the influence of minority and working class voters and limit the scope of local government with an eye toward promoting growth and avoiding redistribution (Bridges 1997).

Cities' constraints and exposure to external economic forces are well documented in the urban politics literature, but important questions remain about who governs American cities, how voters choose local leaders, and whether the mayors voters elect affect outcomes. In this paper, I focus on who serves as mayor. Using an original dataset of candidate backgrounds, I provide an account of descriptive representation in American cities, covering 248 cities and more than 50 years. My data reveal that U.S. mayors are not very diverse. The vast majority are white and male with white-collar occupations and prior political experience. Business owners and executives are especially well represented, accounting for about 32% of the candidates in the sample. Despite their numbers, I find little evidence to suggest that business owners and executives win at higher rates than other candidates. However, business owners and executives make up a larger share of mayoral candidates in cities with reform institutions. In particular, candidates in council-manager cities are more likely to have a background as a business owner or executive than cities with a mayor-council government.

2.2 Why So Many Business Executive Mayors?

When business executives run for office, they tend to emphasize their leadership experience, business knowledge, and management skills. Yet, recent talk of improving the efficiency and effectiveness of government echoes the arguments of municipal Reformers of the past. Explaining how he was elected as a Republican mayor in a Democratic city, former New York mayor Michael Bloomberg invoked Fiorello La Guardia's famous declaration that there is no Democratic or Republican way to pick up garbage (Tholl 2014). "People care about services, not ideologies... There are virtually no Republicans in New York City and yet I won because people care about services" (quoted in Tholl 2014). The relevance and value of business experience comes up in mayoral elections over time and across American cities. Examples abound, from Quincy, Massachusetts to Waukesha, Wisconsin and from Dallas, Texas to San Diego, California.[1]

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[1]Specific examples cited here include Francis X. McCauley mayor of Quincy, Massachusetts from 1982 to 1989 (*Boston Globe* November 1, 1981); Robert J. Foley, Sr., unsuccessful candidate in Waukesha, WI (*Milwaukee Journal*

Although business executive candidates often cite their leadership experience, more specific claims about the value and relevance of business experience tend to revolve around efficiency, effectiveness, and accountability on one hand and stimulating local economic activity on the other. Candidate Robert J. Foley's comments in a 1994 mayoral debate in Waukesha, Wisconsin nicely sum up the former:

> "Greater accountability is called for. We need to increase efficiency. We need to force govern-
> ment to adjust to the concept of saying that this is what we have to spend... as opposed to this
> is what we want and let's go get it to spend." (quoted in *Milwaukee Journal* March 30, 1994).

Foley also referenced his "orientation to marketing," citing the need to market the city, and his "ability to motivate and lead" (*Milwaukee Journal* March 30, 1994). Wesley Hammonds, candidate for mayor of Corpus Christi, Texas, in 1963 promised to lower taxes for homeowners, attract new businesses, and reduce costs by increasing efficiency (*The Corpus Christi Caller-Times* April 1, 1963). Such examples depict candidates making the case that their business experience affords them skills and knowledge that equip them to competently lead a city.

When voters select a mayor, they may be looking for a candidate who will address issues they find important—perhaps improving city services, promoting economic growth, or lowering taxes. Learning about the details of municipal finances or local public policy, however, would be complex and time consuming. Instead, voters likely use a variety of information shortcuts to guide their choices at the ballot box (Downs 1957; Popkin 1991; Lupia 1994). A candidate's political party affiliation tends to be the most most influential heuristic (Rahn 1993), but other characteristics, such as a candidate's race, gender, or social class, may also impact voters' evaluations (Brady and Sniderman 1985; McDermott 1998; Huddy and Terkildsen 1993; Carnes and Sadin 2015).

Political and occupational experience may be especially salient to voters at the local level where a predominant shortcut, party label, may be either unavailable or less informative (McDermott 2005). A candidate's prior political experience and occupation also tend to be readily available not only in media coverage and campaign materials but also on the ballot in some cities. Notably,

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March 30, 1994); Fred Meyer, unsuccessful candidate in Dallas, Texas (*Boston Globe* May 5, 1987); Bill Cleator, unsuccessful candidate in San Diego, California (*Los Angeles Times* May 18, 1986).

the majority of local elections are nonpartisan, and local issues may be less clearly associated with partisan or ideological positions. Oliver, Ha and Callen (2012) suggest that in small cities, as long as elected officials maintain an existing balance of services and taxes, voters are likely to retain incumbents. On the other hand, Kaufmann (2004) focuses on how elections in large cities differ from state or national elections, notably in the diminished salience of partisan identification. Instead, voters may rely on the heuristic of racial or ethnic group identity, particularly under conditions of heightened group conflict. Attributes such as race, ethnicity, and gender, in addition to candidates' occupational backgrounds and political experience may be even more influential in nonpartisan elections (Pomper 1966; Citrin, Green and Sears 1990; McDermott 1998, 2005; Schaffner, Streb and Wright 2001).

Adopting a principal-agent framework, Fearon (1999) makes a strong theoretical case that elections primarily serve as selection mechanisms rather than accountability mechanisms (see also Besley 2006). Voters lack the time and knowledge to adequately monitor elected officials. Policy considerations may be technical and complex, information may not be readily available, and voters have only a blunt tool for sanctioning. In light of the obstacles and costs associated with monitoring, "it might be entirely reasonable to imagine that the best available solution is to try to elect good types of candidates" (Fearon 1999, 69). But, how do voters determine which candidates are "good types?" For incumbents, retrospective evaluations provide at least a noisy measure of quality, but voters also might make inferences from a variety of candidate attributes, such as appearance and demeanor or education and job experience.

If voters are trying to select "good types," surely they require information to infer the relative quality of candidates for election. To evaluate incumbents, voters can use a variety of information shortcuts to judge quality or competence, but what other cues might voters use to gauge the quality of candidates? For many years, scholars of American politics have used prior office holding experience as a measure of quality (see e.g., Jacobson and Kernell 1983). Prior political experience may signal electability, policy expertise, or competence. To assess the role of incumbent quality in elections for the US House of Representatives, Mondak (1995) develops measures of incumbent competence and integrity, as well as a measure of overall quality that combines the two.

Besley (2005) similarly suggests quality generally is composed of two dimensions, competence and integrity.

Despite the significance of incumbency, other details of candidates' prior experience may provide informative cues about candidate quality, and some evidence suggests voters may use candidates' occupations to make inferences about ideology or issue positions. For example, Sadin (2014) uses occupation as a proxy for social class and finds a positive relationship between an upper class occupation and perceptions of competence. At the same time, however, respondents in her survey experiment also differentiated between occupations, anticipating that a candidate who works as an investment banker would be more conservative on economic issues than a candidate employed as a cardiologist. The findings of a recent conjoint survey experiment examining the impact of nonpartisan ballots suggest that Democrats and Respondents may rely on different shortcuts in the absence of party labels (Kirkland and Coppock 2017). For Democratic respondents, prior political experience had the largest effect on vote choice while Republican respondents' preferences were more heavily influenced by candidates' occupations. Perhaps not surprisingly, Repbulicans did (and Democrats did not) prefer candidates described as business owners and executives, and this difference is most pronounced in nonpartisan contests.

Are business executives and owners so well represented because their occupation marks them as high quality candidates? If so, we should expect business owners and executives to win elections at higher rates than other candidates. At the same time, nonpartisan elections could complicate this relationship if voters' evaluations of business executive candidates vary with their partisanship. It may also be that voters see prior political experience, especially incumbency, as the clearest signal of a candidate's quality and competence.[2] These possibilities lead to two related hypotheses. First, I hypothesize that business owners and executives will win more often, on average, than mayoral candidates with other types of occupational backgrounds. Second, I test the hypothesis that, as we would expect, candidates with prior political experience fare better in elections for mayor.

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[2]Several studies have found evidence of an incumbency advantage at the local level. For example, Trounstine (2011) analyzes the incumbency advantage in city council elections, and Ferreira and Gyourko (2009, 2014) focus on mayoral elections.

It is possible that an outsize share of business executive mayors reflects voters' preferences—or the interaction of voters' preferences and electoral institutions, but business owners and executives may have a number of motivations for seeking local public office. Typical local policy domains, such as zoning, land use, and development are of particular interest to those who own or operate businesses within the city. Local tax policies, services, and amenities can directly shape the climate for commerce in a city, and to the extent that these features attract or repel affluent taxpayers and business activity, they may also contribute indirectly to the cost of doing business (Peterson 1981; Logan and Molotch 1987). Indeed, Peterson (1981) argues that competition for high income taxpayers and businesses creates informal but powerful constraints on cities and informs a unitary city interest in promoting economic vitality. Logan and Molotch (1987) go further, describing the city as a "growth machine" where economic growth and value-free development are preeminent goals, regardless of the potential ramifications for citizens and the environment. In this account, "[t]he people who use their time and money to participate in local affairs are the ones who—in vast disproportion to their representation in the population—have the most to gain or lose in land-use decisions" (Logan and Molotch 1987, p. 62). Local business people are key players in local politics, working to shape the agenda and policy to their benefit whether or not they hold elected office.

In theorizing the city as a growth machine, Logan and Molotch (1987) portray business leaders and business interests as dominant and exclusively (or very nearly so) self-interested political actors. However, Stone (1989) offers a more nuanced view in his regime theory. Recognizing the formal and informal constraints on local governments, Stone suggests that local political actors can expand governing capacity by building governing regimes that include elected officials, as well as business and civic leaders. These are informal but durable coalitions that bring together actors with an array of resources working to shape the local policy agenda and achieve mutually beneficial policy goals. With a variety of resources and strong preferences over local policy, business owners and executives tend to take on prominent roles in the regime, but they also may need to compromise with other members of the coalition. In his study of Atlanta, Stone (1989) portrays the business community as powerful but not necessarily dominant, and he notes an element of civic

mindedness in addition to self interest.

The centrality of business interests in theories of urban politics suggests that we should not be especially surprised to observe a large number of business owners and executives serving in local elected offices. Admittedly, many of these accounts also carve out a substantial role for informal influence by actors who operate outside the official channels of city hall. It is not clear exactly how we could empirically test for these relationships. However, I do test a third hypothesis that business owners and executives will make up an outsize share of candidates for mayor.

Although much of the rhetoric of municipal reform addressed the corruption and waste typically associated with machine politics, reformers sought to fundamentally alter politics to limit representation and circumscribe government activity (see e.g., Bridges 1997; Welch and Bledsoe 1988). Amy Bridges (1997) argues that reformers wanted to weaken the linkages between politicians and their constituents, but she also notes that there was also a debate about the role of government that "often resembled the argument between New Deal Democrats and Hoover Republicans, the former arguing government should do more and the later arguing it should do less" (p. 23). In particular, reformers sought to curtail the infuence of poor, working-class, and minority voters to create a more homogeneous white, middle-class electorate with little appetite for redistribution. To accomplish these goals, reformers worked to change the rules of the game by altering municipal institutions. The indirect election of mayors, the council-manager form, nonpartisan ballots, at-large elections, and off-cycle elections were all designed to dampen participation and the influence of nonwhite and working class voters. There is evidence to suggest that these municipal reforms did alter representation in cities that adopted them (for a review, see Welch and Bledsoe 1988). In some cities, businesspeople seemed to replace the machine as the dominant force in local politics, and on average, nonpartisan and at-large elections seem to produce less diverse city councils (Welch and Bledsoe 1988).

While electoral institutions may create favorable prospects for business executive candidates, the council-manager form of government also may advantage business owners and executives. When a city manager handles day-to-day government administration, the mayoralty may be a part-time job with low pay. Prior studies of state legislatures have argued that citizen legislatures also

may attract more affluent and more Republican candidates because they may be better positioned to take on a job as a part-time legislator (Fiorina 1994; Sanbonmatsu 2002). One element of the rationale is that affluent business owners can often make their own schedules and can afford to spend part of their time serving in the legislature, but their work is too lucrative to consider serving as a full-time legislator. For less well off candidates, the calculus is essentially reversed. Similarly, business owners and executives may be uniquely positioned to serve as mayor in council-manager cities because they are more likely to have the resources and flexibility to take time out of their schedule to handle city business. In contrast, candidates with other occupations may have structured schedules and be unable to take on the demands of the office—especially for little compensation.

Do reform institutions advantage business owners and executives in local electoral politics? All directly elected mayors are elected in citywide elections, and there is mixed evidence on the effect of nonpartisan elections. Notably, many cities have a bundle of reform institutions as well as the council-manager form of government. In cities with a professional city manager, the mayoralty may be especially attractive to business owners and executives. This notion leads to a fourth hypothesis suggesting that business owners and executives are even more likely to run for mayor in cities with reform institutions, particularly cities with the council-manager form of government.

2.3 Data: Candidates, Cities, and Institutions

Data constraints present a central challenge in documenting who seeks and wins the office of mayor. Earlier studies have chronicled some mayoral characteristics, such as race, gender, and party affiliation (e.g., Karnig and Welch 1980; Pelissero, Holian and Tomaka 2000; Ferreira and Gyourko 2009, 2014; Gerber and Hopkins 2011; Hopkins and McCabe 2012; de Benedictis-Kessner and Warshaw 2016), but the existing data has been limited in two key ways. First, some studies and surveys cover only mayors, excluding other candidates. Second, datasets that include more detailed information about mayors or candidates often include only a small sample of cities and cover a relatively short time period. Notable exceptions include recent efforts to build large

datasets of mayoral elections that include multiple candidates for large numbers of cities and cover most of the post-WWII time period (Ferreira and Gyourko 2009, 2014; Gerber and Hopkins 2011; de Benedictis-Kessner and Warshaw 2016). Although these datasets represent a significant advance, they still provide only limited information about candidates—name, party affiliation, and incumbency status.

To provide a richer, more comprehensive account of representation in American cities, I compiled an original dataset of mayoral candidate backgrounds. Working from an existing dataset of U.S. mayoral elections, I researched the top two mayoral candidates in each election, building detailed candidate profiles.[3] Relying on a variety of sources, including government records, contemporaneous news stories, historical archives, and obituaries, I collected information about candidates, including age, race, gender, occupational background, and political experience. I focus on a sample of cities with a population of 50,000 or greater as of the 2000 U.S. Census. The cities in the sample vary quite a bit in terms of population, geographic region, and political institutions but are, on average, quite similar to the universe of U.S. cities with populations of at least 50,000. Table 2.1 presents summary statistics for cities in the sample as well as all U.S. cities of at least 50,000 residents as of the 2000 U.S. Census. Although the mean population is higher for cities in the sample, on other demographic and socioeconomic measures, including median household income, home ownership rate, and home values, the sample closely resembles the universe of cities of 50,000 or more.

The candidate backgrounds dataset includes race, gender, political experience, and occupational backgrounds for a total of 3,257 candidates.[4] Because some candidates' background information is missing or incomplete, I focus on the subset of data that covers elections with complete information for the top two candidates. The resulting dataset includes 2,434 candidates (1,217

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[3]Election data were provided by Fernando Ferreira and Joseph Gyourko, who collected the data via a survey of U.S. cities and townships with a population of at least 25,000 people as of the 2000 U.S. Census. These data are used in Ferreira and Gyourko (2009), which includes a detailed description of the data and collection process, and Ferreira and Gyourko (2014).

[4]This paper relies on data collected through December 31, 2016, but data collection is ongoing.

Table 2.1: Sample of Cities

	Cities with > 50,000 Population	Current Sample— Mayors Data
Number of cities	603	248
Population	165,885	217,305
	(410,156)	(585,338)
% White	68.70%	69.04%
	(18.60)	(18.85)
Unemployment	6.43%	6.29%
	(2.69)	(2.53)
Median HH income	$43,667	$43,727
	(13,658)	(13,584)
Home ownership	58.45%	58.44%
	(12.47)	(11.46)
Median house value	$143,319	$142,023
	(87,568)	(78,348)

Note: From 2000 U.S. Census, mean values with standard deviations in parentheses.

elections) from 248 U.S. cities across 44 states and covers the time period of 1950 to 2007. From the raw data, I coded candidates' occupational backgrounds and political experience. Indicators of political experience include incumbency and prior experience as mayor, city council member, county legislator, state legislator, and member of Congress. I recorded a primary occupation for each candidate, as well as an occupational category. These categories include business owner or executive, non-executive business occupations, other white-collar occupations (e.g., educators and healthcare professionals), public sector employment, and blue-collar occupations. I also noted candidates employed in specific sectors, such as real estate and development or banking and investments.

To examine these candidates in the context of local politics, I compiled data on local government institutions as well as demographic and socioeconomic characteristics of their home cities. Information about cities' populations and their characteristics come from the U.S. Census Bureau. These data include measures of population, racial diversity, median household income, and home ownership rates.[5] Details about the form and institutions of local governments come from the International City/County Management Association (ICMA). The ICMA routinely surveys municipalities to determine form of government, electoral rules, city council size, and mayors' formal powers. Data are available in electronic format for surveys conducted at five year intervals between 1981 and 2006. To cover earlier years, I collected similar data available in printed volumes of *The Municipal Year Book* published by the ICMA.[6] Unfortunately, there is some variation in the variables measured by ICMA over the years, but key features of municipal governing institutions, such as form of government, use of nonpartisan or partisan ballots, the size of the city council, and

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[5]For intercensal years, I use linear interpolation to estimate missing values (see Weden et al. (2015) for a discussion of the use and performance of linear interpolation of U.S. Census data).

[6]I accessed details about municipal government form and institutions from *The Municipal Year Book: An Authoritative Resume of Activities and Statistical Data of American Cities* for every fifth year from 1951 to 1976, with the exception of *The Municipal Year Book 1971*, which did not include the relevant information. For intervening years, I interpolate values from the most recent year in which the data were observed. Although cities do occasionally alter their governing institutions, changes are rare. Indeed, the ICMA data show evidence of changes in the form of government in only 12 cities (less than 5% of the sample) over nearly 60 years.

whether its members are elected by districts or at large, are consistently observed over time.

2.4 Who Runs for Mayor? Who Serves?

The candidate background data indicate that mayors, like elected officials at higher levels of government, are not an especially diverse group. The vast majority are white and male with white-collar occupations and prior political experience. Table 2.2 provides details on the race, ethnicity, and gender of candidates. Strikingly, over 91% of mayors are white, 89% are male, and about 82% are both white and male. Approximately 5.5% of mayors are African American, while about 2.5% are Latino and less than 1% are Asian. It seems important to note that these data cover more than 50 years. Women and nonwhite candidates gain greater representation over time, but the disparities remain quite profound—even in the 2000s, 65% of mayors are white and male. Table 2.2 shows that representation along race and gender lines is quite similar for winning candidates and runners-up. I use χ^2 tests to formally evaluate the differences in the distributions of winning and losing candidates. For both race and gender, the resulting test statistics provide little reason to think the small differences are systematic (for race, $\chi^2 = 0.28$ and $p = 0.964$; for gender, $\chi^2 = 0.004$ and $p = 0.948$). These results, however, do not necessarily imply that these traits are insignificant. For example, I cannot account for candidates' strategic decisions to run for office. Women or nonwhite candidates may not run if they believe the probability of winning is low (Kanthak and Woon 2015).

Moving on to examine candidates' occupational backgrounds (presented in Table 2.3), we see more diversity, although mayors tend to have white-collar backgrounds. As anticipated, business owners and executives are very well represented—about 32% of mayors. By way of comparison, 31% of the Members of Congress who served during the 106th to 110th Congresses had experience as a business owner or executive (per CLASS Dataset, Carnes 2016). Data for other offices tend to be quite sparse, but the National Conference of State Legislatures (NCSL) has collected information about state legislators' occupations sporadically. These data indicate that anywhere from about 16% (1993) to just over 21% (1976) of state legislators are business owners or executives.[7]

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[7]National Conference of State Legislatures (N.d.) posts data on state legislators' occupations only for the follow-

Table 2.2: Race, Ethnicity, and Gender

		Winners		Runners-up
Race & Ethnicity				
White	1110	91.2%	1117	91.8%
Black	67	5.5%	63	5.2%
Latino	32	2.6%	30	2.5%
Asian	8	0.7%	7	0.6%

$n = 2434, \chi^2 = 0.28, p = 0.964$

		Winners		Runners-up
Gender				
Men	1088	89.4%	1086	89.2%
Women	129	10.6%	131	10.8%

$n = 2434, \chi^2 < 0.01, p = 0.948$

Among mayors, business owners and executives do comprise the largest occupational group. Attorneys comprise another 20% of mayors, public employees make up nearly 8%, and about 6.2% of mayors are managers or supervisors, while sales professionals and educators each account for about 5% of mayors. Although business owners and executives are the largest single occupational group, they do not appear to win at higher rates—in fact, business executives make up a slightly larger share of losing candidates. For the most part, differences in the distribution of winners and runners-up by occupation appear to be negligible, and I cannot rule out the possibility that these differences are due to chance ($\chi^2 = 8.93$ and $p = 0.444$).

In sharp contrast to the analyses of candidates' race, gender, and occupation, it appears that mayors and runners-up do differ in terms of political experience. Table 2.4 describes the prior political experience of mayoral candidates, and the differences between those who win election

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ing years: 1976, 1986, 1993, 1995, 2007.

Table 2.3: Occupational Backgrounds

	Winners		**Runners-up**	
Occupational Experience				
Business owner/executive	386	31.7%	397	32.6%
Attorney	240	19.7%	203	16.7%
Other occupations	214	17.6%	240	19.7%
Public Employee	96	7.9%	114	9.4%
Manager/supervisor	75	6.2%	70	5.8%
Sales	69	5.7%	61	5.0%
Educator	66	5.4%	55	4.5%
Other professional	33	2.7%	38	3.1%
Healthcare professional	20	1.6%	24	2.0%
Homemaker	18	1.5%	15	1.2%

$n = 2434$, $\chi^2 = 8.93$, $p = 0.444$

and those who lose seem quite stark. Overall, 79% of winning candidates have previously served in elected office as compared to only 64% of runners-up. The data indicate that incumbents and other candidates who have served as mayor, in particular, win at much higher rates than those who lack prior mayoral experience. Just over 45% of winning candidates ran as incumbents, compared to about 20% of losing candidates. The gap is slightly narrower among all candidates with prior mayoral experience (including incumbents), but nearly 50% of winning candidates have already served as mayor. Here, I find evidence of a systematic difference in the distribution of political experience among winning candidates and runners-up ($\chi^2 = 162.17$ and $p < 0.001$).[8]

These differences may reflect a variety of factors. Voters may simply prefer candidates with previous political experience over inexperienced candidates. However, political experience might

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[8]To conduct the χ^2 test, I recode candidates' experience into mutually exclusive categories.

reflect other unobserved variables that translate into victory at the polls. It may be, for example, that previous mayors are more likely to have well-funded campaigns. These results also may be the result of a straightforward selection problem: weaker candidates may never have won election, so could not have accumulated any political experience. Nonetheless, this analysis does yield some evidence that mayoral candidates with political experience win elections at higher rates than inexperienced candidates.

Table 2.4: Political Experience

	Winners		**Runners-up**	
Political Experience				
No Experience	250	20.5%	433	35.6%
City Council	638	52.4%	560	46.0%
Mayor	606	49.8%	322	26.5%
Incumbent	546	45.2%	239	19.9%
State Legislator	111	9.1%	83	6.8%
County Legislator	34	2.8%	37	3.0%
US Legislator	15	1.2%	9	0.7%

$n = 2434$, $\chi^2 = 162.17$, $p < 0.001$ (Recoded into mutually exclusive categories to estimate χ^2 test statistic)

2.4.1 Candidates and Form of Government

The initial analyses above document disparities in descriptive representation among American mayors but provide little evidence that, on average, factors such as race, ethnicity, gender, or occupation determine who wins mayoral elections. However, it is possible that the supply of candidates differs on these dimensions depending on the form and institutions of municipal government. In

this section, I investigate whether and how mayoral candidates vary with the structure of local government, making comparisons on the basis of form of government. The overwhelming majority of cities with a council-manager government (96% per ICMA data) also have other reform institutions such as nonpartisan elections, and the presence of a city manager or use of the commission form implies a smaller executive role for mayors. Here, I find substantively and statistically significant differences in the attributes of candidates who run for mayor based on the form of municipal government.

Table 2.5 provides details on candidates' race, ethnicity, and gender, with candidates in mayor-council cities reported in the first column, candidates from council-manager cities in the second, and candidates from commission-led cities in the third column. In terms of race, about 91% of candidates in both mayor-council and council-manager cities are white, but over 95% of candidates in cities with commission governments are white. It seems worth noting that the commission form is relatively rare in the sample and more common during the earlier part of the time period—that is, before federal courts forced some cities to abandon the commission form of government, finding it violated the Voting Rights Act. Mayor-council cities have a larger share of African-American candidates, about 7%, compared to less than 5% in council-manager cities and commission cities, but mayor-council cities also have a smaller share of Latino candidates (1.5%) and Asian candidates (0.3%) than council-manager cities where nearly 4% of candidates are Latino and another 1% are Asian. The gender gap also varies with form of government. Women make up only 7% of candidates in cities with a mayor-council government but about 15% of candidates in council-manager cities. These differences in terms of race, ethnicity, and gender are statistically significant (for race and ethnicity, $\chi^2 = 24.51$ and $p < 0.001$; for gender, $\chi^2 = 41.20$ and $p < 0.001$).

Turning to occupational backgrounds, we also see noteworthy differences in candidates by form of government. Table 2.6 presents details on candidates' occupational backgrounds for each form of government. While business owners and executives make up a considerable share of candidates in both mayor-council and commission cities (about 29% each), business executives comprise 35% of the candidates in council-manager cities. In contrast, attorneys are much less common in council-manager cities, accounting for about 13% of candidates compared to 22% in mayor-

Table 2.5: Race, Ethnicity, and Gender

	Mayor-Council		**Council-Manager**		**Commission**	
Race & Ethnicity						
White	1006	91.6%	1072	90.5%	61	95.3%
Black	73	6.6%	54	4.6%	3	4.7%
Latino	16	1.5%	46	3.9%	0	0.0%
Asian	3	0.3%	12	1.0%	0	0.0%

$n = 2434$, $\chi^2 = 24.51$, $p = 0.001^*$

Gender						
Men	1022	93.1%	1004	84.8%	60	93.8%
Women	76	6.9%	180	15.2%	4	6.2%

$n = 2434$, $\chi^2 = 41.20$, $p < 0.001$

$*$ p-value simulated due to low cell counts

council cities. Public employees also make up a smaller share of candidates in council-manager cities (7%) relative to mayor-council cities (11%). The disparities in other occupational categories are much less pronounced, but overall, the differences in occupation by form of government are statistically significant ($\chi^2 = 76.98$ and $p < 0.001$).

The types of political experience that mayoral candidates have also appears to vary with form of government. A relatively small portion of candidates (about 27%) in both council-manager and mayor-council cities have no prior experience, but the share of inexperienced candidates is quite a bit larger (42%) in commission cities. On the other hand, incumbents make up a larger share of candidates in mayor-council systems—nearly 35% compared to 30% in council-manager cities and 27% in cities with commission government. In council-manager cities, the majority of candidates have served on the city council (58%), while only 42% of candidates in mayor-council cities have

Table 2.6: Occupational Backgrounds

	Mayor-Council		**Council-Manger**		**Commission**	
Occupational Experience						
Business owner/executive	319	29.1%	415	35.1%	19	29.7%
Attorney	245	22.3%	155	13.1%	16	25.0%
Public Employee	120	10.9%	79	6.7%	8	12.5%
Sales	56	5.1%	70	5.9%	1	1.6%
Manager/supervisor	59	5.4%	80	6.8%	1	1.6%
Educator	56	5.1%	65	5.5%	0	0.0%
Other professional	29	2.6%	33	2.8%	4	6.2%
Homemaker	13	1.2%	18	1.5%	2	3.1%
Healthcare professional	8	0.7%	30	2.5%	2	3.1%
Other occupations	193	17.6%	239	20.2%	11	17.2%

$n = 2434$, $\chi^2 = 76.98$, $p < 0.001^*$

$*$ p-value simulated due to low cell counts

city council experience. Experience as a state legislator or county legislator, however, is more common among candidates in cities with mayor-council government. Similar to the candidate characteristics examined above, differences in political experience by form of government are statistically significant ($\chi^2 = 120.51$ and $p < 0.001$).

The analyses above show that mayoral candidates vary systematically with municipal form of government. These results are also consistent with the hypothesis that business owners and executives are more likely to run for mayor in council-manager cities, but these analyses cannot support inferences about the causal role of municipal form of government. A variety of other factors could determine who runs for mayor. For example, partisan elections are much more common in mayor-council cities, and political party organizations may recruit candidates with different backgrounds, providing crucial resources and support. Perhaps business owners and executives have

Table 2.7: Political Experience

	Mayor-Council		**Council-Manager**		**Commission**	
Political Experience						
No Experience	301	27.4%	327	27.6%	27	42.2%
City Council	460	41.9%	689	58.2%	18	28.1%
Mayor	450	41.0%	424	35.8%	21	32.8%
Incumbent	380	34.6%	359	30.3%	17	26.6%
State Legislator	142	12.9%	39	3.3%	10	15.6%
County Legislator	55	5.0%	14	1.2%	1	1.6%
US Legislator	21	1.9%	2	0.2%	0	0.0%

$n = 2434$, $\chi^2 = 120.51$, $p < 0.001$ (Recoded into mutually exclusive categories to estimate χ^2 test statistic)

more resources and stronger networks that make them more likely than other candidates to run in nonpartisan cities. To address potential confounders, I take a closer look at the link between business executive mayoral candidates and the council-manager form of government.

2.4.2 A Closer Look at Business Executive Candidates

The mayoral candidate background data reveal that business owners and executives are extraordinarily well represented among U.S. mayors. Candidates with executive business experience are also more common in council-manager cities. Is there a systematic relationship between the form of government and the likelihood that candidates have a background as a business owner or executive? To address this question, I specify a series of logistic regression models. In an effort to account for potential confounders, I present multiple specifications that include a variety of variables that may influence whether or not a business executive candidate runs for office. The dependent variable is an indicator for a business executive candidate, and the key explanatory variable is a

dichotomous measure indicating whether a city has the council-manager form of government.[9]

To address concerns about potential confounding variables, I include measures of a variety of city characteristics. As discussed above, business experience may be more salient in nonpartisan elections, so I add an indicator for partisan elections. Demographic and socioeconomic characteristics of cities may influence who runs for mayor for a variety of reasons. For example, these factors may shape voters' preferences over form of government, candidates, and public policy. I add measures of population, racial diversity, median household income, median house value, and home ownership rate. Finally, reform institutions have been more common in certain regions of the U.S. (Bridges 1997), so I also include specifications with fixed effects for region.

Table 2.8 reports the results of a series of logistic regression models examining the link between business executive candidates and form of government. The first model includes only the key explanatory variable, whether a city has a council-manager form of government, and shows a positive and statistically significant relationship between the council-manager form and the likelihood that a candidate is a business executive. The coefficient for council-manager form is 0.351, which implies that the probability that a candidate has executive business experience is about 7.5 percentage points higher in coucil-manager cities compared to cities with other forms of government. The second model adds an indicator for nonpartisan elections, but the coefficient of the council-manager variable is quite similar (0.348). In addition to institutional variables, model 3 adds demographic variables, population and the share of the population that is white, as well as fixed effects for region. The coefficient of the council-manager variable is a bit smaller (0.253) but still statistically significant, indicating that the probability of observing a business executive candidate is about 5.5 percentage points higher in cities with the council-manager form. Finally, model 4 adds several variables that measure the socioeconomic characteristics of cities, including median household income, house values, and home-ownership rate. These results again indicate that there is a systematic, positive relationship between the form of government and the probability that a candidate has executive business experience, and the coefficient on the key explanatory variable is

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[9]Using an alternative measure of the dependent variable that indicates whether there is a business executive candidate in a given election yields substantively similar results.

slightly larger (0.273).

Taken together these results provide additional evidence to suggest that candidates for mayor in cities with the council-manager form of government are more likely to have an occupational background as a business owner or executive. A candidate in a council-manager city is about 5.5 to 7.5 percentage points more likely to be a business executive than a candidate in a mayor-council or commission city. This relationship is statistically significant across model specifications that account for a variety of potential confounders.

Table 2.8: Business Executive Candidates & Form of Government

	Dependent variable:			
	Business Executive Candidate			
	(1)	(2)	(3)	(4)
Council-manager form	0.351***	0.348***	0.253**	0.273**
	(0.089)	(0.092)	(0.118)	(0.121)
Partisan elections		−0.005	−0.027	−0.100
		(0.142)	(0.146)	(0.158)
Population			−0.136**	−0.137**
			(0.056)	(0.059)
Percent white			0.004	0.002
			(0.003)	(0.003)
Median household income				0.839***
				(0.287)
Median house value				−0.721***
				(0.217)
Home-ownership rate				−0.001
				(0.006)
Constant	−0.916***	−0.913***	0.450	0.203
	(0.065)	(0.072)	(0.777)	(1.296)
Fixed effects	NA	NA	Region	Region
Observations	2,346	2,330	2,250	2,250
Log Likelihood	−1,470.410	−1,461.361	−1,390.007	−1,381.442

Note: Logistic regression results. Two-tailed test. Population, median household income,
and median house value transformed to logs. *p<0.1; **p<0.05; ***p<0.01

2.5 Discussion

A central line of inquiry in the study of urban politics has been the influence of business interests. One key obstacle to rigorously assessing the role of business executives and owners has been a lack of comprehensive data about local office holders. Relying on an original data set of mayoral candidate backgrounds, this paper provides a detailed picture of descriptive representation in American cities. What emerges is a striking deficit of descriptive representation. Women and people of color are vastly underrepresented, but business owners and executives are especially well represented, accounting for about 32% of mayors.

Uncovering the factors that determine descriptive representation in American cities is a daunting task, but the analyses presented here do provide some preliminary evidence on two fronts. First, I find little evidence to indicate that business executives, men, and white candidates win at higher rates. Second, my analyses of the relationship between candidates' characteristics and form of government suggest that candidates vary systematically with municipal institutions. For example, women and Hispanic politicians make up a larger share of mayoral candidates in council-manager systems, while a larger share of candidates in mayor-council cities are African American. Notably, business executive candidates are most common in council-manager cities, and the analyses above suggest that mayoral candidates in council-manager cities are more likely to be business owners or executives than candidates in cities with either mayor-council or commission government.

These results are consistent with the hypothesis that business owners and executives are more likely to run for office in council-manager cities, and they also fit with claims that reform institutions will affect who serves in elected office. At the same time, however, we must be cautious in interpreting these results especially in drawing conclusions about the causal effects of the council-manager form. In Section 4.2, I account for several potential confounders, but a city's form of government is not randomly assigned, which raises the threat of endogeneity. One serious concern is the potential for selection bias. Certain types of cities might select into the council-manager form, and the factors that determine form of government may also influence the types of candidates who run for office. A second worry is the threat of omitted variable bias. For example, factors that shape candidates' decisions to run for office are difficult, or perhaps impossible in some cases,

to observe.

Despite these methodological concerns, the overrepresentation of business executives in local politics warrants further exploration. Questions remain about why so many business executives serve as mayor. Beyond understanding their numerical representation among American mayors, a pressing question is whether and how business owners and executives influence public policy. In a related study, I find that electing a business executive mayor does lead to changes in local fiscal policy, as these cities decrease spending in redistibutive policy areas and increase spending on infrastructure (Kirkland 2016). Do business executive mayors shape policy in other domains?

Chapter 3

Candidate Choice without Party Labels

"But when we get right straight down to...all the various ramifications of the public service for our own individual lives, what difference does it make whether the men who do the work are Republicans or Democrats; whether they are high tariff or low tariff? We want the men who will do the work well and honestly."

— Major Henry T. Lee advocating the adoption of nonpartisan municipal elections to a meeting of Good Government organizations, Los Angeles, California, 1909

3.1   Introduction

At the turn of the 20th century, Progressives advanced a set of reforms designed to erode the strength of parties and political machines in local politics (see e.g., Welch and Bledsoe 1988).[1]

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[1] This chapter was co-authored by Alexander Coppock, Ph.D.. A version of this chapter, Kirkland and Coppock (2017), has been accepted and is forthcoming in *Political Behavior* (DOI: 10.1007/s11109-017-9414-8).

Along with the institutions of city manager and at-large elections, nonpartisan electoral rules were a crucial component of the Progressives' strategy. Reformers argued that the raison d'être of municipal government is the provision of essential services, which requires technical expertise rather than partisan fealty. Advocates of the reform movement espoused the benefits of business-like efficiency and a universalist approach to governance in contrast to the waste, corruption, and particularistic benefits associated with machine politics (Welch and Bledsoe 1988; Bridges 1997). The movement was largely successful: the vast majority of municipal governments in the US still feature such reform institutions (Moulder 2008).

Nonpartisan elections – among the most prevalent and durable of the Progressive-era municipal reforms – operate on the logic that voters will choose different candidates depending on the presence or absence of partisan information.[2] Advocates of this institutional reform clearly thought that victorious candidates would not only be different, but be better along some dimension, be it ideological leaning, fitness for the job, or some other dimension of quality. The first question we seek to answer is, were the Progressive-era reformers correct? Do different types of candidates win when party labels are removed? Secondly, *how* do winning candidates differ under the two regimes? In the absence of party labels, do voters rely on identity politics, or do they give greater weight to other aspects of candidate biography such as previous government or private sector experience?

Previous scholarship indicates that the answer to the first question is likely to be yes. Partisan ballots provide voters a powerful, low-cost information shortcut (Popkin 1991; Rahn 1993). Knowing nothing more than party labels, voters can infer candidates' ideology and issue positions with some degree of certainty. Removing these labels may induce voters to rely on alternative heuristics, such as race or ethnicity (Pomper 1966; Bullock 1984; Bullock III and Campbell 1984; Squire and Smith 1988) to infer candidates' partisanship or ideology. The institution of nonparti-

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[2]Another critical feature of nonpartisan elections is that they may decrease the ability of political machines to influence election outcomes (Bridges 1997). We will focus our attention here on the information channel by which nonpartisan rules may affect outcomes, as the reforms occurred throughout the entire US, including municipalities that did not experience machine politics.

san elections may change the kinds of candidates who win election simply by altering the relative cost and probative value of different heuristics.

Granting that nonpartisan elections do change who wins, what sorts of candidates are likely to be advantaged by the absence of party cues? Nonpartisan ballots may induce voters to give greater weight to other characteristics beyond partisanship and ideology such as markers of competence or quality (Schaffner, Streb and Wright 2001; Lim and Snyder 2015). One important dimension of candidate quality is political experience. Incumbents and prior office holders have electoral advantages in partisan legislative elections at both the national and state levels (Jacobson and Kernell 1983; Jewell and Breaux 1988; Jacobson 1997; Lee 2008). Several studies find that incumbency advantages extend further down ballot to mayors (Ferreira and Gyourko 2009, 2014) and city council members (Trounstine 2011). These studies indicate that voters may rely on an incumbency heuristic when evaluating candidates; a remaining open question is whether this reliance itself depends on electoral rules.

Studying the effects of nonpartisan elections is difficult for two main reasons. The first is common to settings in which the researcher does not manipulate the causal variable of interest directly. We cannot be sure whether the observed differences in election outcomes for partisan and nonpartisan elections are due to the causal effect of the electoral institution itself or some other feature of the electoral context. It may be that localities that opt to institute nonpartisan elections place a higher value on leaders' political experience than those with partisan elections due to the tastes and preferences of the local electorate, not the electoral rules. Statistical fixes for this problem such as multiple regression or matching only help if we are willing to assume that after conditioning on a set of observable characteristics of elections, the electoral institution is "as-if" randomly assigned. The plausibility of such an assumption varies from context to context. Even in localities that hold nonpartisan mayoral elections but partisan congressional elections, one may still be worried that the electoral rules are nonrandomly applied.

The second challenge is that elections that are nonpartisan in theory are not necessarily nonpartisan in practice (Adrian 1959). Candidates' party affiliations may be widely known to voters or revealed during the campaign. Even in nominally nonpartisan elections, partisanship remains a

systematic predictor of voters' preferences when information about candidates' party or ideology is readily available (Squire and Smith 1988; Schaffner, Streb and Wright 2001). It is not clear how to measure and account for these complexities. For example, if we were to find that in nonpartisan elections, experienced candidates are more likely to be elected, this result might actually reflect the subtle dynamics of candidates' decisions to compete in elections where candidates' partisanship is not advertised but nevertheless common knowledge. In such a scenario, liberal candidates in conservative districts might be systematically less experienced because the high-quality, liberal would-be candidates, knowing they have a poor chance of victory, pursue careers outside of politics or run in other constituencies.

Our experimental design cleanly sidesteps both problems. In two separate implementations of the same design, we invite subjects to participate in a series of "elections" that are conducted as conjoint survey experiments. In each election, subjects see the profiles of two candidates and must choose between them. Unlike standard conjoint experiments that only randomize the levels of a fixed set of attributes, we randomize in addition whether the partisanship attribute itself is shown to respondents. This design enables us to determine the effect of partisan information, not just on candidate choice, but also on how subjects use the *other* attributes to evaluate candidates. Unlike some nonpartisan elections outside the survey environment, our nonpartisan elections are unambiguously devoid of partisan information.

Survey experiments are sometimes described as being high on internal validity but lower on external validity (Mutz 2011). We are sympathetic to this critique and think it is important to distinguish between two kinds of external validity. The first concerns the extent to which an experiment conducted on one sample would generalize to the same experiment being conducted on a different sample. We directly show that our experiment exhibits this kind of external validity by conducting it on both Amazon's Mechanical Turk and on a nationally representative sample administered by YouGov.[3] The second, and in our view more important, sort of external validity concerns the extent to which the causal processes at work in the survey environment map on to the

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[3]YouGov uses sample matching techniques to construct a nationally representative sample from their panel of respondents. For more information about YouGov's sampling procedures, see Vavreck and Rivers (2008).

political phenomena we wish to investigate in the real world. Here we rely on an analogy between the survey environment and the voting booth. Our survey respondents have to choose between two hypothetical candidates on the basis of the five or six pieces of information we provide. Especially for down-ballot offices, voters have to choose between two candidates on the basis of information provided on the ballot itself. In addition to candidates' names (from which gender, race, and ethnicity can be imperfectly inferred (McDermott 2005)), some ballots provide incumbency, occupation, or partisanship information. In this way, electoral choice is not so different from a survey response. The survey experimental context is of course very different from voting – the stakes are much lower and responding to survey questions is far less meaningful than casting ballots. In this case, however, we are willing to trade a decrease in verisimilitude for an increase in our ability to directly manipulate the information environment.

To preview our results, we see a clear difference across electoral institutions in how subjects use information about candidate experience in both samples. In nonpartisan elections, we find that the effect of candidate experience on vote choice is approximately 10 percentage points higher than in partisan elections. We find that withholding partisan information has different effects for different subjects. In particular, Republicans rely more on career experience whereas Democrats turn to political experience when candidates' partisanship is unknown.

3.2   Voting and Information Shortcuts

Since the early voting studies of the Columbia and Michigan schools, political scientists have consistently documented uneven and generally low levels of political knowledge and interest among voters (e.g., Lazarsfeld, Berelson and Gaudet 1944; Campbell et al. 1960; Converse 1964; Delli Carpini and Keeter 1996). Although most voters tend to know very little about political candidates and their policy positions, information shortcuts or heuristics can guide political decision-making (e.g., Downs 1957; Popkin 1991). Indeed, some evidence suggests that heuristics can enable low-information voters to make nearly the same choices they would make if they were fully informed (Althaus 2003; Lupia 1994). Voters may rely on any number of shortcuts, including retrospective

evaluations, endorsements, or candidates' personal characteristics, but party identification tends to be the most potent heuristic (Rahn 1993). Party identification is a "shortcut or default value, a substitute for more complete information about parties and candidates" (Popkin 1991, p. 14). A party label generally provides a reliable proxy for candidates' ideology and issue positions. For voters, party identification also appears to be a stable and enduring attachment, akin to other social identities such as ethnicity, religion, or class (Campbell et al. 1960; Green, Palmquist and Schickler 2002).

Voters may evaluate candidates using a likability heuristic that relies on their affect toward politically salient groups (Brady and Sniderman 1985). If voters use this information shortcut, their perceptions of candidates' ideological positions would reflect their own beliefs weighted by their feelings toward opposing groups. For example, Brady and Sniderman (1985) find that on average, conservative survey respondents dislike liberals more intensely than liberals dislike conservatives, and they argue conservative respondents consequently overestimate the ideological distance between the two groups. Another possibility is that voters rely on a representativeness or goodness-of-fit heuristic by making inferences about candidates based on how well they represent a given group or type (Tversky and Kahneman 1974; Popkin 1991). Carnes and Sadin (2015), for instance, argue that a representativeness heuristic leads subjects to mistakenly infer that candidates from working class families are more liberal on economic policy than candidates from affluent backgrounds.

Among studies of nonpartisan elections, a common finding is that voters rely on party cues when they can and look to other information shortcuts, such as race or incumbency, when necessary. Prior research suggests that characteristics such as race (Brady and Sniderman 1985; McDermott 1998), gender (e.g., Huddy and Terkildsen 1993; McDermott 1998), and class (Sadin 2014) also influence perceptions of candidates. Women and African-American candidates are seen as more liberal and more Democratic than white men (Huddy and Terkildsen 1993; McDermott 1998). Using occupation as a proxy for social class in a survey experiment, Sadin (2014) finds that respondents rate upper class candidates as more competent relative to either working class candidates or candidates whose social class is unknown.

3.3 Information Shortcuts in Nonpartisan Elections

Our expectation is that in nonpartisan elections voters will rely less heavily on partisan heuristics to choose between candidates. The empirical record to date generally supports the expectation that partisanship and vote choice should be less strongly associated in nonpartisan elections. For example, Pomper (1966) analyzes ward-level election results in Newark, New Jersey and finds vote shares for candidates of the same party are highly correlated in partisan state legislative elections but not in nonpartisan municipal elections. In a recent study, Lim and Snyder (2015) find strong correlations (0.88 to 0.99) between the Democratic vote share for state judges and the Democratic "normal vote" in partisan elections. A different pattern emerges in nonpartisan elections, where judges' vote shares are less strongly correlated with their co-partisans'. Schaffner, Streb and Wright (2001) also find a systematic relationship between partisanship and Democratic vote share in partisan contests, but partisanship is not a statistically significant predictor of the vote in most of the nonpartisan elections they analyze.

Even when nonpartisan rules make candidates' party affiliations difficult or costly to uncover, some evidence suggests that voters may try to infer party from other information. In a study of nonpartisan judicial retention elections in California, Squire and Smith (1988) leverage a pre-election survey that provided a random subset of respondents with the name of the governor who appointed each judge. Treatment group respondents were more likely to support retaining judges appointed by copartisan governors. Recent experimental evidence also indicates that voters may infer candidates' party affiliations from issue positions. Bonneau and Cann (2015) provide descriptions of hypothetical candidates for state supreme court, with a random subset of subjects receiving party cues. Descriptions of the Republican candidate, for example, highlight support for the death penalty and a commitment to traditional family values while Democrats are described as advocates of same-sex marriage who believe the courts should take an active role in promoting equality. The experimental results show a strong link between partisanship and vote choice even in the absence of an explicit party cue.

Nonpartisan elections are not devoid of ideological or partisan content, but because voters do not have access to the partisan shortcut, such information is relatively more costly to acquire. We

therefore predict that in nonpartisan elections, voters will be more likely to resort to other cues. These cues may include indicators of fitness for the job, including private sector and political experience (Schaffner, Streb and Wright 2001; Lim and Snyder 2015).

A first glance at this prediction comes from the historical record of 1,010 US mayoral elections held between 1950 and 2007. This dataset covers 225 unique municipalities and records background characteristics of winners and runners-up, contextual information such as electoral rules, and electoral outcomes. We constructed this dataset principally by examining the newspaper accounts of candidates and electoral outcomes.[4]

Table 3.1 shows the political experience of the winning candidate in each election, subset according to whether the election was nominally nonpartisan or partisan. The statistically significant χ^2 statistic indicates that the political experience of winning candidates differs across partisan and nonpartisan elections. In partisan elections, 30% of winning candidates have no previous political experience whereas in nonpartisan elections, the share of inexperienced winning candidates drops by 9 percentage points to 21%. That fewer inexperienced candidates win in nonpartisan elections fits with our predictions.

The 9 percentage point difference might reflect the effect of nonpartisan ballots on who gets elected, but it could just as easily reflect other differences between cities that do and do not hold partisan elections. For example, larger cities are more likely to hold partisan contests, and in larger cities candidates, such as attorneys and business executives, with nonpolitical experience may be more likely to run for election. Our own data bear this out. In partisan elections, 63% of candidates are attorneys or business executives while in nonpartisan elections the corresponding figure is 48%. Another potential confounder is that partisan organizations provide financial and institutional support, creating opportunities for politically inexperienced candidates. Observational analyses of the effects of election type are further complicated the concern mentioned above that some elections are nonpartisan in name only.

While we do see that winners in nonpartisan elections appear to have more political experience than winners in partisan elections, an alternative analysis of the historical record paints a murkier

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[4]For a deep exploration of this dataset, please see [citation withheld].

picture. Subsetting our dataset to only those elections in which candidates have different levels of political experience (779 elections), we see that the candidate with more experience wins about 62% of the time in partisan elections and 61% of the time in nonpartisan elections. This difference is not statistically significant ($p = 0.791$).

Table 3.1: Political Experience of Winning Candidate in Partisan and Nonpartisan US Mayoral Elections.

	Nonpartisan		Partisan	
	N	%	N	%
No previous political experience	163	21%	72	30%
City legislator	216	28%	39	16%
County legislator	13	2%	3	1%
State legislator	37	5%	18	8%
US legislator	5	1%	4	2%
Mayor	338	44%	102	43%
	772	100%	238	100%

$\chi^2 = 21.2, p < 0.001$

3.4 Conjoint Candidate Choice Survey Experiments

In an effort to combat the challenges outlined above, we have adopted the conjoint survey design, ideal for studying multidimensional preferences (Hainmueller, Hopkins and Yamamoto 2014). Within political science, the conjoint design has been applied to the study of immigration preferences (Hainmueller and Hopkins 2015; Hainmueller, Hopkins and Yamamoto 2015), complex policy preferences (Bechtel, Hainmueller and Margalit 2015), and (as in our case) candidate preference (Hainmueller, Hopkins and Yamamoto 2014; Carlson 2015; Franchino and Zucchini 2015). The conjoint design will also allow us to evaluate the separate impacts of a large set of causal factors on subjects' preferences over candidates. While these experiments are artificial in the sense that they present subjects with an abstract choice, Hainmueller, Hangartner and Yamamoto (2015)

show that conjoint experiments can produce externally valid estimates by comparing their experimental results to real-world outcomes.

In our studies, subjects judge five successive elections in which five (or six) attributes of two competing candidates are displayed: their race, gender, political experience, career experience, age, and in some cases, political party. The attributes of each candidate are fully randomized so that every possible candidate profile is equally likely. Figure 3.1 shows examples of both an election in which partisan information is available (panel a) and an election in which it is withheld (panel b). The possible levels of each attribute are displayed in Table 3.2. Some levels were added to the Political Experience and Career Experience attributes in the YouGov version of the study in order more fully account for the range of plausible biographies.

Figure 3.1: Experimental Stimuli

Imagine that these are the two candidates running for mayor of your town or city.

	Candidate 1	Candidate 2
Political Party	Independent	Democrat
Gender	Male	Female
Race/Ethnicity	White	Black
Age	35	65
Job Experience	Educator	Business Executive
Political Experience	Mayor	City Council Member

Which of these two candidates do you prefer?

Candidate 1

Candidate 2

Imagine that these are the two candidates running for mayor of your town or city.

	Candidate 1	Candidate 2
Race/Ethnicity	Black	White
Gender	Female	Female
Political Experience	Mayor	Representative in Congress
Job Experience	Business Executive	Educator
Age	55	65

Which of these two candidates do you prefer?

Candidate 1

Candidate 2

(a) A Partisan Election   (b) A Nonpartisan Election

A great deal of the methodological literature on conjoint analysis is concerned with the selection of attributes and levels. Attributes should be independent of one another and levels should describe a wide range of possibilities (Green and Srinivasan 1978). A recurring question is how many attributes to include. The consensus seems to be that six or seven attributes is the limit. Above this limit, survey researchers caution that subjects may resort to cognitive shortcuts when evaluating profiles, causing two problems for inference. First, subjects may over-weight the first

Table 3.2: Attributes

Race	Political Experience	Career Experience	Gender	Age	Party***
White*	None*	Educator*	Female*	35*	Independent*
Hispanic	School Board President**	Stay-at-home Mom/Dad**	Male	45	Democrat
Black	City Council Member	Small Business Owner		55	Republican
Asian	State Legislator	Police Officer		65	
	Representative in Congress	Electrician**			
	Mayor	Business Executive			
		Attorney			

*: Reference category.

**: Level only shown in YouGov experiment.

***: Party only displayed in partisan elections.

few attributes presented to them. Second, they may over-weight particularly salient attributes. We address the first problem by following the advice of Hainmueller, Hopkins and Yamamoto (2014, p. 7) to randomize the order of the attributes.

The second problem is, in our view, a feature, not a bug, of our design. Candidates' party is likely the most salient detail when subjects are choosing between profiles. By randomizing whether or not subjects are shown the party label, we can directly test whether the injection of partisanship into an election changes the impacts of the *other* attributes. Further, this design feature reflects the real-world variation in electoral institutions and is therefore our main experimental manipulation.

Subjects

We conducted our experiment on a Mechanical Turk (MTurk) convenience sample and on a nationally representative sample constructed by YouGov. The demographic profile of the MTurk sample is quite different from that of the YouGov sample. On average, the MTurk sample is whiter, more male, more liberal, more Democratic, better educated, and younger.[5] In addition to these measured characteristics, the samples may differ on unobserved dimensions. Indeed, many social scientists

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[5] See the online appendix for descriptive statistics by sample.

are skeptical of MTurk samples because of these unmeasured dimensions (Goodman, Cryder and Cheema 2013). Others (Berinsky, Huber and Lenz 2012; Mullinix et al. 2016) are optimistic that experimental results on MTurk can generalize to other populations but stress the need for careful consideration of the individual level moderators that might invalidate generalizing from one context to another. In our case, we believe that the most important moderator is respondents' partisanship. Fortunately, MTurk offers sufficient numbers of both Democrats and Republicans to obtain relatively precise estimates for each group, even if MTurk partisans are not representative of partisans nationally.

We will limit our exploration of treatment effect heterogeneity to partisan differences only, for two reasons. First, because we randomized whether or not candidates' partisanship is displayed to subjects, it is appropriate to test whether the effects of candidates' partisanship are moderated by subjects' own party affiliation. Second, we are concerned about the multiple comparisons complications we would encounter with additional subgroup analyses.

3.4.1 Analysis

Our main dependent variable is candidate choice, which is asked "Which of these two candidates do you prefer?" A second dependent variable, candidate competence, is asked "On a scale from 0 to 100, how competent do you think these candidates would be as mayor?" We will use this dependent variable to explore a possible mechanism by which candidate attributes and electoral contexts affect vote choice.

We will analyze the effects of our experimental manipulations on these dependent variables using two models, shown in Equations 3.1 and 3.2. The coefficient vectors $\beta_1, \beta_2, \ldots$ and $\alpha_1, \alpha_2 \ldots$ are each of length $k-1$, where k refers to the total number of levels within an attribute. Individual-level idiosyncrasies in candidate preferences are captured by the error terms ϵ and η. The required assumption that the errors are independent of each other and of candidate attributes is justified by the experimental design. We will estimate Equation 3.1 among the subset of elections that do not include party and Equation 3.2 among the elections that do include party.

$$Y = \beta_0 + \beta_1 Race + \beta_2 Age + \beta_3 Gender + \beta_4 Political\_Exp + \beta_5 Career\_Exp + \epsilon \tag{3.1}$$

$$Y = \alpha_0 + \alpha_1 Race + \alpha_2 Age + \alpha_3 Gender + \alpha_4 Political\_Exp + \alpha_5 Career\_Exp + \alpha_6 Party + \eta$$
$$\tag{3.2}$$

Our experiment is motivated by the extent to which the party heuristic overwhelms the other factors contributing to candidate choice. Accordingly, we are especially interested in the differences between $\beta_1, \beta_2, ...$ and $\alpha_1, \alpha_2....$ We will estimate Equations 3.1 and 3.2 by ordinary least squares (OLS) with standard errors clustered by respondent. Hainmueller, Hopkins and Yamamoto (2014, p. 15) show that this approach is asymptotically equivalent to their average marginal component effect (AMCE) estimator.[6] We will further condition the estimation on respondents' own party identification, focusing on effects among Democrats versus Republicans including leaners.

We will test for the equality of the corresponding coefficients in Equations 3.1 and 3.2 by interacting the attributes with an indicator for election type in the full sample. We will test for the equality of coefficients between the Democrats and Republicans by interacting the treatment variables with an indicator for partisanship.

A short note on presentation: all together, these analyses will render a very large number of coefficient estimates. For this reason, we will present our results graphically using coefficient plots, in which attribute levels are placed on the vertical axis and point estimates with 95% confidence intervals are placed on the horizontal axis. For those who prefer tables, the corresponding regression output for each figure is presented in the appendix. We recognize that this presentation mode obscures some details while highlighting others – we have endeavored to maintain both clarity and transparency in our presentation choices.

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[6]Indeed, when we analyze our MTurk experiment using their estimator, both our point estimates and standard errors differ only in the third or fourth decimal place. The implementation of the AMCE estimator provided in the `cjoint` package for R (Strezhnev et al. 2015) cannot as of this writing accommodate survey weights. Because the vote choice dependent variable is binary, some analysts would opt for a binary choice model such as logit or probit, but this is unnecessary in our setting because, as shown by Hainmueller, Hopkins and Yamamoto (2014), OLS is a consistent estimator of the AMCE. As it happens, the estimated marginal effects from a logit model correspond almost exactly to the OLS estimates and none of our substantive interpretations depend on this choice.

3.5 Results

We will present three sets of results. First, we will examine the effects of candidate attributes, split by election type. Second, we will split our samples by respondent partisanship in order to examine the possibly heterogeneous effects of candidate attributes and election types. Third, we will examine a possible mechanism (perceptions of competence) by which election type affects the attributes that voters favor.

3.5.1 Effects of Partisan Elections on Candidate Choice

Figure A.2 presents the results of the MTurk study. In the first column, the estimates of Equation 3.1 are shown. The strongest effects are observed for the political experience attribute. Relative to a candidate with no political experience, respondents prefer candidates who are City Council Members, State Legislators, Mayors, or Representatives in Congress by a margin of 25 to 30 percentage points. Candidates who previously held a mayoral office were rewarded most for their political experience. By contrast, we observe relatively muted effects for the job experience, race, age, and gender attributes, although our respondents do express a mild preference for candidates who are female and nonwhite. Our respondents' preferences for candidates varied non-monotonically with age: 45-year-olds are preferred to 35-year-olds *and* 55- and 65-year olds.

In partisan elections, we observe a similar pattern, though the effects for the political experience variables are more muted. On average, our sample prefers independents to partisan candidates of either stripe, though this average masks some heterogeneity by respondent party identification, as we will explore in the next section.

The final column of Figure A.2 shows the difference between partisan and nonpartisan elections across the attributes they have in common. For job experience, race, age, and gender, the presence or absence of party labels makes no difference. However, we do observe statistically significantly different weight being given to the political experience variables, depending on election type. In nonpartisan elections, the effects of candidates' political experience are approximately 10 percentage points larger than in partisan elections.

Figure A.3 presents the identical analyses using the YouGov data. Overall, we observe a very similar pattern of results. In nonpartisan elections, political experience is heavily rewarded. We added the "School Board President" level to test the alternative explanation that respondents prefer *any* experience to "No Political Experience." Indeed, respondents do prefer school board presidents to political neophytes, but higher offices are nevertheless preferred to school board presidents as well. In the YouGov sample, we observe a similar interaction between election type and the effects of political experience. Political experience matters more in nonpartisan elections.

We added the "Stay-at-Home Dad/Mom" and "Electrician" levels to the job experience attribute.[7] Both of these careers were viewed negatively in both partisan and nonpartisan elections. We observe similarly small effects of gender and age in the YouGov sample as we did in the MTurk sample.

3.5.2 Heterogeneous Effects by Respondent Partisanship

In Figures 3.4 and 3.5, we reproduce the main analyses, splitting the samples based on respondents' own partisanship. As shown in the top center panel of each figure, Democrats dislike Republican candidates and Republicans dislike Democratic candidates. The differences in these preferences are large and statistically significant. Intriguingly, in both the MTurk and YouGov samples, partisans dislike the out-party (relative to an independent candidate) more than they like the in-party. Given the ambiguity surrounding an unknown independent candidate's policy positions or ideology, respondents may optimistically perceive independents as sharing their own preferences (Tomz and Van Houweling 2009).

When we disaggregate by respondent partisan identification, we do see some small patterns with respect to candidate gender and race emerge. Republican respondents marginally prefer white candidates while Democrats marginally prefer nonwhite candidates. Republicans do not appear to have a gender preference, while Democrats are 10 percentage points more likely to choose a female candidate than a male candidate. These race and gender patterns do not differer much by election type.

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[7]For female candidates, the level was "Stay-at-Home Mom" while it was "Stay-at-Home Dad" for male candidates.

Figure 3.2: Mechanical Turk Main Analysis

Dependent Variable: Candidate Preference
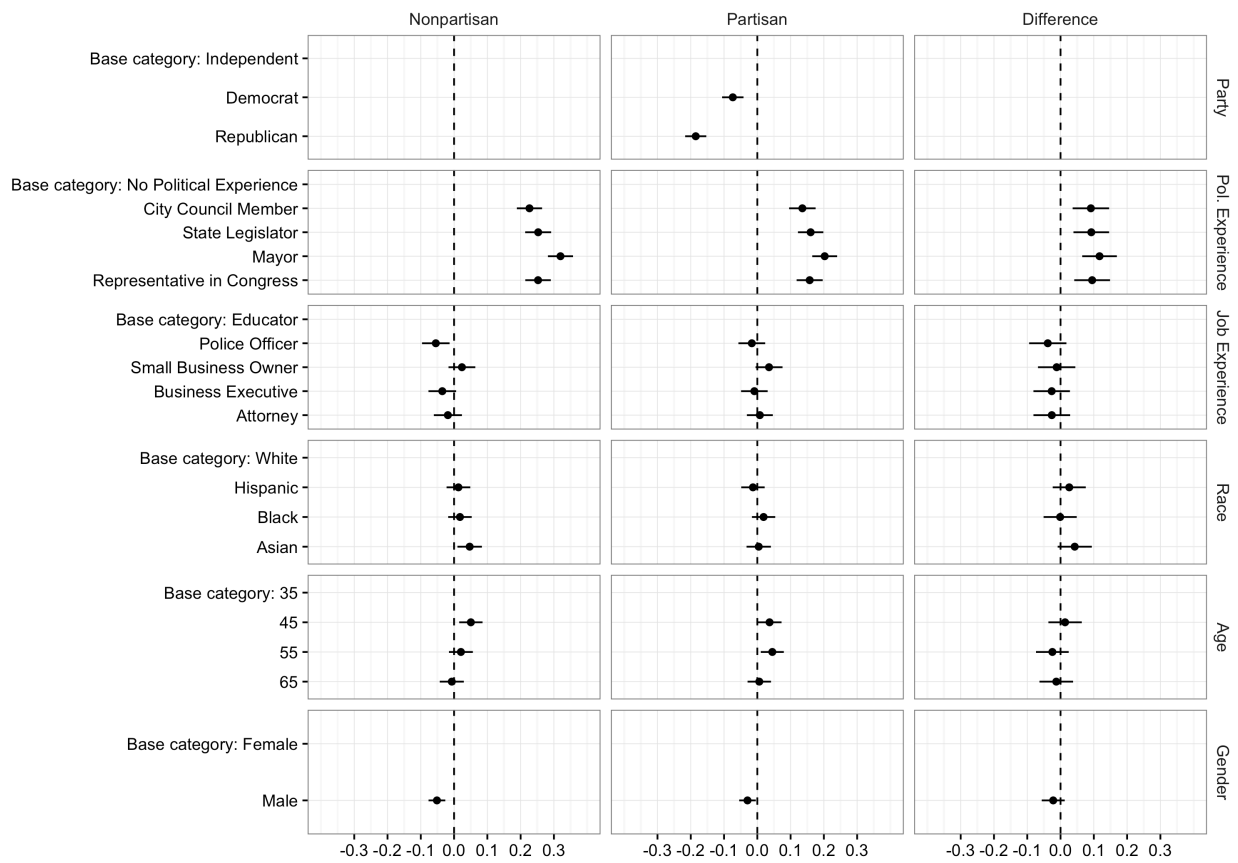
Figure 3.3: YouGov Main Analysis

Dependent Variable: Candidate Preference
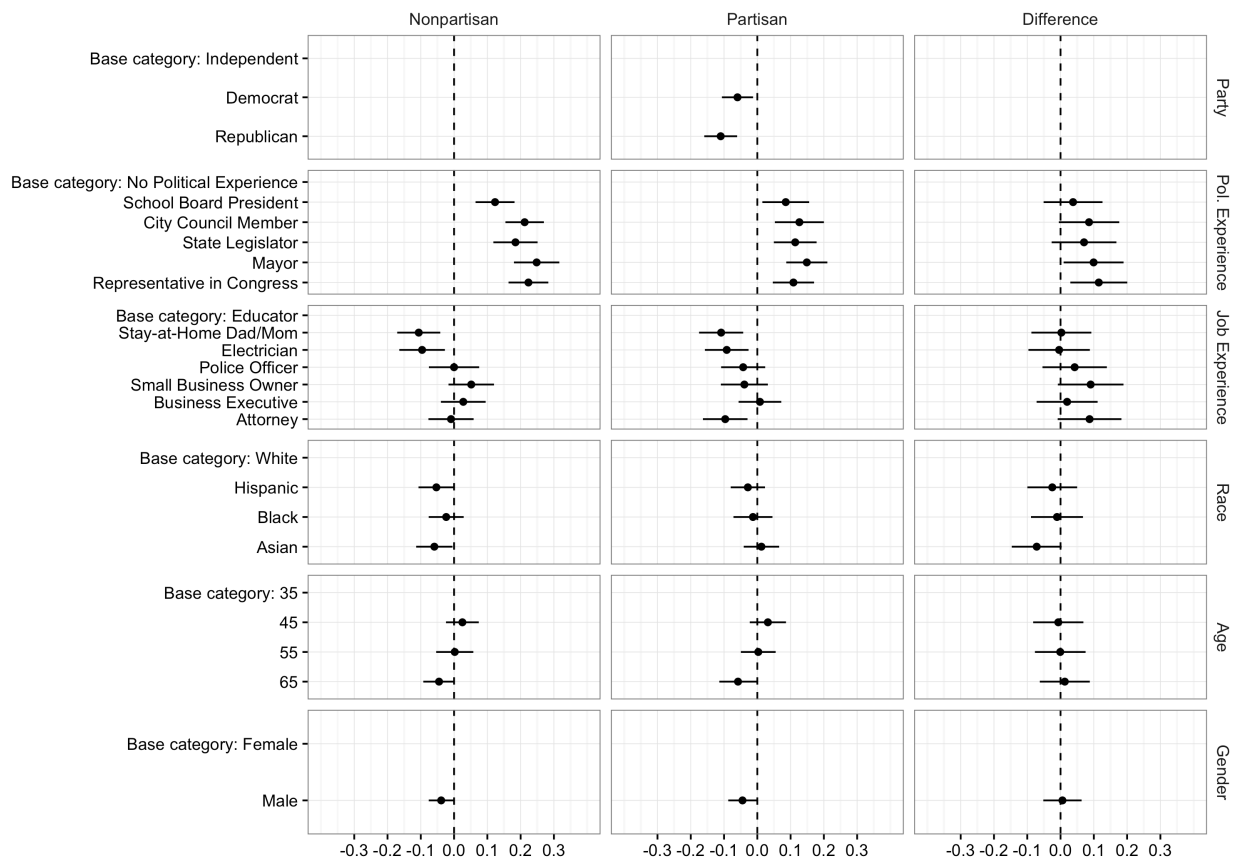
Turning next to political experience, Republicans and Democrats both reward more highly-experienced candidates in both partisan and nonpartisan elections. However, our main theoretical prediction – that political experience will matter more in nonpartisan elections than in partisan elections – is only borne out among Democratic respondents, not Republican respondents. This pattern is clearest in the MTurk sample, though it does obtain in the YouGov sample as well. It may be that, in the absence of party labels, Republicans and Democrats turn to *different* markers of competence. In the YouGov sample, Republican respondents give greater weight to occupational experience in nonpartisan elections, while Democratic respondents give greater weight to political experience. These findings resonate with those of Sadin (2014) who finds that candidates' occupations influence perceptions of their ideology.

3.5.3 Mechanism: Candidate Competence

Thus far, our findings show that the absence of party labels changes the types of candidates that respondents prefer. Doubtless many pathways from nonpartisan elections to vote choice could be responsible for these effects. Existing theory and evidence highlights at least one possibility: perceptions of candidate competence. Lacking a clear party cue, respondents try to infer candidate competence from the information available to them. In this section, we focus on the plausibility of this competence mechanism, but we acknowledge that nonpartisan elections likely influence vote choice through many causal pathways of which competence is only one. We briefly consider two more pathways (perceptions of candidate ideology and satisficing) at the end of this section.

In order to assess the possiblity that the nonpartisan treatment operates by changing peceptions of candidate competence, we asked respondents to rate the competence of both candidates on a scale ranging from 0 - 100. This measure will help us to substantiate a pillar of our main theoretical claim: in nonpartisan elections compared to partisan elections, voters will give relatively more weight to nonideological dimensions when evaluating candidates. While we cannot conduct a formal mediation analysis here because the required assumption of sequential ignorability (Imai et al. 2011) is difficult to justify in this context, this mechanism is rendered more plausible if we observe the same pattern of treatment effects on the competence dependent variable as we did for

Figure 3.4: Mechanical Turk Heterogeneous Effects Analysis

Dependent Variable: Candidate Preference
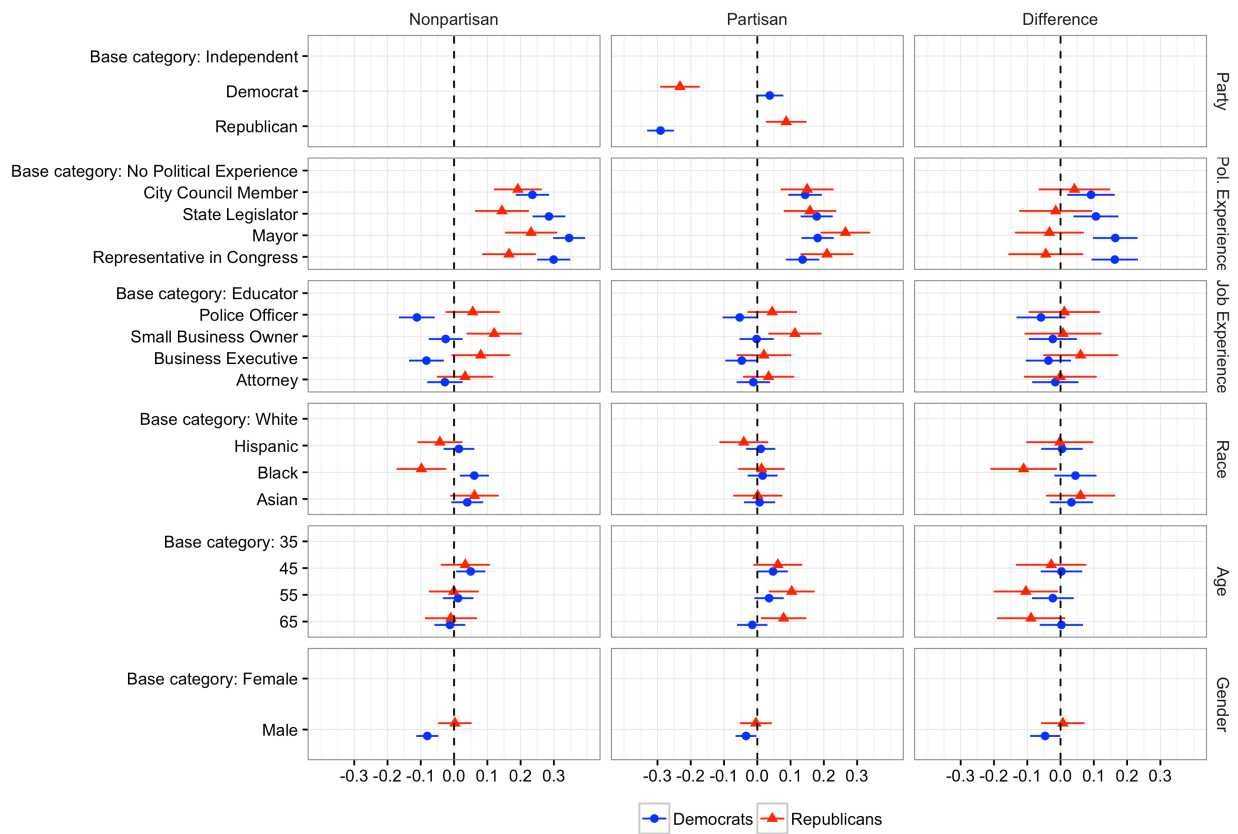
Figure 3.5: YouGov Heterogeneous Effects Analysis

Dependent Variable: Candidate Preference
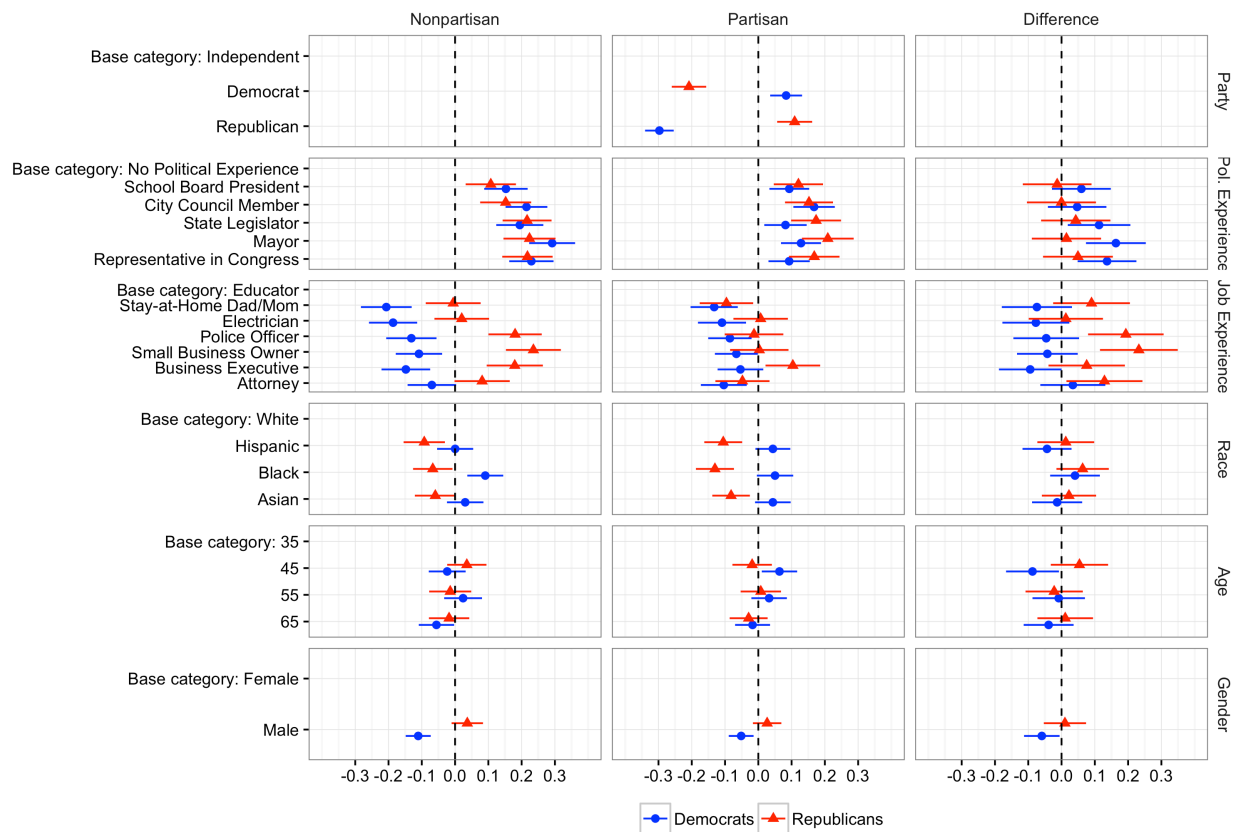
vote choice.

Figures 3.6 and 3.7 repeat the analyses presented in Figures 3.4 and 3.5 using the competence dependent variable. Most importantly, both Republicans and Democrats rate candidates as more competent when they have more political experience. As shown in the difference column, Democratic respondents (but not Republican respondents) rate such candidates as even more competent in the absence of party labels. We observe small effects of race, gender, and age on competence ratings, although across both datasets, Republican respondents appear to rate white candidates as marginally more competent than nonwhite candidates, while the opposite pattern holds for Democratic respondents. We observe larger differences in competence ratings by occupation, with Republican respondents rating police officers, small business owners, and business executives more highly than educators, while Democrats hold the opposite views on such candidates. Neither party's respondents rated stay-at-home parents as more competent than educators.

These figures lend support to the idea that in nonpartisan elections, voters prefer more experienced candidates because they give greater weight to nonideological dimensions. The same candidate types that respondents view as more competent are the ones that they tend to elect at higher rates in nonpartisan elections. We do, however, interpret these results with caution as there may be other (unmeasured) pathways beyond competence by which voters prefer some types more in nonpartisan elections. For example, it is plausible that party labels remind subjects of rancorous party politics, which in turn makes them marginally more likely to select outsider candidates. While we do not think this explanation is particularly likely, we cannot rule it (or other similar explanations) out as a possible mechanism by which nonpartisan elections affect candidate choice.

Beyond the competence mechanism, the effects of nonpartisan elections may operate through perceptions of candidate ideology. In an effort to address this possibility, we asked respondents how likely candidates would be to achieve certain ideologically-inflected policy goals. The results (presented in detail in Appendix C.2) suggest that respondents, regardless of party, use occupation as a shortcut for ideology in nonpartisan elections. For example, both Democrats and Republicans view small business owners and business executives as more likely to implement conservative policies, and there is some suggestive evidence that this effect is stronger in nonpartisan elections. A

Figure 3.6: Mechanical Turk Heterogeneous Effects Analysis

Dependent Variable: Competence
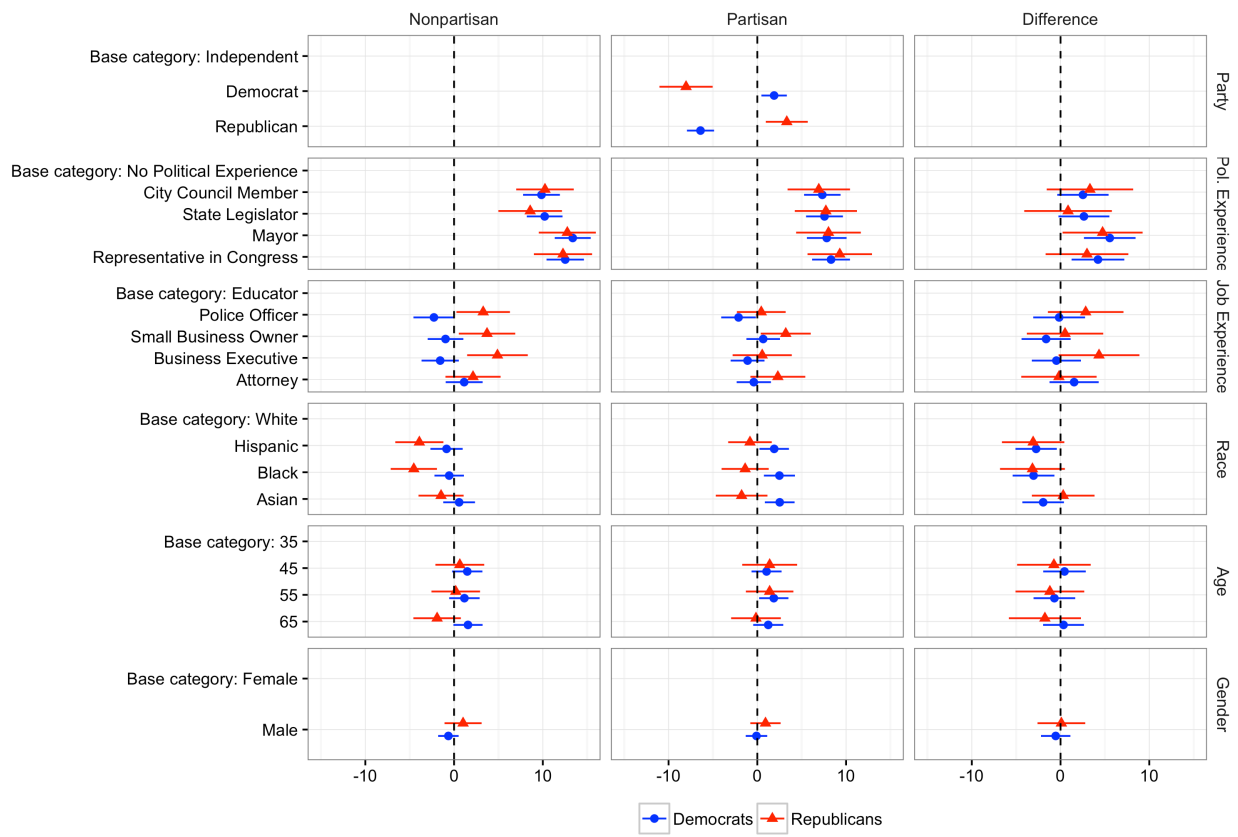
Figure 3.7: YouGov Heterogeneous Effects Analysis

Dependent Variable: Competence
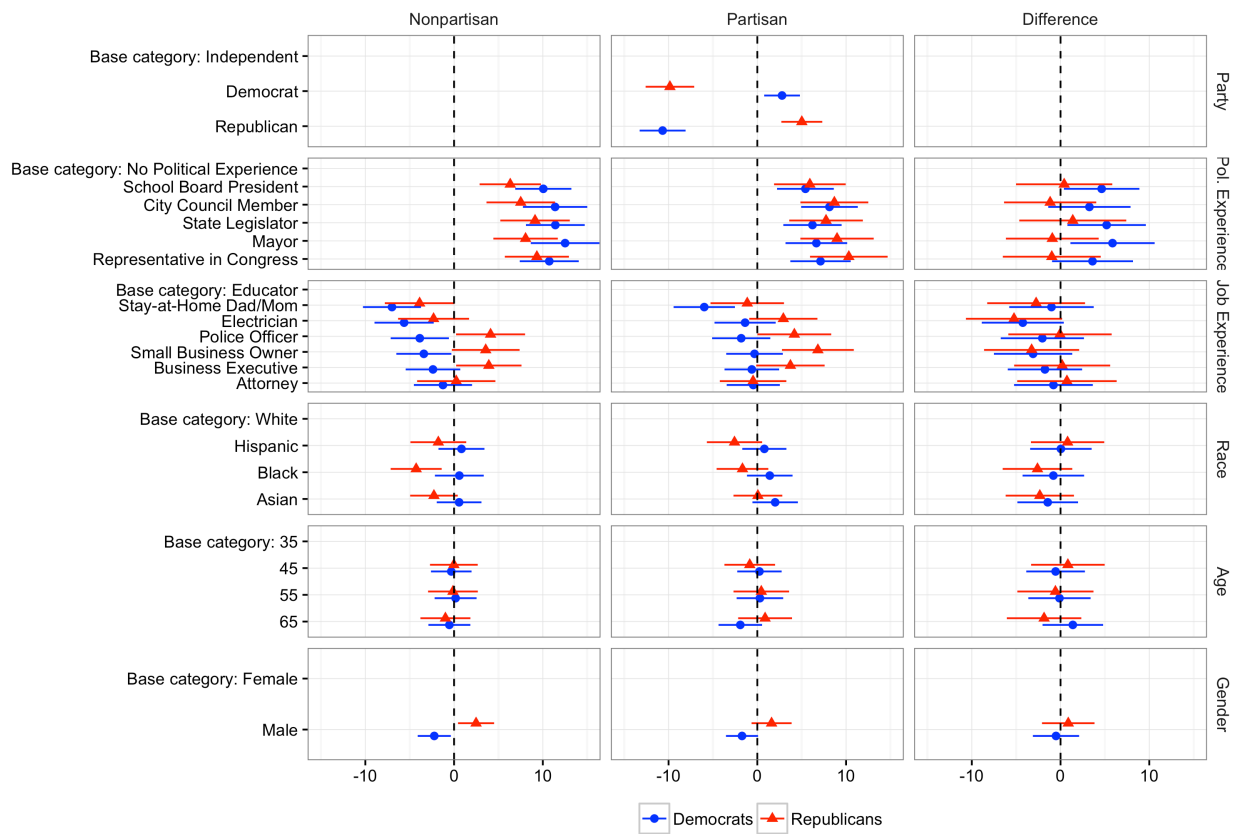
link between candidate occupation and perceived ideology could help explain the heterogeneous effects of occupation, but our analyses also signal that something more than ideology influences respondents in a nonpartisan setting. Indeed, Democrats prefer experienced candidates in nonpartisan elections, but they do not see these candidates as more likely to implement liberal policies.

Finally, a more pedestrian mechanism that could account for our findings is satisficing (Hainmueller, Hopkins and Yamamoto 2015). Because subjects evaluate candidates on five attributes in the nonpartisan elections and on six attributes in the partisan elections, they may mechanically assign more weight to remaining traits when party is omitted. To address this possibility, we exploit a situation in which the number of attributes stays fixed but partisanship varies. Such a scenario arises when subjects evaluate a pair of candidates that share the same partisanship versus when they evaluate a pair who are from different parties. Appendix C.3 reports the results of this analysis. At least in the Mechanical Turk sample, we find that subjects give greater weight to political experience in same-party elections compared with cross-party elections.

3.6 Discussion

Drawing on both observational and experimental data, we have shown how a specific electoral institution – nonpartisan balloting – can influence candidate selection. We relied on a theory of candidate choice that posits that in the absence of the party label shortcut, voters have more difficulty inferring the ideology of candidates and as a result rely more heavily on other characteristics.

The implications of this theory of candidate choice were borne out in two survey experiments conducted on both convenience and nationally representative samples. The institutional context *matters* for the evaluation of candidates based on their attributes. The effect of previous political experience was shown to be statistically significantly larger in nonpartisan elections. This finding directly supports our major theoretical prediction. Our results are also consistent with earlier studies that find candidate quality, particularly incumbency, is more consequential when party does not appear on the ballot (e.g., Schaffner, Streb and Wright 2001; Lim and Snyder 2015).

We conducted our experiment twice, once on a convenience sample and again on a nation-

ally representative sample. In the appendix, we explore the correspondence across samples more deeply, finding that the correlation of effect estimates is very strong at 0.95. Thus, our findings contribute to a small but growing literature on the correspondence of survey experimental estimates across samples (e.g., Mullinix et al. (2016)).

The conjoint experimental design allows us to avoid many of the challenges inherent in studying nonpartisan elections, in particular the problem that cities with partisan and nonpartisan elections may differ in systematic ways. The survey experimental design ensures the clear delineation of partisan and nonpartisan contests. However, these studies were not without limitations. First, we are unable to account for local political contexts. Factors such as retrospective evaluations (Oliver, Ha and Callen 2012) or inter-group conflict (Kaufmann 2004) might alter the salience and effects of certain cues; we did not control in any way the other features of the electoral context that our subjects may have been imagining. Second, hypothetical candidate choice is related to, but distinct from, actual vote choice. However, it is unclear which way the "biases" from this difference would cut. Considering the thin information environment, one might make the claim that the effect of the electoral institution on the weight given to nonpartisan attributes is understated in these experiments.

These results have important implications for the institutional features of elections beyond local contests. Some hold the normative position that members of the judiciary should be selected for their competence not their ideology. Our results suggest that nonpartisan elections may be a powerful institutional tool for achieving this goal. Voters in primary elections seek to know the ideological positions of candidates but cannot rely on a party cue. In this constrained information environment, voters may give special consideration to candidates' backgrounds and resumes.

In particular, we manipulated the presence of one shortcut and measured its effects on *other* shortcuts. Voters seek to make the best decisions possible, given available knowledge and a constrained budget for acquiring new information. When one cue – for example party labels – is no longer available, voters turn to other sources of information.

Chapter 4

The Business of Being Mayor

4.1 Introduction

Fundamental to the study of politics are questions about whether and how political leaders influence outcomes. I investigate these questions in the context of U.S. cities. Simply put, do mayors matter? In contrast to the ideologically charged debates of national politics, the substance and purpose of local government is funding and delivering essential services. From mundane tasks like plowing snow and picking up garbage to preventing crime and fighting fires, city governments provide essential services that are central to the public's safety and quality of life. Because municipal services are such a critical feature of public life, successes and failures are readily visible to local residents, as well as prospective residents, consumers, and businesses. Are traffic signals functional and potholes filled? Are streets and parks clean and safe? Even voters with little knowledge of politics or government can easily notice a decline in the quality or quantity of services, an uptick in crime, or an increase in their tax bills.

Voters may use elections to hold politicians accountable for shortcomings or failures, but they also may try to select leaders who will produce desired outcomes (Fearon 1999; Besley 2006). As a city's chief executive, the mayor is the highest profile local politician. Case studies of American cites portray individual mayors as crucial actors with the ability to shape the fortunes of their cities (e.g., Ferman 1985; Stone 1989; DeLeon 1995; Fuchs 1992; Inman 1995). Although mayors are

unquestionably important actors, they also have been understudied. The mayor is the face and name of municipal government, but do mayors influence policy choices and outcomes? Efforts to answer this question have been constrained by a lack of detailed data about mayors and complicated by the methodological challenges of separating the effects of mayors from other observed and unobserved factors that could affect both mayoral characteristics and policy outcomes.

In recent years, several empirical studies have examined the causal effects of mayors' partisanship and produced conflicting and largely null results. Electing a Democrat or Republican has little effect on the size of local government, the allocation of resources, or crime (Ferreira and Gyourko 2009, but see also de Benedictis-Kessner and Warshaw 2016). In large cities, however, electing a Democratic mayor may lead to a decline in spending on public safety but has no significant effect on a host of other spending and revenue items (Gerber and Hopkins 2011). While these studies provide reasons to question mayors' abilities to influence policy, their focus on partisanship also presents complications. Studies of US politics at the national and state level consistently find that Democrats and Republicans have distinct preferences associated with divergent policy outcomes (e.g., Lee, Moretti and Butler 2004; McCarty, Poole and Rosenthal 2006; Bartels 2008; Erikson, Wright and McIver 1993), but the role of partisanship at the local level is less straightforward.

Although party tends to be a strong predictor of choices of both voters and elites (Campbell et al. 1960; Green, Palmquist and Schickler 2002; McCarty, Poole and Rosenthal 2006), the majority of U.S. local elections are nonpartisan. In some nonpartisan cities, candidates' party affiliations may be widely known even if they do not appear on the ballot. However, in many others, mayors' party affiliations remain unknown even after extensive research. As a result, these mayors and cities are excluded from any analysis—-including those cited above—-that relies on partisanship to assess the ability of mayors to affect outcomes. At the same time, party may be less salient in local politics (Oliver, Ha and Callen 2012). Many of the core functions of cities, such as essential service provision, land use, and public safety, produce policy debates and choices that can be difficult to cast in starkly partisan terms. As the adage goes, there is no Republican or Democratic way to collect trash.

In contrast to earlier studies, I focus on candidates' occupational backgrounds. Specifically, I

ask whether electing a mayor with experience as a business owner or executive leads to systematically different policy outcomes. Business owners and executives are especially well represented in city halls across the country, and local policies have implications for the success of local businesses. Descriptive theories of urban politics depict business interests as prominent stakeholders with strong preferences and considerable influence over local policy choices (Logan and Molotch 1987; Stone 1989). Broadly, this literature implies that business executives, particularly those who own or operate local businesses, will favor policies they expect to foster economic growth. Business owners and executives are likely to have strong preferences for low taxes and limited redistribution but high-quality services and amenities. Executive business experience also may constitute a salient cue for voters as they evaluate candidates and select a mayor—especially in the nonpartisan elections so common in U.S. cities.

To assess the impact of business executive mayors, I compiled data on the the backgrounds of mayoral candidates from cities across the United States. This extensive original dataset includes 3,257 mayoral candidates from 263 U.S. cities and covers the time period 1950 to 2007. Additional data include measures of municipal finances from the U.S. Census of Governments and the Annual Survey of Governments, which enable me to test the effect of electing a business executive mayor on a range of fiscal outcomes, such as expenditures, revenue, and taxes. To address concerns over endogeneity, namely the possibility that factors related to how likely a city is to elect a business executive also determine policy outcomes, I adopt a regression discontinuity design (RDD). With the RDD, I leverage election results to compare outcomes in cities that narrowly elect a business executive to outcomes in cities where a business executive loses by a slim margin. Focusing on cities that are similar in propensity to elect a business executive mitigates the threat that observed or unobserved confounders could bias the results.

To preview my empirical results, I find that business owners and executives do produce systematically different fiscal outcomes. My results yield little evidence to suggest that business executive mayors have a major impact on overall spending or revenue. However, business executive mayors do influence spending across policy areas. My findings indicate that electing a business executive leads to significantly lower levels of spending on housing and community development—spending

that typically is redistributive in nature. At the same time, I also find evidence of an increase in spending on roads in cities that elect business executives. Some suggestive evidence also indicates that business executive mayors may increase revenue from local sources, but likely in the form of user fees and charges rather than taxes. Finally, further analyses support the notion that experience as a business owner or executive is not simply a proxy for political party.

Overall, my findings suggest that who serves as mayor has implications for policy choices and outcomes. In particular, these changes limit the potential for redistribution. These results not only provide evidence that mayors matter but also speak to research and debates surrounding representation and inequality. Empirical evidence from a variety of contexts suggests that descriptive representation has meaningful policy consequences (see e.g., Whitby 1997; Besley and Case 2003; Chattopadhyay and Duflo 2004). Much of this work has focused on race, gender, and ethnicity, but recent studies have highlighted the underrepresentation of the working class. The empirical results presented here are quite consistent with existing studies that use occupation as a proxy for class and find evidence that the overrepresentation of the affluent in U.S. legislatures leads to more conservative economic policy (Carnes 2012, 2013). In contrast, however, this study focuses on elected executives, incorporating original data on both election winners and runners-up in an effort to establish a causal link between mayors and public policy.

4.2 Does it Matter Who Serves?

Canonical models of party competition yield the median voter theorem, which implies that candidates for office will converge to the policy position that best matches the preferences of the median voter, so different leaders should produce similar outcomes (Downs 1957). Other models (e.g., Alesina 1988; Besley and Coate 1997), however, imply that if politicians care not only about winning election but also about policy outcomes, they have incentives to follow their own policy preferences. In these models, forward looking voters account for these incentives, and politicians cannot credibly commit to moderate policies. As a result, to the extent that candidates' have distinct preferences and policy objectives, different leaders may produce divergent outcomes.

Contrary to the expectations of the Downsian model, Ansolabehere, Snyder and Stewart (2001) analyze the ideological positions of congressional candidates over more than 100 years and document a pattern of non-convergence at both the national and district levels. They find candidates' positions tend to reflect the national party rather than the median voter, although more competitive races exhibit greater convergence. Once elected, Republicans and Democrats in Congress exhibit ideologically distinct behavior (Poole and Rosenthal 1997), and differences in party control are associated with contrasting policies, particularly on issues concerning taxing and spending (McCarty, Poole and Rosenthal 2006; Bartels 2008). Lee, Moretti and Butler (2004, p. 810) go so far as to argue that rather than influencing politicians, "voters *elect* policies through choosing a legislator [emphasis in the original]," showing that even winners of highly competitive Congressional races fail to pursue moderate policies once in office.

Several studies also have sought to identify the causal effect of mayoral partisanship on local fiscal policy, and despite partially conflicting results, the overall findings suggest a much weaker link between party and policy than we typically observe at higher levels of U.S. politics. Ferreira and Gyourko (2009) examine the effect of mayors' partisanship on local public finances and invoke Tiebout sorting to explain their null results, suggesting that the degree of preference heterogeneity within cities is generally insufficient to support partisan policy differentiation. On the other hand, Gerber and Hopkins (2011) find that the election of a Democratic mayor leads to a decline in public safety spending but has little effect on other aspects of municipal finance. The authors contend that although the effects of partisanship may be muted in areas of limited or overlapping authority, mayors can influence outcomes in policy domains exclusively under local control. Yet, across 19 fiscal policy measures, mayoral partisanship has a significant effect on police spending alone. Most recently, however, de Benedictis-Kessner and Warshaw (2016) provide evidence that Democratic mayors *do* increase the size of municipal government, issuing more debt to support greater spending overall.

Despite the primacy of partisanship, other attributes of leaders can affect behavior and outcomes as well—-particularly when politicians' characteristics are linked to distinct policy preferences. When members of underrepresented groups gain policymaking influence, they can have

measurable effects on policy. Several studies find a link between legislators' racial minority group membership and roll call voting behavior with African American members of Congress more likely to support legislation that advances group interests (e.g., Canon 1999; Whitby 1997). Assessing representation of African Americans in state legislatures, Owens (2005) finds that advances in descriptive representation lead to increased spending in policy domains important to black legislators and their constituents. Chattopadhyay and Duflo (2004) exploit a policy intervention that randomly assigned Indian villages to reserve council positions for women to identify their effect on policy choices. Representation of women led to changes in public goods provision that reflected women's policy preferences and priorities. In the American states, Besley and Case (2003) find a positive relationship between the share of women in state legislatures and increased family assistance and stronger child-support laws. In contrast, Carnes (2013) argues that the overrepresentation of the affluent generally leads to more conservative economic policy choices.

Although Carnes (2013) notes greater class diversity among politicians at the local level, compared to state legislatures or Congress, it appears that business backgrounds are more common than working-class occupations. Using data from the International City/County Manager Association (ICMA), Carnes finds that working-class members make up the majority of city councils in a few cities but also that business owners and executives are extremely well represented. Examining the relationship between the class or occupational composition of a city council and the share of the city budget allocated to welfare spending reveals a notable trend. "[T]owns and cities led by councils with greater shares of farm owners or managers, business owners or executives, and technical professionals...devoted little or nothing to social programs" (Carnes 2013, p. 130). Although he attempts to account for a range of potential confounders, the author also acknowledges the possibility that factors other than class could determine local welfare spending. Indeed, including city-level covariates in the analysis calls into question the significance of the relationship between class and welfare spending. Though, as Carnes (2013) mentions, cities also have limited flexibility to adopt progressive economic policies.

The mixed results from empirical studies of mayoral influence are often consistent with the idea that constraints on cities limit the effects of local politics, but some evidence suggests the

implications are more nuanced. For example, Craw (2010) acknowledges that competition among cities appears to curb spending but also finds that lower levels of capital mobility can enable local officials to pursue divergent policies on social welfare provision. Holman (2014) argues that cities with female mayors are more likely to provide social welfare programs, although other research finds gender has no significant effect on the size of local government or the composition of spending (Ferreira and Gyourko 2014). Studies assessing the impact of racial and ethnic minority mayors also produce conflicting results. Although Karnig and Welch (1980) find that black mayors preside over increases in social welfare spending, Pelissero, Holian and Tomaka (2000) provide empirical evidence suggesting that electing an African American or Latino mayor does not lead to significant differences in fiscal policy (see also Nelson 1978). Most recently, Hopkins and McCabe (2012) assess the influence of African American mayors in large U.S. cities and find that electing a black mayor leads to reductions in police staffing and payrolls but otherwise has no significant effect on the allocation of resources. In light of these results, the authors conclude "that among issues, criminal justice alone combines the conditions necessary to allow for local politics to shape local policy" (Hopkins and McCabe 2012, p. 692).

Indeed, the formal and informal constraints on local governments imply that mayors may be unable to have policy influence comparable to politicians in other contexts—cities may present a hard test for the effects of political leaders. Building on Tiebout's (1956) insight that citizens "vote with their feet," Peterson (1981) argues that competition for mobile taxpayers essentially underpins all urban policy choices. As a result, the range of viable local policy options is sharply curtailed, rendering local politics largely inconsequential. In contrast, Stone's (1989) regime theory implies that precisely because of the constraints on local governments, politics is vitally important. Where local government officials and organized interests can maintain durable coalitions, informal public-private regimes can channel resources toward shaping agendas and advancing policy goals.

Evidence from a variety of political contexts supports a link between leaders and public policy, that is policymakers with distinct preferences tend to produce divergent outcomes. Yet, efforts to assess the impact of mayors have produced conflicting findings and a lack of consensus. It may be, as Peterson (1981) implies, that the constraints and limitations on local governments allow

few, if any, opportunities for mayors to influence policy. However, discrepancies across studies may reflect differences in study samples, time periods or research designs.[1] For example, early research on the influence of African American mayors had small samples of 6 to 17 cities, partly because they cover a time period where few cities elected black mayors (Richard Hatcher of Gary, Indiana, and Carl Stokes of Cleveland, Ohio, both elected in 1967 were among the earliest African American mayors of major U.S. cities). Several of these studies rely on multivariate regression analyses, but Pelissero, Holian and Tomaka (2000) use a matching design, while others (Ferreira and Gyourko 2009, 2014; Gerber and Hopkins 2011; Hopkins and McCabe 2012) rely on regression discontinuity designs (RDDs). Although an RDD can support the identification of causal effects, the resulting estimates are local average treatment effects. That is, these analyses estimate the effect of narrowly electing a certain type of leader, so we might not expect results consistent with studies that estimate average effects.

Although differences in study samples and research designs may partly explain conflicting results, we might also question which attributes of leaders are likely to be associated with differences in policies and outcomes. Recall that formal theoretical models (e.g., Alesina 1988; Besley and Coate 1997) predict divergent outcomes when politicians have distinct preferences. For example, as Ferreira and Gyourko (2014, p. 28) acknowledge, "for the gender of the mayor to have any impact first requires that men and women have different preferences for the goods and services that local governments provide." The authors draw on studies at the state and national level, highlighting evidence that women's preferences can be differentiated on issues such as education, health, and redistribution. However, local governments, particularly in smaller cities, may not be active in relevant policy areas. At the local level, school districts generally establish education policies,

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[1]For example, Pelissero, Holian and Tomaka (2000) compare outcomes in 12 cities (6 matched pairs) over the time period of 1972 to 1992, and Karnig and Welch (1980) analyze a sample of 17 cities covering the years1968 to 1975. In their main regression discontinuity analysis, Hopkins and McCabe (2012) rely on a sample of 149 elections in 76 large cities. Holman (2014) analyzes the relationship between women's representation in 2007 and city budgets in 2008 in a sample of 214 cities with populations of at least 5,000. Ferreira and Gyourko (2014) use a regression discontinuity design to estimate the effect of narrowly electing a female mayor on a variety of outcomes in 575 cities with populations of at least 25,000.

and although cities do engage in redistribution, their ability to do so is typically limited by formal and informal constraints (Peterson 1981). Similarly, differences by political party also may be less salient at the local level. In his study of local elections, Oliver, Ha and Callen (2012) highlights the contrast between the ideological nature of national politics and what he describes as the "managerial" character of local democracy— particularly in smaller cities. Unlike national policy concerns such as health care, national security, or immigration, core local policy domains include service provision, zoning, and land use, which are typically difficult to cast in starkly partisan terms. The prevalence of nonpartisan electoral institutions also complicates efforts to understand the effect of party at the local level. The majority of local elections in the U.S. are nonpartisan. In some nonpartisan elections, candidates' party affiliations are easily accessible, but in cases where partisanship is unknown, cities must be excluded from any analysis of the effect of party.

4.2.1 Business Executives as Politicians

When business executives run for office, they often emphasize their business knowledge and management skills. Candidates' claims often echo the rhetoric of municipal reformers who maintained that the core function of city government—service provision—requires technical expertise rather than political skill. Probably not coincidentally, business leaders were advocates of the reform movement, which sought to shift the balance of power in city politics toward more affluent citizens (Bridges 1997). Among their priorities were quality services and amenities combined with limited redistribution to keep local taxes in check. This parallel between city government and business, however, also reflects the challenges of municipal budgeting. In particular, Fuchs (1996, p. 70) argues that following federal disengagement from cities and the urban fiscal crises of the 1970s, issues of efficiency and financial management came to dominate local policy agendas, with an emphasis on "treating citizens like customers and forcing governments to think like private businesses."

In cities across the U.S., candidates routinely invoke the relevance and value of business experience. A 1969 advertisement for Amarillo (TX) mayor J. Ernest Stroud described the incumbent as "a self-made businessman" who "knows the true value of the dollar." In contrast, his opponent

was described as "a puppet of the political bosses" who "plans to spend with wild abandon." When she filed papers to run for mayor of San Bernardino (CA), Judith Valles said she would use her "experience balancing multi-million dollar budgets and managing large-scale institutions to revitalize [the] city" (quoted in *Precinct Reporter*, July 17, 1997). In 2001, Republican Dennis Odle ran for mayor of Waterbury (CT) with the slogan "All Business, No Politics" (The Brass File [*The Waterbury Observer*], October 14, 2007). Similar examples abound, from Quincy, Massachusetts to Waukesha, Wisconsin and from Dallas, Texas to San Diego, California.[2]

While experience owning or operating a business may foster leadership skills or enhance the ability to persuade or influence others (see e.g., Besley 2005), promises to increase efficiency and attract economic activity also convey policy preferences and priorities. Moreover, recent empirical evidence suggests that candidates' occupations influence voters' evaluations. Using occupation as a proxy for social class, Sadin (2014) finds that survey respondents perceive affluent candidates as more competent compared to those with working class occupations. Although her study focuses on class, occupation itself seems to have an independent effect on inferences about policy positions. Regardless of party affiliation, a wealthy candidate with a business background is viewed as more conservative on economic policy, but if a similar candidate is described as a cardiologist, class or occupation has no effect on perceptions of ideology. Using a conjoint survey experiment, Kirkland and Coppock (2017) find that evaluations vary with the respondents' party identification. Perhaps not surprisingly, Republicans view business owners or executives more favorably than Democrats do.

These findings suggest that executive business experience may be a meaningful cue to voters, but there are also reasons to expect that business owners and executives may have distinctive policy preferences. For example, Carnes (2012) finds that members of Congress with business backgrounds consistently vote more conservatively than members with working class backgrounds. Yet

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[2]Specific examples cited here include Francis X. McCauley mayor of Quincy, Massachusetts from 1982 to 1989 (*Boston Globe* November 1, 1981); Robert J. Foley, Sr., candidate in Waukesha, WI (*Milwaukee Journal* March 30, 1994); Fred Meyer, candidate in Dallas, Texas (*Boston Globe* May 5, 1987); Bill Cleator, candidate in San Diego, California (*Los Angeles Times* May 18, 1986).

specific policy considerations also could be especially salient at the local level. Zoning, land use, and tax policies are of particular concern to business interests that see these domains as key to promoting growth and securing economic benefits (Logan and Molotch 1987).

Local policies can have a direct impact on local business owners by determining tax obligations and the quality of services, but broader policy implications could also influence the fortunes of local businesses. For example, reliable municipal services, desirable amenities, and low taxes may make a city attractive to both businesses and consumers of goods and services, creating a vital local economy (Peterson 1981). Indeed, Logan and Molotch (1987) contend that business interests, preoccupied with increasing land values and promoting growth, prefer policies that create a hospitable environment for commerce but do not necessarily yield comparable benefits for all citizens. The effective provision of basic municipal services is essential, but the activities of government should be limited to keep tax rates in check. While Logan and Molotch (1987) provide a theoretical rationale for the policy preferences and goals of business executives, Stone (1989) also provides concrete examples of differences between business leaders and residents, describing citizen opposition to downtown revitalization and infrastructure expansion initiatives.

Local fiscal policies can quite literally affect the cost of doing business in a city, so business owners and executives are likely to be keenly aware of the tradeoffs between taxes and services. Given their exposure to local policies and their experience with broader markets, business owners and executives may think in terms quite similar to the tax-benefit ratio described by Peterson (1981). As a result, I expect business executive mayors to pursue policies that prioritize municipal services and amenities while avoiding redistribution. Given the constraints that local policymakers face, however, the effects of business executive mayors may be limited in scope or magnitude. Still, like leaders differentiated by other characteristics, mayors with executive business experience are likely to have an impact on local policies leading to divergent fiscal policies.

4.3 Data and Methods

4.3.1 Empirical Strategy

An inherent challenge in identifying the effects of local leaders arises from the possibility that both observed and unobserved differences in cities determine what types of leaders they elect. Mayors' attributes or experience are not randomly assigned to cities, and factors that influence local electoral choices also may affect fiscal outcomes. To address concerns over endogeneity, I employ a regression discontinuity design (RDD) to estimate the effect of electing a business executive mayor. The RDD has become a common approach used in political science to identify causal effects with observational data (e.g., Lee, Moretti and Butler 2004; Lee 2008; Ferreira and Gyourko 2009, 2014; Gerber and Hopkins 2011). A quasi-experimental design, the RDD is distinguished by its reliance on a forcing or assignment variable, a measure of the underlying probability of exposure to treatment. At some threshold value of the rating variable, the probability of treatment changes discontinuously. For example, vote share captures the underlying probability of winning an election and exhibits a sharp discontinuity at 50%—a candidate's vote share must exceed this threshold to win.

In this case, the treatment of interest is a mayor with executive business experience, and the underlying measure of support for a business executive candidate is her margin of victory (measured in terms of vote share).[3] If and only if a business executive candidate wins the largest share of the vote—that is, the margin of victory is a positive value, the city is assigned to the business executive treatment. Thus, the vote share margin serves as the assignment, or rating, variable, and 0% is a sharp threshold that determines treatment assignment. While candidates surely have some influence over their vote shares, it seems quite unlikely that they can precisely manipulate the assignment variable. As long as candidates lack precise control over the assignment variable, an important consequence is that near the threshold, assignment to treatment is as-if random (Lee 2008; Lee and Lemieux 2010, p. 283). The "no sorting" assumption is the key identifying as-

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[3]Some elections include more than 2 candidates. Margin of victory is defined as the difference in the vote shares of the top two candidates.

sumption of the RDD—that potential outcomes are smooth across the discontinuity. I investigate the validity of this assumption formally using the McCrary (2008) test of the density of the rating variable and find no evidence of sorting (log difference in heights is -0.187 with SE 0.202; $p =$ 0.355). Because treatment assignment is as-if random, it is not necessary to include covariates in RD specifications, but covariates may be included to improve the precision of treatment effect estimates (Lee and Lemieux 2010). Testing the continuity of covariates also supports the validity of the RDD.[4] By focusing on close elections, I can compare outcomes in cities that are quite similar in propensity to elect a business executive mayor but differ in actual leader experience, mitigating the threat of omitted variable bias.

Although an RDD can facilitate causal inference from observational data, this strategy has important implications in terms of both data and results. An RDD that relies on election results for its rating variable requires data on not only mayors but also runners-up, but not all election results will enter into the analysis. First, to estimate the effect of electing a business executive mayor, I must focus on races where one candidate possesses executive business experience and the other does not. Although my mayoral candidates data covers 1217 complete elections, only 520 meet this criterion. Ideally, estimation will rely on observations that lie close to the threshold (Imbens and Lemieux 2008), which can further diminish the relevant sample size.

The aim of an RD analysis is to use the observations around the threshold in the rating variable to estimate the size of the jump at the discontinuity, but across studies there are differences in estimation strategies. In practice, RDD applications commonly have relied on alternative global specifications that control for higher-order polynomials of the forcing variable. However, recent work suggests that this method may produce misleading estimates and strongly advises use of local linear specifications (Gelman and Imbens 2014; Skovron and Titiunik 2016). One concern is that higher-order polynomial specifications can heavily weight observations that lie far from the discontinuity. In contrast, local polynomial methods rely only on observations that lie within a specified distance—-or bandwidth—-spanning the threshold of the forcing variable. Because RDD results can hinge on specification and bandwidth choices, current best practices call for the use of

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[4]Additional details on covariate continuity tests and other validity tests are included in the Appendix.

local linear regression combined with a data-driven approach to determining the bandwidth that minimizes the mean squared error (MSE) of the RD estimator (Calonico, Cattaneo and Titiunik 2014, see also Imbens and Kalyanaraman 2012).

In the analyses that follow, I rely on local linear regression and use optimal bandwidths calculated per Calonico, Cattaneo and Titiunik (2014) to estimate the effects of narrowly electing a business executive. Because the MSE-optimal bandwidth often seems subjectively wide—i.e., beyond what we might consider a "close" electoral margin, I also include estimates using a 5% bandwidth. That is, all observations within 5% on either side of the cutpoint are used in the estimation, and observations are weighted by proximity to the cutpoint. Some very recent methodological work on RDDs advocates the use of robust bias-corrected confidence intervals (Calonico, Cattaneo and Titiunik 2014; Skovron and Titiunik 2016). In the main text, I report robust standard errors, but replicating these analyses with robust bias-corrected confidence intervals produces substantively similar results (presented in the Appendix).[5]

Throughout this analysis, I estimate models of the following form:

$$Y_{it+2} = \beta_0 + \beta_1 Business\ Executive\ Win_{it} + f(V_{it}) + \epsilon_{it}, \tag{4.1}$$

where $Business\ Executive\ Win_{it}$ is an dichotomous variable indicating whether a business executive candidate won the mayoral election in city i in year t, and β_1 is the quantity of interest, the estimate of the effect of a mayor with executive business experience. The variable Y_{it+2} is a relevant fiscal outcome measured two years after the mayoral election. My analysis considers several public finance outcomes, including total expenditures, total revenue, total taxes, and total charges and fees, as well as the allocation of resources across key spending categories (e.g., administration, health, housing, parks, public safety, roads, and solid waste management). Mayoral terms of office vary across cities, so outcomes measured two years after the city election allow time for a mayor to pursue her policy goals while remaining within the two-year term maintained by some cities. The term $f(V_{it})$ represents a flexible function of the rating variable, i.e., the business executive's vote-share margin (vote share centered at 0). For example, if a business executive candidate wins

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[5]Clustering standard errors at the city level also produces similar results (not inluded).

election with 52% of the vote, the executive margin would be 0.02, and if the same candidate loses with 48% of the vote, the rating variable would take the value -0.02. Following convention, $f(V_{it})$ typically includes the forcing variable and the interaction of the forcing and treatment indicator variables. (Lee and Lemieux 2010).

4.3.2 Elections, Candidates, & Local Fiscal Policy

To test for mayors' effects on fiscal policy in U.S. cities, I have assembled data from multiple sources covering candidates' backgrounds, public finance outcomes, and local elections. I focus on a sample of 248 U.S. cities with populations of at least 50,000 as of the 2000 U.S. Census, and the data cover the time period 1950 to 2007. The determination of the population cutoff was informed by an interest in allowing considerable variation in city population size while ensuring availability of relevant information about mayoral elections and candidates. Table 4.1 reports measures from the 2000 Census to describe the cities included in the sample, as well as those that remain in the RD sample (cities where a business executive faces a non-business executive candidate). As a point of reference, descriptive statistics for all cities of comparable population are also provided. Overall, the cities included in my sample have noticeably larger populations. Sample cities have, on average, slightly higher shares of white residents with similar median household incomes, home ownership rates, and house values. Aside from population, the samples appear to be quite representative of U.S. cities with populations of at least 50,000.

To assemble a new dataset of mayoral candidates' backgrounds, I began with an existing dataset of U.S. mayoral elections collected via a survey of cities and townships. [6] I collected details about candidates and their backgrounds from several sources, most commonly from contemporary news reports, obituaries, and biographies provided by city websites and documents, the Biographical Directory of the United States Congress, and the National Governors Association. From the raw

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[6]Election data were provided by Fernando Ferreira and Joseph Gyourko, who collected the data via a survey of US cities and townships with a population of more than 25,000 people as of the year 2000. These data were used in Ferreira and Gyourko (2009) as well as Ferreira and Gyourko (2014).

Table 4.1: Sample of Cities

	Cities with > 50,000 Population	Current Sample— Mayors Data	Current Sample— RD Analysis
Number of cities	603	248	190
Population	165,885 (410,156)	217,305 (585,338)	238,085 (663,676)
% White	68.70% (18.60)	69.04% (18.85)	69.06% (19.25)
Unemployment	6.43% (2.69)	6.29% (2.53)	6.25% (2.52)
Median HH income	$43,666.75 (13,657.94)	$43,727.29 (13,584.26)	$43,832.77 (13,638.49)
Home ownership	58.45% (12.47)	58.44% (11.46)	58.63% (11.55)
Median house value	$143,319 (87,567.82)	$142,023 (78,348.31)	$139,848 (75,097.68)

Note: Descriptive statistics from the 2000 U.S. Census.

data, I coded candidates' experience in a variety of political and occupational categories.[7] Indicators of political experience include incumbency and prior experience as mayor, city council member, county legislator, state legislator, and member of Congress. Occupational categories include business owners and executives, non-executive business occupations, other white collar occupations (such as healthcare professionals and educators), public sector employment, and blue collar occupations.[8] I also coded whether candidates are involved in specific sectors, such as real estate and development and banking and investments.

The resulting dataset includes the race, gender, political experience, and occupational backgrounds of 3,257 mayoral candidates. However, some candidates' background information is

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[7]This paper relies on data collected through December 30, 2016, and data collection is ongoing.

[8]With respect to the distinction between executive and non-executive business occupations, as coded, business owner/executives are individuals described as owners, co-owners, or executive officers (president, vice-president, etc.) of a business or firm engaged in the provision of goods and/or services for profit.

missing or incomplete, so much of the discussion here focuses on a subset of the sample, which includes the top two candidates in 1,217 elections for which I have the most complete data. This subset includes elections and candidates from 248 US cities in 44 states over the time period of 1950 to 2007. Table 4.2 summarizes political experience and demographic attributes of candidates and mayors. Overall, the data suggest that mayors are not very diverse in terms of race, ethnicity and gender. Nearly 11% of mayors are women, and 5.5% of mayors are African-American. Hispanic mayors make up 2.6% of the sample, and only 0.7% of mayors are Asian-American. Turning to political experience, we see that about half of the mayors in the sample served on the city council prior to their election and about 45% were reelected as incumbents. Few mayors have experience at higher levels of government, and exceptions tend to occur in large cities or where a politician can serve in multiple offices at once. For example, mayors from both New York (John Lindsay, Ed Koch) and Los Angeles (Norris Poulson, Sam Yorty) served in Congress prior to their election.

Along with political experience and demographic attributes, occupational experience of candidates provides more detailed information about the mayors that preside over American cities. Although mayoral candidates are drawn from somewhat diverse occupational fields, notably, the most common occupations are white-collar professions. Table 4.3 shows the distribution of common occupations among mayoral candidates. First, we can note that the distribution of occupations is quite similar for both mayors and runners-up. Business owners and executives account for about 32% of mayors. About 20% are attorneys, and about 13% of these have experience as a prosecutor or city attorney. About 8% of mayors are public sector workers, including city, county, state, and federal employees. Other common occupations include manager or supervisor, educator, healthcare and other professionals, administrator, and homemaker. The majority of educators are school teachers, and the other professional category is dominated by engineers and accountants, along with several architects and urban planners. Most of the administrators work in either education or the nonprofit sector. Among the occupational outliers are a florist and a baseball scout.[9] Although

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[9]James L. Maxwell worked as a florist before serving as mayor of Tulsa, OK from 1958 to 1966. Charles L. Babcock, mayor of Canton, OH from 1958 to 1961 worked as a baseball scout for the Cleveland Indians prior to his election.

Table 4.2: Experience & Attributes

	Mayors		Runners-up	
	Count	Share	Count	Share
Race & Ethnicity				
White	1110	91.2%	1117	91.2%
Black	67	5.5%	63	5.2%
Hispanic	32	2.6%	30	2.5%
Asian	8	0.7%	7	0.6%
Gender				
Male	1088	89.4%	1086	89.2%
Female	129	10.6%	131	10.8%
Political Experience				
No Experience	250	20.6%	433	35.7%
City Council	638	52.4%	560	46.0%
Mayor	606	50.1%	322	26.8%
Incumbent	546	45.2%	239	19.9%
State Legislator	111	9.1%	83	6.8%
County Legislator	34	2.8%	37	3.0%
US Legislator	15	1.2%	9	0.7%
$n = 2434$				

Note: The table provides details on the political experience and attributes of mayors and mayoral candidates. Some mayors have multiple types of prior political experience, so the sum of the share of candidates with all types of experience exceeds 100%.

we might tend to think of business owners as Republicans, there are a fair share of Democrats. Among candidates where a party affiliation is observed, more than 41% are Democrats while about 50% are Republicans.

Candidates and mayors with business executive experience are individuals described as owners or corporate officers (CEO, COO, president, vice-president, treasurer, etc.) of a business or firm engaged in the sale or provision of goods or services for profit. Among the business executive mayors, several, including Michael Bloomberg, ran large businesses. For example, the so-called "Onion King," Othal Brand, who was mayor of McAllen, Texas for 20 years, was also co-founder and chairman of Griffin & Brand, Incorporated, a produce processing company and one of the world's largest onion producers (Bell and Pipitone 2009). John M. Belk, four-term mayor of

Table 4.3: Occupational Backgrounds

	Mayors		Runners-up	
Occupation	Count	Share	Count	Share
Business owner/executive	386	31.7%	397	32.6%
Attorney	240	19.7%	203	16.7%
Public Employee	96	7.9%	114	9.4%
Sales	75	6.2%	70	5.8%
Manager/supervisor	69	5.7%	61	5.0%
Educator	66	5.4%	55	4.5%
Administrator	39	3.2%	40	3.3%
Other professional	33	2.7%	38	3.1%
Homemaker	20	1.6%	24	2.0%
Healthcare professional	18	1.5%	15	1.2%
Other occupations	175	14.4%	200	16.4%
$n = 2434$				

Note: The table provides details on the occupational experience of mayors and mayoral candidates. The occupations included above are the most common among candidates and mayors in the sample.

Charlotte, North Carolina, was the president and CEO of the Belk family's chain of department stores (Belk n.d.). However, many candidates with executive business experience own or run much smaller local businesses. Common examples include restaurants and food service businesses, real estate and development firms, insurance agencies, and a number of funeral homes. Among the more unusual businesses are a seed company, a firm that specializes in designing ice rinks, and a cheese factory.

   To test whether electing a business executive mayor produces systematically different fiscal outcomes, I augment city election results and candidates' background data with public finance data drawn from the U.S. Census Bureau. Together, the Census of Governments and the Annual Survey of Governments provide detailed revenue and expenditure data for U.S. local governments from 1951 to 2012.[10] All dependent variables are measured in per-capita constant (2000) dollars adjusted for differences in the cost of living across states per Berry, Fording and Hanson (2000).[11]

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[10]The Census of Governments is conducted every five years, while the Annual Survey of Governments includes only a sample of local governments.

[11]Results are substantively similar with or without use of cross-state cost of living index.

From these sources, I first focus on total revenues and total expenditures, measures that capture the size of government. Business executives tend to run on promises to increase efficiency, and they are likely to prefer lower taxes. If business executive mayors fulfill their promises and pursue their own policy preferences, we should expect to see systematic differences in key indicators of the overall size of government. Yet, business executives are also likely to prefer quality services and desirable amenities that can create a hospitable environment for commerce, so rather than cutting spending, they may try to find alternative sources of revenue. Because of the expectation that business executives prefer lower taxes and minimal redistribution, I also examine revenue sources, such as total taxes and total user charges and miscellaneous revenue.

In addition to variables that capture the size of local government and distinguish between revenue sources, I also consider whether and how electing a business executive affects spending in various categories. If the goal of business owners and executives is to create a city that is hospitable to commerce and promotes economic vitality, they may be likely to prioritize spending on services and amenities that could attract businesses and residents. These could include essential services, such as public safety, or local infrastructure and amenities. At the same time, business owners and executives should be likely to avoid spending in redistributive policy areas. Fuchs (1992) emphasizes that budgeting is a highly political process, in which mayors play a central role. As a result, the allocation of resources across spending categories effectively reflects local leaders' policy priorities. Per-capita spending levels across policy areas reflect the compromises and tradeoffs of municipal budgeting.[12]

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[12]In contrast to many prior studies (see e.g., Ferreira and Gyourko 2009, 2014; Gerber and Hopkins 2011; Hajnal 2010; Hopkins and McCabe 2012; Peterson 1981), I use absolute per-capita spending to measure fiscal policy priorities rather than spending shares . Much like spending shares, absolute spending levels capture the outcome of budget negotiation and allow for straightforward interpretation of results. The results do not depend on this operationalization, and Section A.3 of the Appendix do include an analysis of spending shares.

4.4 Results

4.4.1 Size of Government

In this section, I present the results of a regression discontinuity analysis of the effect of electing a mayor with executive business experience on the size of local government. I examine how business executive mayors affect total expenditures and total revenue, as well as total taxes and total charges and miscellaneous revenue. As described above, the RDD leverages variation in election outcomes that plausibly can be attributed to chance. As long as candidates are unable to precisely manipulate their vote shares, the outcomes of close elections are as-if random—akin to random assignment of treatment in an experimental design. Here, the treatment of interest is a business executive mayor, and intuitively, we would expect cities that barely do or do not elect a business executive are quite similar in observed and unobserved factors related to the propensity to elect a business executive. As a result, the RDD mitigates the threat of potential confounders that could bias the results. However, it is important to note that RDDs produce estimates of local average treatment effects, that is the effect of narrowly electing a business executive mayor.

Figure 4.1 includes graphs that plot key dependent variables against the rating variable, which is the business executive candidate's vote-share margin. Tables 4.4, 4.5, and 4.6 present estimates of the effect of electing a business executive mayor on several dependent variables related to the size of government, including total expenditures, total revenues, total taxes, and total charges and miscellaneous revenue. Partly for ease of interpretation, I operationalize fiscal outcomes in per-capita constant dollars, but using logged or differenced dependent variables yields consistent results (see the Appendix for details of these analyses). The results in Tables 4.4, 4.5, and 4.6 include estimates from local linear regression models using a bandwidth of 0.05 (models 2 and 4) as well as the optimal bandwidth (models 1 and 3).

Although the as-if random treatment assignment in close elections implies that covariates are not necessary to produce unbiased estimates, the use of pre-treatment covariates can improve precision (Lee and Lemieux 2010; Calonico et al. 2016). In Tables 4.4, 4.5, and 4.6, models 1 and 2 include only an indicator for a business executive mayor, the business executive's margin, and the

interaction of the two. Models 3 and 4 add several pre-treatment covariates as well as the value of the dependent variable the year before the election. The covariate-adjusted models account for city-level characteristics, such as population, racial composition, median household income, and median house value, that may be correlated with fiscal outcomes. In particular, population tends to be systematically related to cities' functional obligations and thus the size of government while a city's lagged spending and revenues are strong predictors of outcomes in subsequent years. These pre-treatment covariates tend to improve the precision of point estimates considerably, but the substantive results of the covariate-adjusted models do not hinge on the inclusion of additional city-level variables. In comparison, the unadjusted models generally produce larger but noisier estimates.[13]

Figure 4.1 (a) addresses total expenditures, with the business executive margin on the x-axis and total expenditures (per-capita) on the y-axis. The points represent binned averages of per-capita total expenditures (bin width is 0.02). The vertical line marks the threshold in the rating variable, and loess lines plot the relationship between total expenditures and business executive vote-share margin. Note that the rating variable is centered at 0, so the points on the left side of the threshold—negative values of the rating variable—indicate expenditures in cities where the business executive lost while points on the right reflect expenditures in cities that elected a business executive. The graph shows a jump of about $700.00 in total expenditures at the threshold. The results presented in Table 4.4 provide some support for an increase in total expenditures, with point estimates ranging from $103 in a covariate-adjusted local linear regression model with a 5% bandwidth to $857 in an unadjusted model. However, none of the estimates approach statistical significance.

Figure 4.1 (b) plots total revenue with business executive margin on the x-axis and per-capita total revenue on the y-axis. In this graph, we observe a similar but smaller increase in total revenue at the cutpoint, which is consistent with the results presented in Table 4.4. The effect of electing

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[13]Another option for improving the precisions of the RD estimates is to operationalize the dependent variables as the difference between the values at $t + 2$ and $t - 1$. The Appendix contains these results, as well as specifications with logged dependent variables.

Figure 4.1: Size of Government
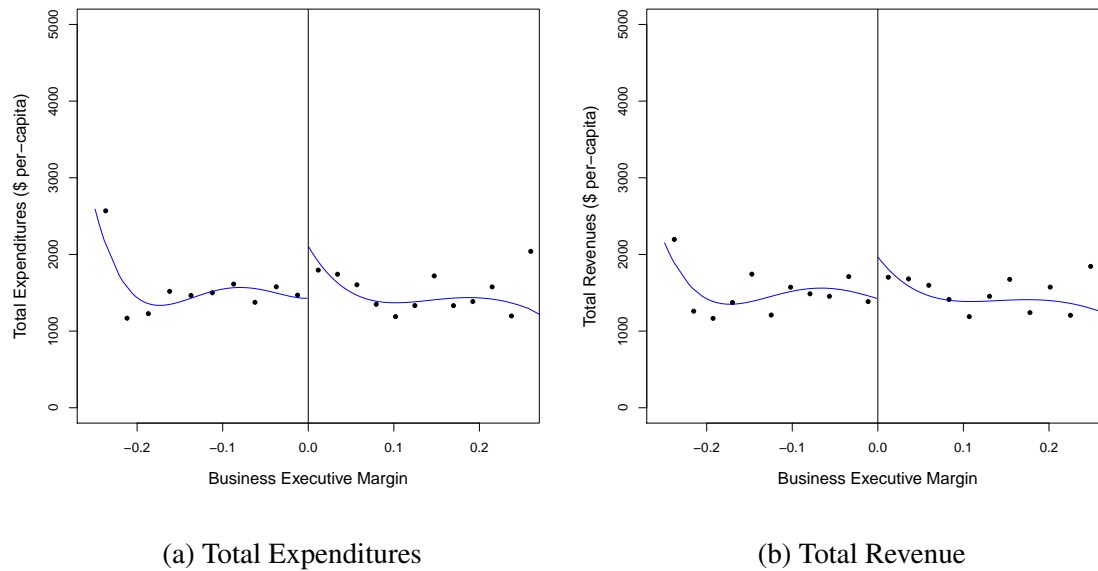
(a) Total Expenditures   (b) Total Revenue

Note: Each graph plots the relationship between the dependent variable and the rating variable. The x-axis is business executive
vote-share margin, and the y-axis is the value of the dependent variable in dollars per capita. Points are binned averages.

a business executive mayor ranges from a $109 to $650 per-capita increase in spending, but these estimates also fail to reach conventional levels of statistical significance. Table 4.4 shows a similar pattern for total debt—positive but not statistically significant point estimates ranging from $245 to $404.

Although electing a business executive mayor appears to have little effect on the overall size of government, further analyses yield some suggestive evidence of other changes in fiscal outcomes. Table 4.5 presents RD results similar to those described above but focuses on sources of municipal revenue. These results indicate that business executive mayors have little if any effect on taxes but may still preside over an increase in revenue raised from local sources. Covariate-adjusted models yield positive point estimates of $152 to $158 per capita, and these results are marginally statistically significant. A closer look at Table 4.5 provides a hint as to one possible source of this revenue increase. The results include an increase in charges and miscellaneous revenue with point

Table 4.4: Effect of Electing a Business Executive on Size of Government

Dependent Variable	Mean & Std. Dev.	(1)	(2)	(3)	(4)
Total Expenditures	1,506.89	532.35	856.72	135.42	102.56
	(1,053.30)	(373.63)	(548.11)	(107.14)	(158.14)
Bandwidth		0.099	0.050	0.093	0.050
Observations		266	151	236	143
Total Revenues	1,495.28	400.29	649.83	124.05	108.54
	(995.39)	(334.30)	(454.73)	(101.62)	(108.81)
Bandwidth		0.092	0.050	0.066	0.050
Observations		251	151	184	143
Total Debt	1,765.33	245.03	404.17	279.79	374.27
	(1,478.05)	(542.59)	(731.95)	(547.65)	(754.69)
Bandwidth		0.082	0.050	0.084	0.050
Observations		227	151	214	143
Covariates		No	No	Yes	Yes

Note: The table presents results of local linear regression models with robust standard errors. Models 1 and 2 include the treatment variable, forcing variable, and the interaction of the two. Models 2 and 4 add pre-treatment covariates. Models 2 and 4 use a bandwidth of 0.05 while models 1 and 3 use the optimal bandwidth calculated per Calonico, Cattaneo and Titiunik (2014) (noted for each dependent variable). All dependent variables are measured in constant per-capita dollars. *p<0.1; **p<0.05

estimates ranging from \$56 to \$178 depending on the specification. Results from the covariate-adjusted models approach—but fall just short of— conventional levels of statistical significance (in models 3 and 4, $p = 0.131$ and $p = 0.106$, respectively). Indeed, in some specifications, the increase in charges and miscellaneous revenue is statistically significant at the 10% level.

Overall, the results presented above provide no evidence to suggest that electing a business executive leads to lower total revenues or expenditures, but these results are consistent with the notion that business executives would prefer to limit taxes while maintaining municipal services and amenities. Indeed, we find some indications that business executives may *increase* expendi-

Table 4.5: Effect of Electing a Business Executive on Municipal Revenue

Dependent Variable	Mean & Std. Dev.	(1)	(2)	(3)	(4)
Own-source Revenues	1,169.35 (748.06)	196.35 (222.21)	361.58 (277.90)	151.64* (80.83)	158.45* (83.75)
Bandwidth Observations		0.081 222	0.050 151	0.056 154	0.050 143
Total Taxes	556.18 (383.23)	110.75 (102.81)	195.85 (126.29)	−11.97 (35.72)	−12.29 (47.97)
Bandwidth Observations		0.093 252	0.050 151	0.083 213	0.050 143
Property Taxes	371.26 (357.42)	197.44** (88.13)	278.41*** (106.54)	14.37 (31.31)	22.38 (38.13)
Bandwidth Observations		0.080 219	0.050 151	0.074 198	0.050 143
Sales Taxes	126.95 (132.27)	−40.74 (32.31)	−45.35 (35.86)	1.94 (9.23)	1.27 (9.27)
Bandwidth Observations		0.073 210	0.050 151	0.053 148	0.050 143
Charges & Misc. Revenue	315.62 (261.18)	108.54 (100.78)	177.72 (127.24)	56.04 (36.93)	62.60 (38.52)
Bandwidth Observations		0.071 207	0.050 151	0.057 155	0.050 143
Covariates		No	No	Yes	Yes

Note: The table presents results of local linear regression models with robust standard errors. Models 1 and 2 include the treatment variable, forcing variable, and the interaction of the two. Models 2 and 4 add pre-treatment covariates. Models 2 and 4 use a bandwidth of 0.05 while models 1 and 3 use the optimal bandwidth calculated per Calonico, Cattaneo and Titiunik (2014) (noted for each dependent variable). All dependent variables are measured in constant per-capita dollars. *p<0.1; **p<0.05

Table 4.6: Effect of Electing a Business Executive on Municipal Debt

Dependent Variable	Mean & Std. Dev.	(1)	(2)	(3)	(4)
Debt Issued	251.45	208.69	212.66	142.34	94.64
	(370.93)	(149.25)	(201.01)	(108.33)	(123.65)
Bandwidth		0.083	0.050	0.074	0.050
Observations		229	151	198	143
Short-term Debt	60.68	35.28	86.05*	47.97	58.96*
	(194.71)	(46.06)	(45.92)	(31.51)	(33.67)
Bandwidth		0.080	0.050	0.062	0.050
Observations		220	151	167	143
Covariates		No	No	Yes	Yes

Note: The table presents results of local linear regression models with robust standard errors. Models 1 and 2 include the treatment variable, forcing variable, and the interaction of the two. Models 2 and 4 add pre-treatment covariates. Models 2 and 4 use a bandwidth of 0.05 while models 1 and 3 use the optimal bandwidth calculated per Calonico, Cattaneo and Titiunik (2014) (noted for each dependent variable). All dependent variables are measured in constant per-capita dollars. *$p<0.1$; **$p<0.05$

tures and revenues. Total own-source revenue is higher by about \$158 per-capita. Any boost in cities' own-source revenue, however, appears likely to come from charges and miscellaneous income rather than taxes. Notably, these results also provide some suggestive evidence that business executive mayors increase debt—-in particular, short term debt. Used to cover operating expenses in anticipation of future revenue, higher levels of short-term debt could reflect a distinctive approach to financial management, but greater outstanding short-term debt also could be an indicator of fiscal strain (see e.g., Fuchs 1992). Although the results presented in Tables 4.4, 4.5, and 4.6 fall short of providing conclusive evidence, they do yield the first hint that business executive mayors might influence fiscal outcomes.

4.4.2 Spending

The analysis above indicates that business executive mayors do not have a major impact on the size of government. However, given business leaders' preferences for policies that create a hospitable environment for commerce, increase property values, and limit redistribution, mayors with experience as business owners or executives could influence how local resources are allocated. In this section, I consider whether and how electing a business executive mayor affects spending in a variety of categories. The analysis incorporates a number of dependent variables that measure expenditures allocated to key local spending categories (Financial Administration and General Control, Fire Protection, Health, Highways, Housing and Community Development, Libraries, Parks and Recreation, Police Protection, and Sanitation, and Welfare). The RDD results suggest that business executive mayors do influence cities' spending priorities.

Figure 4.3 depicts RDD estimates of the effect of narrowly electing a business executive mayor on per-capita city expenditures in multiple spending categories. Note that spending categories are grouped into three classes—allocational, developmental, and redistributive—reflecting the policy typology formulated by Peterson (1981). The horizontal axis denotes the size of the effect in dollars per capita, and the vertical axis lists each dependent variable. The dots indicate point estimates, and the solid bars span 90% confidence intervals while the dashed lines extend to show the 95% confidence intervals. All of the results reported in Figure 4.3 reflect estimates from covariate-adjusted local linear regressions with a bandwith of 0.05. The specifications are comparable to those presented in Table Tables 4.4, 4.5, and 4.6 above and include several covariates (population, racial composition, median household income, and median house value, and the lagged dependent variable). The Appendix provides additional details of these results as well as alternative specifications.

The results presented in Figure 4.3 are largely consistent with policy choices we would expect from business owners and executives. Indeed, we observe a significant decrease in spending on housing and community development, which can include spending on public housing, as well as economic development projects, community centers, homeowner assistance, and other initiatives to assist low-income residents. Along with health expenditures, and housing and community de-

Figure 4.2: Spending by Category
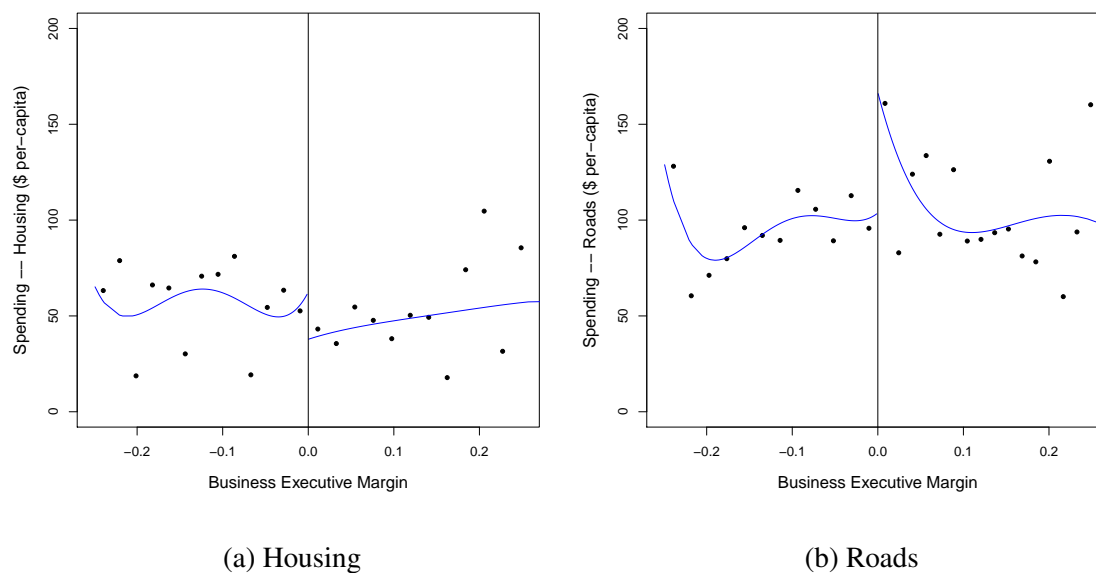
<table>
<tr><td>(a) Housing</td><td>(b) Roads</td></tr>
</table>

Note: Each graph plots the relationship between the dependent variable and the rating variable. The x-axis is business executive vote-share margin, and the y-axis is the value of the dependent variable in dollars per capita. Points are binned averages.

velopment spending is typically redistributive in nature (Peterson 1981; Hajnal 2010). Electing a business executive mayor leads to a decrease of \$27 per capita in total spending allocated to housing and community development (standard error = 11.551, p-value = 0.021), and this result is robust across a range of alternative specifications. Electing a business executive mayor appears to have no meaningful effect on health or welfare spending, yet expenditures in these categories also are quite small relative to spending in other policy areas (in the sample, the mean total expenditures allocated to health is \$21 per capita and mean spending on welfare is \$22 per capita, compared to \$52 per-capita for housing).

While business executive mayors are associated with lower levels of spending on housing and community development, the results suggest that business executive mayors may prioritize spending on developmental initiatives such as roads and parks. Spending on highways and roads can improve transportation and accessibility, attracting residents and businesses and generating eco-

Figure 4.3: Business Executive Mayors & Spending by Policy Area
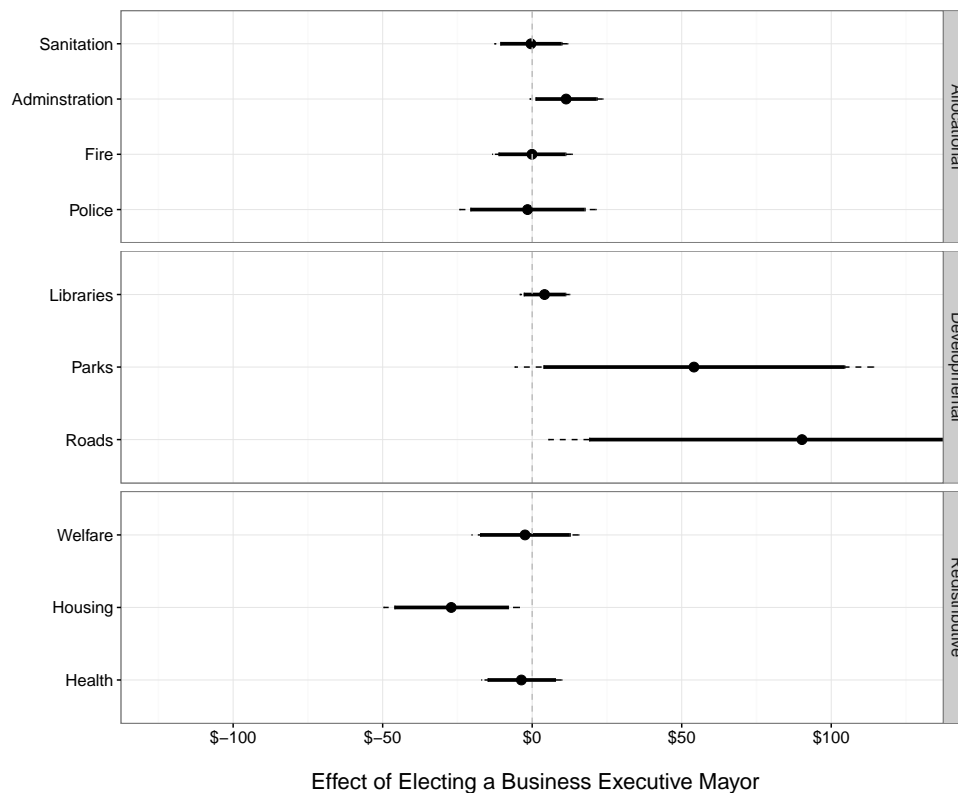
Note: Figure 4.3 presents results of covariate-adjusted local linear regressions using bandwidth of 0.05 to estimate the effect of electing a business executive mayor on per-capita spending. The horizontal axis denotes the effect size in dollars per capita, and the vertical axis lists the dependent variables. The dots represent point estimates, and the bars illustrate robust confidence intervals. Additional details are included in the Appendix.

nomic benefits while parks and recreation can provide amenities that make a community more attractive, perhaps even contributing to a stronger tax base (Peterson 1981).[14] The effect of a business executive mayor is an increase of \$90 in per-capita expenditures allocated to roads (standard error = 43.257, p-value = 0.039). Electing a business executive may also lead to an increase in per-capita spending on parks and recreation. The estimate of about \$54 per capita is statistically

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[14]Peterson (1981) classifies spending on highways and roads as clearly developmental, while he suggests that parks may be allocational but could also be considered developmental to the extent that they make a locality more attractive to high-income taxpayers. Following the same rationale, I also classify spending on libraries as developmental.

significant at the 10% level (standard error = 30.583, p-value = 0.079). The results for parks, however, are somewhat sensitive to the choice of specification (see the Appendix for details). Yet, similar results provide quite consistent evidence that electing a business executive leads to increased spending directed to roads.

The remaining spending categories represent essential or so-called "housekeeping" services, including public safety, sanitation, and administration. For the most part, the results imply that electing a business executive mayor has little impact on the allocation of resources to such services. The estimates of the effect on spending for public safety and solid waste management are quite small in magnitude and are not statistically significant. The results do, however, suggest that business executive mayors may be associated with a small increase in expenditures allocated to spending on financial administration and general control. Electing a business executive mayor leads to an $11 increase in per-capita administration expenditures, an estimate that is marginally statistically significant

Overall, the results presented here suggest that narrowly electing a business executive mayor leads to systematic changes in local fiscal policy. Despite campaign promises of increased efficiency, I find no indication that business executive mayors reduce total expenditures or total revenues. However, the RDD results provide strong and consistent evidence that business executive mayors are associated with lower levels of spending allocated to housing and community development. Moreover, the results of the spending analysis suggest that decreases in this redistributive category are accompanied by increased expenditures on developmental policy areas, such as roads and parks. These results are consistent with the notion that business executives prefer lower taxes and limited redistribution along with high-quality services and amenities that can make a city attractive to businesses and residents. The findings also comport with the hypothesis that business executives will pursue policy preferences for restricting tax increases without compromising core municipal services and amenities.

4.4.3 The Role of Party

One potential concern about these results is the possibility that the effects of electing a business executive reflect mayors' political party affiliations rather than their experience in business. Though it is true that more business owners and executives in the sample are Republicans, many Democrats also own or operate businesses. The key difficulties in addressing this concern are that party affiliation is unobserved for many mayors in the sample and that in some cases the candidates are copartisans.

To investigate whether the RDD results do, in fact, reflect party, I focus on the subset of data in which party is observed (and different) for the winning candidate and the runner-up. This approach is admittedly imperfect, but it does suggest that the effect of electing a business executive mayor is distinct from the effect of electing a Republican.[15] Table 4.7 shows the RD estimates of electing a business executive mayor on per-capita spending for both housing and roads in the subset of cities where candidates' party affiliations are known. These results are consistent with the analysis above. The magnitude of the effect is larger for spending on roads, but I again find that business executive mayors preside over lower per-capita spending on housing and higher levels of spending on roads.

In addition to replicating my main findings, I also run a separate RD analysis to examine the effects of electing a Republican mayor. The results, presented in Table 4.8, suggest that the effect of electing a Republican is not the same—-or even similar to—-the effect electing a business executive. Indeed, the sign of the coefficient on roads is reversed, and the estimate of the effect on housing is neither substantively nor statistically significant. These results should be interpreted with caution especially in light of the small number of observations. Taken together, however, these analyses substantially mitigate concerns that the effects attributed to business executives simply reflect the influence of political party.

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[15]The Appendix includes additional results.

Table 4.7: Effect of Electing a Business Executive

Elections With Candidates of Different Parties

Dependent Variable	Mean & Std. Dev.	(1)	(2)	(3)	(4)
Roads	100.82	157.13**	147.37**	137.69**	147.16**
	(81.36)	(68.73)	(64.57)	(58.71)	(63.60)
Bandwidth		0.046	0.050	0.057	0.050
Observations		68	72	72	69
Housing	63.56	−40.42	−42.60	−39.14**	−39.81**
	(80.10)	(27.90)	(27.73)	(17.82)	(18.49)
Bandwidth		0.053	0.050	0.055	0.050
Observations		72	70	71	68
Covariates		No	No	Yes	Yes

Note: The table presents results of local linear regression models with robust standard errors incorporating only the subset of data where opposing candidates differ in party affiliation. Models 1 and 2 include the treatment variable, forcing variable (business executive's vote margin), and the interaction of the two. Models 2 and 4 add pre-treatment covariates. Models 2 and 4 use a bandwidth of 0.05 while models 1 and 3 use the optimal bandwidth calculated per Calonico, Cattaneo and Titiunik (2014) (noted for each dependent variable). All dependent variables are measured in constant per-capita dollars. $^{*}p<0.1$; $^{**}p<0.05$

4.5 Conclusion

In June, 2004, the city council of Wilmington, North Carolina, approved a $122 million budget that included a property tax rate cut. At the time, city council member Katherine Moore "commended the mayor [Spence Broadhurst] for putting together a budget that offers the citizens a tax break without remarkable cuts in services or capital projects" (Gannon 2004). To offset the lost revenue, the spending plan increased a range of fees and charges, including water and sewer fees, municipal golf course fees, parking rates, and junk vehicle fees. Increasing municipal fees and charges is hardly unusual. Indeed, the National League of Cities, in 2013, reported that "for much of the past two decades, regardless of the state of national, regional, or local economies, the most common action taken to boost city revenues has been to increase the amount of fees charged for services"

Table 4.8: Effect of Electing a Republican

Elections With Candidates of Different Parties

Dependent Variable	Mean & Std. Dev.	(1)	(2)	(3)	(4)
Roads	100.82	−76.94	−82.48	−86.30	−102.32*
	(81.36)	(65.92)	(69.22)	(53.34)	(61.13)
Bandwidth		0.054	0.050	0.063	0.050
Observations		74	72	78	69
Housing	63.56	42.92	44.44	−3.29	−2.56
	(80.10)	(28.90)	(29.57)	(16.12)	(16.44)
Bandwidth		0.071	0.050	0.053	0.050
Observations		87	70	69	68
Covariates		No	No	Yes	Yes

Note: The table presents results of local linear regression models with robust standard errors incorporating only the subset of data where opposing candidates differ in party affiliation. Models 1 and 2 include the treatment variable, forcing variable (Republican's vote margin), and the interaction of the two. Models 2 and 4 add pre-treatment covariates. Models 2 and 4 use a bandwidth of 0.05 while models 1 and 3 use the optimal bandwidth calculated per Calonico, Cattaneo and Titiunik (2014) (noted for each dependent variable). All dependent variables are measured in constant per-capita dollars. *p$<$0.1; **p$<$0.05

(Pagano and Hoene 2008). A tradeoff between fees and taxes may be less common, although Matsusaka (2004) finds that direct democracy, at both the state and city levels, is associated with a similar shift in revenue sources—from taxes to user fees and charges. The analysis presented here provides some suggestive evidence that mayors with executive business experience also may be more likely to shape policies that resemble those of Wilmington, decreasing or maintaining local taxes and increasing municipal fees and charges to bolster revenues from local sources.

With original data on mayoral candidates backgrounds, this paper sheds new light on the mayors who serve in America's city halls. These data reveal that mayors are not a very diverse group. They tend to be white and male with white-collar occupations. Business executives are especially well represented, accounting for about 30% of mayors in a sample of 248 U.S. cities. Leveraging the "as-if random" treatment assignment that arises from close elections, this study estimates

the causal effect of narrowly electing a mayor with executive business experience on a number of local fiscal outcomes. I find that business executive mayors do not cut total revenues or total expenditures. Business executive mayors do, however, preside over systematic changes in spending priorities. Electing a business executive mayor leads to a lower levels of spending allocated to housing and community development and greater city spending on roads.

As we might expect given the formal and informal constraints they face, business executive mayors do not dramatically influence the overall size of local government. Yet, like political leaders in other contexts, mayors with executive business experience do shape municipal fiscal policy in important and measurable ways by shifting spending priorities. These policy changes have implications for the distribution of both costs and benefits of local government. To the extent that cities increase their reliance on fees and charges and decrease spending on housing programs, they limit the potential for redistribution. Although allocating additional funds to roads and parks may benefit citizens broadly, cuts to housing and community development likely affect poorer residents disproportionately. These findings also raise questions for future research.

Electing a business owner or executive to the office of mayor leads to changes in fiscal policy consistent with the types of policy choices that Peterson (1981) suggests are necessary to attract businesses and high-income taxpayers. Such policies should promote economic vitality and strengthen the local tax base. Future research might examine the downstream effects of business executive mayors. Is there evidence of greater economic growth or a stronger tax base? What are the implications of these policy changes for low-income residents? Some survey evidence indicates that at the local level, the public prefers service-based charges to taxes (Matsusaka 2004). At the same time, reliance on revenue from fees and charges as opposed to taxes also may have implications for fiscal management and health because restrictions on the use of fee-based revenue may limit local leaders discretion and flexibility in managing a city's fiscal affairs and exacerbate fiscal challenges (Erie, Kogan and MacKenzie 2011). Is there a link between who serves as mayor and cities' fiscal health? Finally, this study challenges the notion that local leaders and local politics are largely inconsequential and should encourage researchers to further consider how the leaders voters select matter to policy choices and outcomes—even at the local level.

Part III

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Part IV

Appendices

Appendix A

Candidate Choice without Party Labels

A.1 Sample Demographics

Table A.1: Demographic Characteristics of Experimental Samples

Respondent Race

	White	Black	Hispanic	Other
mTurk	0.787	0.066	0.045	0.102
YouGov	0.670	0.116	0.142	0.071

Respondent Gender

	Female	Male
mTurk	0.455	0.545
YouGov	0.518	0.482

Respondent Ideology

	Liberal	Conservative	Moderate	Other
mTurk	0.444	0.232	0.273	0.051
YouGov	0.204	0.354	0.351	0.091

Respondent Party Identification

	Democrat	Independent	Republican
mTurk	0.581	0.164	0.254
YouGov	0.385	0.270	0.346

Respondent Education

	Less than high school	High School / GED	Some College	Four-Year College	Graduate School
mTurk	0.005	0.092	0.359	0.403	0.141
YouGov	0.121	0.306	0.318	0.164	0.091

Respondent Age

	18 to 29	30 to 39	40 to 49	50 to 59	60 or over
mTurk	0.459	0.274	0.122	0.093	0.051
YouGov	0.209	0.163	0.150	0.149	0.328

Cell entries are sample proportions.
YouGov entries calculated using sample weights.
MTurk N: 1,204; YouGov N: 1,200.

A.2   Generalizability

In this section, we explore the extent to which the experimental results obtained on MTurk generalize to the U.S. adult population. Whether or not a causal effect estimate from one study generalizes to another (real or hypothetical) study depends on the similarities in the subjects, treatments, contexts, and outcome measures of each study (Cronbach, Shapiro and Others 1982; Coppock and Green 2015). In our case, the treatments (candidate attributes), contexts (online survey), and outcome measures (candidate preference) were held constant by design. The experimental feature that might undermine our ability to generalize from the MTurk study to other populations is the plain fact that the MTurk sample differs in many ways from the national population.

The crucial question, then, concerns treatment effect heterogeneity. Do subjects on MTurk weigh the experimentally-manipulated candidate attributes differently from others? Conducting the same study on each platform allows us to answer this question directly. We will compare the coefficients in Equations 1 and 2 across samples. Effectively, the data for this comparison are the coefficients presented in the first two columns of Figures A.2 and A.3. A first cut at assessing generalizablity is the Pearson correlation between the coefficients estimated from each sample, which is estimated to be 0.95. This correlation is extraordinarily high, despite being attenuated by measurement error. The Spearman (rank-order) correlation is also quite high, at 0.80.

The coefficient estimates themselves are plotted in Figure A.1, with the MTurk estimates on the horizontal axis and the YouGov estimates on the vertical axis. Coefficients from the nonpartisan elections are plotted with open points, while the partisan coefficients are filled. The plot shows two bivariate regression lines, one for the partisan elections and a second for the nonpartisan elections. The slopes for partisan and nonpartisan elections barely differ, indicating that both sets of results appear to generalize. Finally, the figure emphasizes our main finding. The effects of political experience (shown in the shaded gray box) are stronger in nonpartisan elections than in partisan elections. This finding obtains in both samples.

Figure A.1: Comparison of MTurk and YouGov Estimates
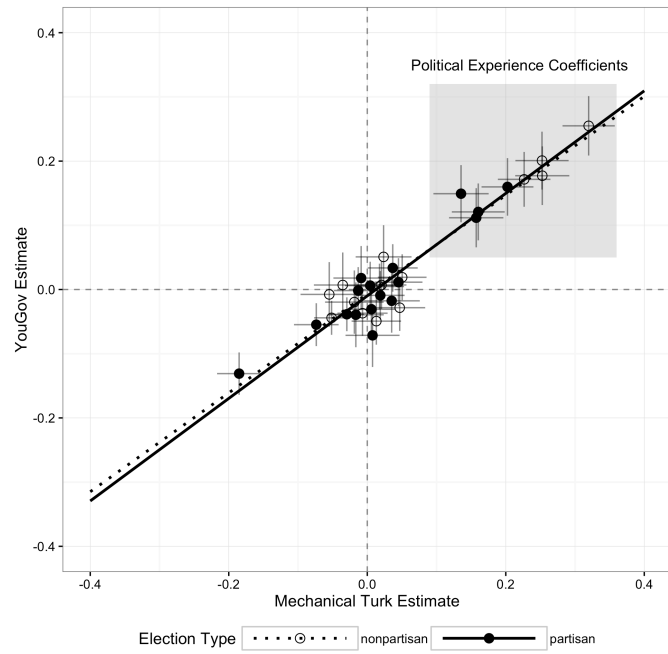
A.3 Mechanisms

In the main text, we suggested that a principle mechanism by which nonpartisan elections change who voters prefer is the additional weight that voters may give to candidate competence when the party label is absent. In this appendix, we further explore this possibility as well as the alternative mechanisms of perceived ideology and satisficing.

A.3.1 Perceived Candidate Competence

In Figures 6 and 7 of the main text, we reported estimates of the heterogeneous effects of treatment by part on the "competence" dependent variable. This question asked respondents: "On a scale from 0 to 100, how competent do you think these candidates would be as mayor?" In this section, we report the average (not broken down by party) effects of treatment. These figures are analogous to figures 1 and 2 from the main text. The results are very similar, but we present them here for completeness. On MTurk and YouGov, subjects rate politically experienced candidates as more competent. In both studies, this effect is stronger in nonpartisan elections, though these differences are only statistically significant on MTurk. This analysis provides additional credence to the notion that voters prefer more experienced candidates in nonpartisan elections because they view them as more competent. Again, we do not view this analysis as ruling out other possible mechanisms, one of which we will explore in the next section.

Figure A.2: Mechanical Turk Main Analysis

Dependent Variable: Competence
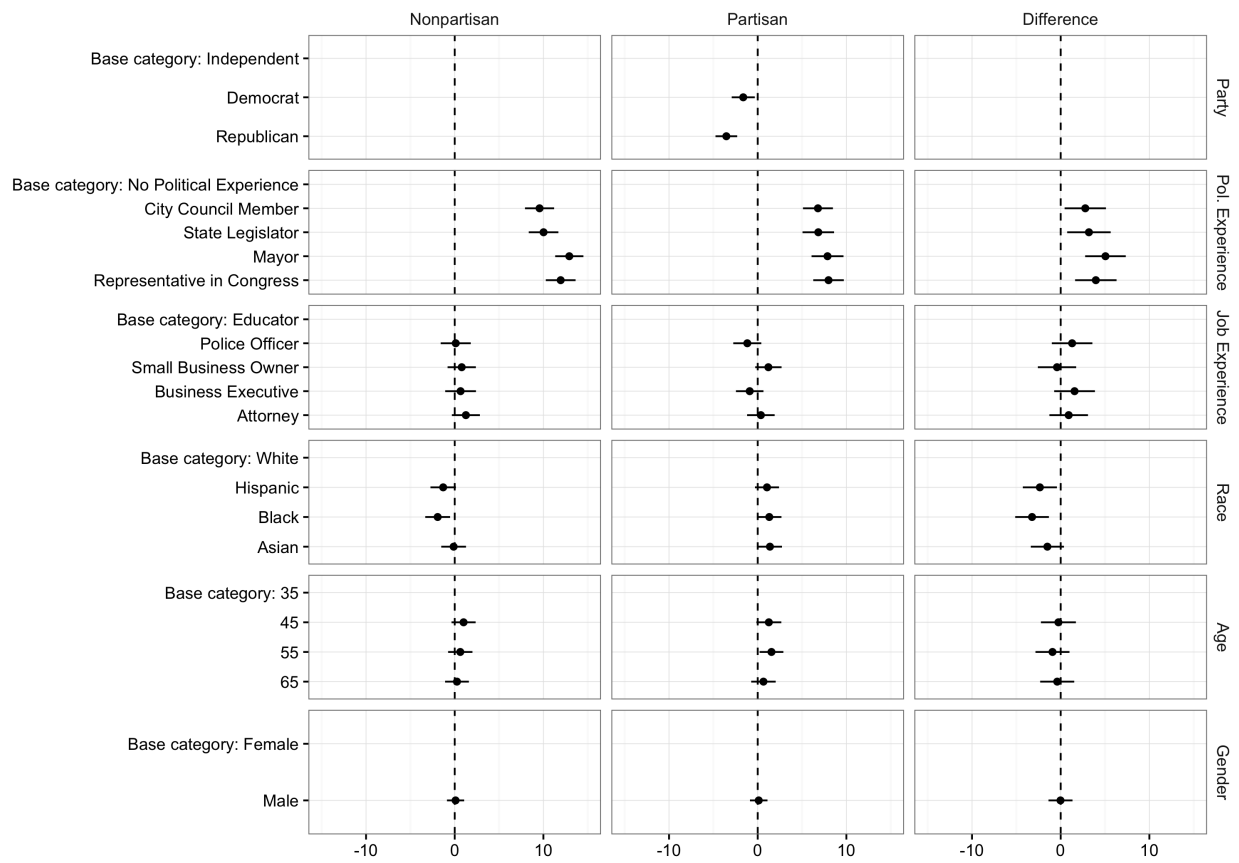
Figure A.3: YouGov Main Analysis

Dependent Variable: Competence
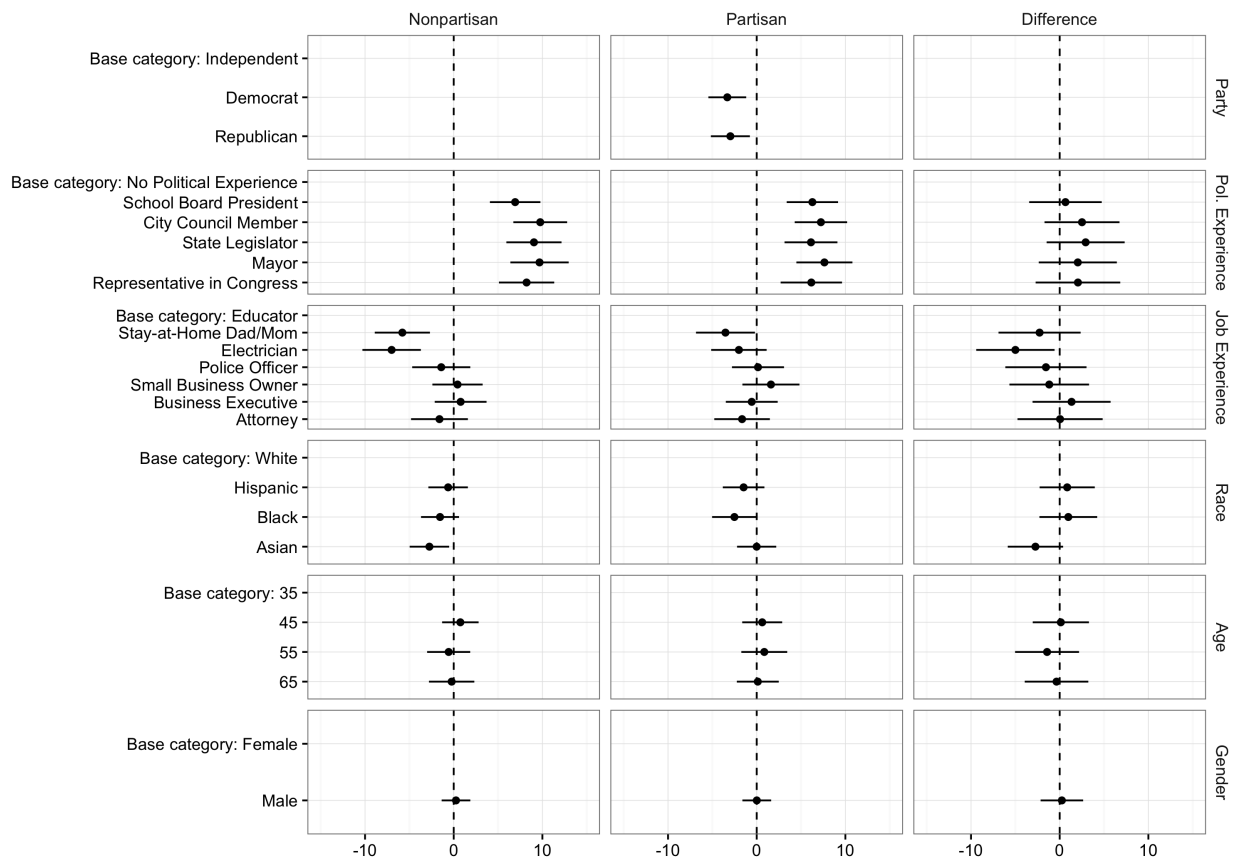
In addition to vote choice and competence, we also asked respondents to rate how likely each candidate would be to implement specific policies or objectives. Subjects were randomly asked "How likely do you think each candidate would be to [keep taxes low / balance the budget?]" Response options ranged from 1 (Very unlikely) to 7 (Very likely). For the purpose of this analysis, we will pool responses to these valence questions as an alternative measure of competence. We think that, regardless of party, respondents would give higher values to candidates they view as more competent on these issues.

Figures A.4 and A.5 present the results of our analysis using the valence performance measure as the dependent variable and splitting the sample based on respondents' partisanship. As we might expect, respondents view candidates of their own party as more likely to balance the budget or reduce crime. Both Democratic and Republican respondents (in both studies) rate those with more political and career experience higher on these issues. If we turn to the difference panels, we see some suggestive evidence that the political and career attributes are given better scores in nonpartisan elections than in partisan elections. Some differences by respondent partisanship emerge in the YouGov sample in line with our previous results: Republicans appear to give career experience greater weight in nonpartisan elections and Democrats give greater weight to political experience in nonpartisan elections.

A.3.2   Perceived Candidate Ideology

As noted above and in the main text, we think that there are likely a large number of mechanisms by which nonpartisan electoral rules influence vote choice. Perceptions of candidate competence is one; perceptions of their ideology is another. To gain insight into this question, we asked respondents to predict how each candidate would handle one relatively conservative policy option and one relatively liberal policy option The questions were randomly chosen from two possibilities in each category as shown in Table A.2. We rescale and combine these policy questions to create an index of perceived candidate ideology where lower values are more liberal and higher values are more conservative.

Figures A.6 and A.7 report the results of an analysis of our perceived candidate ideology in-

Figure A.4: Mechanical Turk Heterogeneous Effects Analysis

Dependent Variable: Valence Issues
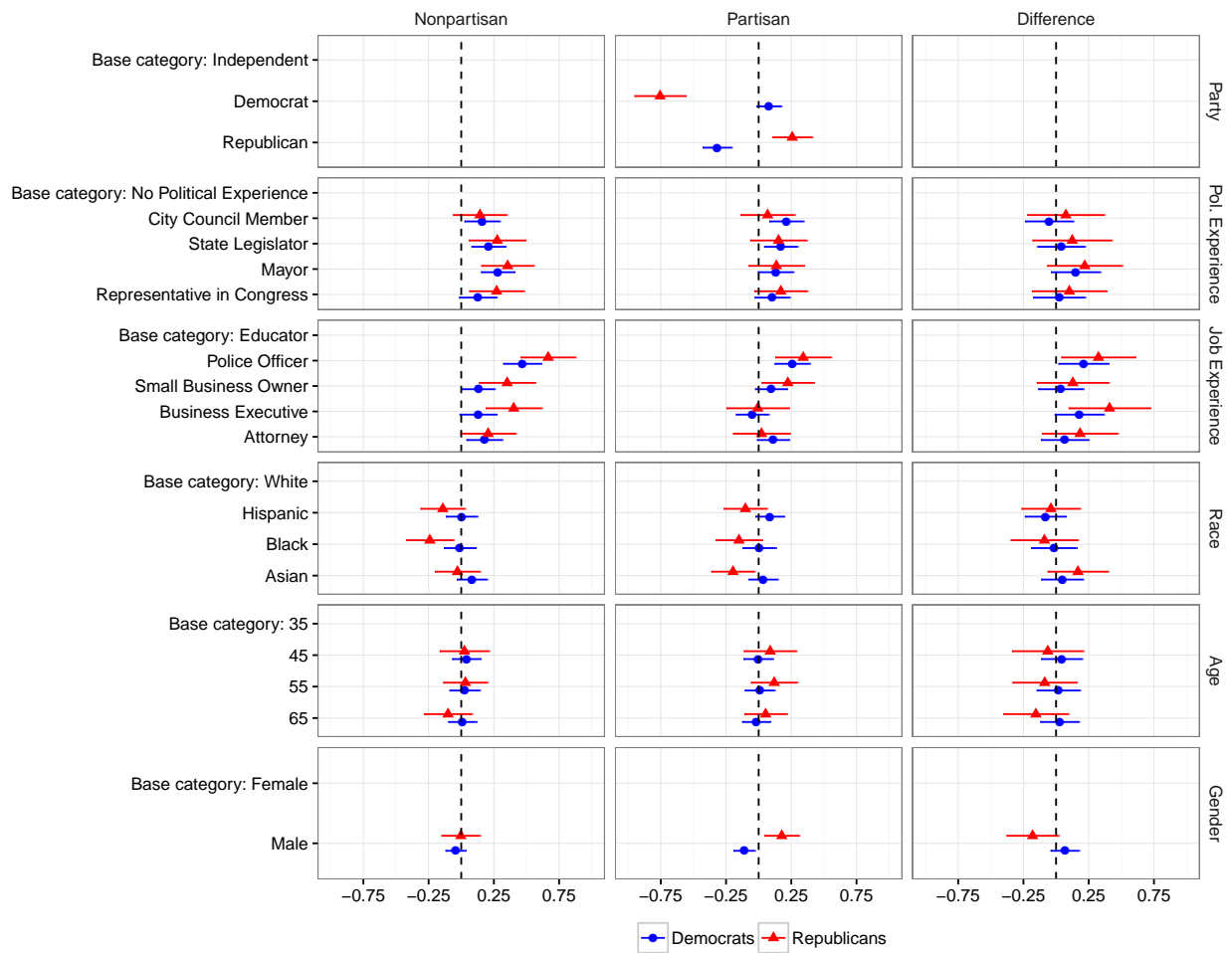
Figure A.5: YouGov Heterogeneous Effects Analysis

Dependent Variable: Valence Issues
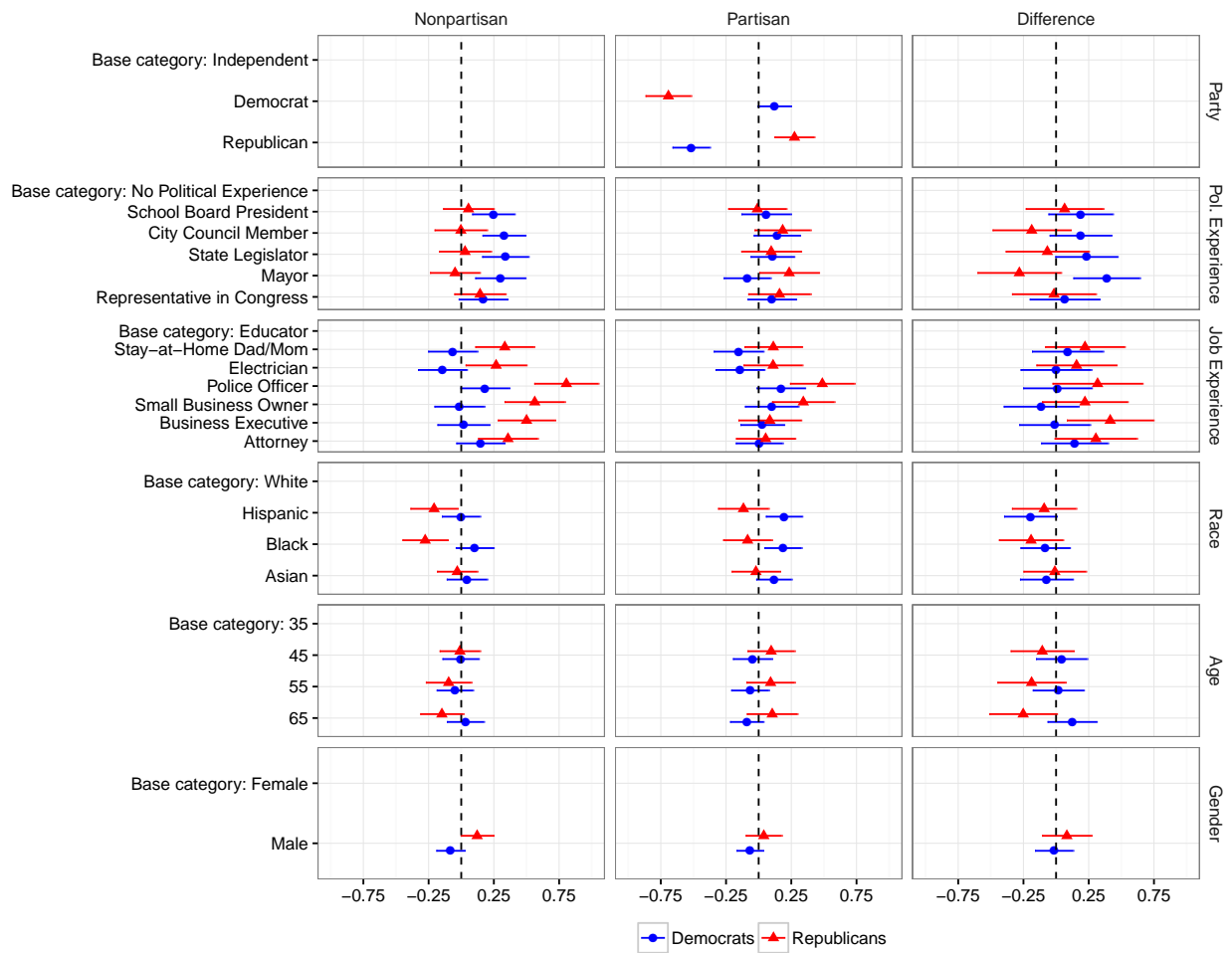
Table A.2: Policy Questions

How likely do you think each candidate would be to...	
Liberal	manage growth to protect the environment?
	manage growth to ensure access to affordable housing?
Conservative	keep taxes low?
	keep taxes low without compromising municipal services?

Response options range from 1 (Very unlikely) to 7 (Very likely).

dex. These results indicate that occupation in particular influences respondents' evaluations of how likely a candidate is to implement conservative or liberal policies. Relative to educators, respondents of both parties rate business owners and executives as especially likely to produce conservative policies. The "Difference" column of facets in each figure provide some evidence that this inference is more pronounced in nonpartisan elections, at least for Democrats.

We note that race, gender, and age also seem to influence respondents' assessments. For example, Democrats view older candidates as more conservative on policy while Republicans view nonwhite candidates and women as more liberal. Although Democrats do place more weight on age in nonpartisan elections, we find few systematic differences to suggest that most of these attributes are more consequential in nonpartisan contexts. Perhaps surprisingly, political experience had little to no effect on perceptions of candidate ideology, suggesting that perhaps perceived ideology is not the main mechanism behind the political experience effects we observed for the main dependent variable.

A.3.3 Satisficing

In the main text, we showed that in nonpartisan elections, voters weigh the political experience of candidates more heavily. However, our experimental design leaves open an alternative explanation: the smaller coefficients on the political experience attributes in the partisan elections may be an

Figure A.6: Mechanical Turk Heterogeneous Effects Analysis

Dependent Variable: Perceived Candidate Ideology Index (Higher Values More Conservative)
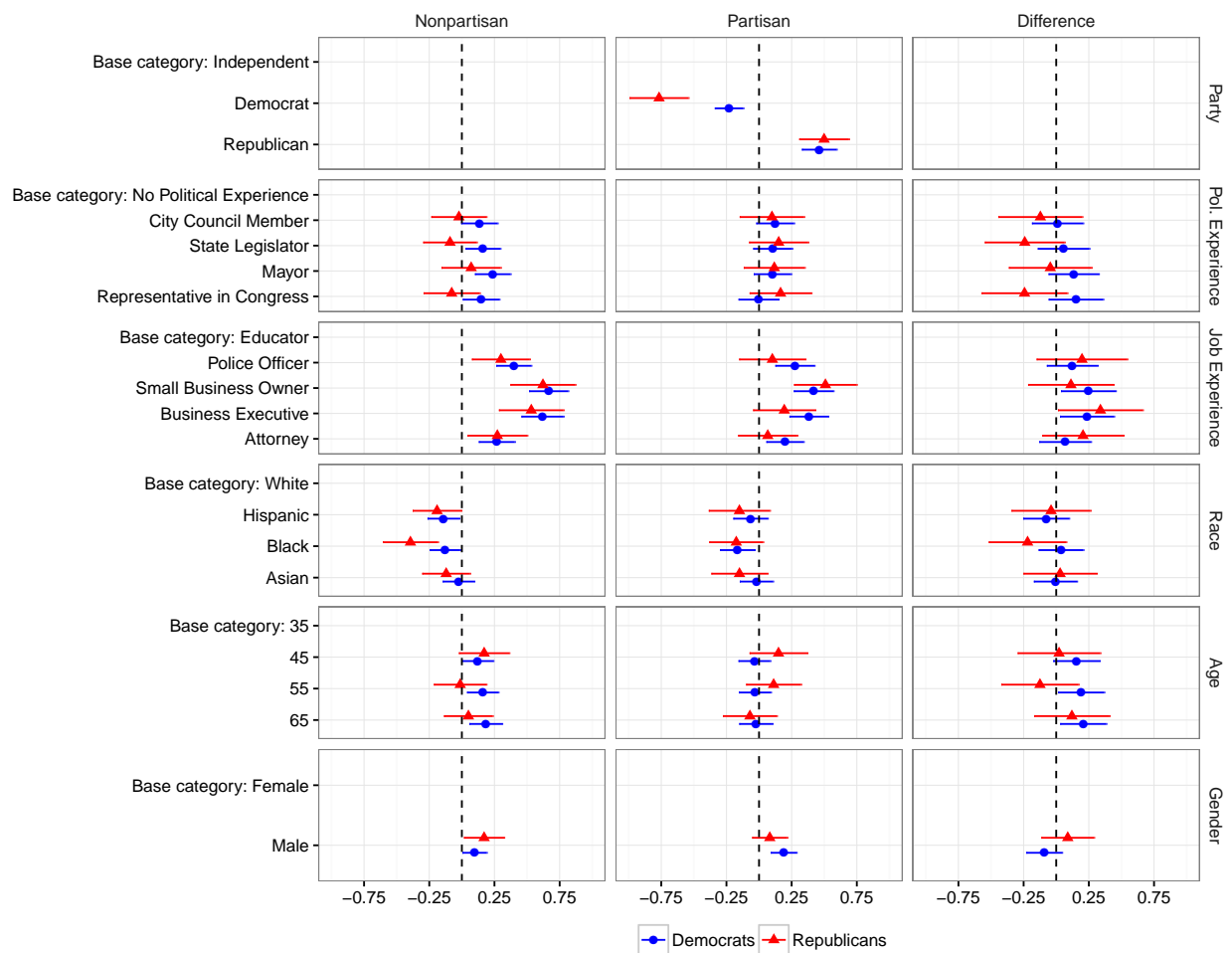
Figure A.7: YouGov Heterogeneous Effects Analysis (Partisan Issues)

Dependent Variable: Perceived Candidate Ideology Index (Higher Values More Conservative)
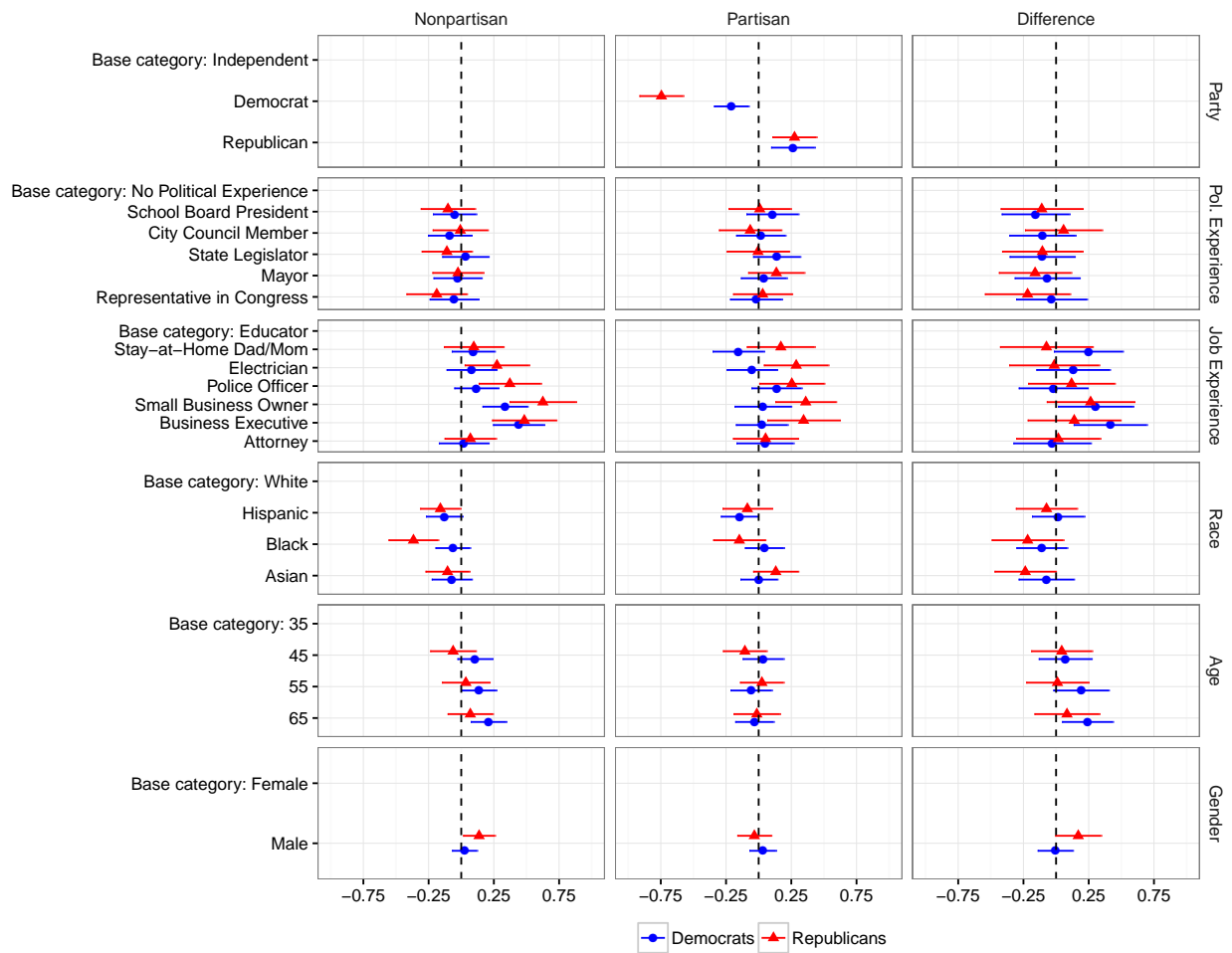
artifact of *satisficing*. Hainmueller, Hopkins and Yamamoto (2015) describe a "satisficing/masking tradeoff" in conjoint experiments. Masking occurs when subjects use the revealed candidate attributes to infer something about an unrevealed attribute. Satisficing occurs when subjects fail to incorporate all the available information to them, and instead make their decision based on some subset of the available attributes. All else equal, increasing the number of attributes alleviates the masking problem but exacerbates the satificing problem.

In our application, subjects evaluate candidates on five attributes in the nonpartisan elections and on six attributes in the partisan elections. We are concerned that the significant interaction effect we find for the political experience variables may be due to the mechanical relationship with the number of attributes.

To show that satisficing is *not* the driver of this interaction effect, we need to exploit a situation in which the number of attributes stays constant, but we vary whether the election is "partisan" or not. Our experiment provides such a situation. In some elections, the party of the two candidates is different, but in others, the candidates are from the same party. If our claim that in the absence of party cues, voters rely on political experience more heavily is correct, then we should see more weight being given to political experience when the two candidates are from the same party than when they are from different parties.

Figures A.8 and A.9 show our results, for the MTurk and YouGov samples, respectively. On MTurk, we observe a statistically significant interaction: the effects for the political experience attribute are stronger when candidates are from the same party. On YouGov, the effect of political experience does not vary across the two types of elections.

We conclude from this analysis that while satisficing remains a concern, there is some evidence that the greater weight placed on political experience in "nonpartisan" contests occurs in these elections as well.

Figure A.8: Mechanical Turk Partisan Choice
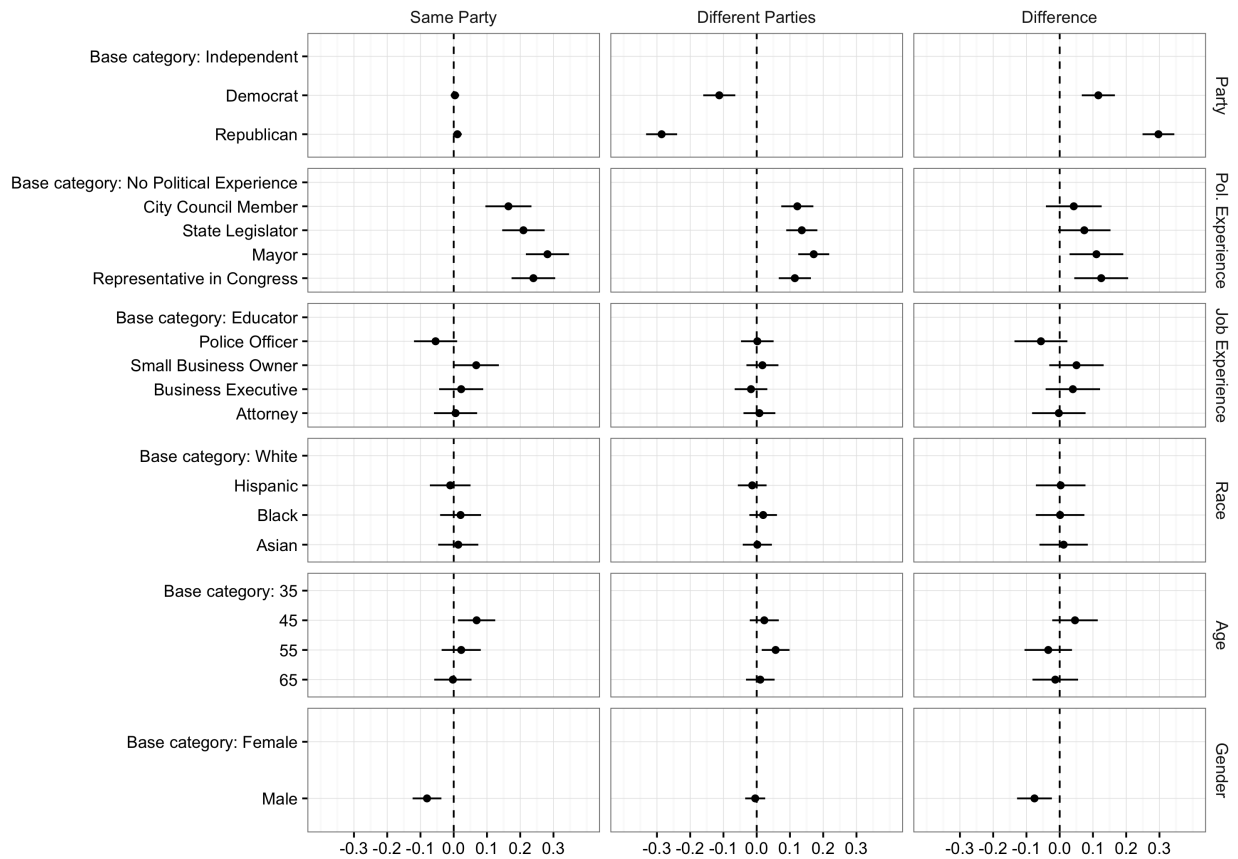
Figure A.9: YouGov Partisan Choice
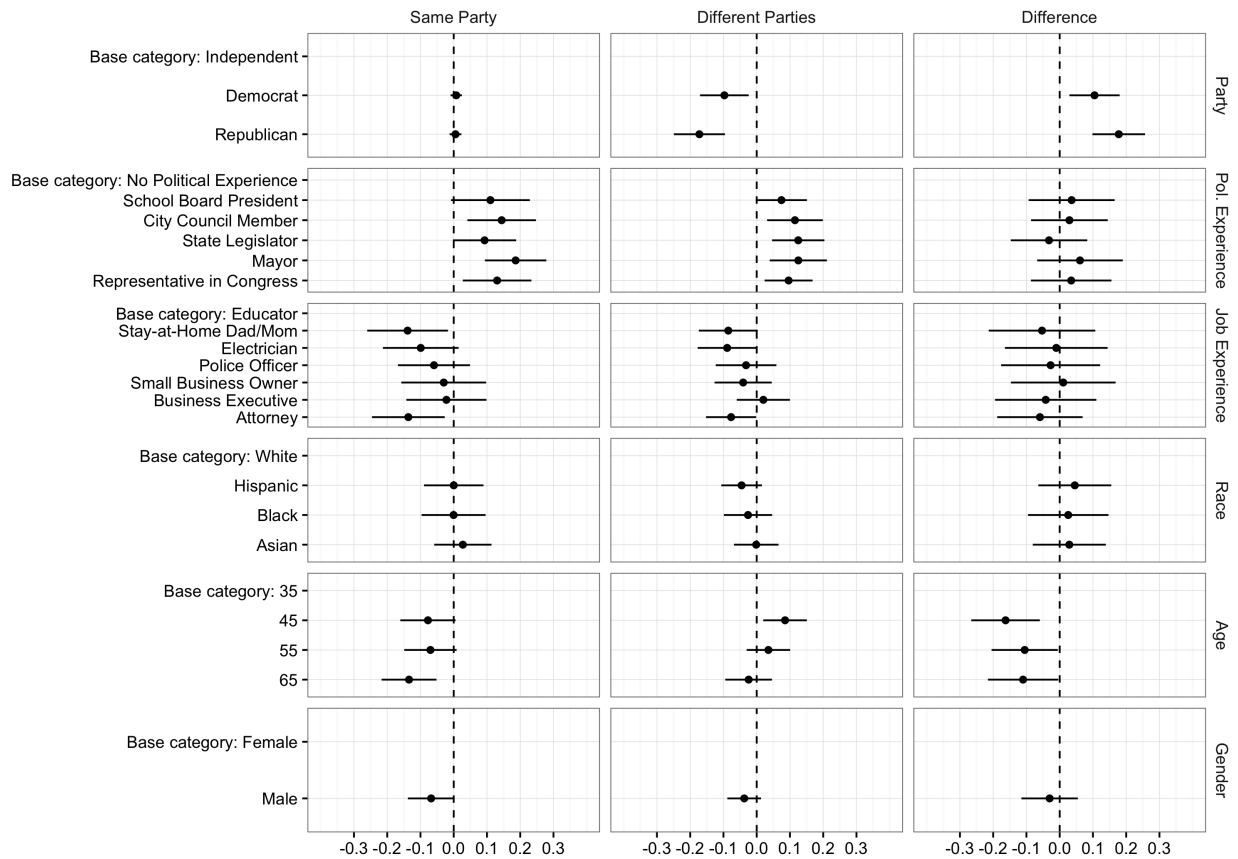
A.4 Regression tables corresponding to all figures

Table A.3: Mechanical Turk Main Analysis (corresponds to Figure 2)

	Nonpartisan	Partisan	Difference
Republican		-0.19 (0.02)*	
Democrat		-0.07 (0.02)*	
Representative in Congress	0.25 (0.02)*	0.16 (0.02)*	0.09 (0.03)*
Mayor	0.32 (0.02)*	0.20 (0.02)*	0.12 (0.03)*
State Legislator	0.25 (0.02)*	0.16 (0.02)*	0.09 (0.03)*
City Council Member	0.23 (0.02)*	0.14 (0.02)*	0.09 (0.03)*
Attorney	-0.02 (0.02)	0.01 (0.02)	-0.03 (0.03)
Business Executive	-0.04 (0.02)	-0.01 (0.02)	-0.03 (0.03)
Small Business Owner	0.02 (0.02)	0.04 (0.02)	-0.01 (0.03)
Police Officer	-0.05 (0.02)*	-0.02 (0.02)	-0.04 (0.03)
Asian	0.05 (0.02)*	0.00 (0.02)	0.04 (0.03)
Black	0.02 (0.02)	0.02 (0.02)	-0.00 (0.03)
Hispanic	0.01 (0.02)	-0.01 (0.02)	0.03 (0.03)
65	-0.01 (0.02)	0.01 (0.02)	-0.01 (0.03)
55	0.02 (0.02)	0.05 (0.02)*	-0.02 (0.03)
45	0.05 (0.02)*	0.04 (0.02)*	0.01 (0.03)
Male	-0.05 (0.01)*	-0.03 (0.01)*	-0.02 (0.02)

Cluster-robust standard errors are in parentheses.

*p$<$0.05

Table A.4: YouGov Main Analysis (corresponds to Figure 3)

	Nonpartisan	Partisan	Difference
Republican		-0.11 (0.03)*	
Democrat		-0.06 (0.02)*	
Representative in Congress	0.22 (0.03)*	0.11 (0.03)*	0.11 (0.04)*
Mayor	0.25 (0.03)*	0.15 (0.03)*	0.10 (0.05)*
State Legislator	0.18 (0.03)*	0.11 (0.03)*	0.07 (0.05)
City Council Member	0.21 (0.03)*	0.13 (0.04)*	0.09 (0.05)
School Board President	0.12 (0.03)*	0.09 (0.04)*	0.04 (0.05)
Attorney	-0.01 (0.03)	-0.10 (0.03)*	0.09 (0.05)
Business Executive	0.03 (0.03)	0.01 (0.03)	0.02 (0.05)
Small Business Owner	0.05 (0.03)	-0.04 (0.04)	0.09 (0.05)
Police Officer	-0.00 (0.04)	-0.04 (0.03)	0.04 (0.05)
Electrician	-0.10 (0.03)*	-0.09 (0.03)*	-0.00 (0.05)
Stay-at-Home Dad/Mom	-0.11 (0.03)*	-0.11 (0.03)*	0.00 (0.05)
Asian	-0.06 (0.03)*	0.01 (0.03)	-0.07 (0.04)
Black	-0.02 (0.03)	-0.01 (0.03)	-0.01 (0.04)
Hispanic	-0.05 (0.03)	-0.03 (0.03)	-0.02 (0.04)
65	-0.05 (0.02)	-0.06 (0.03)*	0.01 (0.04)
55	0.00 (0.03)	0.00 (0.03)	-0.00 (0.04)
45	0.02 (0.03)	0.03 (0.03)	-0.01 (0.04)
Male	-0.04 (0.02)*	-0.04 (0.02)*	0.01 (0.03)

Cluster-robust standard errors are in parentheses.

*p<0.05

Table A.5: Mechanical Turk Heterogeneous Effects Analysis (corresponds to Figure 4)

	Nonpartisan	Partisan	Difference
Democrats			
Republican		-0.29 (0.02)*	
Democrat		0.04 (0.02)	
Representative in Congress	0.30 (0.03)*	0.14 (0.03)*	0.16 (0.04)*
Mayor	0.35 (0.02)*	0.18 (0.02)*	0.16 (0.03)*
State Legislator	0.29 (0.03)*	0.18 (0.02)*	0.11 (0.03)*
City Council Member	0.24 (0.03)*	0.14 (0.03)*	0.09 (0.04)*
Attorney	-0.03 (0.03)	-0.01 (0.03)	-0.02 (0.04)
Business Executive	-0.08 (0.03)*	-0.05 (0.03)	-0.04 (0.03)
Small Business Owner	-0.03 (0.03)	-0.00 (0.03)	-0.02 (0.04)
Police Officer	-0.11 (0.03)*	-0.05 (0.03)*	-0.06 (0.04)
Asian	0.04 (0.02)	0.01 (0.02)	0.03 (0.03)
Black	0.06 (0.02)*	0.02 (0.02)	0.04 (0.03)
Hispanic	0.01 (0.02)	0.01 (0.02)	0.00 (0.03)
65	-0.01 (0.02)	-0.02 (0.02)	0.00 (0.03)
55	0.01 (0.02)	0.04 (0.02)	-0.02 (0.03)
45	0.05 (0.02)*	0.05 (0.02)*	0.00 (0.03)
Male	-0.08 (0.02)*	-0.03 (0.02)*	-0.05 (0.02)*
Republicans			
Republican		0.09 (0.03)*	
Democrat		-0.23 (0.03)*	
Representative in Congress	0.17 (0.04)*	0.21 (0.04)*	-0.04 (0.06)
Mayor	0.23 (0.04)*	0.26 (0.04)*	-0.03 (0.05)
State Legislator	0.14 (0.04)*	0.16 (0.04)*	-0.01 (0.06)
City Council Member	0.19 (0.04)*	0.15 (0.04)*	0.04 (0.05)
Attorney	0.03 (0.04)	0.03 (0.04)	-0.00 (0.06)
Business Executive	0.08 (0.04)	0.02 (0.04)	0.06 (0.06)
Small Business Owner	0.12 (0.04)*	0.11 (0.04)*	0.01 (0.06)
Police Officer	0.06 (0.04)	0.04 (0.04)	0.01 (0.05)
Asian	0.06 (0.04)	0.00 (0.04)	0.06 (0.05)
Black	-0.10 (0.04)*	0.01 (0.04)	-0.11 (0.05)*
Hispanic	-0.04 (0.03)	-0.04 (0.04)	-0.00 (0.05)
65	-0.01 (0.04)	0.08 (0.03)*	-0.09 (0.05)
55	-0.00 (0.04)	0.10 (0.04)*	-0.10 (0.05)*
45	0.03 (0.04)	0.06 (0.04)	-0.03 (0.05)
Male	0.00 (0.03)	-0.00 (0.02)	0.01 (0.03)

Cluster-robust standard errors are in parentheses.

*p<0.05

Table A.6: YouGov Heterogeneous Effects Analysis (corresponds to Figure 5)

	Nonpartisan	Partisan	Difference
Democrats			
Republican		-0.30 (0.02)*	
Democrat		0.08 (0.02)*	
Representative in Congress	0.23 (0.03)*	0.09 (0.03)*	0.14 (0.05)*
Mayor	0.29 (0.04)*	0.13 (0.03)*	0.16 (0.05)*
State Legislator	0.19 (0.04)*	0.08 (0.03)*	0.11 (0.05)*
City Council Member	0.21 (0.03)*	0.17 (0.03)*	0.05 (0.04)
School Board President	0.15 (0.03)*	0.09 (0.03)*	0.06 (0.05)
Attorney	-0.07 (0.04)	-0.10 (0.04)*	0.03 (0.05)
Business Executive	-0.15 (0.04)*	-0.05 (0.04)	-0.09 (0.05)*
Small Business Owner	-0.11 (0.04)*	-0.07 (0.03)*	-0.04 (0.05)
Police Officer	-0.13 (0.04)*	-0.09 (0.03)*	-0.05 (0.05)
Electrician	-0.19 (0.04)*	-0.11 (0.04)*	-0.08 (0.05)
Stay-at-Home Dad/Mom	-0.21 (0.04)*	-0.13 (0.04)*	-0.07 (0.05)
Asian	0.03 (0.03)	0.04 (0.03)	-0.01 (0.04)
Black	0.09 (0.03)*	0.05 (0.03)	0.04 (0.04)
Hispanic	0.00 (0.03)	0.04 (0.03)	-0.04 (0.04)
65	-0.06 (0.03)*	-0.02 (0.03)	-0.04 (0.04)
55	0.02 (0.03)	0.03 (0.03)	-0.01 (0.04)
45	-0.02 (0.03)	0.06 (0.03)*	-0.09 (0.04)*
Male	-0.11 (0.02)*	-0.05 (0.02)*	-0.06 (0.03)*
Republicans			
Republican		0.11 (0.03)*	
Democrat		-0.21 (0.03)*	
Representative in Congress	0.22 (0.04)*	0.17 (0.04)*	0.05 (0.05)
Mayor	0.22 (0.04)*	0.21 (0.04)*	0.01 (0.05)
State Legislator	0.22 (0.04)*	0.17 (0.04)*	0.04 (0.05)
City Council Member	0.15 (0.04)*	0.15 (0.04)*	-0.00 (0.05)
School Board President	0.11 (0.04)*	0.12 (0.04)*	-0.01 (0.05)
Attorney	0.08 (0.04)	-0.05 (0.04)	0.13 (0.06)*
Business Executive	0.18 (0.04)*	0.10 (0.04)*	0.08 (0.06)
Small Business Owner	0.24 (0.04)*	0.00 (0.04)	0.23 (0.06)*
Police Officer	0.18 (0.04)*	-0.01 (0.04)	0.19 (0.06)*
Electrician	0.02 (0.04)	0.01 (0.04)	0.01 (0.06)
Stay-at-Home Dad/Mom	-0.01 (0.04)	-0.10 (0.04)*	0.09 (0.06)
Asian	-0.06 (0.03)	-0.08 (0.03)*	0.02 (0.04)
Black	-0.07 (0.03)*	-0.13 (0.03)*	0.06 (0.04)
Hispanic	-0.09 (0.03)*	-0.11 (0.03)*	0.01 (0.04)
65	-0.02 (0.03)	-0.03 (0.03)	0.01 (0.04)
55	-0.01 (0.03)	0.01 (0.03)	-0.02 (0.04)
45	0.04 (0.03)	-0.02 (0.03)	0.05 (0.04)
Male	0.04 (0.02)	0.03 (0.02)	0.01 (0.03)

Cluster-robust standard errors are in parentheses.
*p<0.05

Table A.7: Mechanical Turk Competence Analysis (corresponds to Figure 6)

	Nonpartisan	Partisan	Difference
		Democrats	
Republican		-6.40 (0.78)*	
Democrat		1.89 (0.73)*	
Representative in Congress	12.53 (1.08)*	8.31 (1.09)*	4.22 (1.52)*
Mayor	13.37 (1.04)*	7.82 (1.14)*	5.55 (1.48)*
State Legislator	10.21 (1.03)*	7.57 (1.06)*	2.63 (1.46)
City Council Member	9.85 (1.06)*	7.33 (1.05)*	2.52 (1.48)
Attorney	1.14 (1.06)	-0.40 (0.99)	1.53 (1.41)
Business Executive	-1.57 (1.07)	-1.10 (0.97)	-0.47 (1.41)
Small Business Owner	-0.97 (1.03)	0.66 (0.96)	-1.63 (1.41)
Police Officer	-2.27 (1.18)	-2.11 (1.00)*	-0.16 (1.49)
Asian	0.57 (0.91)	2.53 (0.85)*	-1.96 (1.20)
Black	-0.55 (0.85)	2.49 (0.89)*	-3.04 (1.20)*
Hispanic	-0.85 (0.93)	1.90 (0.85)*	-2.75 (1.19)*
65	1.57 (0.84)	1.23 (0.86)	0.34 (1.17)
55	1.16 (0.88)	1.86 (0.84)*	-0.69 (1.20)
45	1.49 (0.87)	1.04 (0.86)	0.45 (1.22)
Male	-0.64 (0.59)	-0.09 (0.62)	-0.55 (0.85)
		Republicans	
Republican		3.32 (1.21)*	
Democrat		-8.03 (1.53)*	
Representative in Congress	12.27 (1.67)*	9.29 (1.85)*	2.98 (2.38)
Mayor	12.76 (1.64)*	8.02 (1.86)*	4.74 (2.30)*
State Legislator	8.57 (1.83)*	7.73 (1.79)*	0.85 (2.52)
City Council Member	10.24 (1.66)*	6.93 (1.80)*	3.31 (2.49)
Attorney	2.13 (1.59)	2.31 (1.58)	-0.18 (2.17)
Business Executive	4.89 (1.74)*	0.55 (1.70)	4.34 (2.32)
Small Business Owner	3.71 (1.62)*	3.20 (1.44)*	0.51 (2.20)
Police Officer	3.28 (1.54)*	0.45 (1.40)	2.83 (2.17)
Asian	-1.47 (1.30)	-1.77 (1.49)	0.30 (1.80)
Black	-4.54 (1.33)*	-1.37 (1.35)	-3.17 (1.86)
Hispanic	-3.91 (1.38)*	-0.83 (1.25)	-3.09 (1.79)
65	-1.91 (1.36)	-0.15 (1.43)	-1.76 (2.07)
55	0.19 (1.40)	1.39 (1.37)	-1.20 (1.98)
45	0.65 (1.40)	1.39 (1.58)	-0.75 (2.12)
Male	1.01 (1.07)	0.92 (0.87)	0.09 (1.37)

Cluster-robust standard errors are in parentheses.

*p<0.05

Table A.8: YouGov Competence Analysis (corresponds to Figure 7)

	Nonpartisan	Partisan	Difference
	Democrats		
Republican		-10.67 (1.32)*	
Democrat		2.79 (1.03)*	
Representative in Congress	10.73 (1.70)*	7.12 (1.74)*	3.60 (2.33)
Mayor	12.51 (1.97)*	6.65 (1.77)*	5.86 (2.42)*
State Legislator	11.41 (1.69)*	6.22 (1.67)*	5.19 (2.25)*
City Council Member	11.38 (1.85)*	8.13 (1.63)*	3.25 (2.37)
School Board President	10.05 (1.61)*	5.42 (1.63)*	4.63 (2.17)*
Attorney	-1.25 (1.67)	-0.46 (1.53)	-0.80 (2.26)
Business Executive	-2.38 (1.57)	-0.62 (1.57)	-1.76 (2.14)
Small Business Owner	-3.41 (1.58)*	-0.31 (1.63)	-3.09 (2.25)
Police Officer	-3.86 (1.67)*	-1.82 (1.67)	-2.05 (2.39)
Electrician	-5.63 (1.70)*	-1.38 (1.76)	-4.25 (2.36)
Stay-at-Home Dad/Mom	-7.00 (1.67)*	-5.98 (1.76)*	-1.02 (2.43)
Asian	0.57 (1.29)	2.01 (1.31)	-1.45 (1.74)
Black	0.59 (1.40)	1.40 (1.31)	-0.81 (1.77)
Hispanic	0.83 (1.32)	0.79 (1.27)	0.04 (1.77)
65	-0.53 (1.21)	-1.92 (1.25)	1.39 (1.74)
55	0.17 (1.21)	0.29 (1.34)	-0.12 (1.79)
45	-0.32 (1.17)	0.24 (1.28)	-0.56 (1.69)
Male	-2.23 (0.95)*	-1.72 (0.92)	-0.51 (1.33)
	Republicans		
Republican		5.02 (1.18)*	
Democrat		-9.85 (1.40)*	
Representative in Congress	9.33 (1.84)*	10.31 (2.23)*	-0.99 (2.82)
Mayor	8.06 (1.85)*	8.99 (2.11)*	-0.93 (2.67)
State Legislator	9.12 (2.00)*	7.74 (2.12)*	1.38 (3.08)
City Council Member	7.51 (1.97)*	8.68 (1.95)*	-1.17 (2.65)
School Board President	6.33 (1.76)*	5.92 (2.06)*	0.41 (2.77)
Attorney	0.24 (2.25)	-0.48 (1.91)	0.72 (2.86)
Business Executive	3.91 (1.88)*	3.73 (1.97)	0.18 (2.76)
Small Business Owner	3.56 (1.95)	6.82 (2.07)*	-3.26 (2.73)
Police Officer	4.11 (1.98)*	4.17 (2.12)*	-0.06 (2.97)
Electrician	-2.31 (2.04)	2.93 (1.96)	-5.24 (2.77)
Stay-at-Home Dad/Mom	-3.89 (2.00)	-1.13 (2.11)	-2.75 (2.81)
Asian	-2.27 (1.37)	0.07 (1.40)	-2.34 (1.96)
Black	-4.27 (1.47)*	-1.67 (1.49)	-2.60 (2.00)
Hispanic	-1.78 (1.60)	-2.57 (1.59)	0.79 (2.11)
65	-0.98 (1.44)	0.88 (1.55)	-1.85 (2.14)
55	-0.13 (1.43)	0.45 (1.60)	-0.58 (2.19)
45	-0.02 (1.37)	-0.85 (1.46)	0.83 (2.11)
Male	2.48 (1.04)*	1.61 (1.15)	0.87 (1.51)

Cluster-robust standard errors are in parentheses.
*$p<0.05$

Table A.9: Mechanical Turk Valence Analysis (corresponds to Figure A.4)

	Nonpartisan	Partisan	Difference
		Democrats	
Republican		-0.32 (0.06)*	
Democrat		0.08 (0.05)	
Representative in Congress	0.13 (0.07)	0.10 (0.07)	0.02 (0.10)
Mayor	0.28 (0.07)*	0.13 (0.07)	0.15 (0.10)
State Legislator	0.21 (0.07)*	0.17 (0.07)*	0.04 (0.09)
City Council Member	0.16 (0.07)*	0.21 (0.07)*	-0.05 (0.09)
Attorney	0.18 (0.07)*	0.11 (0.06)	0.07 (0.09)
Business Executive	0.13 (0.07)	-0.05 (0.06)	0.18 (0.10)
Small Business Owner	0.13 (0.06)*	0.10 (0.06)	0.04 (0.09)
Police Officer	0.47 (0.07)*	0.26 (0.07)*	0.21 (0.10)*
Asian	0.08 (0.06)	0.04 (0.06)	0.05 (0.08)
Black	-0.01 (0.06)	0.01 (0.07)	-0.02 (0.09)
Hispanic	0.00 (0.06)	0.09 (0.06)	-0.08 (0.08)
65	0.01 (0.06)	-0.02 (0.06)	0.03 (0.08)
55	0.03 (0.06)	0.01 (0.06)	0.02 (0.08)
45	0.04 (0.06)	-0.00 (0.06)	0.04 (0.08)
Male	-0.04 (0.04)	-0.11 (0.04)*	0.07 (0.06)
		Republicans	
Republican		0.26 (0.08)*	
Democrat		-0.76 (0.10)*	
Representative in Congress	0.27 (0.11)*	0.17 (0.10)	0.10 (0.15)
Mayor	0.36 (0.10)*	0.14 (0.11)	0.22 (0.15)
State Legislator	0.28 (0.11)*	0.15 (0.11)	0.12 (0.16)
City Council Member	0.14 (0.11)	0.07 (0.11)	0.07 (0.15)
Attorney	0.21 (0.11)	0.02 (0.11)	0.18 (0.15)
Business Executive	0.40 (0.11)*	-0.01 (0.12)	0.41 (0.16)*
Small Business Owner	0.35 (0.11)*	0.22 (0.10)*	0.13 (0.14)
Police Officer	0.67 (0.11)*	0.34 (0.11)*	0.32 (0.14)*
Asian	-0.03 (0.09)	-0.20 (0.08)*	0.17 (0.12)
Black	-0.24 (0.09)*	-0.15 (0.09)	-0.09 (0.13)
Hispanic	-0.14 (0.09)	-0.10 (0.08)	-0.04 (0.11)
65	-0.10 (0.09)	0.05 (0.08)	-0.15 (0.13)
55	0.03 (0.09)	0.12 (0.09)	-0.09 (0.13)
45	0.02 (0.10)	0.09 (0.10)	-0.06 (0.14)
Male	-0.00 (0.08)	0.18 (0.07)*	-0.18 (0.10)

Cluster-robust standard errors are in parentheses.
*p<0.05

Table A.10: YouGov Valence Analysis (corresponds to Figure A.5)

	Nonpartisan	Partisan	Difference
Democrats			
Republican		-0.52 (0.07)*	
Democrat		0.12 (0.07)	
Representative in Congress	0.17 (0.10)	0.10 (0.10)	0.07 (0.14)
Mayor	0.30 (0.10)*	-0.09 (0.09)	0.39 (0.13)*
State Legislator	0.34 (0.09)*	0.11 (0.09)	0.23 (0.12)
City Council Member	0.33 (0.08)*	0.14 (0.09)	0.19 (0.12)
School Board President	0.25 (0.08)*	0.06 (0.10)	0.19 (0.13)
Attorney	0.15 (0.09)	0.00 (0.09)	0.14 (0.13)
Business Executive	0.02 (0.10)	0.03 (0.09)	-0.01 (0.14)
Small Business Owner	-0.01 (0.10)	0.10 (0.10)	-0.11 (0.15)
Police Officer	0.18 (0.10)	0.17 (0.09)	0.01 (0.13)
Electrician	-0.14 (0.10)	-0.14 (0.10)	-0.00 (0.14)
Stay-at-Home Dad/Mom	-0.06 (0.10)	-0.15 (0.10)	0.09 (0.14)
Asian	0.04 (0.08)	0.12 (0.07)	-0.07 (0.10)
Black	0.10 (0.07)	0.19 (0.07)*	-0.08 (0.10)
Hispanic	-0.00 (0.08)	0.20 (0.07)*	-0.20 (0.10)
65	0.03 (0.07)	-0.09 (0.07)	0.12 (0.10)
55	-0.05 (0.07)	-0.07 (0.07)	0.02 (0.10)
45	-0.00 (0.07)	-0.05 (0.08)	0.04 (0.10)
Male	-0.08 (0.06)	-0.07 (0.05)	-0.02 (0.07)
Republicans			
Republican		0.27 (0.08)*	
Democrat		-0.69 (0.09)*	
Representative in Congress	0.14 (0.10)	0.16 (0.12)	-0.02 (0.16)
Mayor	-0.05 (0.10)	0.23 (0.12)*	-0.28 (0.16)
State Legislator	0.03 (0.10)	0.10 (0.12)	-0.07 (0.16)
City Council Member	-0.00 (0.10)	0.18 (0.11)	-0.19 (0.15)
School Board President	0.06 (0.10)	-0.01 (0.11)	0.07 (0.15)
Attorney	0.36 (0.12)*	0.05 (0.12)	0.30 (0.16)
Business Executive	0.50 (0.11)*	0.09 (0.12)	0.41 (0.17)*
Small Business Owner	0.56 (0.12)*	0.34 (0.12)*	0.22 (0.17)
Police Officer	0.81 (0.13)*	0.49 (0.13)*	0.32 (0.18)
Electrician	0.27 (0.12)*	0.11 (0.12)	0.16 (0.16)
Stay-at-Home Dad/Mom	0.33 (0.12)*	0.11 (0.11)	0.22 (0.16)
Asian	-0.03 (0.08)	-0.02 (0.09)	-0.01 (0.12)
Black	-0.28 (0.09)*	-0.08 (0.10)	-0.19 (0.13)
Hispanic	-0.21 (0.09)*	-0.12 (0.10)	-0.09 (0.13)
65	-0.15 (0.08)	0.10 (0.10)	-0.25 (0.13)
55	-0.10 (0.09)	0.09 (0.09)	-0.19 (0.13)
45	-0.01 (0.08)	0.10 (0.09)	-0.11 (0.12)
Male	0.12 (0.06)	0.04 (0.07)	0.08 (0.10)

Cluster-robust standard errors are in parentheses.
*p<0.05

Table A.11: Mechanical Turk Perceived Ideology Analysis (corresponds to Figure A.6)

	Nonpartisan	Partisan	Difference
Democrats			
Republican		0.46 (0.07)*	
Democrat		-0.23 (0.06)*	
Representative in Congress	0.15 (0.07)*	-0.00 (0.08)	0.15 (0.11)
Mayor	0.24 (0.07)*	0.10 (0.07)	0.13 (0.10)
State Legislator	0.16 (0.07)*	0.11 (0.08)	0.06 (0.10)
City Council Member	0.13 (0.07)	0.12 (0.07)	0.01 (0.10)
Attorney	0.27 (0.07)*	0.20 (0.07)*	0.07 (0.10)
Business Executive	0.62 (0.08)*	0.38 (0.08)*	0.24 (0.11)*
Small Business Owner	0.67 (0.08)*	0.42 (0.08)*	0.25 (0.11)*
Police Officer	0.40 (0.07)*	0.28 (0.08)*	0.12 (0.10)
Asian	-0.03 (0.06)	-0.02 (0.07)	-0.01 (0.08)
Black	-0.13 (0.06)*	-0.17 (0.07)*	0.04 (0.09)
Hispanic	-0.14 (0.06)*	-0.06 (0.07)	-0.08 (0.09)
65	0.18 (0.06)*	-0.02 (0.07)	0.21 (0.09)*
55	0.16 (0.06)*	-0.03 (0.06)	0.19 (0.09)*
45	0.12 (0.06)	-0.04 (0.06)	0.16 (0.09)
Male	0.10 (0.05)*	0.19 (0.05)*	-0.09 (0.07)
Republicans			
Republican		0.50 (0.10)*	
Democrat		-0.77 (0.12)*	
Representative in Congress	-0.08 (0.11)	0.17 (0.12)	-0.24 (0.17)
Mayor	0.07 (0.12)	0.12 (0.12)	-0.05 (0.16)
State Legislator	-0.09 (0.10)	0.15 (0.12)	-0.24 (0.16)
City Council Member	-0.02 (0.11)	0.10 (0.13)	-0.12 (0.16)
Attorney	0.27 (0.12)*	0.07 (0.12)	0.21 (0.16)
Business Executive	0.53 (0.13)*	0.19 (0.12)	0.34 (0.17)*
Small Business Owner	0.62 (0.13)*	0.51 (0.12)*	0.11 (0.17)
Police Officer	0.30 (0.11)*	0.10 (0.13)	0.20 (0.18)
Asian	-0.12 (0.09)	-0.15 (0.11)	0.03 (0.14)
Black	-0.39 (0.11)*	-0.17 (0.11)	-0.22 (0.15)
Hispanic	-0.19 (0.10)*	-0.15 (0.12)	-0.04 (0.15)
65	0.05 (0.10)	-0.07 (0.11)	0.12 (0.15)
55	-0.01 (0.10)	0.11 (0.11)	-0.12 (0.15)
45	0.17 (0.10)	0.15 (0.11)	0.02 (0.16)
Male	0.17 (0.08)*	0.08 (0.07)	0.09 (0.10)

Cluster-robust standard errors are in parentheses.
*p<0.05

Table A.12: YouGov Perceived Ideology Analysis (corresponds to Figure A.7)

	Nonpartisan	Partisan	Difference
		Democrats	
Republican		0.26 (0.09)*	
Democrat		-0.21 (0.07)*	
Representative in Congress	-0.05 (0.10)	-0.02 (0.10)	-0.03 (0.14)
Mayor	-0.03 (0.09)	0.04 (0.09)	-0.07 (0.13)
State Legislator	0.03 (0.09)	0.14 (0.09)	-0.11 (0.13)
City Council Member	-0.09 (0.09)	0.02 (0.10)	-0.10 (0.13)
School Board President	-0.05 (0.08)	0.11 (0.10)	-0.16 (0.13)
Attorney	0.02 (0.10)	0.05 (0.11)	-0.03 (0.15)
Business Executive	0.44 (0.10)*	0.02 (0.10)	0.42 (0.14)*
Small Business Owner	0.34 (0.09)*	0.03 (0.11)	0.30 (0.15)*
Police Officer	0.12 (0.09)	0.14 (0.10)	-0.02 (0.13)
Electrician	0.08 (0.10)	-0.05 (0.10)	0.13 (0.14)
Stay-at-Home Dad/Mom	0.09 (0.08)	-0.16 (0.10)	0.25 (0.14)
Asian	-0.07 (0.08)	0.00 (0.07)	-0.07 (0.11)
Black	-0.06 (0.07)	0.04 (0.08)	-0.11 (0.10)
Hispanic	-0.13 (0.07)	-0.15 (0.07)*	0.02 (0.10)
65	0.21 (0.07)*	-0.03 (0.08)	0.24 (0.10)*
55	0.13 (0.07)*	-0.06 (0.08)	0.19 (0.11)
45	0.11 (0.07)	0.04 (0.08)	0.07 (0.10)
Male	0.03 (0.05)	0.03 (0.05)	-0.01 (0.07)
		Republicans	
Republican		0.27 (0.09)*	
Democrat		-0.75 (0.09)*	
Representative in Congress	-0.19 (0.12)	0.03 (0.12)	-0.22 (0.17)
Mayor	-0.03 (0.10)	0.14 (0.11)	-0.16 (0.14)
State Legislator	-0.11 (0.10)	-0.00 (0.12)	-0.11 (0.16)
City Council Member	-0.01 (0.11)	-0.06 (0.12)	0.06 (0.15)
School Board President	-0.10 (0.11)	0.01 (0.12)	-0.11 (0.16)
Attorney	0.07 (0.10)	0.05 (0.13)	0.02 (0.16)
Business Executive	0.48 (0.13)*	0.34 (0.14)*	0.14 (0.18)
Small Business Owner	0.63 (0.13)*	0.36 (0.12)*	0.26 (0.17)
Police Officer	0.37 (0.12)*	0.25 (0.13)*	0.12 (0.17)
Electrician	0.27 (0.13)*	0.29 (0.13)*	-0.01 (0.18)
Stay-at-Home Dad/Mom	0.10 (0.12)	0.17 (0.13)	-0.07 (0.18)
Asian	-0.11 (0.09)	0.13 (0.09)	-0.24 (0.12)*
Black	-0.37 (0.10)*	-0.15 (0.10)	-0.22 (0.14)
Hispanic	-0.16 (0.08)*	-0.09 (0.10)	-0.07 (0.12)
65	0.07 (0.09)	-0.01 (0.09)	0.08 (0.13)
55	0.04 (0.09)	0.02 (0.09)	0.01 (0.12)
45	-0.06 (0.09)	-0.11 (0.09)	0.04 (0.12)
Male	0.14 (0.06)*	-0.03 (0.07)	0.17 (0.09)

Cluster-robust standard errors are in parentheses.
*p<0.05

Appendix B

The Business of Being Mayor

B.1   Validity of the RDD

The "no sorting" assumption is the key identifying assumption of the RDD—that potential out-comes are smooth across the discontinuity. I tested the validity of the assumption in several ways. After examining the distribution of the rating variable, which is displayed in Figure B.1, I tested the density of the rating variable at the threshold per McCrary (2008) and failed to reject the null hypothesis of no sorting (log difference in heights is -0.187 with SE 0.202; $p = 0.355$). An alternative local polynomial density technique from Cattaneo, Jansson and Ma (2017) also yields no evidence of manipulation around the cutpoint ($p = 0.187$). Finally, I also conducted a series of placebo tests. I used local linear regression models similar to those described in the main text but substituted several pre-treatment covariates as dependent variables to check for a discontinuity at the cutpoint in the rating variable. Covariates include population, the percent of the population that is white, the level of unemployment, the home ownership rate, median household income and an indicator for mayor-council form of government. I also analyze several lagged dependent variables. The results are displayed in Tables B.1 and B.2 and provide support for the validity of the RDD. In each model, the coefficient for Executive Mayor fails to reach statistical significance, suggesting covariates are not discontinuous at the threshold.

B.2   Results—Spending by Category

In the primary analysis presented in Section 4.2, all dependent variables are measured in constant (2000) dollars per-capita, and the effects of electing a business executive mayor are estimated using local linear regression, a 5% bandwidth, and several covariates (population, racial composition, median household income, median house value, and the lagged dependent variable). Table B.3 provides details of the results depicted in Figure 3 of the main text. in of alternative specifications and formulations of the dependent variables. Note again the increased precision of the estimates from either including covariates or differencing the dependent variable.

Figure B.1: Distribution of Rating Variable
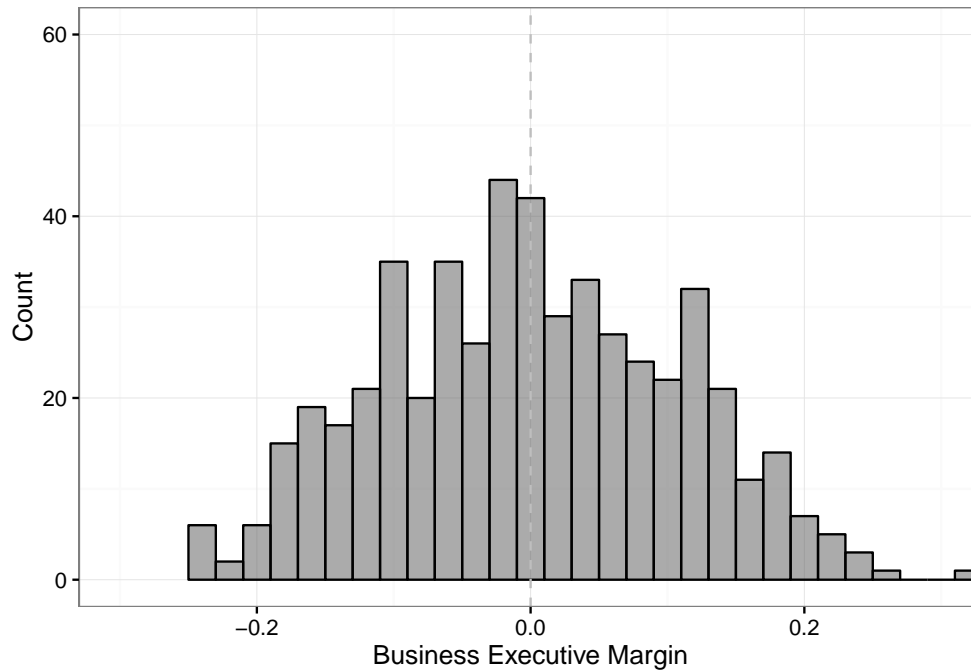
B.2.1 Sensitivity to Bandwidth

Figures B.2 and fig: multi bw 2 present estimates of the effects of electing a business executive on spending at multiple bandwidths using different operationalizations of the dependent variables. These figures includes point estimates with 95% confidence intervals constructed using robust standard errors for housing (B.2(a) and B.2(b)), roads (B.2(c) and B.2(d)), administration (B.3(a) and B.3(b)), and parks (B.3(c) and B.3(d)). For each dependent variable, the first column includes three panels containing an unadjusted basic model, a covariate adjusted model, and a differenced dependent variable model. The second column contains similar specifications using logs of all fiscal outcomes. In each plot, the open point and dotted lines represent the point estimate and robust bias-corrected confidence interval at the MSE-optimal bandwidth (estimated per Calonico, Cattaneo and Titiunik (2014) using the `rdrobust` package in R). At narrower bandwidths, the estimates tend to be larger and noisier, but as the bandwidth increases the estimates are quite stable. Note that the results presented in Section 4.2 above are quite robust to alternative specifications.

Table B.1: Placebo Tests

	Coefficient	Std. Error	*p*-value	Bandwidth
Optimal Bandwidth				
Total Revenue (per-capita, lagged)	217.254	(316.562)	0.493	0.104
Total Expenditures (per-capita, lagged)	320.576	(347.274)	0.357	0.101
Total Taxes (per-capita, lagged)	97.527	(102.129)	0.341	0.094
Municipal Form	0.157	(0.122)	0.198	0.090
Population (in thousands)	109.463	(213.204)	0.608	0.105
Percent White	4.980	(4.269)	0.245	0.078
Unemployment Rate	-0.585	(0.603)	0.333	0.076
Home-ownership Rate	-1.155	(3.169)	0.716	0.049
Median Household Income	-7.909	(3197.434)	0.998	0.077
Median House Value ($ in thousands)	-25.351	(16.484)	0.125	0.091
5% Bandwidth				
Total Revenue (per-capita, lagged)	520.887	(454.980)	0.254	0.050
Total Expenditures (per-capita, lagged)	692.504	(506.563)	0.174	0.050
Total Taxes (per-capita, lagged)	183.662	(122.274)	0.135	0.050
Municipal Form	0.169	(0.158)	0.288	0.050
Population (in thousands)	183.134	(207.415)	0.379	0.050
Percent White	4.462	(5.243)	0.396	0.050
Unemployment Rate	-0.408	(0.742)	0.583	0.050
Home-ownership Rate	-1.088	(3.161)	0.731	0.050
Median Household Income	708.835	(3920.196)	0.857	0.050
Median House Value ($ in thousands)	-30.508	(22.090)	0.169	0.050

Note: Estimated using local linear regression. Robust standard errors reported. Optimal bandwidths calculated per Calonico, Cattaneo and Titiunik (2014) using `rdrobust`.

Table B.2: Placebo Tests

with Robust Bias-Corrected Confidence Intervals

	Coefficient	Confidence Interval	p-value	Bandwidth
Total Revenue (per-capita, lagged)	217.256	[-496.226, 1058.050]	0.479	0.104
Total Expenditures (per-capita, lagged)	320.601	[-454.283, 1263.252]	0.356	0.101
Total Taxes (per-capita, lagged)	97.495	[-132.082, 366.792]	0.356	0.094
Municipal Form	0.157	[-0.081, 0.453]	0.173	0.090
Population (in thousands)	109.446	[-332.252, 605.219]	0.568	0.105
Percent White	4.979	[-3.025, 14.363]	0.201	0.078
Unemployment Rate	-0.585	[-1.930, 0.727]	0.375	0.076
Home-ownership Rate	-1.160	[-10.123, 4.890]	0.494	0.049
Median Household Income	-8.266	[-7864.180, 7552.968]	0.968	0.077
Median House Value ($ in thousands)	-25.346	[-70.351, 11.315]	0.157	0.091

Note: Estimated using local linear regression. Optimal bandwidth and robust confidence intervals calculated with `rdrobust`.

Table B.3: Spending by Category (Figure 3 of the main text)

	Coefficient	Std. Error	p-value	Bandwidth	n
Police	-1.55	11.625	0.894	0.05	143
Fire	-0.07	6.798	0.992	0.05	143
Administration	11.34	6.210	0.070	0.05	130
Sanitation	-0.42	6.218	0.947	0.05	139
Roads	90.22	43.257	0.039	0.05	143
Parks	54.09	30.583	0.079	0.05	143
Libraries	4.13	4.227	0.330	0.05	134
Health	-3.62	6.842	0.597	0.05	139
Housing	-27.07	11.551	0.021	0.05	140
Welfare	-2.39	9.111	0.793	0.05	143

Note: Estimated using local linear regression with covariates. Robust standard errors. Dependent variables are measured in dollars per-capita; n is the number of observations within the 0.05 bandwidth.

Figure B.2: RD Estimates at Multiple Bandwidths
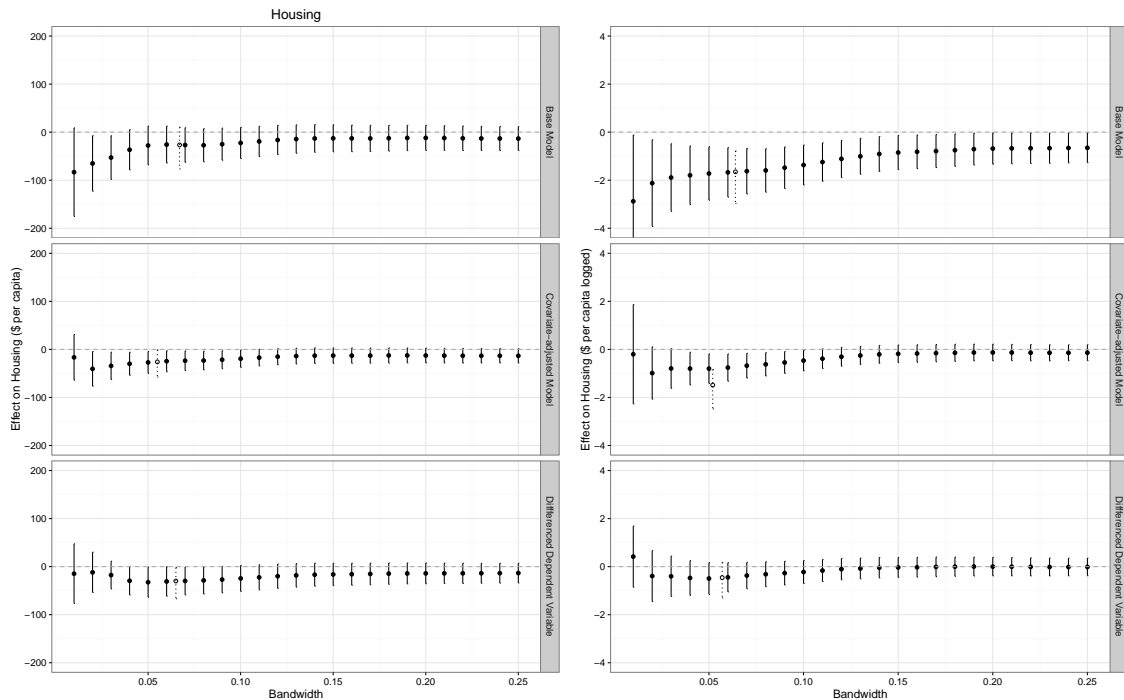
(a) Housing
Spending—-per-capita dollars

(b) Housing
Spending—-log of per-capita dollars
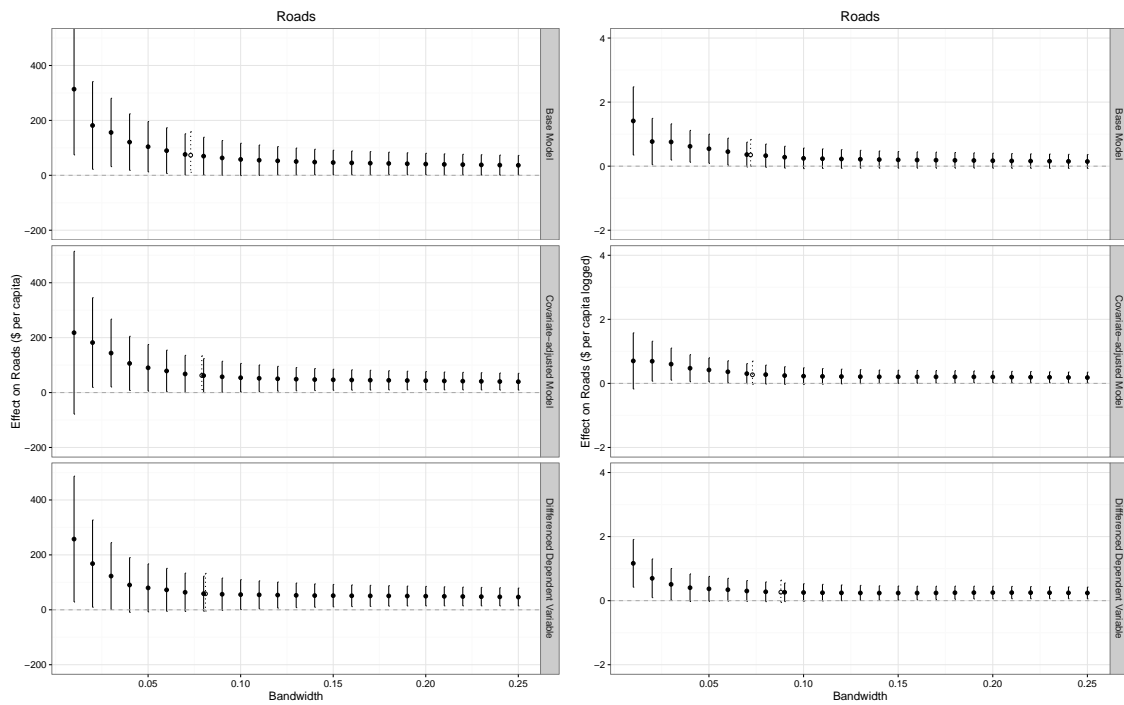
(c) Roads
Spending—-per-capita dollars

(d) Roads
Spending—-log of per-capita dollars

Figure B.3: RD Estimates at Multiple Bandwidths
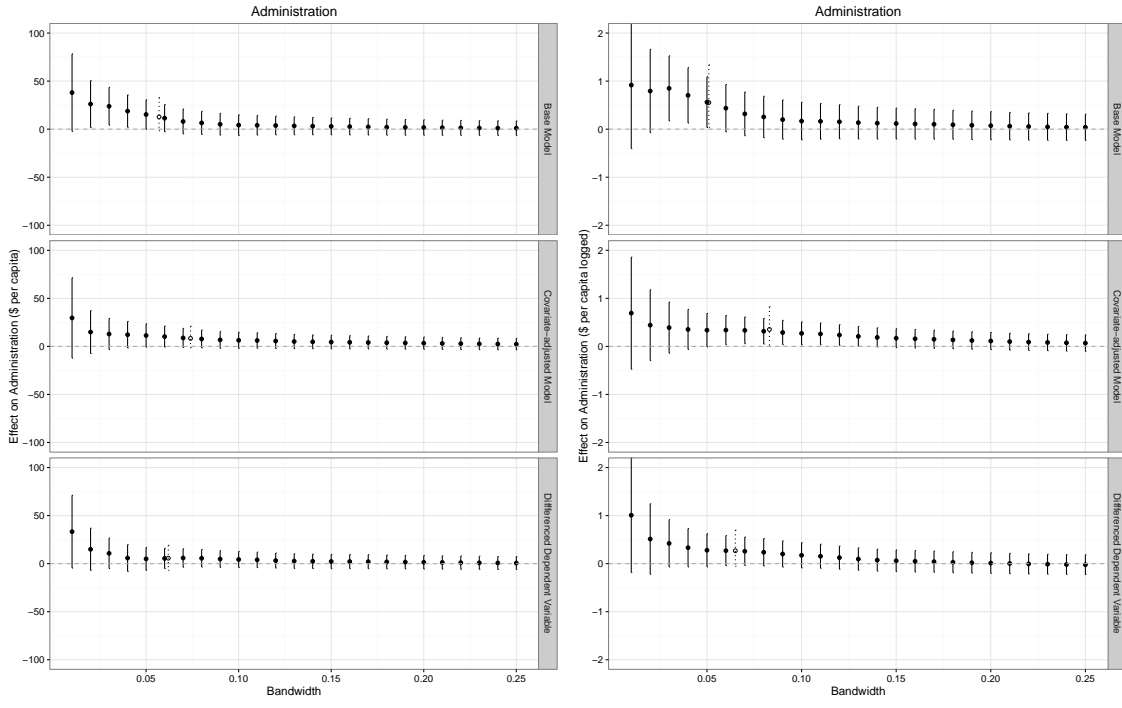
(a) Administration
Spending—-per-capita dollars

(b) Administration
Spending—-log of per-capita dollars
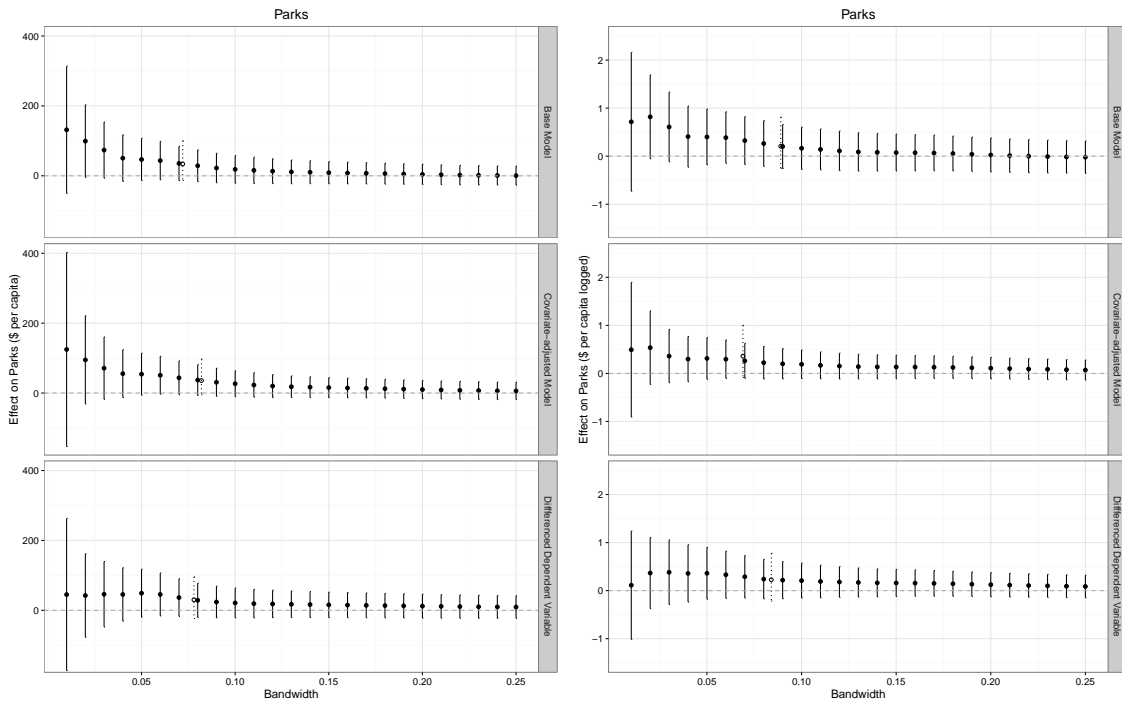
(c) Parks
Spending—-per-capita dollars

(d) Parks
Spending—-log of per-capita dollars

B.3   Alternative Specifications

B.3.1   Size of Government

In the primary analysis presented in Section 4.1 of the main text, all dependent variables are measured in constant (2000) dollars per-capita, and the effects of electing a business executive mayor are estimated using local linear regression. Tables B.4, B.5, B.6 present the results of several specifications using a bandwidth of 0.05 but with different operationalizations of the dependent variables. These include a "base model," with no covariates, the same model with the dependent variable transformed to its log, the covariate-adjusted model, a covariate adjusted model with logged variables, a model where the dependent variable is the difference between the dependent variable two years after the election and the year before the election, and the final specification uses the difference in the logs of the leading and lagged dependent variables. As expected, including covariates or differencing the dependent variable consistently produces more precise estimates. However, neither the substantive nor statistical significance of the RD results depends on a specific model specification or operationalization of the dependent variables.

B.3.2   Spending by Category

In the primary analysis presented in Section 4.2 of the main text, all dependent variables are measured in constant (2000) dollars per-capita. Table A3 presents the results of alternative specifications and formulations of the dependent variables. Note again the increased precision of the estimates from either including covariates or differencing the dependent variable.

B.3.3   Spending Shares

While I use absolute per-capita spending to measure fiscal policy priorities, an alternative operationalization of spending is as a share of total expenditures. Table includes the results of an RD analysis in which the spending dependent variables are operationalized as shares. The decrease in

Table B.4: Size of Government

	Coefficient	Std. Error	*p*-value	Bandwidth	Specification
Total Revenue	649.83	454.730	0.155	0.05	Base Model
Total Revenue	108.53	108.810	0.320	0.05	Covariate-adjusted
Total Revenue	0.32	0.239	0.180	0.05	Base Model - Log DV
Total Revenue	0.07	0.059	0.251	0.05	Covariate-adjusted - Log DV
Total Revenue	115.82	123.640	0.350	0.05	Differenced DV
Total Revenue	0.06	0.064	0.317	0.05	Differenced Log DV
Total Debt	404.18	731.953	0.582	0.05	Base Model
Total Debt	374.27	754.691	0.621	0.05	Covariate-adjusted
Total Debt	0.08	0.369	0.822	0.05	Base Model - Log DV
Total Debt	-0.18	0.348	0.599	0.05	Covariate-adjusted - Log DV
Total Debt	419.65	770.347	0.587	0.05	Differenced DV
Total Debt	-0.62	0.715	0.390	0.05	Differenced Log DV
Total Expenditures	856.72	548.110	0.120	0.05	Base Model
Total Expenditures	102.56	158.142	0.518	0.05	Covariate-adjusted
Total Expenditures	0.39	0.252	0.128	0.05	Base Model - Log DV
Total Expenditures	0.09	0.082	0.290	0.05	Covariate-adjusted - Log DV
Total Expenditures	159.55	188.019	0.398	0.05	Differenced DV
Total Expenditures	0.08	0.079	0.304	0.05	Differenced Log DV

Note: Estimated using local linear regression with bandwidth of 0.05 and robust standard errors.
Dependent variables measured in per-capita dollars.

the share of spending allocated to housing seems especially robust, but for roads and parks, note that statistical significance varies across models. Overall, however, the findings presented here are largely consistent with the main results

B.4 Alternative Estimation Strategy

Among the most recent studies and RDD guides, some advocate the use of robust bias-corrected confidence intervals in combination with local linear regression and MSE-optimal bandwidths (For a discussion of using robust bias-corrected confidence intervals for inference, see Calonico, Cattaneo and Titiunik (2014) or Skovron and Titiunik (2016), or for a recent application see de Benedictis-Kessner and Warshaw (2016)). In the main text, I opt to present conventional robust

Table B.5: Municipal Revenue

	Coefficient	Std. Error	p-value	Bandwidth	Specification
Total Own-Source Revenue	361.58	277.897	0.195	0.05	Base Model
Total Own-Source Revenue	158.45	83.749	0.061	0.05	Covariate-adjusted
Total Own-Source Revenue	0.33	0.217	0.127	0.05	Base Model - Log DV
Total Own-Source Revenue	0.12	0.060	0.041	0.05	Covariate-adjusted - Log DV
Total Own-Source Revenue	124.29	83.384	0.138	0.05	Differenced DV
Total Own-Source Revenue	0.10	0.063	0.121	0.05	Differenced Log DV
Total Taxes	195.85	126.287	0.123	0.05	Base Model
Total Taxes	-12.29	47.974	0.798	0.05	Covariate-adjusted
Total Taxes	0.20	0.197	0.316	0.05	Base Model - Log DV
Total Taxes	-0.05	0.079	0.553	0.05	Covariate-adjusted - Log DV
Total Taxes	-5.88	51.282	0.909	0.05	Differenced DV
Total Taxes	-0.06	0.081	0.449	0.05	Differenced Log DV
Sales Taxes	-45.35	35.863	0.208	0.05	Base Model
Sales Taxes	1.27	9.274	0.891	0.05	Covariate-adjusted
Sales Taxes	-1.35	0.724	0.065	0.05	Base Model - Log DV
Sales Taxes	0.03	0.150	0.830	0.05	Covariate-adjusted - Log DV
Sales Taxes	-3.39	8.152	0.679	0.05	Differenced DV
Sales Taxes	0.10	0.154	0.522	0.05	Differenced Log DV
Property Taxes	278.41	106.536	0.010	0.05	Base Model
Property Taxes	22.38	38.135	0.558	0.05	Covariate-adjusted
Property Taxes	0.76	0.251	0.003	0.05	Base Model - Log DV
Property Taxes	0.03	0.086	0.766	0.05	Covariate-adjusted - Log DV
Property Taxes	33.05	42.739	0.441	0.05	Differenced DV
Property Taxes	0.00	0.094	0.973	0.05	Differenced Log DV
Charges & Misc. Revenue	177.72	127.237	0.165	0.05	Base Model
Charges & Misc. Revenue	62.60	38.516	0.106	0.05	Covariate-adjusted
Charges & Misc. Revenue	0.22	0.309	0.476	0.05	Base Model - Log DV
Charges & Misc. Revenue	0.15	0.086	0.075	0.05	Covariate-adjusted - Log DV
Charges & Misc. Revenue	50.43	38.421	0.192	0.05	Differenced DV
Charges & Misc. Revenue	0.10	0.089	0.278	0.05	Differenced Log DV

Note: Estimated using local linear regression with bandwidth of 0.05 and robust standard errors.
Dependent variables measured in per-capita dollars.

standard errors partly because this approach seems better suited to presenting results at multiple bandwidths. However, I have conducted comparable analyses that incorporate robust bias-

Table B.6: Municipal Debt

	Coefficient	Std. Error	*p*-value	Bandwidth	Specification
Debt Issued	212.66	201.009	0.292	0.05	Base Model
Debt Issued	94.64	123.651	0.445	0.05	Covariate-adjusted
Debt Issued	-0.36	0.835	0.667	0.05	Base Model - Log DV
Debt Issued	-0.85	0.795	0.288	0.05	Covariate-adjusted - Log DV
Debt Issued	31.76	134.757	0.814	0.05	Differenced DV
Debt Issued	-1.39	0.959	0.151	0.05	Differenced Log DV
Short-term Debt	86.05	45.924	0.063	0.05	Base Model
Short-term Debt	58.96	33.668	0.082	0.05	Covariate-adjusted
Short-term Debt	1.04	0.696	0.137	0.05	Base Model - Log DV
Short-term Debt	0.61	0.559	0.275	0.05	Covariate-adjusted - Log DV
Short-term Debt	57.36	33.498	0.089	0.05	Differenced DV
Short-term Debt	0.36	0.620	0.566	0.05	Differenced Log DV

Note: Estimated using local linear regression with bandwidth of 0.05 and robust standard errors.
Dependent variables measured in per-capita dollars.

corrected confidence intervals, and the results are substantively similar. To facilitate comparison, the results presented in Tables B.9 and B.10 were estimated using the same covariates used in the main analyses (population, racial diversity, median household income, median house value, and the lagged dependent variable). Note the marginal increases in own-source revenue as well as charges and miscellaneous revenue. When it comes to spending, an increase in spending on roads is accompanied by a decrease in spending for housing and community development, and increases in spending on parks and administration are statistically significant at the 10% level.

B.5 The Role of Party

In Section 4.3 of the main text, I consider the possibility that what I describe as the effect of electing a business executive is actually the effect of electing a Republican mayor. To address this concern, I focus on the subset of elections where both candidates' party affiliations are observed and different. Using this subset, I replicate my main RD analyses to estimate the effect of electing a business executive. I display selected results in the main text, but the full results are presented

Table B.7: Spending by Category

	Coefficient	Std. Error	*p*-value	Bandwidth	Specification
Roads	104.19	46.725	0.027	0.05	Base Model
Roads	90.22	43.257	0.039	0.05	Covariate-adjusted
Roads	0.54	0.232	0.021	0.05	Base Model - Log DV
Roads	0.42	0.192	0.030	0.05	Covariate-adjusted - Log DV
Roads	79.85	44.531	0.075	0.05	Differenced DV
Roads	0.37	0.198	0.065	0.05	Differenced Log DV
Parks	46.75	30.749	0.131	0.05	Base Model
Parks	54.09	30.583	0.079	0.05	Covariate-adjusted
Parks	0.40	0.296	0.179	0.05	Base Model - Log DV
Parks	0.31	0.221	0.161	0.05	Covariate-adjusted - Log DV
Parks	48.97	35.020	0.164	0.05	Differenced DV
Parks	0.36	0.275	0.192	0.05	Differenced Log DV
Libraries	8.26	5.312	0.122	0.05	Base Model
Libraries	4.13	4.227	0.330	0.05	Covariate-adjusted
Libraries	1.00	0.484	0.042	0.05	Base Model - Log DV
Libraries	-0.19	0.148	0.204	0.05	Covariate-adjusted - Log DV
Libraries	-0.96	3.976	0.809	0.05	Differenced DV
Libraries	-0.19	0.157	0.219	0.05	Differenced Log DV
Health	0.48	19.742	0.981	0.05	Base Model
Health	-3.62	6.842	0.597	0.05	Covariate-adjusted
Health	0.23	0.537	0.668	0.05	Base Model - Log DV
Health	-0.21	0.165	0.215	0.05	Covariate-adjusted - Log DV
Health	-3.24	7.045	0.647	0.05	Differenced DV
Health	-0.21	0.191	0.275	0.05	Differenced Log DV
Housing	-27.75	20.512	0.178	0.05	Base Model
Housing	-27.07	11.551	0.021	0.05	Covariate-adjusted
Housing	-1.72	0.566	0.003	0.05	Base Model - Log DV
Housing	-0.80	0.312	0.011	0.05	Covariate-adjusted - Log DV
Housing	-32.41	15.913	0.044	0.05	Differenced DV
Housing	-0.49	0.336	0.144	0.05	Differenced Log DV
Welfare	30.37	28.644	0.291	0.05	Base Model
Welfare	-2.39	9.111	0.793	0.05	Covariate-adjusted
Welfare	0.94	0.571	0.101	0.05	Base Model - Log DV
Welfare	0.22	0.401	0.589	0.05	Covariate-adjusted - Log DV
Welfare	-5.08	12.467	0.684	0.05	Differenced DV
Welfare	0.12	0.415	0.780	0.05	Differenced Log DV

Note: Estimated using local linear regression with bandwidth of 0.05 and robust standard errors.
Dependent variables measured in per-capita dollars.

below.

Spending by Category (Cont'd)

	Coefficient	Std. Error	p-value	Bandwidth	Specification
Police	16.15	27.821	0.562	0.05	Base Model
Police	-1.55	11.625	0.894	0.05	Covariate-adjusted
Police	0.00	0.177	0.997	0.05	Base Model - Log DV
Police	0.01	0.065	0.875	0.05	Covariate-adjusted - Log DV
Police	-2.09	13.693	0.879	0.05	Differenced DV
Police	-0.00	0.070	0.981	0.05	Differenced Log DV
Fire	20.21	16.647	0.227	0.05	Base Model
Fire	-0.07	6.798	0.992	0.05	Covariate-adjusted
Fire	0.41	0.303	0.182	0.05	Base Model - Log DV
Fire	0.04	0.066	0.577	0.05	Covariate-adjusted - Log DV
Fire	-0.28	7.454	0.970	0.05	Differenced DV
Fire	0.00	0.065	0.946	0.05	Differenced Log DV
Administration	15.28	7.807	0.052	0.05	Base Model
Administration	11.34	6.210	0.070	0.05	Covariate-adjusted
Administration	0.56	0.269	0.039	0.05	Base Model - Log DV
Administration	0.34	0.177	0.059	0.05	Covariate-adjusted - Log DV
Administration	4.95	6.090	0.418	0.05	Differenced DV
Administration	0.28	0.176	0.115	0.05	Differenced Log DV
Sanitation	5.32	9.637	0.582	0.05	Base Model
Sanitation	-0.42	6.218	0.947	0.05	Covariate-adjusted
Sanitation	0.58	0.430	0.177	0.05	Base Model - Log DV
Sanitation	-0.00	0.139	0.980	0.05	Covariate-adjusted - Log DV
Sanitation	-3.29	6.588	0.618	0.05	Differenced DV
Sanitation	-0.06	0.137	0.670	0.05	Differenced Log DV

Note: Estimated using local linear regression with bandwidth of 0.05 and robust standard errors.
Dependent variables measured in per-capita dollars.

B.5.1 Effect of Electing a Business Executive

Tables B.11, B.12, B.13, and B.14 include the full results of an RD analysis of the effect of electing a business executive. Note that the number of observations is quite small, which leads to rather noisy estimates. However, the increase in spending on roads and decrease in spending on housing and community development are still apparent.

B.5.2 Effect of Electing a Republican

Tables B.15, B.16, B.17, and B.18 include the full results of an RD analysis of the effect of electing a Republican mayor. Note again that the number of observations is quite small, which leads to rather noisy estimates. Although most of the results are null, there is no evidence to suggest that

Table B.8: Spending Shares

	Coefficient	Std. Error	p-value	Bandwidth	Specification
Police	-0.045	0.018	0.015	0.05	Base Model
Police	-0.010	0.009	0.275	0.05	Covariate-adjusted
Police	-0.007	0.009	0.466	0.05	Differenced DV
Fire	-0.007	0.014	0.613	0.05	Base Model
Fire	-0.004	0.005	0.372	0.05	Covariate-adjusted
Fire	-0.005	0.006	0.424	0.05	Differenced DV
Administration	0.003	0.005	0.611	0.05	Base Model
Administration	0.007	0.005	0.171	0.05	Covariate-adjusted
Administration	0.007	0.007	0.294	0.05	Differenced DV
Sanitation	-0.005	0.008	0.559	0.05	Base Model
Sanitation	-0.000	0.006	0.964	0.05	Covariate-adjusted
Sanitation	-0.001	0.008	0.911	0.05	Differenced DV
Roads	0.011	0.024	0.639	0.05	Base Model
Roads	0.028	0.022	0.203	0.05	Covariate-adjusted
Roads	0.042	0.021	0.045	0.05	Differenced DV
Parks	-0.001	0.015	0.928	0.05	Base Model
Parks	0.011	0.014	0.438	0.05	Covariate-adjusted
Parks	0.024	0.014	0.081	0.05	Differenced DV
Libraries	0.001	0.003	0.680	0.05	Base Model
Libraries	-0.000	0.003	0.930	0.05	Covariate-adjusted
Libraries	-0.002	0.003	0.420	0.05	Differenced DV
Health	-0.004	0.005	0.426	0.05	Base Model
Health	-0.000	0.002	0.917	0.05	Covariate-adjusted
Health	-0.000	0.002	0.893	0.05	Differenced DV
Housing	-0.039	0.018	0.034	0.05	Base Model
Housing	-0.028	0.010	0.006	0.05	Covariate-adjusted
Housing	-0.026	0.010	0.014	0.05	Differenced DV
Welfare	0.006	0.006	0.279	0.05	Base Model
Welfare	-0.003	0.003	0.444	0.05	Covariate-adjusted
Welfare	-0.006	0.006	0.347	0.05	Differenced DV

Note: Estimated using local linear regression with bandwidth of 0.05 and robust standard errors.
Dependent variables measured as their share of total expenditures.

the effect of electing a business executive is instead capturing the effect of electing a Republican. Indeed, the coefficient on spending for roads is negative and barely significant at the 10% level, while most of the results are null.

Table B.9: Size of Government

with Robust Bias-Corrected Confidence Intervals

	Coefficient	Robust Confidence Interval	*p*-value	Bandwidth	N	Mean	Standard Deviation
Total Revenue	124.05	[-122.79, 388.29]	0.309	0.066	181	1495.28	995.39
Total Own-Source Revenue	151.68	[-3.69, 362.54]	0.055	0.056	154	1169.35	748.06
Total Taxes	-11.98	[-104.00, 82.39]	0.820	0.083	213	556.18	383.23
Sales Taxes	1.95	[-17.38, 21.89]	0.822	0.053	148	126.95	132.27
Property Taxes	14.37	[-62.57, 102.94]	0.633	0.074	197	371.26	357.42
Charges & Misc. Revenue	56.05	[-8.64, 142.63]	0.083	0.057	155	315.62	261.18
Total Debt	279.77	[-705.35, 1569.02]	0.457	0.084	214	1765.33	1478.05
Debt Issued	142.33	[-145.95, 463.36]	0.307	0.074	197	251.45	370.93
Short-term Debt	47.95	[-14.97, 133.82]	0.117	0.062	168	60.68	194.71
Total Expenditures	135.42	[-127.08, 430.05]	0.287	0.093	234	1506.89	1053.30

Note: Estimated using local linear regression with covariates. Optimal bandwidth and robust confidence intervals calculated with `rdrobust`. Dependent variables are measured in dollars per-capita; n is the number of observations within the optimal bandwidth.

Table B.10: Spending by Category

with Robust Bias-Corrected Confidence Intervals

	Coefficient	Robust Confidence Interval	p-value	Bandwidth	N	Mean	Standard Deviation
Roads	62.30	[10.87, 133.63]	0.021	0.079	202	103.30	73.65
Parks	35.81	[-4.70, 97.19]	0.075	0.082	210	72.74	71.27
Administration	8.33	[-1.37, 20.93]	0.086	0.074	182	27.32	21.32
Libraries	4.68	[-3.20, 15.30]	0.200	0.047	129	17.12	20.78
Health	-1.27	[-17.40, 11.02]	0.660	0.063	167	21.03	60.62
Fire	-1.33	[-11.91, 12.74]	0.947	0.083	213	95.24	48.21
Sanitation	-1.12	[-12.49, 12.65]	0.990	0.076	195	41.49	32.10
Welfare	-5.39	[-23.88, 10.76]	0.458	0.107	268	22.18	76.94
Police	-5.47	[-30.08, 18.27]	0.632	0.074	197	144.96	74.69
Housing	-26.04	[-57.44, -1.23]	0.041	0.055	151	51.51	75.92

Note: Estimated using local linear regression with covariates. Optimal bandwidth and robust confidence intervals calculated with `rdrobust`. Dependent variables are measured in dollars per-capita; n is the number of observations within the optimal bandwidth.

Table B.11: Size of Government—Two-party Subset

Dependent Variable	Mean & Std. Dev.	(1)	(2)	(3)	(4)
Total Revenues	1,591.96	444.88	532.30	8.41	2.10
	(1,133.07)	(525.25)	(676.95)	(142.59)	(153.16)
Bandwidth		0.089	0.050	0.058	0.050
Observations		103	72	72	69
Total Debt	1,836.07	115.30	121.68	2.57	73.91
	(1,421.27)	(761.70)	(1,084.12)	(867.78)	(1,122.46)
Bandwidth		0.095	0.050	0.073	0.050
Observations		109	72	90	69
Total Expenditures	1,622.32	655.52	849.61	121.67	148.85
	(1,246.84)	(599.94)	(812.65)	(195.59)	(252.72)
Bandwidth		0.097	0.050	0.071	0.050
Observations		109	72	86	69

Note: Estimated using local linear regression with robust standard errors.
Dependent variables measured in per-capita dollars. $^*p<0.1$; $^{**}p<0.05$

Table B.12: Municipal Revenue—Two-party Subset

Dependent Variable	Mean & Std. Dev.	(1)	(2)	(3)	(4)
Own-source Revenues	1,214.06 (797.08)	97.03 (341.23)	110.34 (421.55)	47.80 (90.50)	45.77 (90.08)
Bandwidth Observations		0.077 93	0.050 72	0.049 67	0.050 69
Total Taxes	632.40 (473.12)	86.31 (161.15)	171.94 (171.59)	−81.28 (66.47)	−95.74 (77.33)
Bandwidth Observations		0.076 93	0.050 72	0.067 84	0.050 69
Property Taxes	438.61 (429.80)	310.75** (133.98)	314.91** (136.20)	−15.53 (51.06)	−19.47 (55.93)
Bandwidth Observations		0.054 74	0.050 72	0.067 84	0.050 69
Sales Taxes	117.10 (146.29)	−50.12 (47.93)	−63.90 (54.73)	−2.33 (12.70)	−7.77 (12.48)
Bandwidth Observations		0.084 100	0.050 72	0.063 76	0.050 69
Charges and Misc. Revenue	307.87 (258.95)	144.95 (130.07)	169.59 (181.20)	64.29 (48.21)	69.20 (56.18)
Bandwidth Observations		0.091 106	0.050 72	0.064 78	0.050 69

Note: Estimated using local linear regression with robust standard errors.
Dependent variables measured in per-capita dollars. *p<0.1; **p<0.05

Table B.13: Municipal Debt—Two-party Subset

Dependent Variable	Mean & Std. Dev.	(1)	(2)	(3)	(4)
Debt Issued	269.52	264.70	266.88	−16.46	−18.08
	(402.44)	(242.03)	(287.93)	(120.27)	(121.97)
Bandwidth		0.073	0.050	0.052	0.050
Observations		93	72	69	69
Short-term Debt	110.22	140.06*	131.24*	45.82	69.79
	(283.92)	(76.36)	(77.09)	(44.66)	(48.47)
Bandwidth		0.058	0.050	0.070	0.050
Observations		75	72	86	69

Note: Estimated using local linear regression with robust standard errors.
Dependent variables measured in per-capita dollars. $^*p<0.1$; $^{**}p<0.05$

Table B.14: Spending by Category—Two-party Subset

	Coefficient	Std. Error	p-value	Bandwidth	N
Police	-6.79	19.335	0.727	0.05	69
Fire	-11.31	11.361	0.324	0.05	69
Administration	3.14	8.118	0.701	0.05	62
Sanitation	-4.07	9.359	0.665	0.05	67
Roads	147.16	63.596	0.024	0.05	69
Parks	53.65	44.929	0.237	0.05	69
Libraries	2.87	6.961	0.682	0.05	64
Health	-5.37	10.323	0.605	0.05	67
Housing	-39.81	18.490	0.035	0.05	68
Welfare	4.80	12.117	0.694	0.05	69

Note: Estimated using local linear regression with robust standard errors.
Dependent variables measured in per-capita dollars.

Table B.15: Size of Government—Effect of Electing a Republican

Dependent Variable	Mean & Std. Dev.	(1)	(2)	(3)	(4)
Total Revenues	1,591.96	302.76	18.05	−66.44	−61.10
	(1,133.07)	(578.62)	(711.62)	(147.75)	(159.33)
Bandwidth		0.075	0.050	0.058	0.050
Observations		93	72	72	69
Total Debt	1,836.07	762.87	458.96	497.91	385.28
	(1,421.27)	(717.58)	(1,116.80)	(1,011.83)	(1,134.29)
Bandwidth		0.113	0.050	0.062	0.050
Observations		132	72	75	69
Total Expenditures	1,622.32	40.35	−365.11	−334.70	−346.91
	(1,246.84)	(671.67)	(848.63)	(208.15)	(258.48)
Bandwidth		0.078	0.050	0.069	0.050
Observations		93	72	85	69

Note: Estimated using local linear regression with robust standard errors.
Dependent variables measured in per-capita dollars. $^{*}p<0.1$; $^{**}p<0.05$

Table B.16: Municipal Revenue—Effect of Electing a Republican

Dependent Variable	Mean & Std. Dev.	(1)	(2)	(3)	(4)
Own-source Revenues	1,214.06 (797.08)	318.28 (393.48)	220.19 (435.21)	3.89 (85.90)	4.91 (85.07)
Bandwidth Observations		0.064 81	0.050 72	0.049 67	0.050 69
Total Taxes	632.40 (473.12)	233.54 (182.71)	193.82 (198.42)	54.43 (58.41)	71.13 (88.95)
Bandwidth Observations		0.075 93	0.050 72	0.103 112	0.050 69
Property Taxes	438.61 (429.80)	114.94 (148.47)	100.03 (157.08)	36.26 (54.01)	40.95 (69.35)
Bandwidth Observations		0.063 79	0.050 72	0.074 90	0.050 69
Sales Taxes	117.10 (146.29)	54.53 (52.48)	28.51 (55.92)	-12.06 (8.54)	-13.60 (9.82)
Bandwidth Observations		0.072 92	0.050 72	0.069 85	0.050 69
Charges and Misc. Revenue	307.87 (258.95)	-29.55 (115.18)	-116.07 (183.07)	-43.65 (53.94)	-49.23 (58.04)
Bandwidth Observations		0.104 119	0.050 72	0.057 72	0.050 69

Note: Estimated using local linear regression with robust standard errors.
Dependent variables measured in per-capita dollars. *p<0.1; **p<0.05

Table B.17: Municipal Debt—Effect of Electing a Republican

Dependent Variable	Mean & Std. Dev.	(1)	(2)	(3)	(4)
Debt Issued	269.52	−183.74	−280.39	−364.54**	−342.31**
	(402.44)	(260.41)	(291.94)	(160.81)	(154.21)
Bandwidth		0.063	0.050	0.046	0.050
Observations		81	72	65	69
Short-term Debt	110.22	60.57	97.22	77.26	82.38
	(283.92)	(75.28)	(80.67)	(56.44)	(58.11)
Bandwidth		0.066	0.050	0.057	0.050
Observations		84	72	72	69

Note: Estimated using local linear regression with robust standard errors.
Dependent variables measured in per-capita dollars. $^*p<0.1$; $^{**}p<0.05$

Table B.18: Spending by Category—Effect of Electing a Republican

	Coefficient	Std. Error	p-value	Bandwidth	N
Police	-26.62	22.253	0.236	0.05	69
Fire	1.94	10.572	0.855	0.05	69
Administration	8.05	8.193	0.330	0.05	62
Sanitation	-0.68	7.925	0.932	0.05	67
Roads	-102.32	61.130	0.099	0.05	69
Parks	-33.75	41.790	0.422	0.05	69
Libraries	5.27	5.739	0.362	0.05	64
Health	-9.19	10.167	0.370	0.05	67
Housing	-2.56	16.438	0.877	0.05	68
Welfare	-8.21	11.397	0.474	0.05	69

Note: Estimated using local linear regression with robust standard errors.
Dependent variables measured in per-capita dollars.