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Competing for global capital or local voters? The politics of business location incentives

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Abstract The competition for global capital has led to interjurisdictional competition between countries, states and cities as to who can offer the most attractive incentives to firms. In this study, we examine the domestic politics of this competition by focusing on incentive use in the United States from 1999 to 2012. We define incentives as the targeted tax deductions or exemptions that are used to lure businesses into a locality. Drawing on data from municipal incentive programs, we examine how electoral competition shapes the use and oversight of targeted incentives. We find evidence that cities with elected mayors provide larger incentives than non-elected city managers by taking advantage of exogeneity in the assignment of city government institutions and a database of over 2000 investment incentives from 2010 to 2012. We also find that elected mayors enjoy more lax oversight of incentive projects than their appointed counterparts. Our results have important implications for the study of interjurisdictional competition and the role of electoral institutions in shaping economic policy.

Keywords Incentives · Economic development · Pandering · Local government

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1 Introduction

The competition for global capital is fierce. Countries, states and local governments offer lucrative location-based incentives in order to attract job-creating investments to their districts. This investment competition literally can span the globe. For instance, BMW originally considered 250 locations in its search for a new plant in 1992, eventually narrowing the search down to 20 countries (Greenstone and Moretti 2003). Although many of the factors determining a firm's location choice are beyond the control of governments (e.g., size of the domestic market and geography) or change very slowly over time (e.g., levels of human capital and economic development), one of the few immediate policies that governments can control are location-based incentives to attract investment.

Although the competition for direct investment is global, our research design exploits the excellent laboratory that the United States provides for studying the dynamics of fiscal competition. Most US states now have dedicated agencies to facilitate domestic and international investment, and many US municipalities currently offer location-based incentives. In this paper, we define these incentives as the targeted tax deductions or exemptions that are used to lure businesses into a locality, including tax breaks and abatements. In all, US state and municipal governments now spend approximately $46.8 billion a year on incentives to attract foreign and domestic investors and to retain existing investment (Thomas 2011).

Unfortunately, oversight of these programs has not kept pace with the growth in their use (Thomas 2007). Many of the state incentive programs are opaque, providing little information on allocation decisions. For instance, a survey conducted by the International City/County Management Association (ICMA) in 2009 found that although 95 % of US municipalities offered incentives, only 55 % had mandatory performance qualifications for the companies receiving these incentives (e.g., tracking the number of jobs created or the amount of capital investment provided), while 28 % performed no cost-benefit analysis at all (ICMA 2009). Although state incentive programs have more oversight than municipal programs, their reporting and performance requirements vary considerably (Richard Caplan and Associates 2009). This lack of information makes it difficult to determine whether local executives create these programs in order to pursue sincere economic development goals driven by competitive pressures or in order to exploit the programs by harnessing public capital for their own political or pecuniary gain.

In this paper, we argue that electoral motivations can drive incentive use and oversight. We build off of the pandering literature, which highlights the conditions under which politicians express views and policy positions that differ from their true preferences because they are popular with constituents, even if the resulting policies may in fact be harmful to constituents. In particular, this literature theorizes that municipal executives facing direct electoral pressure are more generous in their use of incentives and experience less oversight of incentive programs.

To examine the impact of electoral institutions on incentives, we exploit variation in US municipal political institutions. According to Vlaicu and Whalley (2014), over half of US municipalities operate under a manager-charter system, whereby the position of chief executive (i.e., manager) is hired and fired by an elected council and not by voters[1]; we

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[1] In the ICMA data, we observe a 75 % share of council-manager systems.

employ the standard term "council-manager" to describe this principal-agent structure.[2] We expect to observe a different pattern of policy selection among council-manager executives than we observe among directly elected strong mayors in "mayor-council systems," who can be held accountable more directly at the ballot box by the voting population. We present evidence that these different principal-agent structures may account for the observed heterogeneity in incentive policies.

We test the impact of electoral institutions on incentives using a dataset of over 2,000 project-level incentives (icaincentives.com 2013), finding significant support for the role of electoral institutions in shaping incentive behavior. This database contains observations based largely on public announcements of incentive awards and provides a snapshot of comparable incentive offers across different forms of government. Although some of these incentive offers may be canceled or the companies may not utilize the tax credits fully, the database captures the size of incentive offers, which is the ideal measure of incentives for our theory.

Accounting for non-random assignment with entropy balancing, elected mayor-council systems are no more likely than council-manager systems to offer an incentive to a firm. However, when mayor-council systems do provide an incentive, they offer 30 % more money per project. We argue that the greater generosity of these strong mayors is facilitated by the fact that they face less oversight than comparable cities subject to council-manager systems. Tellingly, mayor-council systems are 9 % less likely to have an oversight program that requires ex post evaluations on the basis of performance criteria and are 7 % less likely to require cost-benefit analyses concerning the use of incentives.

Our work is in line with previous explorations of US local political institutions, which have found that municipalities with powerful, directly elected mayors (formally called mayor-council systems) have some distinctive characteristics. Specifically, they employ more public officials, especially police officers, and are less likely to privatize public services. Although most analysts agree on these trends, it remains disputed whether mayors do this because of patronage politics (Enikolopov 2014) or pandering (Vlaicu and Whalley 2014). Further, existing academic research is mixed on how the form of government shapes tax incremental financing, which is one type of incentive (Mason and Thomas 2010; Reese and Rosenfeld 2001). By contrast, our approach, which aggregates all types of incentives to obtain the total amount expended by each municipality, finds that, consistent with our electoral explanation, the form of government is associated strongly with the amount of money allocated to incentives.

Our paper is organized into seven sections. Section 2 discusses the economics of incentives, outlining the debate over these policies. Section 3 presents our theory on the political use of incentives. Section 4 explains our research design and tests the allocation of incentives in US municipalities from 2010 to 2012, specifically examining how the form of government shapes the frequency and size of the incentives offered. This section also examines how electoral institutions affect the oversight of incentives using data on US municipal incentives in 1999, 2004 and 2009. These tests use entropy balancing to address imbalance in the observable covariates (Hainmueller 2012). In Sect. 5, we attempt to parse out alternative theories by exploring how the timing of elections influences incentive allocations, and Sect. 6 concludes.

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[2] Many council-manager systems also have directly elected mayors, although they have considerably less power than mayors in mayor-council systems. To distinguish, we occasionally refer to directly elected mayors in a mayor-council system as "strong" mayors.

2 The economics of incentives

A cursory review of major newspapers brims with examples of incentives. Many stories tout the economic benefits of these expenditures, but the price of these incentives can often be astonishing. For example, Kia Motor's decision to invest in Georgia came with a price tag of $258 million in fiscal incentives, amounting to $195,000 per direct job created (Chapman 2001). In addition, Google's "server farm" in Lenior, North Carolina will net as much as $260 million in incentives, but with few local jobs created (Byrnes and Cowan 2007; Langfitt 2009). Specifically, only 150 employees work at the facility, and it appears that most of these jobs went to Google employees who were transferred to the facility rather than to local residents (Frazier and Henderson 2013).

One justification for using incentives is as a mechanism to harness capital for economic development by attracting different firms despite barriers to investment, such as poor infrastructure or distance from markets (Morisset and Pirnia 1999). In addition, these upfront investments may generate positive spillovers that help the specific country, state or local government attract future investment (Greenstone and Moretti 2003).[3] Yet, these purported benefits of incentives assume that governments have the capacity and motivation to price discriminate and provide incentives based on an economic, cost-benefit calculation. Empirical evidence, however, highlights two problems with this assumption.

First, incentives may have a questionable impact on the ultimate location decisions of firms (Bobonis and Shatz 2007; Bronzini and de Blasio 2006; Grant Thornton 2013; Wells et al. 2001). Specifically, proponents of incentives have difficulty demonstrating that incentives actually changed the minds of investors, rather than simply compensating them for a decision they would have made anyway. This does not mean that incentives cannot affect investor decisions. Indeed, these incentives can matter on the margins, and there are plenty of available anecdotes regarding individual success stories. Yet, the most compelling evidence for the limited effectiveness of these incentives comes from the findings of Jolley et al. (2015). In their survey of firms that received incentives in North Carolina, only 30 % of the executives representing these winners were even aware they had received them.

Second, incentives often are excessively large relative to the target investment, leading to economic inefficiencies (Blomstrom and Kokko 2003; Buettner and Ruf 2007; Calcagno and Hefner 2009; Easson 2004; Fox and Murray 2004; Head et al. 1999; Hicks and Shughart 2007; Keen and Mansour 2010; Morisset and Pirnia 1999; Peters and Fisher 2004; Thomas and Wishlade 2009). Furthermore, Glaeser (2001) demonstrates how simply accounting for the number of jobs created compared to the number of dollars provided through the incentive provides clear evidence of the excessive amount often spent on these incentives.

However, to determine truly whether a particular incentive is excessive, researchers should also establish the counterfactual (i.e., the jobs that would have been created without the program) and the multiplier effect (i.e., the total number of jobs created indirectly through employment in supporting these new industries). Unfortunately, few governments take these factors into account. Instead, when governments claim credit for successful job creation, a closer look at the numbers reveals a great deal of creative accounting. For instance, Gabe and Kraybill (2002) study incentives in Ohio, finding that Ohio investment promotion officials pre-announced far larger potential growth numbers for projects that

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[3] For work on foreign direct investment and agglomeration, see Barrell and Pain (1999) and Head et al. (1995, 1999).

received incentives than those that did not, suggesting a pandering element to their announcements.

In addition, Hicks and Shughart (2007) argue that many of the "new" jobs claimed by politicians are overstated since many of these positions are filled by individuals already employed in the area. Similarly, in a review of the jobs data reported by the Utah Science Technology and Research Initiative, which is a large tax incentive program dedicated to improving the environment for technology-led economic development, the Office of the Legislative Auditor General pointed out that the figures being reported "included jobs that no longer exist, were based on projections instead of actuals, and included duplicate counts" as well as that 49 % of the reported jobs could not be validated (Utah Office of the Legislative Auditor General 2013).

Given the great uncertainty about their utility, why do leaders view incentives as such an attractive policy? Jensen et al. (2014) argue that one explanation is the electoral benefit of using incentives for political pandering. More specifically, by building on theories of electoral pandering and using an original survey experiment of US voters' evaluations of governors (which helped limit endogeneity), they find that incentives provide substantial electoral benefits. In fact, respondents to their survey expressed stronger support for governors who employed incentives regardless of their investment outcomes, thereby allowing incumbents to take credit when investment occurred and avoid blame when firms chose to locate elsewhere. Although politicians may offer incentives for a number of reasons, this survey experiment shows that voters are receptive to the appeal of incentives and that political leaders may use incentives strategically, independent of the debate about their effectiveness.

However, these findings supply only half of the empirical evidence for the political use of incentives. Therefore, in the second half of this paper, we take up this issue by examining whether electoral competition motivates politicians to provide incentives. Specifically, using a quasi-experiment, we test the actual use and oversight of incentives by taking advantage of variation in local decision-makers' electoral motivations based on whether they operate in a mayor-council or council-manager system in otherwise similar municipalities.

The comparison between council-manager and mayor-council systems has the particular advantage of stability over time, which mitigates threats of endogenous selection into the local institutional setting. Specifically, a major shift from mayor-council to council-manager systems occurred in the Progressive Era before 1936 (Judd and Swanstrom 2010; Knoke 1982), well before the use of incentives became widespread and 70 years before our period of investigation. After that Era, switching between forms became less common. Enikolopov (2014), for instance, documents only 55 adoptions of council-manager institutions and 47 adoptions of mayor-council institutions in his dataset of 1,546 cities with populations over 30,000 between 1987 and 2002, amounting to institutional changes in only 6.5 % of his total sample.

3 Theory

Our paper departs from debates on the economic costs or benefits of incentives and instead explores the political motivations for offering them. Although policymakers clearly are interested in the economic growth and direct employment benefits associated with firm

investment, we argue that different electoral institutions generate alternative motivations for leaders, which in turn impact their use of incentives.

In a world of perfect information and faithful agents, electoral considerations would have a limited effect on an incumbent politician's decision to provide incentives. Policymakers and citizens would have a complete understanding of the effectiveness of incentives, and everyone's preferences over the policy decision would align. In this scenario, whether the politician is elected directly or indirectly should make little difference in terms of the policy outcome (Deno and Mehay 1987; Persson et al. 1997).[4]

In many cases, however, politicians and voters operate in asymmetric information environments, wherein the policymaker has a better understanding of the optimal policy choices than his or her constituency. Tullock (2005, p. 231) famously argued that ignorance regarding highly technical policies, like tax incentives, is rational for busy constituents who never will experience the true costs of the giveaways. As he put it, "The representatives are normally much better informed than the voters, in fact better informed than the voters could be expected to be." In these situations, the politician has an incentive to "pander," choosing the policy that is popular even if it is not in the voters' direct interest (Maskin and Tirole 2004).[5]

Following Harrington (1993) and Jensen et al. (2014), we argue that voters have an intrinsic interest in economic outcomes (e.g., attracting investment) but have inadequately formed beliefs about the effectiveness of policies (e.g., incentives) in achieving these outcomes. In addition, consistent with Canes-Wrone et al. (2001), politicians may implement a policy that they suspect is inefficient economically to signal their alignment with the voters' purported interests. In our policy example, politicians provide incentives to firms that allow them to take credit for investment that would have come regardless, or they use incentives to diffuse blame by offering incentives to firms that are unlikely to invest in the state. To the degree that this description portrays policy selection accurately, we present evidence that more vigorous electoral competition for the post of municipal executive creates the motivation to disregard issue complexity in exchange for a candidate's more salient objective of signaling his or her alignment with voters' interests.

Voters' beliefs regarding the effectiveness of incentives are an important factor in explaining this finding. American voters consistently believe that taxes are among the *most important* factors in attracting investment and improving economic performance.[6] Regardless of whether politicians believe that incentives are effective, we argue that politicians are motivated to provide these incentives and that the law establishing how to select local executives helps determine the generosity of these incentives. Previous work

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[4] We build on a larger literature in political science on the role of appointed versus elected politicians. For example, Huber and Gordon (2004) explore elected versus appointed judges, and Tavits (2009) examines the relationship between directly elected executives (presidents) versus appointed executives (prime ministers).

[5] See also Caplan (2007).

[6] A 2012 Gallup poll, for instance, asked respondents an opened-ended question, "In your view, what is the most important thing that can be done to improve the economy." The first choice was create more jobs (named by 28 %), but the second choice was "Decrease taxes/improve tax breaks," listed by 11 % of the sample (13 % Republican/10 % Democrat) (Newport 2012). Even more tellingly, in 2011 Gallup asked respondents what Obama could do to create jobs; 85 % favored "Providing tax cuts for small businesses, including incentives to hire workers," and 73 % favored "Giving tax breaks to companies to hire people who have been unemployed for six months" (Newport 2011). On the question of attracting investment, 70 % of US respondents believed that tax incentives were a very important determinant of firm location choice (Ansolabehere 2010).

has noted that politicians are not punished electorally for using these expensive policies and are even awarded additional credit for them (Jensen et al. 2014).

Furthermore, one of the biggest impacts on a politician's survival is the attraction of investment. Politicians that can marginally increase the probability of attracting investment view the extensive use of taxpayer incentives as an enticing strategy. Although political leaders in mayor-council and council-manager systems both benefit from attracting new investment, previous research shows that announcements of an incentive program's success in enticing new firms to locate in a jurisdiction (or an existing firm to expand) generate direct electoral benefits and essentially no political costs (Jensen et al. 2014). These electoral benefits provide politicians in mayor-council systems with more reasons to offer generous incentives. Professional executives in council-manager systems still may provide financial incentives, but their principals, usually city councils, have better information about their effectiveness than the average voter. Thus, the ability of politicians to "over pay" for investment is greater in mayor-council than in council-manager systems.

Our first hypothesis focuses on how electoral institutions affect the actual allocation of incentives. The logic is as follows: Voters do not have the ability to observe directly the factors that affect the location decisions of firms, but they do have priors on the policy levers that are most effective in attracting investment. Local politicians can exploit both this information asymmetry and these priors by using incentives to claim credit for new investments in the politician's district or to lessen blame when firms decide not to come to or even leave the district. More specifically, if the firm locates in their municipality, politicians can point to the incentives as the main policy lever used to attract the investment. In addition, if the firm does not locate in their municipality, the politicians can point to a generous incentive offer as a means of ducking responsibility for not attracting the investment. Given that voters believe incentives to be an effective policy, politicians can pander to voters by using these policies, even if politicians truly believe that they are ineffective or too costly.

The need to deflect blame as well as to claim credit means that some politicians are more likely to offer incentives and that these incentives have the potential to be excessively large. This is the case because the politician is attempting to demonstrate his or her efforts as well as take credit for the potential investment attraction. Thus, headline-grabbing numbers are important because the politician must be seen as trying to win in a competition with alternative locations. Therefore, voters could view a low incentive offer relative to competitors as half-hearted; in other words, as if their hometown did not have "skin in the game," as Ken Hagan, a county commissioner in Florida, put it when describing why his county needed to provide the film industry with generous tax credits (Hagan 2015).[7] Thus, a politician has an incentive to inflate the offer price, especially when they believe they have no chance to win the investment based on the locality's own merits. This situation tends to bias all offers upward, even in localities that actually have a good chance of winning.

Following Vlaicu and Whalley (2014), we argue that the electoral incentives in mayor-council systems are more salient than in council-manager systems.[8] The link between political accountability and local electoral institutions is well-documented in the literature.[9] In fact, the council-manager system, often termed the 'reform' choice of

[7] Hagan is far from the only official or pundit to use this terminology. For example, see Miller (2011, p. 288), the Orlando Sentinel (2009, no author listed) and Talton (2014).

[8] For work that also examines the relationship between government form and local economic development, see Mason and Thomas (2010) and Sharp and Mullinix (2012).

[9] See Feiock et al. (2003) for a thoughtful discussion of this literature. See Schiesl (1977) for a rich description of municipal reform from 1880 to 1920.

government, emerged during the Progressive Era because of beliefs about the problems posed by electoral institutions and spread to over 500 cities by the 1920s (Rice 1977). This form of government was designed specifically as a means of changing leaders' time horizons and limiting the corruption rampant in mayoral systems (Feiock et al. 2003).[10]

Building on this literature, we argue that strong mayors in mayor-council systems aim to identify more clearly with the preferences of voters, and consequently have an interest in pushing for more generous incentive programs, which voters view as an effective policy for attracting investment. Although political leaders in council-manager systems still have reasons to pander to the public, the very creation of these council-manager systems in the Progressive Era represented an attempt to constrain the pandering and malfeasance of local politicians. Therefore, rather than portraying council-manager systems as immune from pandering, we simply note that there is a direct link between elected mayors and constituencies that highlights the mayor's responsibility for economic policy. This leads to our first hypothesis.

Hypothesis 1 (H1)   Cities with mayor-council systems will offer more generous incentives than other forms of municipal government.

It is important to note that our theory does not preclude other electoral mechanisms shaping the use of incentives. Instead, our main contribution in this piece is empirical, where we test if municipal electoral institutions affect the use of incentives. Finding support for Hypothesis 1 would be consistent with our theory; however, there may be other alternative and complimentary mechanisms linking elections to incentives.

It is necessary to add that, although Hypothesis 1 predicts an overall correlation between mayor-council systems and more generous incentives, it does not address *how* mayors are able to offer more generous incentives than other executives. For example, one interpretation of this behavior could be that generous incentives are actually the correct policy choice and that council-manager systems fail to enact these policies because they lack electoral pressures.

However, we argue that by looking at the oversight of incentives, there is evidence that mayors tend to over pay for incentives compared to executives in council-manager systems. In addition, we contend that the problem with many incentives is that they are simply rewarding firms for what they would have done anyway, or they are providing too generous of incentives compared to the economic development impact received. In this sense, monitoring incentives requires oversight of their costs and benefits along with constraints on their use ex ante in order to avoid adopting overly generous incentives (Weingast and Moran 1983).

Thus, we theorize that the ability of principals to monitor and constrain their agents varies by institutional form. Specifically, executives in mayor-council systems have diffuse principals (i.e., voters) with limited information on the effectiveness of incentives. Therefore, these mayors will be subject to incentive oversight that is less formal, allowing for overly generous incentives. Conversely, executives in council-manager systems report to a smaller, more informed group of principals (i.e., members of city council). These councils can become more informed on economic development matters and are more motivated to build formal mechanisms of oversight for these incentives, including cost-benefit analyses (Sharp and Mullinix 2012). Thus, leaders will face very different types of oversight based on the form of local government. Overall, mayors are more prone to use incentives for electoral gain, and this is enabled by weaker oversight of their provision of

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[10] Rauch (1995) shows that these forms of government do have an impact on economic growth and infrastructure investment.

incentives. Although politicians may be constrained by the formal limits of their power, we argue that the type of local government institution affects the municipality's choice of how to oversee the use of incentives.

Consequently, we hypothesize that mayor-council systems are less likely to require elected mayors to perform a cost-benefit analysis of incentives beforehand and are less likely to require firms to meet stringent performance requirements afterward. In short, city councils can use their power to require rigorous oversight of incentive programs, which in turn can mitigate these programs' inefficiencies.

Interestingly, the information asymmetry between voters and politicians does not arise solely from the technical nature of offering incentives. Politicians with the most direct links to voters (i.e., mayors) will be more likely to limit information concerning the costs of incentives to voters. By contrast, city council members have every motivation to rein in the use of incentives by city managers, and they have the political ability to pass related legislation before hiring a manager. This leads to our second hypothesis.

Hypothesis 2 (H2)   Mayor-council systems are less likely to have rigorous oversight of incentives; specifically, they are less likely to mandate performance requirements and cost-benefit analyses.

These two hypotheses highlight how electoral concerns, which vary based on the type of local political institution, can influence both the specific policy instruments used and the levels of program oversight.

3.1 The open secret: anecdotal evidence for politicians' awareness of incentive inefficiencies

An important assumption underlying both of our hypotheses is that politicians are aware that the incentives they offer have a limited ability to attract investment and that they are often excessively costly even if they do. More directly, we assume politicians disregard the uncertain effectiveness of incentives because of the political benefits of providing them regardless of their outcomes. This assumption differentiates our pandering story from an alternative theory that local politicians are themselves ignorant of the true effectiveness of incentives. Although the Ohio (Gabe and Kraybill 2002) and Utah Office of the Legislative Auditor General (2013) examples of over-reporting the incentive benefits are illustrative of a pandering story, they do not demonstrate intentionality. Unfortunately, finding incumbent politicians willing to go on the record and admit that these policies are deeply flawed is nearly impossible.

Nevertheless, there is a great deal of revealing circumstantial evidence that can be assembled regarding the "open secret" among politicians concerning the ineffectiveness of incentives. Perhaps the best evidence is that a number of current elected officials were openly skeptical of incentive policies prior to holding office. For instance, Michigan Governor Rick Snyder criticized tax incentives during his election campaign, only to continue to push for new incentives (now, relabeled as grants) once in office (Pluta 2013). According to our data, Michigan remained one of the most generous states in providing incentives to new businesses. In addition, New York Governor Andrew Cuomo, when pressed by reporters to discuss incentives, stated that "I believe there are instances where you can find it wasn't the smartest investment of money." Cuomo later walked back his statement, clarifying that he was not talking about a specific incentive deal (Mrozek 2013).

Furthermore, an enlightening burst of insight occurred in the Texas gubernatorial election, where former Attorney General Greg Abbot and Republican Chairmen Tom

Pauken vied to replace Rick Perry as the Republican nominee for Governor. Abbot declared his dislike of Texas' tax incentives—the country's largest overall program—arguing that Texas needs to "get out of the business of picking winners and losers." His opponent quickly called him out for his hypocrisy, noting that Abbot formerly approved nearly all of Perry's incentives as Attorney General. He quipped, "It's nice that suddenly Greg Abbott is completely reversing himself and agreeing with me on some of these issues, now that he's a candidate for governor" (Collier 2013).

Finally, a revelatory incident regarding municipal incentives also occurred when *National Public Radio's* (NPR) programs, *This American Life* and *Planet Money*, teamed up to explore economic development strategies in a show called "How to Create a Job" (Glass 2011). The prologue was the host Ira Glass' interview with Missouri Governor Jay Nixon, where Nixon admitted that he had attended an event to celebrate the hiring of a single employee at a Missouri T-Shirt printer that was a recipient of the governor's incentive program.

In the third segment, titled "Job Fairies," however, the reporting took a more controversial turn. Two reporters visited a national convention of economic development officers in San Diego and chronicled the "boosterism" of municipal officials (Glass 2011). The tone of this piece mocked elected officials and economic development managers so sarcastically and derisively—accusing them of "spinning" and "lying"—that NPR was forced to issue an apology for the segment (Schumacher-Matos 2011). Despite the acerbic tone, the message was clear: these economic development agencies actually were creating a very small numbers of jobs by attracting investment from other US locations, and more importantly, they knew it. As the *NPR* Ombudsman summarized it, "…even their local impact is negligible" and "their real interest may be to protect their own jobs" (Schumacher-Matos 2011).

4 Research design

Although the pandering theory is compelling, it leaves unanswered whether politicians actually behave in the manner predicted; in other words, do they actually mobilize incentives to claim credit and deflect blame? Are they more likely to do this in the shadow of an election? Thus, rather than showing that there are electoral gains from offering incentives, we focus on the behavior of elites in the allocation of incentives. We specifically examine how the form of government shapes both the allocation of incentives and the extent of their governmental oversight. In doing so, we focus on the US municipal level.

The complete universe of US municipalities consists of thousands of cities, towns, counties and other forms of local government. Systematic data on cities with very small populations are difficult to obtain, and thus, we tend to observe only data on the small cities that are active in the attraction of competition rather than the small towns on the sidelines. Therefore, to avoid systematic bias in our analysis, we restrict our population to cities larger than 10,000 residents, which allows us to observe both municipalities actively providing generous incentives as well as their counterfactual, similarly situated municipalities that do not provide generous incentives. Municipalities of over 10,000 residents represent 3839 localities in the ICMA database.[11]

Our institutions data are measured at the municipal level, using three waves of economic development surveys in (1999, 2004, 2009). ICMA and the National League of

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[11] ICMA data is copyrighted and its use is by permission.

Cities (NLC) have conducted online surveys of local development practitioners. These surveys include large samples of municipalities, which are drawn from the ICMA database. Individually, they have sample sizes of 406, 378 and 691 localities, respectively, providing a total of 1475 cities with data on electoral institutions. In addition, roughly 437 localities are included in two of the three surveys, and 124 localities provided information for all three surveys. These survey data provide one of the most complete pictures of economic development activities and electoral institutions at the local level because of the high degree of representation (about one-third of the sample frame).

Note that our data only capture incentives that are both offered by municipalities and accepted by firms. This implies that localities that are not attractive investment locations for more traditional reasons (e.g., infrastructure, human capital, proximity, etc.) should have fewer observations. More importantly, if one believes that incentives have some impact on investment decisions, then cities that offer uncompetitive, small incentives should also have fewer observations in these data because firms will reject these offers.

This is important because our main hypothesis suggests that council-manager systems will offer smaller incentives than mayor-council systems. This would create a form of selection bias whereby "small" offers by council-manager systems would not appear in the data. We would only observe the large offers made by council-manager systems. In short, this potential selection bias is against our main hypothesis because council-manager systems will appear to give a more valuable package than they actually do, diminishing the average difference from mayor-council systems. Thus, this is an extremely conservative research design that likely underestimates the true effects of direct elections on incentive allocations. We return to this point when we discuss our results.

4.1 The independent variable: elected mayors

The most useful feature of the ICMA/NLC surveys is that they offer a clear coding of local political institutions. Our independent variable is the type of local political system, contrasting elected mayors in mayor-council systems with executives in council-manager systems. Although there are a number of hybrid systems that could potentially complicate this simple comparison (Frederickson et al. 2004), Nelson (2011) argues that these hybrid forms are still relatively rare. Therefore, we code the variable *Elected Mayors* as "one" for cities with mayor-council systems and "zero" otherwise. In our sample, 370 cities (25 % of the 1475 cities in the ICMA/NLC survey) have mayor-council institutions.

4.2 The dependent variable: the frequency and size of incentives

Our dependent variable for H1 is based on the characteristics of incentives offered from January 2010 through December 2012, as recorded by the Investment Consulting Associates' (ICA) *IncentivesMonitor* database, which is a for-profit incentive tracking firm (*icaincentives.com* 2013). The entire database sample for this time period consists of 3,894 incentives worth approximately $30 billion. From these incentives, we removed 43 federal incentives (worth approximately $13 billion) as well as 418 incentives that were not associated with a specific municipality (worth $1.6 billion).[12]

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[12] In some cases, it was difficult to separate whether the incentive was provided by the municipality directly or was provided by the state government after consultation with the municipality. We treat these two situations as equivalent in the empirical analysis. Fortunately, including state incentives biases against the possibility of identifying differences between mayors and managers.

The next step was to match incentives to local government institutions using the ICMA/NLC data. Of the incentives allocated to municipalities, we were able to match 1284 of these incentives to the ICMA/NLC data. The remaining incentives either were given for investment in cities too small to be included in the ICMA data or were in cities that did not respond to the ICMA survey. Thus, our total sample consists of 1284 incentives allocated to 1475 municipalities between January 2010 and December 2012. Our drop in observations, from 3894 to 1475 incentives largely is due to matching with the ICMA data. More specifically, the ICMA survey response rate, which was roughly 30 % of municipalities, leads us to capture only 37 % of the possible incentives. However, Lobao and Kraybill (2005) have not found any systematic response bias in these data. Thus, our dropped observations are the result of missing data at the city level that should have no impact on our empirical analysis other than decreasing our estimation's efficiency.

Using this database we build two datasets. One is a *project-based* dataset that contains 1284 observations of individual incentives, which are each associated with a particular project. We have data on every project's size of investment, labor and equity ownership along with other features of the project itself. The second dataset is the *municipality-based* dataset, which aggregates the incentive project data at the municipal level. The data in this set range from municipalities providing no incentives to one municipality offering $405 million in incentives (which was spread across 95 different projects and totaled up to $405 million). In this dataset, we cannot control for the specific features of the project.

4.3 Balance between the electoral treatment and control groups

In Online Appendix A1, we present the balance between our treatment (mayor-council) and control (council-manager) groups on key descriptive statistics for the municipality-based dataset. The raw difference-in-means of the dependent variables demonstrates tentative evidence for our core hypotheses. Mayor-council systems tend to offer more money for incentives and have fewer constraints on their ability to provide them (e.g., required performance criteria or cost-benefit analyses). Nevertheless, our treatment is far from an ideal experiment.

For instance, the statistical difference in population size between these groups is large, where municipalities with mayor-council systems tend to have smaller populations than council-manager systems (despite some metropolises, e.g., New York and Chicago, having mayor-council systems). Figure 1 displays the population distribution graphically; clearly, a disproportionate share of mayor-council systems (57 vs. 48 %) is in the 10,000–24,000 person category. Since there are reasons to suspect that population size drives incentive decisions, there is potential for omitted variable bias. We address this problem through entropy balancing.[13]

4.4 Entropy balancing

In Table 1, we test how the variable *Elected Mayors* impacts the use of incentives offered by cities. To assess our theory, we construct two dependent variables: (1) whether a project incentive was offered by a city at all and (2) if offered, the value of the investment in US dollars measured at the project level, of which we take the natural log to ease interpretation. Measuring our dependent variable at the project level poses some empirical

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[13] However, the results are substantively similar if we control for population in a standard regression specification or drop very small municipalities.
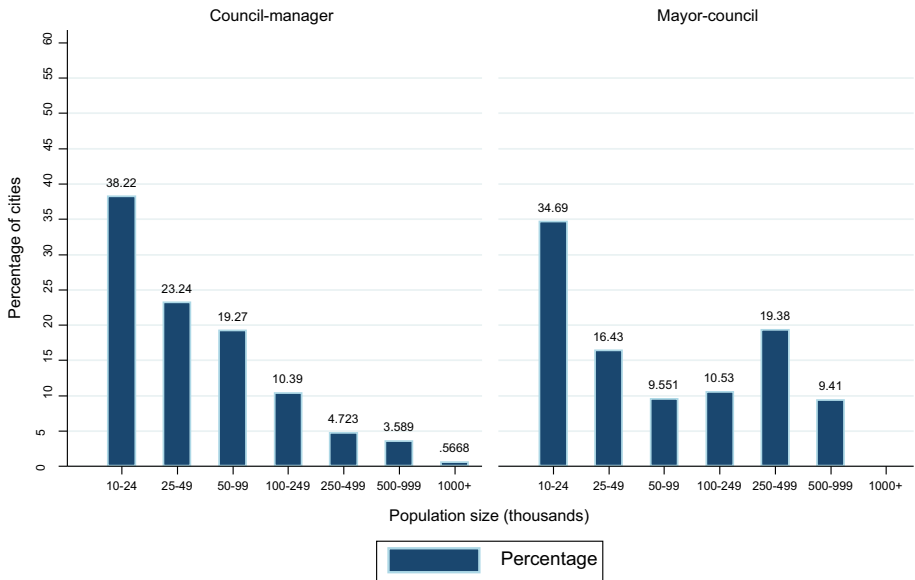
Fig. 1 Population statistics by type of city government, *source* Municipal Government System

challenges that are discussed below, but it is also essential for sorting out whether mayor-council systems are over paying for incentives.

In fact, a simple count of incentives in mayor-council versus council-manager systems shows that much of the variance in the dollar amounts between the two types could be attributed to the number of incentives offered. Municipalities with mayor-council systems offered on average 1.24 incentives in our two-year sample, while municipalities with council-manager institutions offered on average 0.58 incentives. If we simply calculated the total dollars spent on incentives at the city level, we would be unable to distinguish the difference between higher frequency and greater scale of incentives.

Our theory, however, is more nuanced than simply speculating whether mayor-council systems offered more incentives than council-manager systems. We hypothesized that mayor-council systems would provide more generous incentives to firms in their attempt to attract investment, despite the obvious financial costs. This argument helps shed light on previous studies that found some municipalities actually offered greater financial incentives than they could hope to recover through higher revenue or job creation. In some cases, these inefficiencies are generated by offering incentives to firms that would locate in municipalities even without these benefits (this is captured partially in the difference-in-means in Online Appendix 1), and in other cases, the inefficiencies may stem from politicians offering incentives to firms that are too large relative to the size of the firms' local investment (i.e., the particular benefits from the firms' investment to the municipality).

With this in mind, two potential issues pose inferential threats to our analysis. First, mayor-council and council-manager systems differ on a number of observable characteristics. In a study like ours, there is always a fear that observable or unobservable features drive both the selection of the dependent and independent variables. For example, in addition to population, we are concerned about the primary competitors for investment.

Table 1 Entropy balancing with elected mayor as the treatment

Treatment = City has a mayor-council system

Before	A. Before entropy balancing						B. After entropy balancing					
	Treatment = Elected mayor			Control = Council			Treatment = Elected mayor			Control = Council		
	Mean	Variance	Skewness	Mean	Variance	Skewness	Mean	Variance	Skewness	Mean	Variance	Skewness
Jobs created (ln)	3.79	2.19	−0.57	3.95	2.43	−0.58	3.79	2.19	−0.57	3.79	2.59	−0.51
Capital value (ln, US)	10.53	53.93	−0.66	10.67	56.07	−0.64	10.53	53.93	−0.66	10.53	55.07	−0.62
Population (1–7)	3.68	3.08	−0.31	2.85	2.48	0.59	3.68	3.08	−0.31	3.68	2.79	0.09
Unemployment rate (%)	6.11	5.50	1.13	6.98	42.97	10.53	6.11	5.50	1.13	6.11	6.82	0.85
Other taxes	2.06	1.99	0.21	2.52	4.99	1.82	2.06	1.99	0.21	2.06	3.00	1.31
Foreign competition = 1	0.19	0.16	1.56	0.27	0.20	1.06	0.19	0.16	1.56	0.19	0.16	1.56
Brand new investment = 1	0.36	0.23	0.59	0.42	0.24	0.34	0.36	0.23	0.59	0.36	0.23	0.59
Economic development plan = 1	0.73	0.20	−1.05	0.74	0.19	−1.09	0.73	0.20	−1.05	0.73	0.20	−1.05
Location												
Northeast = 1	0.11	0.10	2.42	0.10	0.09	2.75	0.11	0.10	2.42	0.11	0.10	2.42
Northcentral = 1	0.40	0.24	0.40	0.38	0.23	0.52	0.40	0.24	0.40	0.40	0.24	0.40
South = 1	0.46	0.25	0.17	0.43	0.25	0.28	0.46	0.25	0.17	0.46	0.25	0.17
Metro area = 1	0.71	0.21	−0.94	0.53	0.25	−0.13	0.71	0.21	−0.94	0.71	0.20	−0.94
Surburb = 1	0.17	0.14	1.77	0.32	0.22	0.75	0.17	0.14	1.77	0.17	0.14	1.77
Sector												
Automotive = 1	0.08	0.07	3.19	0.08	0.07	3.07	0.08	0.07	3.19	0.08	0.07	3.19
Basic materials = 1	0.08	0.07	3.19	0.10	0.09	2.75	0.08	0.07	3.19	0.08	0.07	3.19
Consumer goods = 1	0.10	0.09	2.65	0.11	0.10	2.52	0.10	0.09	2.65	0.10	0.09	2.65
Creative industries = 1	0.01	0.01	8.45	0.01	0.01	8.57	0.01	0.01	8.45	0.01	0.01	8.45
Electronics = 1	0.03	0.03	5.17	0.03	0.03	5.26	0.03	0.03	5.17	0.03	0.03	5.17
Food and drinks = 1	0.10	0.09	2.65	0.09	0.08	2.89	0.10	0.09	2.65	0.10	0.09	2.65

Table 1 continued

Treatment = City has a mayor-council system

Before	A. Before entropy balancing						B. After entropy balancing					
	Treatment = Elected mayor			Control = Council			Treatment = Elected mayor			Control = Council		
	Mean	Variance	Skewness	Mean	Variance	Skewness	Mean	Variance	Skewness	Mean	Variance	Skewness
Industrial goods = 1	0.16	0.14	1.84	0.14	0.12	2.11	0.16	0.14	1.84	0.16	0.14	1.84
Information tech. = 1	0.06	0.06	3.61	0.09	0.08	2.92	0.06	0.06	3.61	0.06	0.06	3.61
Tourism = 1	0.03	0.03	5.38	0.02	0.02	7.19	0.03	0.03	5.38	0.03	0.03	5.38
Life sciences = 1	0.10	0.09	2.61	0.10	0.09	2.63	0.10	0.09	2.61	0.10	0.09	2.61
Non-renewable energy = 1	0.02	0.02	6.45	0.02	0.02	7.19	0.02	0.02	6.45	0.02	0.02	6.45
Energy = 1	0.00	0.00	14.83	0.03	0.03	5.94	0.00	0.00	14.83	0.00	0.00	14.83
Services = 1	0.17	0.14	1.77	0.14	0.12	2.08	0.17	0.14	1.77	0.17	0.14	1.77
Survey year												
2004 = 1	0.22	0.17	1.39	0.24	0.18	1.25	0.22	0.17	1.39	0.22	0.17	1.39
2009 = 1	0.49	0.25	0.03	0.50	0.25	−0.01	0.49	0.25	0.03	0.49	0.25	0.03

Although the majority of managers indicated that their primary competitors in attracting firms were cities within their own state or in neighboring states, the response "foreign locations" increased dramatically after 1999. In 1999, 12 % of managers indicated that foreign locations were their primary competitors; this jumped to just over 20 % in both 2004 and 2009. Thus, in our analysis we include the variable *Foreign*, coded as "one" for cities identifying foreign locations as their main competitors and as "zero" otherwise.

Regional patterns are also important. Previous research has identified regional patterns in the types of local government (Montjoy and Watson 1993), including variation in local government institutions based on whether a municipality is in a metropolitan area (*Metro*) or the suburbs of a metropolitan area (*Suburb*). We also include a control variable representing whether a municipality has a written economic development plan (*Development Plan*) as a control for the municipality's professionalism. Finally, two additional confounders affect a municipality's likelihood of offering incentives; these are the local unemployment rate (*Unemployment Rate*) and the existence of other tax policies (*Other Taxes*). Other tax policies is an important variable because, for example, cities that have a personal property tax may offer an exemption to firms on this tax, and cities that do not have this tax cannot offer an exemption on it.

Although far from the experimental ideal, matching techniques have been proposed as one possible remedy to this problem. In this section, we employ a variant of matching, called entropy balancing (*ebalance*), which Hainmueller (2012) suggests. Ebalance reweights the observations to generate statistically a region of common support where mayor-council and council-manager systems are comparable on structural covariates. Ebalance does this directly by incorporating covariate balance into the weight function that is applied to the sample units.

To apply this technique, we impose a set of balance constraints, which imply that the covariate distributions of the treatment and control groups in the preprocessed data match exactly on all pre-specified observations, taking care to use only pre-treatment variables in the balancing equation. The entropy balancing algorithm then searches for the set of weights that satisfies the balance constraints but remains as close as possible to a set of uniform base weights to retain information. This recalibration technique assures maximum balance between the treatment and control groups (Hainmueller 2012). After re-weighting, mayor-council and council-manager systems are matched directly in terms of average value, variation and skew (see Table 1).

Taking advantage of this statistically generated region of common support, we estimate the following sets of analyses. First, we examine the probability of a city offering an incentive in Model 1, using the municipality-based dataset. Then, using the project-based dataset, we examine whether mayor-council systems offer larger incentives, conditional on firms accepting these incentives. These are presented in the top panel of Table 2 in Models 1 and 2. The results are very similar to the naïve specifications.[14] Taking survey effects into account, the results show that the mayors do not offer more incentives, but when they do offer an incentive, it is 33.2 % larger at the project level.

One concern with our matching is that although we are comparing cities of the same population, region and municipality professionalism, the underlying size of municipal budgets can shape the ability of local leaders to offer incentives substantially. Using survey data on the size of the annual economic development budget, we include a third model that scales the size of the incentives as a percentage of the local economic development budget.

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[14] We replicate all results using ordinary least squares in Table A5 of the Online Appendix and include a number of additional robustness tests.

Table 2 Main regression results after entropy balancing[a]

Dependent variable	Offered incentive = 1 (1)	Value of incentive in millions USD (ln) (2)	Value of incentive as % of budget (3)	Performance criteria (=1) (4)	Cost Benefit analysis (=1) (5)	Performance criteria (0–6) (6)
(1) Results after entropy balancing on whether city has a mayor-council system						
Elected mayors	−0.004 (0.033)	0.332** (0.146)	1.657*** (0.333)	−0.096** (0.046)	−0.071 (0.046)	−0.338*** (0.125)
Constant/Pbar	0.771	13.178*** (0.189)	−0.894** (0.367)	0.558	0.675	1.418*** (0.107)
Observations	1399	1116	430	1083	1083	1083
(Pseudo) R-squared	1.72e−05	0.010	0.089	0.00681	0.00460	0.011
Chi-squared	0.0119			4.289	2.366	
Log likelihood	−753.1	−2154	−1014	−738.4	−679.4	−2033
(2) Results after entropy balancing on whether state has default mayor policy						
Default mayor clause	−0.070 (0.050)	0.329 (0.212)	0.722* (0.373)	−0.110** (0.052)	−0.020 (0.054)	−0.483*** (0.161)
Constant/Pbar	0.828	12.959*** (0.185)	−0.449 (0.273)	0.635	0.713	1.644*** (0.120)
Observations	1399	1116	430	1083	1083	1083
(Pseudo) R-squared	0.00941	0.009	0.024	0.00988	0.000388	
Chi-squared	1.923			4.216	0.135	
Log likelihood	−636.5	−2187	−966.3	−703.7	−649.4	−2118

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

[a] All models implement STATA's ebalance procedure (Hainmueller 2012) to address observed differences between (1) mayoral and council–manager systems and (2) states with default clauses and those without on pretreatment covariates. Robust standard errors are clustered at the state level

Although this variable is the most theoretically appropriate measure, it has a large number of missing values, and thus, we present this primarily as a robustness test of our original estimates. As presented in Model 3, mayor-council institutions are associated with a larger percentage of their economic development budget going to incentives.

Although these results alone are compelling, our theory offers an additional observable implication, which is that mayor-council systems tend to have less rigorous oversight of their incentives. In this section, we test H2 by focusing on three questions in these surveys. First, do these incentive programs have written performance criteria, requiring specific elements from the firm (e.g., job creation) in order to be eligible for the incentive program? Second, do municipalities perform a cost-benefit analysis before offering location incentives? Third, if performance criteria are used, how many different items are considered in assessing the effectiveness of the project?

The ICMA survey presents respondents with a list of six performance criteria, asking them to check off each one they currently use. The list includes: jobs created, capital invested in construction and labor, capital invested in land, existing company sales and the number of new businesses attracted. These policies directly limit the discretionary use of incentives for political gain. Thus, we expect to find greater use of them in municipalities governed by council-manager rather than mayor-council systems. To maximize our explanatory power, we combine the data from the 1999, 2004 and 2009 surveys.[15]

We present our results in Models 4 through 6 using the municipality-based dataset. We find that mayor-council systems are 9.6 % less subject to performance requirements, are 7.1 % less subject to cost-benefit analyses, and require 0.34 fewer performance criteria per project. However, note that our standard errors are considerably larger for these models than the ordinary least squares (OLS) results we present in Online Appendix 6. Thus, our cost-benefit analysis dependent variables in these models do not achieve conventional statistical significance. Nevertheless, these results are consistent with the previous findings because they show that even after we address the non-random assignment of elected mayors, we still find that electoral motivations have perverse effects on the use of generous incentives.

4.5 Exogeneity in institutional selection

However, matching techniques, including advanced ones like entropy balancing, do not address unobserved heterogeneity, which is a concern in our analysis. Although municipal institutions tend to be clustered regionally and few cities change their institutions, there is the possibility that cities (or citizens) select their municipal institutions in order to mitigate the abuse of incentives. As we noted above, council-manager systems were labeled 're-form' institutions during the Progressive Era, specifically because cities changed their form of government in an attempt to root out corruption. If this is the case, we might be attributing causality when what we are observing is merely a correlation between two variables that are both capturing concerns for governmental malfeasance.

Fortunately, we have a theoretically informed identification strategy. Many US states have formal laws concerning the "default" municipal political institution (Nelson 2011). Although the laws vary across states, for these default states, there is a status quo bias in favor of selecting mayor-council municipal institutions. Nelson (2011) documents that 21 US states have laws requiring that newly chartered cities have mayor-council institutions

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[15] The coefficient sizes remain similar when the models are run separately by survey year, but they are estimated less efficiently because of the reduced statistical power.
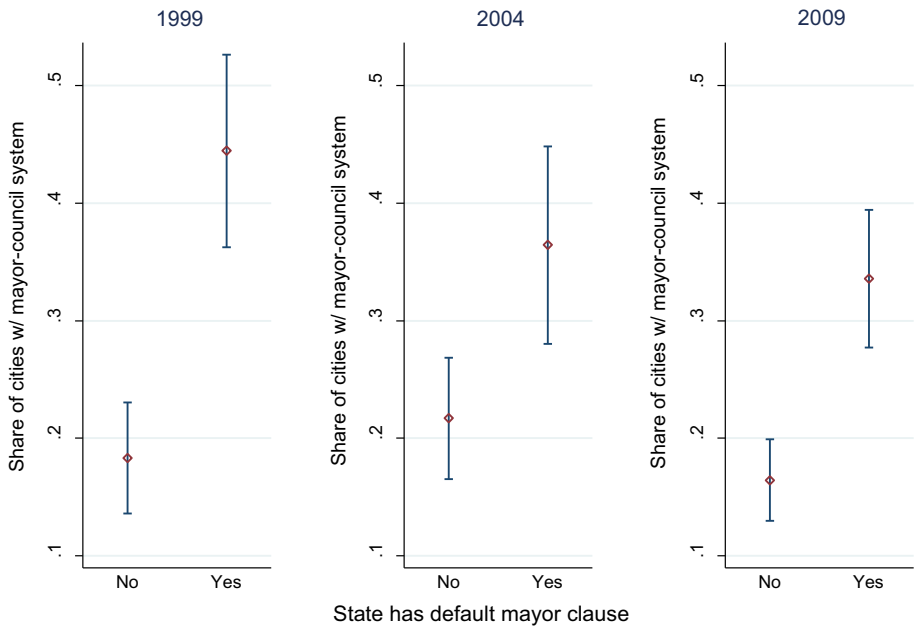
Fig. 2 Default mayor clauses and the share of mayors, *range bars* are 95 % confidence intervals

as the default form of government.[16] In our data of 1475 cities, 526 (36 %) of these cities are in states that have this requirement.

Default clauses provide an exogenous obstacle to switching forms of government. As Fig. 2 shows, the status quo bias has an important influence on the share of cities in a state with mayor-council systems. Although the sample distribution changes slightly by year, mayor-council systems govern about 37 % of the cities in states with default clauses, but only 18 % of the cities in states without these clauses.

To test this, we re-run the entropy balance analysis, balancing this time on whether the state has a default clause, thereby treating mayors as a post-treatment variable (Panel 2 of Table 2).[17] In other words, we explore how much of the variance in incentive behavior we can explain simply by studying the impact of these state default clauses on incentives before municipalities have the opportunity to alter their exogenously imposed default institutions.[18] The results show that even after addressing the threat of endogenous selection, the results are very similar. Cities in states with default mayor requirements face significantly fewer constraints on using incentives and offer significantly more generous incentives to new projects.

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[16] Nelson (2011) creates an index of institutions that shape municipal government. We focus on this single instrument as outlined in Online Appendix 2. We thank her for sharing these data.

[17] See Online Appendix Table A4 for entropy balancing descriptive statistics for these variables.

[18] In Online Appendix Table A2, note that states with and without default clauses already differ very little on a range of reasonable covariates, including demographics, wealth, economic structure, government spending and political leanings.

5 The electoral mechanisms

Thus far we have shown that municipalities with council-manager systems provide less generous incentives, coupled with more extensive oversight of these programs. We have demonstrated that the large size of this effect is consistent across different empirical specifications and with control variables. We also have addressed the non-random assignment of municipal institutions by using state laws governing local institutions.

However, there are alternative hypotheses that might explain the association between local institutions and incentive allocations that we need to address. For example, council-manager systems may have more veto players involved in policymaking, limiting the ability of governments to allocate incentives in the first place.[19] A similar argument could be made in terms of how municipal institutions affect the time horizons of leaders. Council-manager executives, by design, not only are elected indirectly but also tend to have longer time horizons than mayors serving two- or four-year terms (Clingermayer and Feiock 2001). These longer time horizons have been linked to greater risk aversion in economic policy (Feiock et al. 2009).

Therefore, we designed our final test to differentiate the electoral mechanism from these plausible alternative mechanisms by taking advantage of the variation in election timing across municipalities. We created a database of 439 municipal election dates based on election timing data from the US Conference of Mayors as well as our own original data collection. Using these data, we coded a dummy variable representing municipalities that planned to have local elections in 2012.[20] Our expectation is that although municipalities will not alter oversight programs generally from year to year, executives in mayor-council systems are more likely to offer generous incentives than council-manager systems, and this effect will be amplified during election years.

In Table 3, we present the OLS results that replicate our fully specified model of the size of incentives with an additional interaction between our independent variable *Elected Mayors* and having an *Election in 2012*.[21] The statistical insignificance of this interaction term likely is due to the limited power of this model; specifically, only 17 mayoral systems had elections in 2012. Nevertheless, the signs on all three coefficients are in the expected directions and the coefficients are sizable, despite being estimated imprecisely. Thus, for illustrative purposes, we explore the predicted effects from the estimation in Table 4.

In the first panel, we show the predicted effects for the four main groups generated by the interaction. Although none of the cells are statistically significantly different from one another, the substantive differences in the incentives' average sizes are quite large. To illustrate this, we undo the log transformation in the second panel. Here, we can see clearly that an election year does not appear to generate additional incentive allocations in council-manager systems. In fact, cities with council-managers facing an election actually marginally reduced their incentive usage from $406,000 to $371,000 per project. On the other hand, elected mayors increased their usage of incentives in an election year, shifting from providing $668,000 to offering $731,000 per project.

These final results are suggestive, but are not a smoking gun. Our sample size is less than half of our fully specified model, and measurement error in the timing of previous

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[19] However, we find no evidence of this in our empirical analysis.

[20] Given the lack of comprehensive, historical municipal election data, we coded all municipalities with elections in 2014 as also having expected elections in 2012. Although this coding could introduce some measurement error, it is unlikely to bias our results.

[21] See Model 7, Table A5 in Online Appendix.

Table 3 Interaction between mayor-council system and election in 2012[a]

Independent/dependent variables	Value of incentive in millions USD (ln)		
	OLS (1)	OLS (2)	OLS (3)
Elected mayors	0.372* (0.198)	0.526** (0.246)	0.490* (0.284)
Election in 2012		−0.044 (0.204)	−0.098 (0.242)
Mayor * election			0.189 (0.455)
Development plan	0.120 (0.198)	0.052 (0.180)	0.060 (0.181)
Population	0.054 (0.055)	0.071 (0.053)	0.069 (0.053)
Foreign competition	0.242 (0.183)	0.153 (0.198)	0.146 (0.200)
metro area	0.400 (0.264)	0.295 (0.295)	0.302 (0.293)
Suburb	0.618** (0.242)	0.385 (0.261)	0.393 (0.260)
Jobs created (ln)	0.552*** (0.070)	0.542*** (0.070)	0.543*** (0.070)
Capital value (ln, US)	0.035*** (0.011)	0.038*** (0.010)	0.038*** (0.010)
Brand new investment	0.151 (0.178)	−0.038 (0.185)	−0.036 (0.185)
Unemployment rate (%)	−0.009 (0.006)	−0.005 (0.006)	−0.005 (0.006)
Other taxes	0.005 (0.034)	0.002 (0.031)	0.003 (0.032)
Constant	10.551*** (0.758)	10.698*** (0.735)	10.667*** (0.774)
Survey year FE	Yes	Yes	Yes
State FE	Yes	Yes	Yes
Sector FE	Yes	Yes	Yes
Observations	520	427	427
City	252	209	209
States	38	38	38
R-squared	0.401	0.381	0.379
RMSE	1.355	1.302	1.304

*** $p < 0.01$ ** $p < 0.05$ * $p < 0.1$

[a] For Models 1–3, the unit of analysis is the individual project. And the dependent variable is the natural log (ln) of the size of the incentive in millions of USD. Data on incentives is from 2011 and 2012, but basic city information was captured in different ICMA/NLC surveys. Fixed effects address confounding based on survey year

elections works against finding clear results. In future research we hope to address the electoral mechanism more rigorously by taking advantage of more comprehensive municipal election data. However, we believe that these results, coupled with the existing

Table 4 Predicted effects of city government and elections in 2012

	Panel 1: Local government system		Panel 2: Predicted incentive size in USD	
	Council-manager	Mayor-council	Council-manager	Mayor-council
Scheduled election in 2012				
No	12.92 (12.8 13.1) n = 640	13.41 (13.0 13.8) n = 74	$406,801	$668,191
Yes	12.82 (12.4 13.2) n = 117	13.50 (13.1 14.0) n = 17	$371,164	$731,974

Panel 1 shows predicted effects of Table 3 (Model 3). Natural Log of incentives in millions of USD. Parentheses display 90 % Confidence Interval. Panel 2 presents the same predictions in USD

evidence concerning incentives, provide a relatively comprehensive picture of how electoral institutions shape the use of incentives.

6 Conclusion

In this paper, we directly examined the use of incentives to attract investment to US municipalities using observational data. We argue that politicians can exploit their information advantage over citizens to offer generous incentives for political gain—both providing too many and too generous incentives for firms. Although all types of municipalities offer incentives to firms, we contend that the form of government shapes these economic development policies. Specifically, firms considering investments in municipalities with mayor-council systems are offered more generous incentives. In addition, mayor-council systems are less likely to impose conditions on firms in order for them to qualify for these incentives and often fail to require even a simple cost-benefit analysis of incentives. Further, the impact of mayor-council institutions on incentives is heightened during election years.

These findings have broad implications for our understanding of tax competition and domestic politics. In this instance, globalization, including the heightened ability of firms to relocate, has increased the policy levers available to politicians, allowing them to take credit or avoid blame for economic outcomes. This kind of economic competition, therefore, provides a critical domestic political benefit to elected officials, which is an increased ability to pander for votes.

We also believe that this work should have implications for our understanding of the politics and economics of local economic development. Specifically, our study examines the supply of incentives and how this supply is shaped by electoral institutions. One plausible implication of our work is that there could be a selection effect in the type of firms that approach mayor-council systems relative to council-manager systems. This could be as extreme as firms self-selecting into systems with directly elected executives because they simply would not pass a rigorous cost-benefit analysis. Fortunately, whether this happens in reality is a testable conjecture that we hope to pursue in future work. We particularly want to test this because we believe that this is an additional dimension of our

project that highlights the real-world implications of studying the political economy of incentives.

This also leads to a potential set of policy recommendations. Specifically, our results indicate that electoral pressures primarily impact a given locality by encouraging local executives to provide overly generous incentives to firms, which also is driven by the limited oversight of these programs. Although elected or appointed politicians will feel pressures to harness public resources to attract firms, our findings suggest that forms of government with greater oversight provide substantially less generous and less inefficient incentives. Thus, by increasing the quality of these programs' oversight, we may increase the quality of the programs themselves.

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