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Benedict S. Jimenez
Georgia State University, bjimenez@gsu.edu

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Municipal Government Form and Budget Outcomes: Political Responsiveness, Bureaucratic Insulation, and the Budgetary Solvency of Cities*

Benedict S. Jimenez
Associate Professor
Georgia State University
Andrew Young School of Policy Studies
Department of Public Management and Policy
P.O. Box 3992
Atlanta, GA 30302-3992, USA
bjimenez@gsu.edu

Abstract: One of the fundamental questions in democratic governance is whether policies are best decided by elected officials or by appointed bureaucrat-experts. The study examines this issue in the context of how municipal government form influences government-wide budgetary solvency. Government form creates distinct incentives for executive action that shape budget outcomes. In mayor-council governments, the elected executive's desire to be reelected increases responsiveness to voters' preferences. Vote maximization incentivizes the adoption of policies that are popular among voters but can lead to budgetary imbalance. In contrast, the appointed executive in the council-manager form is interested in career advancement, which she achieves by building a reputation for leading a fiscally sound government. Insulated from the demands of voters, the manager can rely on expert knowledge and professional norms to choose policies that result in balanced budgets. Using data from audited financial reports for 655 mid-sized and large city governments in the United States from fiscal years 2006 to 2013, the econometric analysis shows that council-manager cities have stronger budgetary solvency compared with mayor-council cities.

Keywords: government form, politicians, bureaucrats, fiscal condition

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***** Data for this study are available from the author on request

Introduction

Should public policy be decided directly by government officials elected by citizens or should policymaking powers be delegated to appointed bureaucrat-experts? For more than a century, this fundamental question has animated scholarly debates in both public administration and political science (Wilson 1887; Gaus 1936; Friedrich 1940; Finer 1941; Weber 1946). On one side of the debate are those who argue that government responsiveness to the preferences of citizens lies at the heart of democratic governance (Dahl 1971). Voters ensure that their government acts in their interest by electing representatives who promise to deliver policies that the majority prefers. The direct link to citizens justifies the primacy of elected officials over appointed bureaucrats in the policymaking process. Politicians determine the government's course of action, and bureaucrats are accountable to their political principals for the faithful implementation of public policies (Finer 1941).

On the other side of the debate are those who warn how easily policy responsiveness can degenerate into "policy pandering" (Maskin and Tirole 2004, 1035). Politicians face a credible commitment problem: they may genuinely wish to enact responsible policies, but their short-term electoral interests incentivize them to favor policies that are popular among some voters but are not necessarily beneficial for society (Maskin and Tirole 2004; Miller and Whitford 2016). Delegation of decision-making authority to bureaucrats minimizes political opportunism. Insulated from the demands of voters, bureaucrats can rely on expert knowledge gained through specialized training to choose socially beneficial policies (Miller 2000). Bureaucratic abuse can be controlled formally through the establishment of legal routines (Alesina and Tabellini 2007), and informally through the constraining effect of professionalism and the bureaucrat's career advancement concerns (Gaus 1936; Friedrich 1940; Ruhil et al. 1999; Teodoro 2011; Miller and

Whitford 2016). These informal constraints disincentivize the bureaucrat from engaging in activities that harm her reputation and career prospects, and motivate her to take a longer-term view of the effects of her policy choices.

The study revisits this long-standing debate in the context of how the choice of municipal government form influences fiscal outcomes in cities. Form determines the actors allowed to participate in policy making, and how decision-making authority is distributed among the participants (Feiock and Kim 2000). The two most common forms are mayor-council and council-manager governments. The mayor-council government is the foundation of the patronage-driven political machine system that dominated local politics in the United States in the late 1800s up to the early 1900s. The council-manager form emerged as part of the Progressive movement of the early twentieth century that aimed to reduce the influence of political machines, control corruption, and promote professional administration in government (Trounstine 2010). Because both forms have elected councils, the feature that fundamentally distinguishes the two is the assignment of executive authority between an elected mayor and an appointed manager (Nelson and Svara 2012). In the classic mayor-council form, the council exercises legislative powers, but the mayor—who is directly elected by voters—performs executive functions including setting the policy agenda and directing administration. In the council-manager form, both legislative and executive powers are exercised by the council. The council appoints and works with a professional executive—the city manager—to develop and implement the city's policy agenda and manage the daily business of government. Neither the mayor nor city manager has de jure authority over budget adoption because the council alone, in either the mayor-council or council-manager form, approves the budget. Nonetheless, both

exercise significant de facto influence on budgetary policymaking through their involvement in budget formulation and implementation.

This research examines how the choice between an elected chief executive and appointed city manager influences municipal budgetary solvency or the ability of a government to generate revenues to meet its service and financial obligations in a fiscal year (Hendrick 2011). The study employs multiple measures of government form, and uses data from 2006-2013 audited financial reports to examine the budgetary solvency of 655 municipalities with a population of 50,000 or more. The results of the econometric analysis indicate that bureaucratic insulation, rather than political responsiveness, improves city budgetary solvency.

Theory and Related Literature

Budgetary solvency indicates whether a city has achieved structural budget balance, which means that revenues match or exceed expenses at the end of the fiscal year and over the business cycle (Johnson, Kioko, and Hildreth 2012). At its simplest, balance represents the difference between assets and liabilities in a reporting period, typically a fiscal year. Assets in the present period include revenues from taxes, fees, grants, and investments, among others, that can be used by government to provide services in the same period. Liabilities in the present period include expenses incurred for providing services in the same period, such as payments and amounts owed to suppliers, employees, and creditors. To derive testable propositions on how government form influences balance, the study follows the approach in the extant literature and assumes a stylized budget process in which balance is explained as the outcome of general developments in total revenues and total expenses, and not of specific financial choices (see Alt and Lowry 1994, as well as the studies reviewed in Alesina and Perotti 1999).[1] The argument

[1] Balance represents the cumulative effects of numerous financial decisions on assets and liabilities. On the asset side, such choices include the type and level of taxes, fees, grants, and short- and long-term investments, among

here is that form creates distinct incentives for executive action that influences the levels of liabilities and assets, and thus balance. The succeeding discussion synthesizes key ideas from the theoretical literature to arrive at two general and contrasting propositions on how form influences budgetary solvency.

The Case Against the Council-Manager Form

There are at least two arguments as to why council-manager cities are more predisposed to experiencing budget-balancing difficulties compared with mayor council cities. The first argument is based on Niskanen's (1972) budget-maximizing bureaucrat theory, which assumes that appointed managers desire higher budgets to satisfy their personal interests including higher income and non-monetary benefits from their official position. The theory describes a bilateral monopoly in which a bureau sells its service to legislators, and legislators buy only from bureaus. Bureaucrats succeed in getting bigger budgets by hiding information about the true costs of the bureau's outputs from legislators. Reelection-minded legislators also approve budget requests on the assumption that their constituents benefit from bureau-provided goods. Some research, often called Leviathan studies, assumes that government officials are able to maximize not only spending, but also revenues (for a review, see Hendrick, Jimenez, and Lal 2011). It is unlikely, however, that revenues can grow in perpetuity to match the growth in spending especially in the context of citizens' distaste for frequent tax increases. Thus, empowering the budget-maximizing manager to set the budget agenda results in the rapid expansion of government, and ultimately, budgetary imbalance, as spending grows faster than revenues.

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others. On the liability side, decisions include the level of spending for different services, short and long-term debt, pensions and other benefits, among others. It is not possible to develop a very detailed theory that outlines the exact permutation(s) of numerous financial decisions (on both the liability and asset sides) associated with government form.

Miller and Moe (1983) criticize the budget-maximizing theory for failing to recognize that constituents' (and thus legislators') demand for bureau services can decline, and for underestimating the ability of legislators to design budget rules and monitoring mechanisms to force bureaucrats to reveal information about the bureau's real production costs. The bureaucrat is not always the decisive actor in budgetary decision making. As Moe (1997, 460) argues, the relationship between bureaus and legislators "is not simply one of bilateral monopoly" but "an authority relationship in which the legislature has the legal right to tell the bureau what to do."

The second argument, based on the literature on distributive politics, shifts the attention from the budget choices of bureaucrats to that of legislative bodies such as the city council. In the "law of 1/*n*," Weingast, Shepsle, and Johnsen (1981, 644) state that the general tax fund represents a common pool of resources that is used by councilmembers to fund distributive policy, which "concentrates benefits in a specific geographic constituency and finances expenditures through generalized taxation." The law of 1/*n* assumes that all city districts, which elect representatives to the council, have access to a common tax base *n*. Reelection-minded councilmembers deliver pork for their districts and charge the costs to *n*. Taxpayers from a single district pay only $1/n^{th}$ of the total cost of distributive spending for their district, with the remaining cost shouldered by other districts' taxpayers. The implicit subsidy creates the illusion that the tax cost of the distributive policy is lower than what it actually is, incentivizing demand for more particularistic goods. The increase in spending is approved by the council through logrolling—a quid pro quo arrangement in which councilmembers trade votes for each other's projects. Because of the electoral costs of tax increases, the government relies on deficit financing to sustain the expansion in distributive spending (Jimenez 2015).

Because the council exercises unified powers in council-manager cities, such cities will be susceptible to budgetary imbalance. In contrast, the separation of legislative and executive powers in the mayor-council form can potentially create a system of checks and balances that prevents excessive pork-barrel spending and deficit financing by the council (Campbell and Turnbull 2003). The mayor, for example, can shape the city's budget agenda by vetoing the budget passed by the council.[2] Alesina and Perotti (1996, 403) argue that the elected executive has "more incentives to internalize the government budget constraint and is relatively more responsive to the interests of the average taxpayer rather than of any specific pressure group."

The Case for the Council-Manager Form

The expectation that the council-manager form improves budgetary balance is based on three distinct but interrelated arguments. The first argument centers on principal-agent theory, which frames the study of government form in the context of authority relationships. The principal-agent theory is particularly useful in understanding such relationships in which a principal contracts with an agent to deliver a certain outcome in exchange for some form of payment (Moe 1997). A chain of principal-agent relationships forms the foundation of city governance—the voter is the principal and the politician is her agent tasked to enact policies that the former prefers in exchange for votes, and the politician in turn becomes the principal and the bureaucrat is her agent tasked to implement programs in exchange for a salary and other benefits. A central problem in principal-agent relationships is information asymmetry: the agent knows more about her work than the principal (Moe 1984). This creates a moral hazard problem or the "self-interested incentive to do something that detracts from the efficiency of the social organization" (Miller 2000, 290). Because of the prohibitive costs of monitoring the agent's

[2] However, the separation of powers will not automatically improve city budget choices if the mayor uses her agenda setting power to build a patronage system.

activities, the agent enjoys relative autonomy and can choose actions that are beneficial to her but not necessarily to the principal. To ensure that the agent channels her energy towards achieving the principal's goals, the principal should design a monitoring scheme to reduce information asymmetry, or create an incentive system that aligns the agent's preferences with that of the principal (Moe 1984).

Miller and Whitford (2016, 61) observe that "In principal-agency theory, only the agent can exhibit 'moral hazard' because the formal responsibility is strictly unidirectional—from the agent to the principal." But they aver that the principal can also engage in morally hazardous behavior. For example, some politicians run for office on the promise of making government more efficient by cutting waste, but fail to follow through once elected, finding that voters mobilize against cuts to programs that they benefit from. Managers may favor basing budget decisions on cost-effectiveness considerations, but some elected officials treat city revenues as spoils to be distributed to supporters. When the principal's preferences are perverse, a credible commitment problem arises: the principal cannot be trusted to commit to decisions that will lead to better budget outcomes. Agent responsiveness to the principal only exacerbates the principal's moral hazard problem (Miller and Whitford 2016).

Miller and Whitford apply this insight to build a case for the council-manager form. If the principal cannot be trusted to consistently choose policies that lead to socially optimal outcomes, then the agent should have preferences that are distinct from the principal's, and also exercise independent decision-making authority. In order to keep her job, the politician needs to be responsive to voters' preferences, even if such preferences are harmful to budgetary solvency. In contrast, the appointed manager has no direct ties with voters, and can commit to budget policies independent of the electorate's wishes. The delegation of authority to the manager is an

important solution to the credible commitment problem caused by the voters', as well as the politician's, moral hazard.

Two criticisms of the Miller and Whitford argument arise. The first—following the literature on distributive politics—questions the ability of the manager to stand up to the council given that the former is appointed by the latter and can be replaced through a majority vote. As Deno and Mehay (1988, 628) argue, "A city manager who consistently implements policies and programs (and expenditure levels) inconsistent with the desires of a majority in the governing body, eventually will be replaced." However, a recent study of city manager employment contracts suggests that firing a manager may not be as easy. Connolly (2017) finds that prospective city managers seek protection from arbitrary termination through contractually guaranteed severance compensation (which increases the costs of termination) and protection from automatic electoral turnover (which ensures continuance of employment for a certain period of time after an election). Such protection sheds light on the finding in several studies that managers enjoy some autonomy and are active participants in policymaking rather than being passive implementers of the council's decisions. Krebs and Pelissero (2010) argue that council manager governments "empower managers at the expense of elected officials," and studies confirm the significant role of managers in budgeting, policymaking, and the hiring and appointment of key city officials (Newell and Ammons 1987; Selden, Brewer, and Brudney 1999; Ammons 2008). The second, and perhaps, stronger criticism is that the manager herself can engage in morally hazardous behavior such as budget maximizing. The next two arguments in favor of the council-manager form address this criticism.

The second argument for the superiority of the council-manager form is based on transaction cost economics, which, among others, focuses on how institutions shape choices and

outcomes through the incentives that they create (Williamson 1975, 1985). Transaction cost theory identifies two major institutional arrangements for structuring transactions or trades among actors in the private sector. One institutional arrangement is the market, where actors buy and sell goods. Williamson (1985) argues that high-powered incentives, such as profit seeking, predominate in markets. Profit motivates the seller to be more responsive to changes in market demand. An excess of high-powered incentive, however, leads to opportunism, which Williamson (1985, 30) defines as "self-interest seeking with guile." For example, an input supplier can threaten to delay delivery to a manufacturer to force a price increase (assuming a market with few sellers). The manufacturer can choose to write a long-term contract that specifies the responsibilities of the supplier, but it is difficult to design such a contract because of inherent limits to the capacity of individuals to predict all contingencies that can affect future transactions. Even if it were possible to do so, the development and enforcement of such a detailed contract will be prohibitively costly, so that it is more rational not to engage in the transaction in the first place.

An alternative institutional arrangement is the hierarchy or firm. The buyer-seller relationship in the market becomes an employer-employee arrangement in the firm. For example, the manufacturer can buy out the input supplier and hierarchically integrate it into the firm structure. The previous owners of the supplying company are now employees in the manufacturing firm, and they gain benefits such as salary increase or promotion, but they do not have a direct claim on the firm's profits. Hierarchies are characterized by low-powered incentives, specifically the employee's desire for a salary increase or promotion (Williamson 1985). These are low powered in the sense that they are not as powerful as profits in motivating the employee to respond to changes in market demand. The advantage of low-powered

incentives is that they reduce opportunism. The stakes are smaller: the allure of large profits has been replaced by the promise of incremental salary increases. By moving the transaction from markets to hierarchies, high-powered incentives are transformed into low-powered ones, reducing the motivation for opportunism and allowing the transaction to proceed, which in turn, improves the welfare of the parties involved in the exchange (Williamson 1985).

Frant (1996) and Feiock and Kim (2000), among others, apply the concepts of high- and low-powered incentives to explain policy choices in the local public sector. The key prediction from the transaction costs approach is that the differences in incentives faced by an elected or appointed chief executive lead to distinct budget choices and outcomes. The mayor-council form creates a high-powered incentive. Because the primary goal of government is not to earn profits but to deliver public services, vote maximization rather than profit enlargement functions as a high-powered incentive in the public sector (Frant 1996). Vote maximization is a high-powered incentive in the sense that it is a powerful motivator for the elected chief executive to be responsive to voters' demands. But in the same manner that excessive desire for profit leads to opportunism in the private market, the pursuit of votes in the political marketplace can incentivize the mayor to engage in opportunistic behavior. An example of political opportunism is "policy pandering," which means that politicians choose policies, not because they are beneficial to society, but because they are popular among some voters (Maskin and Tirole 2004, 1035). In terms of budget choices, the short-term pursuit of votes induces politicians to increase spending for patronage-based goods and highly visible projects, defer tax increases, and hide the costs of government expansion by relying on debt (Baber and Sen 1986; Frant 1996; Clingermayer and Feiock 2001; Enikolopov 2014; Vlaicu and Whalley 2016). When liabilities increase faster than revenues, the result is budgetary imbalance.

The key to minimizing political opportunism is to eliminate high powered incentives by depoliticizing budgetary policymaking (Frant 1996). A council-manager form creates low-powered incentives, specifically career advancement. Because the manager's tenure does not directly depend on voters, she faces less pressure compared with an elected mayor, to respond to the electorate's demands. An advantage of this weak connection with voters is that it reduces opportunism. The appointed chief executive can choose policies, not because of potential electoral gains, but with the view of building a reputation as an effective manager who leads a fiscally sound government (Teske and Schneider 1994). Such reputation helps the manager expand her employment opportunities including moving up to bigger cities from smaller ones (Ruhil et al. 2009). This is not to say that mayors are not concerned about how their reputation as executives affects their post-political career, only that the reputational concerns of managers are stronger. Enikolopov (2014) examines the career paths of managers and mayors and finds that managers tend to remain in the public sector (often in the same position but in different cities), whereas mayors are more likely to work in the private sector upon retiring from politics. Because managers remain in the same line of work and sector, an established reputation matters more for them than for former mayors who are able to start a new career in a different profession and sector. The focus on reputation building and career advancement enhances the possibility that the city manager commits to policies that result in stronger budgetary solvency.

The third argument complementing the transaction cost approach is based on the public administration literature on professionalism. This literature suggests that bureaucratic corruption can be minimized not only through formal mechanisms such as laws and standard operating procedures, but also through informal control mechanisms such as professionalism. Miller (2000) and Miller and Whitford (2016) expound on how key dimensions of professionalism—

training and expertise, long-term career perspective, and professional discipline—minimize bureaucratic opportunism, if not incompetence.

A professional, according to Scott 1969, 82) is "a person who by virtue of long training is qualified to perform specialized activities autonomously—relatively free from external supervision or regulation." The average city manager is highly trained—with a graduate degree (typically in public administration) and decades-long experience in different local government positions prior to reaching the top rung of the executive ladder (Jimenez 2017). The required training and experience function as a barrier to entry of less qualified and motivated candidates (Miller and Whitford 2016). Advanced training also means that managers are exposed to best practices in financial management. Studies show that council-manager cities tend to adopt rational management approaches, such as strategic planning, more than mayor-council cities (Kwon, Berry and Jang 2013; Nelson and Svara 2012), and there is evidence that such practices help improve budgetary solvency (Jimenez 2013, 2019).

The training and experience required to manage city governments also create a long-term career perspective, influencing a manager's policy choices in two ways. First, a long-term career perspective disincentives corrupt behavior. Short-term opportunism can seriously damage a manager's reputation, destroying in a single instance a career that was built in decades. Second, because a manager's tenure is usually longer than electoral cycles (thus potentially outlasting the careers of elected officials), she is able to avoid "short-termist" policies and focus instead on achieving the goals of the organization (Alesina and Tabellini 2007, 434).

Finally, unlike elected officials, managers benefit from a socialization process through membership in professional associations. City managers, who are active in professional organizations such as the International City/County Management Association (ICMA), are

exposed to the norms of professional management and are expected to abide by a code of ethics (Nalbandian 1989). Gaus (1936, 40) suggests that professional "standards and ideals" function as an "inner check" for managers—a moral compass that helps minimize opportunism. But managers could be simply following their self-interest in observing professional norms. Alesina and Tabellini (2007, 429) argue that "the bureaucrat cares about the perception of his future talent by outside observers representing his relevant 'labor market.'" Those outside observers include a manager's professional peers. If a manager disregards professional norms and ethical standards, her reputation among her peers would suffer, limiting future employment prospects.

Empirical Evidence

The survey of the theoretical literature points to two conflicting propositions on how government form influences budgetary solvency. One view—based on the budget-maximizing bureaucrat theory and the literature on distributive politics—argues that the council-manager form predisposes cities to poor budget solvency. The second view—based on principal-agent theory and transaction costs model, as well as the literature on professionalism—suggests that council-manager cities will perform better than mayor-council cities. Consulting the extant empirical literature can help resolve the debate.

A long list of studies focuses on how government form influences spending. Comprehensive reviews of the literature find a mixed bag of results, with some studies concluding that the council-manager form is associated with lower spending, others arriving at contrary results, and more showing that form has no systematic effect (see reviews in Coate and Knight 2011; Carr 2015). Other studies show that patronage hiring is higher in cities with elected chief executives compared with cities with appointed managers (Enikolopov 2014; Vlaicu and Whalley 2016). Some research finds that mayor-council cities invest in infrastructure projects

favored by powerful coalitions of pro-growth groups without conducting cost-benefit analysis (Ha and Feiock 2012), provide tax subsidies to private firms (Feiock and Kim 2000), and incur higher debt than council-manager cities (Clingermayer and Feiock 2001). Finally, one study examines the retrenchment strategies in cities facing fiscal stress and finds that mayor-council governments avoid cutting programs or eliminating services (Jimenez 2014).

None of these studies, however, paints a definitive picture of how form influences budgetary solvency. Analyzing revenue, spending, or borrowing decisions in isolation does not tell us anything concrete about budgetary solvency. For example, patronage hiring will increase liabilities by padding personnel spending. Still, no conclusion can be made about the impact of this practice on budget balance without information about city revenue choices. The city can raise taxes or service fees to offset the increase in liability, leaving balance unaffected. Similarly, a government that cuts services to reduce spending will not experience any improvement in balance if it also slashes taxes and fees, or issues new debt. Studying budgetary solvency requires the simultaneous assessment of trends in total revenues and total expenses in the present period (Jimenez 2018a). Thus, whether government form affects budgetary solvency remains an open empirical question.

Research Methodology

Unit of Analysis

The sampling frame consists of 674 municipalities with a population of 50,000 or more as identified in the 2007 Census of Governments. The final sample consists of 655 cities (97 percent of the sampling frame) with data on the outcome variables (see succeeding discussion). Although the findings from this research cannot be generalized to smaller municipalities, the practical significance of the results of the analysis cannot be overemphasized. The targeted cities

provide services that are critical for the health and safety of more than 120 million residents (as of 2017), not including people in nearby smaller municipalities who commute to the major cities for work, business, and education. Understanding what can be done to improve the budgetary solvency of these cities will generate lessons for policymakers and citizens alike as they work to ensure that governments can consistently provide essential public services and infrastructure.

Measuring Budgetary Solvency

The study uses data from government-wide financial statements in Comprehensive Annual Financial Reports (CAFRs) of cities to develop measures of budgetary solvency. CAFRs are prepared according to accounting and financial reporting standards established by the Governmental Accounting and Standards Board (GASB), and that follow Generally Accepted Accounting Principles (GAAP). This study uses data from the Statement of Net Position and Statement of Activities in CAFRs.

CAFRs for fiscal years 2006 to 2013 were collected online or directly requested from city officials. A total of 655 out of 674 cities had CAFRs. Cities in Vermont and New Jersey were not included in the sample. No Vermont city met the population cutoff for this study. New Jersey cities' financial reports were not GAAP-consistent. The panel is unbalanced because some cities did not have CAFRs for some years.

The government-wide financial statements emphasize the economic resources measurement focus. A resource in governmental accounting is defined as any "item that can be drawn on to provide services to the citizenry" (GASB 2007, 2). Applying the economic resources approach, analysts can measure all resources that a government owns (cash and non-cash, financial and capital resources) when assessing the ability of such government to pay for services and to meet other financial obligations. The statements also are prepared using full accrual

accounting, which "recognizes economic transactions and other events when they occur, rather than only when the related inflows and outflows of cash or other financial resources occur" (GASB 1999, 85). The analysis here focuses on information for the city government as a whole or the total primary government, which includes governmental activities (services funded through general taxes and grants such as police and health services, etc.) and business-type activities (services funded through user fees such as sewer system and parking facilities etc.) (Mead 2011). Because resources are fungible and can be transferred across activities, focusing on the total primary government ensures a more comprehensive assessment of city budgetary solvency (Jimenez 2017).[3]

It must be emphasized that applying the economic resources measurement focus and full accrual accounting necessitates a reconceptualization of budgetary solvency. A "budgetary orientation" is typically associated with the current financial resources measurement focus, in which a transaction is recorded in the fiscal year when a financial resource flows in or out of government. This approach is an important control and compliance mechanism, helping government ensure that the amounts of revenues it raises and spends by the end of the fiscal year conform with what are specified in the legally adopted budget. The problem with this approach is that reporting only costs that require the use of current financial resources understates the true costs of current services when governments defer a portion of those costs to the future (GASB 1999). For example, governments can delay payments to suppliers to the next fiscal year, issue long-term debt to pay for current period salaries and supplies,[4] or underfund contributions to

[3] In measuring budgetary solvency, studies have typically focused on the general fund or the operating budget. In a different study, I discuss a number of issues with this approach (please see Jimenez 2018 for a longer discussion)
[4] This may sound surprising especially because cities face some restrictions in issuing debt. The severity of debt constraints, however, vary by state. Hendrick (2011) documents that some Illinois municipalities issue bonds to close operating deficits. Clark and Fergusson (1983) note that some cities consolidate short-term notes in a long-term debt issue.

employee pension and other post-employment benefits such as healthcare. Because these items will be paid out in the future, the financial resource flow approach does not recognize them as costs in the current period.

With the economic resources measurement focus and full accrual accounting, all economic costs incurred and that benefited the current period are charged to that period, regardless of the timing of the resource flows (GASB 1999). If supplies from vendors are used to provide services this year, any amounts owed to those vendors are recorded as a cost in the same year. Long-term debt is recorded as a cost in the period when it is used to pay for operational activities rather than to acquire or repair capital assets. If an employee delivers services this year, the full cost of her labor—salary and a portion of the benefits already earned—is recorded in the same period.[5] Thus, information from government-wide financial statements allows analysts to assess whether total revenues were truly sufficient to cover total costs each year (Plummer, Hutchison, and Patton 2007).

Following Johnson, Kioko, and Hildreth (2012), the study focuses on two dimensions of budgetary solvency, specifically the operating and financial positions. Operating position is the "net difference between revenues and expenses resulting from annual operations" (Johnson, Kioko, and Hildreth 2012, 84). It is measured as the operating ratio or revenues divided by expenses. Revenues include general revenues (taxes and unrestricted grants), service charges, and operating grants and contributions from other governments and parties that are restricted for use for specific purposes (GASB 1999). Capital grants and contributions are excluded from revenues because the focus here is on government operations. Expenses are the "full costs of providing government services," including not only salaries but also "employee benefits that are

[5] Thus, the economic resources measurement focus and full accrual accounting make it harder for government to conceal the problem of underfunded retirement benefits.

earned during the period but are not required to be paid until a future date, the cost of supplies used up during the year to operate the government, as well as a portion of the original purchase cost of long lived assets like buildings and equipment" (Mead 2011, 139).

Financial position is "the government's ability to continue providing its basic services and fulfilling its financial commitments from current year revenues and prior year savings" (Johnson, Kioko, and Hildreth 2012, 86). It is measured as the change in total net position and the level of unrestricted net position. Total net position refers to "resources remaining for the government to use after the liabilities have been paid off or otherwise satisfied" (Mead 2011, 37). Change in total net position, which is considered a measure of the net flow of resources, is also divided by expenses.

Unrestricted net position is a component of total net position that is liquid and can be used for any purpose (Davies, Johnson, and Lowensohn 2017). Liquidity refers to "how close an asset is to being cash" (Finkler 2011, 342). Unrestricted net position "can be used to finance day-to-day operations without constraints established by debt covenants, enabling legislation, or other legal requirements" (GASB 1999, 187). It functions as a "reserve or hedge against adverse financial events, such as new, unexpected liabilities or a downturn in revenue" (Johnson, Kioko and Hildreth 2012, 86). Unrestricted net position, which is considered a measure of a government's stock of resources, is also standardized by expenses.

The measures have inherent limitations and strengths. The operating ratio is a widely understood and used indicator of budgetary solvency. A ratio greater than one indicates an operating balance, and a deficit if less. The operating ratio is less comprehensive though, compared with the change in total net position, which covers all assets and liabilities. A positive change in total net position signifies a government-wide surplus, and a deficit if negative (Wang,

Dennis, and Tu 2007).[6] The problem with using change in total net position, as with any changed-based measure, is that it can lead to an apples-and-oranges comparison. Suppose two cities have the same level of expenses but one city has a higher total net position. Similar positive changes in net position will suggest that both have comparable fiscal position, when in reality, the city with the higher starting total net position is in a better condition (Jimenez 2017). Unrestricted net position is a more precise measure because it focuses on the level of liquid reserves only. However, care must be taken when evaluating trends in unrestricted net position. A transitory dip does not necessarily indicate poor budgetary solvency. A city, for example, can experience a temporary increase in liabilities—and thus a decline in unrestricted net position—if it fails to budget for the cost of property and casualty claims, compensated absences (for employee leaves), and termination pay in the current fiscal year (GASB 1999). However, consistent declines point to significant solvency issues. In general, the lower the reserves, the weaker the ability of government to respond to any unplanned increase in spending or unexpected revenue decline.

Note that there is some disagreement in the literature on whether unrestricted net position measures budgetary or long-term solvency (see, among others, Wang, Dennis, and Tu 2007; Rivenbark, Roenigk, and Allison 2010; Johnson, Kioko, and Hildreth 2012; Jimenez 2017, 2018a, 2018b). "Long term" in the budgeting and planning literature typically refers to a time period of five to ten years. If unrestricted net position is a long-term measure, the assumption is that governments build up reserves in the present period and use them to close deficits five to ten

[6] An issue that can be raised is that new debt for a capital project increases liabilities, which will be reflected as a substantial decline in change in total net position. Clearly, this decline does not reflect poor budgetary solvency. Under full accrual accounting, however, the debt is offset by the capital asset that the debt was used to acquire or repair. Thus, capital debt does not necessarily lead to a significant change in total net position.

years into the future. The empirical evidence suggests otherwise: governments use reserves to close deficits in the near term (see Hendrick 2006, 2011).[7]

A possible cause of the disagreement is the fact that unrestricted net position does not only include cash reserves, but also noncash resources such as longer-term investments. Should only the cash component be considered as current reserves because it is ready to be spent, and the noncash portion treated as long-term reserves because it is not in spendable form? Applying the economic resources measurement focus, both unrestricted cash and noncash components are treated as economic resources available to government for use to cover costs in the present period. Although the noncash portion is not in spendable form, it is *still* considered liquid because it can be quickly converted to cash. Investments, for example, can be sold to produce cash in a few days (Finkler 2011). Selling investments can have negative consequences such as foregone interest earnings (Mead 2011). Still, the point remains that the unrestricted noncash component can be liquefied, and the cash used to respond to any emergency in the present period and the immediate year.[8]

Measuring Government Form

Following the convention in the extant literature, government form is measured as a dummy variable with "1" indicating mayor-council, and "0" for council-manager. The data are from the ICMA's 2001, 2006, and 2011 Form of Government Surveys. In case of contradictory

[7] Long-term solvency is difficult to predict. Hendrick (2011, 29) writes that "Long-term solvency also encompasses future assets, liabilities, and events—all of which are unknown." Justice and Scorcene (2013, 66-67) add that longer-term solvency is "harder to evaluate, even with the use of well-designed longitudinal measures, given the very large array of environmental and organizational uncertainties and contingencies that can influence local governments' fiscal health and adaptation over time." Not surprisingly, long-term measures tend to focus on rough approximations of potentially available resources e.g. a jurisdiction's revenue wealth, measured by income or total assessed property value.

[8] In fact, in the Statement of Net Position, unrestricted noncash resources such as investments, receivables, and inventories are classified as current assets (together with unrestricted cash), and not non-current or long-term assets. "Current" means that the asset is liquid and can be used to pay for liabilities that are immediately due.

or missing data, the study directly consults municipal charters through an online search. Of the 674 cities, 36.35 percent have a mayor-council government, and 63.65 percent operate under the council-manager form.

A criticism of the dichotomous measure of government form is that many cities now use hybrid structures that combine different elements of the two classic forms (Karuppusamy and Carr 2010). For example, some mayor-council governments have introduced the position of appointed chief administrative officer (CAO) to professionalize city administration (Frederickson, Johnson, and Wood 2004). Some council-manager cities have mayors, either appointed by councilmembers from their ranks or directly elected by voters. Studies have introduced different ways to measure these various structural elements (see Karuppusamy and Carr 2010), but there is no agreement as to the most appropriate measure. Also, the measures have become too complex that data needed to assess specific elements are not available for a national sample of cities (Nelson and Svara 2012).

This study employs the measure introduced by Nelson and Svara (2012), which captures important elements of hybrid systems using readily available data from the ICMA surveys. They identify subtypes of council-manager and mayor-council forms according to the method for selecting the mayor, the presence of a CAO or manager, and the authority for appointing the CAO or manager. The ICMA survey provides complete information for 524 cities in the sample. The three council-manager subtypes include: those in which both the mayor and manager are appointed by the council (19.08 percent of 524 cities); the mayor is directly elected and the manager is council-appointed (36.07 percent); and the mayor is directly elected and the manager is appointed jointly by the council and mayor (16.41 percent). The four mayor-council subtypes include: those in which there is no CAO (16.22 percent of 524 cities); there is a CAO who is

appointed by the council (3.63 percent); the CAO is appointed by the mayor (4.41 percent); and the CAO is appointed by the council and mayor (4.20 percent). These subtypes are operationalized as dummy variables, and the base category is the council-manager form with council-appointed mayor and manager.

Control Variables

The analysis controls for different economic, socio-demographic, political, and intergovernmental factors. For economic controls, the models include measures of employment and housing prices. Ladd and Yinger (1989) suggest that private sector employment is a good indicator of the economic health of cities. Jimenez (2013) focuses on total unemployment rate, arguing that higher unemployment increases demand for city services, and also reduces city revenues. Jimenez (2017, 2018b) also finds that the level and change in housing prices influence city budgetary solvency because the property tax remains the biggest source of tax revenues for cities. Because of the delay before changes in housing prices are reflected in property tax collections, the level and change of the housing price index are lagged by one year.

For socio-demographic and political factors, the models include measures of population, income, and political ideology. Jimenez (2013) uses population size to control for the demand for government services, and population growth as an indicator of improving local economic conditions. Hendrick (2011) notes that wealthier cities—proxied here by median household income—have greater capacity to increase taxes when facing fiscal stress. Using a policy conservatism index to measure city-level citizen policy preferences, Tausanovitch and Warshaw (2014) show that a liberal political ideology is associated with higher spending, taxes, and debt.

For intergovernmental factors, the models include measures of grants, revenue authority, and expenditure responsibilities of cities. Grants from federal and state governments are

measured as total intergovernmental revenue as a percentage of city own-source revenues. To control for property tax dependence, the models include property tax revenues as a percentage of total tax revenues. Dummy variables indicating whether a city has access to the sales tax, income tax, or utility revenues, are also included.[9] The service index, which is the count of functional responsibilities of city governments based on the Census of Governments, measures the differences in service responsibilities across cities.[10] To control for inflation, non-ratio fiscal and income measures are expressed in year 2000 dollars using the implicit price deflator from the Bureau of Economic Analysis. Information on variable operationalization, data sources, and basic descriptive statistics can be found in table 1.

[Table 1 here]

Estimation Approach

The models are estimated using least squares dummy variable regression to address possible omitted variables bias, which can be traced to unmeasured, time-invariant, state-level factors that affect city budgetary solvency. For example, most states have decades-old fiscal rules such as tax and expenditure limits, debt limits, and balanced budget requirements that constrain the fiscal and budgetary choices of cities. The inclusion of state dummies control for such factors (City dummies cannot be included because they are perfectly collinear with measures of government form). Year dummies are also incorporated in the models to control for the effects of national economic shocks such as the 2007-2009 Great Recession.

Three-year moving averages are used to examine the underlying trends in the budgetary solvency measures, and minimize the possibility that deep troughs and peaks in the outcome variables bias the results of the analysis (Jimenez 2017). However, using moving averages can

[9] The main conclusion does not change when I operationalize these revenue sources as percentage of total revenues.
[10] For control variables with missing values, I use linear interpolation to fill missing data.

lead to serial error correlation, as indicated by the highly statistically significant results for the Wooldridge test for autocorrelation in panel data. To address the issue, the analysis uses Newey-West HAC (heteroskedasticity- and autocorrelation-consistent) standard errors. Finally, variables with skewed distribution, including the dependent variables, are log transformed to minimize the problem of potentially influential data points, and also, as another means to address the issue of heteroskedastic error distribution.[11]

Results

Trends in Municipal Budgetary Solvency

Figures 1 to 3 track the developments in the median annual operating, change in total net position, and unrestricted net position ratios of mayor-council and council-manager cities from 2006 to 2013. Looking at figure 1, the median operating ratio of council-manager cities was consistently higher than that of mayor-council cities for each year covered in the analysis. A Fisher's exact test of the equality of medians indicates that the two groups of cities indeed have different median operating ratios (Chi-square = 55.25, $p < 0.000$). Averaging the medians across eight years, council-manager cities had an operating surplus (1.0132), whereas mayor-council cities suffered from a deficit (0.9918). The effects of the Great Recession, which began in late 2007 and ended in mid-2009, could be clearly seen in figure 1. Both groups of cities enjoyed a surplus in 2006 and 2007. By 2008, the operating ratios of both cities began to precipitously decline, with mayor-council cities experiencing the largest deficit in 2009, and in 2010 for council-manager cities. The operating position of both cities started to improve by 2011.

Looking at figure 2, the median change in total net position ratio of council-manager cities was consistently higher than mayor-council cities. This difference is statically significant

[11] Because the log of zero or a negative value is undefined, a constant is added prior to log-transformation to ensure that observations are not dropped. The constant is taken into account when exponentiating for the predicted effect.

based on the results of the medians test (Chi-square = 112.31, $p < 0.000$). Averaging the median ratios, both groups of cities enjoyed positive net flow of resources, but the change in total net position for council-manager cities (equivalent to 9.15 percent of expenses) was more than twice that of mayor-council cities (4.25 percent of expenses). Assessing trends across years, both groups of cities enjoyed the highest net flow of resources in the pre-recession years of 2006 and 2007, which started to decline in 2008 and slowly recovered from 2011 onwards.

Finally, examining figure 3, the median unrestricted net position ratio of council-manager cities was consistently and substantively larger than that of mayor-council cities. The medians test indicates that the observed difference is systematic (Chi-square = 428.38, $p < 0.000$). Averaging the median ratios, the government-wide reserves of council-manager cities were equivalent to 42.29 percent of expenses, or almost four times larger than that of mayor-council cities, which stood at 11.08 percent of expenses. For both groups of cities, the level of reserves followed the rough and tumble of the recession. The reserves of council-manager cities declined from 2008 to 2010, and a year longer for mayor-council cities. Reserves began to recover in succeeding years. By 2013, the reserves of council-manager cities (at 43.01 percent) were slightly higher than the eight-year average, in contrast to mayor-council cities whose reserves (at 7.46 percent) were still below the average for the period. It should be pointed out that both groups of cities had not yet fully recovered from the recession even by 2013. For all budgetary solvency measures, the 2013 median levels continued to be below that in the pre-recession years.

[Figures 1, 2, and 3 here]

Results of Models Using the Classic Operationalization of Government Form

Although the comparison of budgetary solvency by government form is informative, it cannot establish whether there is a relationship between the two variables. A stronger test of this

relationship requires regression analysis. Table 2 presents the results of the regression models using the classic operationalization of government form. A striking result is that form has statistically significant effects on all measures of budgetary solvency.[12] In panel 1, the mayor-council form has a moderately statistically significant ($p < 0.05$) negative relationship with the operating ratio. Because the dependent variable is logged, the coefficient for government form has no straightforward interpretation. To assess the magnitude of the effect of form, predicted effects are calculated for a mayor-council and a council-manager city, holding other control variables constant at their means. The predicted effects are then exponentiated. The estimated operating ratio of a mayor-council city is 0.9995 (or an operating deficit), compared with 1.0105 for a council-manager city (or a surplus). The difference in operating balances is equivalent to 1.10 percent of expenses, or $3.64 million (in year 2000 dollars).

[Table 2 here]

Panel 2 shows that the mayor-council form has a moderately statistically significant ($p < 0.05$) and negative effect on the change in total net position ratio. The predicted change in total net position for a mayor-council city is equivalent to 8.84 percent of government-wide expenses. For a council-manager city, the change in net position is equivalent to 10.32 percent of expenses, or approximately 1.48 percentage points higher than for a mayor-council city. This difference is equivalent to $4.90 million (in year 2000 dollars).

Panel 3 shows the results for the unrestricted net position ratio. The coefficient for mayor-council form is negative and highly statistically significant ($p < 0.000$). The predicted government-wide reserves of a mayor-council city are equivalent to 26.05 percent of expenses. In comparison, the reserves of a council-manager city stand at 36.86 percent of expenses, or

[12] I do not discuss the results for control variables because of space consideration.

10.81 percentage points higher than that of a mayor-council city. This difference is equivalent to $35.78 million (in year 2000 dollars).

Results of Models Using Alternative Operationalization of Government Form

Table 3 shows the regression results when using the Nelson-Svara operationalization of government form. Two findings stand out. One, the presence of an elected mayor is detrimental to budgetary solvency. Compared with the base council-manager form with council-appointed mayor and manager, mayor-council subtypes tend to have lower operating, change in net position, and unrestricted net position ratios. Even a council-manager city with an elected mayor has weaker budgetary solvency compared with the base council-manager category. Second, the appointment of a CAO in mayor-council cities does not reduce the negative effects of the mayor-council form. It also does not matter who appoints the CAO. Whether the CAO is appointed by the council, the mayor, both, or even if a city has no CAO, all mayor-council subtypes perform poorly compared with the base council-manager form.

[Table 3 here]

Robustness Checks

Additional analyses are implemented to establish the robustness of the findings. The results can be found in the online appendix. Briefly, the main conclusion of the analysis is supported when implementing various tests to address issues such as:

1) Alternative operationalization of the budgetary solvency measures — These include using annual values instead of three-year moving averages, dividing by population rather than expenses, and using actual rather than log-transformed values (appendix tables 1, 2, and 3);
2) Influential observations — When using the actual values of the dependent variables, estimates are affected by a few observations with very high or low values. Influential data

points are addressed by using Winsorized estimators in which data below the 5th percentile are set to the 5th percentile, and data above the 95th percentile are set to the 95th percentile. Another approach is robust regression in which observations with large residuals are down-weighted (appendix tables 4 and 5).

3) Minimal model specification — All controls except state and year dummies are excluded to estimate the basic effects of government form (appendix table 6);
4) Other municipal political institutions — The effects of other reforms designed to limit the role of politics in city governance, such as non-partisan elections, at-large council elections, and term limits, are accounted for (appendix table 7);
5) Council size — The literature on distributive politics suggests that the council is the true cause of poor budget outcomes in cities. The number of council seats per 100,000 population is included in the models (appendix table 8).
6) Mayoral veto — In the separation of powers system under the mayor-council form, the mayor can use veto powers to influence budget choices. Veto power is controlled for, and mayors with veto authority are explicitly identified (appendix table 9).
7) Omitted variables at the city level — Other local socio-demographic characteristics (educational attainment and age composition of the population) and proxies for interest group competition (racial and ethnic groups) are controlled for (appendix table 10).[13]

Discussion and Conclusion

[13] The potential endogeneity of government form caused by a city-level omitted variable can be addressed by instrumenting for form in two-stage linear regression. I am not aware of any study that has identified a valid instrument for form in models of budget outcomes. A contrary view is that the concern about endogeneity is overblown because form is highly stable. Using data from the ICMA surveys, no municipality in my sample reported formally approving any proposed change in government form during the period covered in this study. That form is stable during the years included in the analysis also means that simultaneous causation is not an issue.

What are the implications of the empirical findings on both the theory and practice of local government management? First, revisiting the long-standing debate in democratic theory about the appropriate role of appointed and elected government officials in policymaking, the findings here indicate that the participation of bureaucrats in budgetary policymaking is associated with stronger budgetary solvency. In his comprehensive review of the literature on government form, Carr (2015) argues that studies have largely focused on differences in policy choices attributable to form, and not on the actual outcomes of those choices. Using multiple measures of government-wide budgetary solvency based on multi-year audited financial reports, this study provides evidence that government form leads to different budget outcomes. Specifically, a council-manager city is predicted to have an operating position and change in total net position that are from $4-5 million higher than that of a mayor-council city. These are relatively modest amounts.[14] A substantial difference in performance is seen in the level of reserves, with a gap of approximately $36 million predicted between a council-manager and mayor-council city.

It can be argued that managers favor responsible fiscal policies because they are motivated to serve the public interest (Miller and Whitford 2016). But it is also plausible that managers are simply responding to incentives, specifically, the concern about how their policy choices affect their reputation and career prospects (Teske and Schneider 1994; Feoick and Kim 2000). The effect of distinct incentives faced by appointed and elected executives is evident in the empirical findings. The tenure and external career opportunities of a manager depend, to a large extent, on her reputation for achieving the goals of her organization (Alesina and Tabellini 2007). A fundamental goal of municipal governments is to provide a consistent level of services

[14] Yet, these amounts should not be dismissed. Annual net balances (e.g. the operating surplus) accumulate across years as reserves.

to residents, and managers achieve this goal by building up reserves that can be used to stabilize spending. The tenure of the elected executive depends on her ability to satisfy voters' preferences in the short term. The focus on immediate electoral gains incentivizes the elected executive to provide direct benefits to voters through higher current spending or lower taxes, rather than saving now to prepare for future fiscal difficulties that she may no longer need to deal with if there is a turnover in the city's political leadership.

Poor budgetary solvency does not necessarily signify a fiscal crisis, but its consequences, nonetheless, should be of concern to every citizen. Persistent deficits lead to service cuts and tax increases (Jimenez 2014). Other research finds that cities with declining reserves are penalized with lower bond ratings, increasing the costs of borrowing for needed capital projects (Plummer, Hutchison, and Patton 2007; Jonhson, Kioko, and Hildreth 2012). More worrisome is the observation that a declining unrestricted net position is associated with the underfunding of employee retirement benefits (Mead 2011; Davies, Johnson, and Lowensohn 2017).

The second contribution of this study is to shed light on the limitations of attempts to professionalize administration in mayor-council cities by introducing a "city manager-like" position, specifically the CAO. Using the Nelson-Svara typology, the results indicate that the advantages of the council-manager form cannot be exported to mayor-council cities by simply copying features of the former. The CAO may be a career official trained in local government management and exposed to professional norms through membership in professional organizations. However, she still reports to the mayor, and thus occupies a secondary position in the executive hierarchy. Surveys show that CAOs function as political agents of mayors in mayor-council cities, spending more time engaged in political activities and less time on policy development compared with managers in council-manager cities (Ammons 2008). CAOs do not

exercise the same powers as city managers, having less influence on policy, budgetary and personnel matters (Ammons 2008; Krebs and Pelissero 2010). Without reducing the power of the mayor, the introduction of the CAO position does not improve the fiscal performance of mayor-council cities. Professionalism will only matter if the professional is given greater autonomy and political insulation to accomplish the task of balancing the budget.

Finally, the findings raise questions about reforms that aim to increase political responsiveness to citizens by introducing the elected mayor position in council-manager governments. Such reforms are often seen as undeniably good for democracy. A primary goal of Progressive era municipal reforms such as the council-manager charter was to minimize the influence of the broader public on city policymaking (Trounstine 2010). Delegating decision-making power to appointed professionals weakens political accountability to citizens, but empowering bureaucrat-experts might be necessary to prevent politicians from manipulating budget policies for electoral gains. It is ironic that an institutional arrangement that facilitates bureaucratic insulation, and not those that promote political responsiveness, ends up promoting the greater good, at least in terms of ensuring that city governments can continue to pay for the costs of delivering services demanded by citizens themselves. Nevertheless, the tradeoff involved in the choice between the appointed and elected chief executives is not inconsequential: the positive effect of relying on bureaucratic expertise on budget outcomes comes at the expense of traditional notions of political accountability.

Some limitations of the analysis, as well as questions for future study, should be noted. First, the competitiveness of elections can influence the budgetary choices of elected chief executives, with those running in tight races likely to be tempted to implement popular but fiscally irresponsible policies (Baber and Sen 1986). This issue is not addressed here. Second, it

is possible that rather than just having a direct impact on budget outcomes, the effect of government form is moderated by social and demographic factors (Clingermeyer and Feiock 2011). The potential interactive effects are not explored in this research. Finally, there are other avenues for future research including assessing the relationship between government form and other solvency levels such as cash, service, and long-term solvencies. The further development and clarification of measures of different solvency levels will enrich our understanding of how municipal fiscal condition is shaped by local institutional and administrative arrangements.

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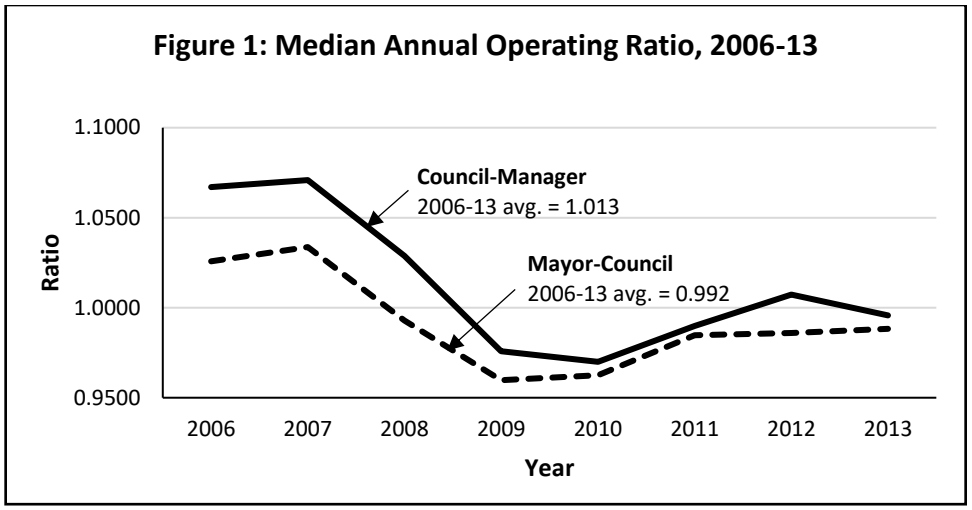
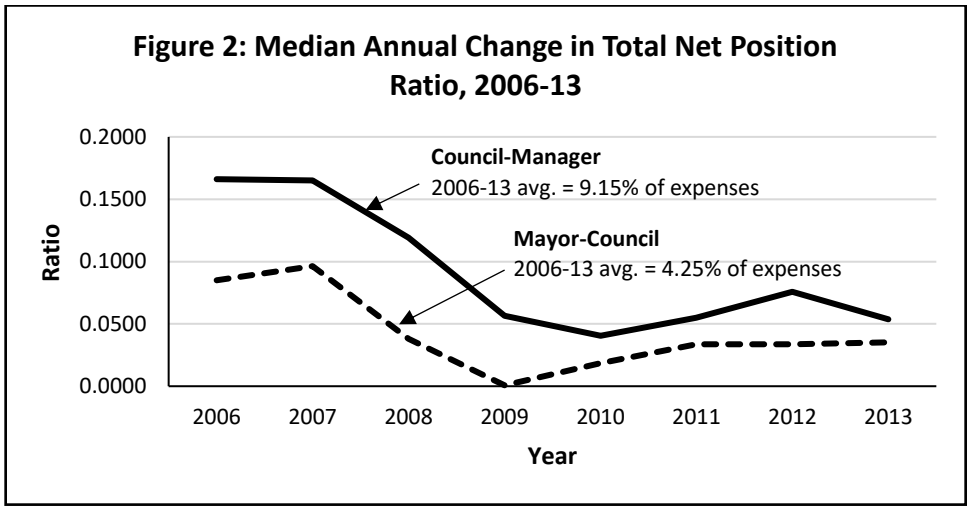
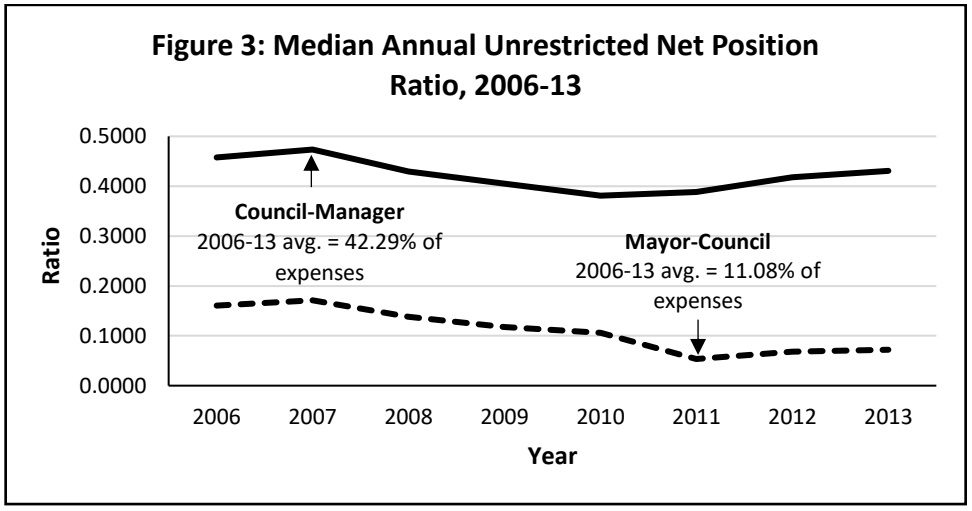


Note: Author's calculations based on raw data from CAFRs.



Note: Author's calculations based on raw data from CAFRs.



Note: Author's calculations based on raw data from CAFRs.

Table 1
Variable Operationalization, Data Sources and Descriptive Statistics

Variables	Data Source	Mean	Std. Dev.	Min	Max
Outcome Variables					
Operating ratio (As defined in the main text. Annual values are presented in this table. Moving averages are used in the regression analyses)	CAFR	1.01	0.12	-0.54	2.26
Change in total net position ratio (See note above)	CAFR	0.10	0.18	-1.49	2.40
Unrestricted net position ratio (See note above)	CAFR	0.36	0.50	-2.59	3.78
Main Independent Variables					
Classic operationalization of government form					
MC (1- mayor-council, 0-council-manager)	ICMA, Municipal Charters	0.34	0.47	0.00	1.00
Nelson-Svara operationalization of government form					
CM (council-manager) w/ council-appointed manager and mayor (1-yes, 0-no)	ICMA	0.19	0.39	0.00	1.00
CM w/ elected mayor, council-appointed manager (1-yes, 0-no)	ICMA	0.35	0.48	0.00	1.00
CM w/ elected mayor, council-mayor-appointed manager (1-yes, 0-no)	ICMA	0.16	0.37	0.00	1.00
MC w/ council-appointed chief administrative officer (CAO) (1-yes, 0-no)	ICMA	0.04	0.19	0.00	1.00
MC w/ mayor-appointed CAO (1-yes, 0-no)	ICMA	0.04	0.19	0.00	1.00
MC w/ mayor-council-appointed CAO (1-yes, 0-no)	ICMA	0.04	0.19	0.00	1.00
MC w/o CAO (1-yes, 0-no)	ICMA	0.15	0.35	0.00	1.00
Controls					
Housing price index (1-year lag) (Measures the movement of single-family house prices at the metropolitan level)	FHFA	199.59	51.83	102.72	345.34
% change in housing price index (1-year lag) (Annual % change)	FHFA	-0.17	9.43	-38.64	33.33
Private sector employment (Private sector employees divided by total population)	ACS	0.45	0.05	0.17	0.62
Unemployment rate (Unemployed as % of total workforce)	ACS	5.57	2.00	1.60	22.20
Population	ACS	169842.10	410189.30	40742.60	8308163.00
Population change (% change from year 2000)	ACS	12.61	24.30	-53.91	285.06
Median household income (In thousands, converted to year 2000 dollars)	ACS	37.85	12.58	16.16	95.01
Policy conservatism index (Higher values indicate that citizens prefer more conservative policies)	Tausanovitch and Warshaw (2014)	-0.09	0.28	-1.02	0.65
IGR dependence (Intergovernmental revenue as % of own-source revenues)	CoG, ASSLGF	22.55	29.87	0.00	322.09
Property tax dependence (Property tax as % of total tax revenues)	CoG, ASSLGF	56.90	24.22	0.00	100.00
Income tax dummy (1-yes, 0-no)	CoG, ASSLGF	0.08	0.28	0.00	1.00
Sales tax dummy (1-yes, 0-no)	CoG, ASSLGF	0.91	0.29	0.00	1.00
Utility revenue dummy (1-yes, 0-no)	CoG, ASSLGF	0.87	0.33	0.00	1.00
Service index (Count of service functions of municipal government)	CoG, ASSLGF	14.86	3.00	3.00	26.00

Note: CAFR—Comprehensive Annual Financial Reports 2006-2013; CoG—Census of Governments, 2007 and 2012; ASSLGF—Annual Survey of State and Local Government Finances, 2006, 2008-2011, 2013; ACS—American Community Survey, 2006-2013; ICMA—International City/County Management Association Government Form Survey, 2001, 2006, and 2011; FHFA—U.S. Federal Housing Finance Agency 2005-2012. The summary statistics presented in this table are based on actual values of the variables.

Table 2
Regression Results
Using the Classic Operationalization of Government Form
(Base Category is Council-Manager Form)

Independent Variables	Dependent Variables: Measures of Budgetary Solvency					
	Operating Ratio (log)		Change in Total Net Position Ratio (log)		Unrestricted Net Position Ratio (log)	
	Panel 1		Panel 2		Panel 3	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
Main Independent Variable						
MC (mayor-council)	-0.004**	0.002	-0.005**	0.002	-0.020***	0.004
Controls						
Housing price index (1-year lag)	0.000***	0.000	0.000**	0.000	0.000***	0.000
% change in housing price index (1-year lag) (log)	0.000***	0.000	0.001***	0.000	0.000*	0.000
Private sector employment	0.042***	0.015	0.038*	0.020	0.196***	0.040
Unemployment rate	-0.002***	0.000	-0.001	0.001	0.001	0.001
Population (log)	-0.004***	0.001	-0.003**	0.001	-0.021***	0.003
Population change (log)	-0.003	0.003	0.033***	0.005	0.012	0.008
Median household income	-0.000**	0.000	0.000	0.000	0.001***	0.000
Policy conservatism index	-0.002	0.003	0.012***	0.004	0.032***	0.009
IGR dependence (log)	-0.006***	0.001	-0.001	0.002	-0.007**	0.003
Property tax dependence	0.000	0.000	0.000	0.000	0.000*	0.000
Income tax dummy	-0.006	0.004	-0.004	0.005	-0.036***	0.013
Sales tax dummy	0.002	0.003	-0.001	0.004	-0.024*	0.013
Utility revenue dummy	0.010***	0.003	0.006*	0.003	0.005	0.007
Service index	0.000	0.000	-0.001***	0.000	-0.001	0.001
Year Dummies	Yes		Yes		Yes	
State Dummies	Yes		Yes		Yes	
Constant	1.148***	0.019	1.016***	0.027	1.743***	0.051
N	5115		5116		5116	
R-Sq.	0.279		0.327		0.403	

Note: Standard errors (S.E) are heteroskedasticity- and autocorrelation-consistent. The base state is Alabama, and the base year is 2006. Results for state and year dummies are not shown because of space consideration. *** significant at 1%, ** at 5%, and * at 10%, two-tailed tests.

Table 3
Regression Results
Using Nelson and Svara's Classification of Government Form
(Base Category is Council-Manager Form with Council-Appointed Manager and Mayor)

Independent Variables	Dependent Variables: Measures of Budgetary Solvency					
	Operating Ratio (log)		Change in Total Net Position Ratio (log)		Unrestricted Net Position Ratio (log)	
	Panel 4		Panel 5		Panel 6	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
Main Independent Variables						
CM (council-manager) with elected mayor, council-appointed manager	-0.005*	0.003	0.000	0.003	-0.016**	0.006
CM with elected mayor, council-mayor-appointed manager	-0.008***	0.003	-0.007*	0.004	-0.016**	0.007
MC (mayor-council) with council-appointed CAO (chief administrative officer)	-0.011***	0.004	-0.011**	0.005	-0.048***	0.013
MC with mayor-appointed CAO	-0.009**	0.004	-0.004	0.004	-0.045***	0.009
MC with council- mayor-appointed CAO	-0.005	0.004	-0.007	0.006	-0.036***	0.011
MC without CAO	-0.007**	0.003	-0.010***	0.004	-0.042***	0.008
Controls						
Housing price index (1-year lag)	0.000***	0.000	0.000***	0.000	0.000	0.000
% change in housing price index (1-year lag) (log)	0.000***	0.000	0.001***	0.000	0.000	0.000
Private sector employment	0.036**	0.016	0.022	0.021	0.200***	0.042
Unemployment rate	-0.002***	0.001	-0.001	0.001	0.000	0.001
Population (log)	-0.003**	0.001	-0.003	0.002	-0.016***	0.003
Population change (log)	-0.003	0.004	0.033***	0.005	0.011	0.008
Median household income	-0.000***	0.000	0.000	0.000	0.001***	0.000
Policy conservatism index	-0.003	0.004	0.011**	0.004	0.031***	0.009
IGR dependence (log)	-0.006***	0.001	-0.002	0.002	-0.009***	0.003
Property tax dependence	0.000	0.000	0.000	0.000	0.000	0.000
Income tax dummy	-0.011**	0.004	-0.007	0.005	-0.011	0.015
Sales tax dummy	0.001	0.004	-0.007	0.004	-0.053***	0.015
Utility revenue dummy	0.013***	0.003	0.008**	0.004	0.013*	0.008
Service index	0.000	0.000	-0.001**	0.000	-0.001	0.001
Year Dummies	Yes		Yes		Yes	
State Dummies	Yes		Yes		Yes	
Constant	1.138***	0.022	1.023***	0.029	1.717***	0.052
N	4020		4021		4021	
R-Sq.	0.316		0.330		0.417	

Note: Standard errors (S.E) are heteroskedasticity- and autocorrelation-consistent. The base state is Alabama, and the base year is 2006. Results for state and year dummies are not shown because of space consideration. *** significant at 1%, ** at 5%, and * at 10%, two-tailed tests.

ONLINE APPENDIX

Appendix Table 1
Results When Using Annual Budgetary Solvency Measures

Independent Variables	Classic Operationalization of Government Form (Base is Council-Manager)						Nelson-Svara Classification of Government Form (Base is Council-Manager w/ Council-Appointed Manager and Mayor)					
	Operating Ratio (log)		Change in Total Net Position Ratio (log)		Unrestricted Net Position Ratio (log)		Operating Ratio (log)		Change in Total Net Position Ratio (log)		Unrestricted Net Position Ratio (log)	
	Panel 1		Panel 2		Panel 3		Panel 4		Panel 5		Panel 6	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
Main Independent Variables												
MC (mayor-council)	-0.003**	0.001	-0.004***	0.001	-0.021***	0.003						
CM (council-manager) w/ elected mayor, council-appointed manager							-0.004**	0.002	0.000	0.002	-0.015***	0.004
CM w/ elected mayor, mayor-council-appointed manager							-0.006***	0.002	-0.005**	0.002	-0.015***	0.005
MC w/ council-appointed CAO (chief administrative officer)							-0.008***	0.002	-0.008**	0.003	-0.049***	0.008
MC w/ mayor-appointed CAO							-0.006***	0.002	-0.003	0.003	-0.043***	0.006
MC w/ mayor-council-appointed CAO							-0.003	0.003	-0.005	0.004	-0.035***	0.008
MC w/o CAO							-0.005***	0.002	-0.008***	0.003	-0.041***	0.005
Controls												
Housing price index (1-year lag)	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000**	0.000
% change in housing price index (1-year lag) (log)	0.000***	0.000	0.000***	0.000	0.000*	0.000	0.000***	0.000	0.000***	0.000	0.000	0.000
Private sector employment	0.029***	0.010	0.030**	0.014	0.202***	0.027	0.025**	0.010	0.021	0.015	0.209***	0.028
Unemployment rate	-0.001***	0.000	0.000	0.000	0.002*	0.001	-0.002***	0.000	-0.001	0.001	0.000	0.001
Population (log)	-0.003***	0.001	-0.002**	0.001	-0.021***	0.002	-0.002***	0.001	-0.002*	0.001	-0.016***	0.002
Population change (log)	-0.002	0.002	0.025***	0.003	0.012**	0.005	-0.002	0.002	0.026***	0.003	0.012**	0.005
Median household income	-0.000***	0.000	0.000	0.000	0.001***	0.000	-0.000***	0.000	0.000	0.000	0.001***	0.000
Policy conservatism index	-0.001	0.002	0.010***	0.003	0.031***	0.006	-0.002	0.002	0.009***	0.003	0.029***	0.006
IGR dependence (log)	-0.005***	0.001	-0.001	0.001	-0.008***	0.002	-0.005***	0.001	-0.001	0.001	-0.010***	0.002
Property tax dependence	0.000*	0.000	0.000	0.000	0.000***	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Income tax dummy	-0.006**	0.003	-0.005	0.003	-0.036***	0.008	-0.009***	0.003	-0.006	0.004	-0.011	0.010
Sales tax dummy	0.001	0.002	-0.001	0.002	-0.023***	0.008	0.000	0.002	-0.005*	0.003	-0.050***	0.009
Utility revenue dummy	0.007***	0.002	0.005**	0.002	0.004	0.004	0.009***	0.002	0.007**	0.003	0.011**	0.005
Service index	0.000***	0.000	-0.001***	0.000	-0.001	0.001	0.000	0.000	-0.001**	0.000	-0.001**	0.001
Year Dummies	Yes		Yes		Yes		Yes		Yes		Yes	
State Dummies	Yes		Yes		Yes		Yes		Yes		Yes	
Constant	1.425	0.012	1.318***	0.018	1.738***	0.034	1.415***	0.014	1.319***	0.020	1.715***	0.035
N	5041		5043		5043		3971		3974		3972	
R-Sq.	0.226		0.240		0.388		0.263		0.249		0.404	

Note: Standard errors (S.E) are heteroskedasticity- and autocorrelation-consistent. The base state is Alabama, and the base year is 2006. Results for state and year dummies are not shown because of space consideration. All measures of budgetary solvency are annual. *** significant at 1%, ** at 5%, and * at 10%, two-tailed tests.

Appendix Table 2
Results When Standardizing Change in Total Net Position and Unrestricted Net Position by Population

Independent Variables	Classic Operationalization of Government Form (Base is Council-Manager)				Nelson-Svara Classification of Government Form (Base is Council-Manager w/ Council-Appointed Manager and Mayor)			
	Real Per Capita Change in Total Net Position (log)		Real Per Capita Unrestricted Net Position (log)		Real Per Capita Change in Total Net Position (log)		Real Per Capita Unrestricted Net Position (log)	
	Panel 7		Panel 8		Panel 9		Panel 10	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
Main Independent Variables								
MC (mayor-council)	-0.003**	0.002	-0.015***	0.003				
CM (council-manager) w/ elected mayor, council-appointed manager					0.002	0.002	-0.007*	0.004
CM w/ elected mayor, mayor-council- appointed manager					-0.003	0.003	-0.005	0.004
MC w/ council-appointed CAO (chief administrative officer)					-0.005	0.004	-0.020***	0.008
MC w/ mayor-appointed CAO					-0.003	0.003	-0.034***	0.006
MC w/ mayor-council-appointed CAO					-0.004	0.004	-0.019***	0.007
MC w/o CAO					-0.006**	0.003	-0.022***	0.005
Controls								
Housing price index (1-year lag)	0.000*	0.000	0.000***	0.000	0.000***	0.000	0.000*	0.000
% change in housing price index (1-year lag) (log)	0.000***	0.000	0.000*	0.000	0.000***	0.000	0.000	0.000
Private sector employment	0.072***	0.015	0.156***	0.033	0.061***	0.016	0.151***	0.036
Unemployment rate	0.000	0.000	0.000	0.001	-0.001	0.000	-0.001	0.001
Population (log)	-0.003**	0.001	-0.016***	0.002	-0.002*	0.001	-0.012***	0.002
Population change (log)	0.020***	0.003	0.011**	0.005	0.020***	0.003	0.012**	0.005
Median household income	0.000	0.000	0.000**	0.000	0.000	0.000	0.000*	0.000
Policy conservatism index	-0.002	0.003	-0.007	0.007	-0.003	0.004	-0.013	0.008
IGR dependence (log)	-0.003**	0.001	-0.015***	0.002	-0.004**	0.002	-0.016***	0.003
Property tax dependence	0.000	0.000	0.000***	0.000	0.000	0.000	0.000***	0.000
Income tax dummy	-0.009**	0.004	-0.029***	0.009	-0.012***	0.004	-0.027**	0.012
Sales tax dummy	-0.002	0.003	-0.019**	0.008	-0.007**	0.003	-0.032***	0.009
Utility revenue dummy	0.008***	0.002	0.014***	0.003	0.010***	0.002	0.021***	0.004
Service index	0.000	0.000	0.003***	0.001	0.001**	0.000	0.003***	0.001
Year Dummies	Yes		Yes		Yes		Yes	
State Dummies	Yes		Yes		Yes		Yes	
Constant	8.479***	0.019	9.305***	0.036	8.480***	0.020	9.258***	0.036
N	5081		5082		4007		4008	
R-Sq.	0.227		0.373		0.233		0.390	

Note: Standard errors (S.E) are heteroskedasticity- and autocorrelation-consistent. The base state is Alabama, and the base year is 2006. Results for state and year dummies are not shown because of space consideration. Per capita change in total net position and unrestricted net position are annual and adjusted for inflation (expressed in year 2000 dollars). *** significant at 1%, ** at 5%, and * at 10%, two-tailed tests.

Notes on Appendix Table 2:

The operating position requires comparing revenues with expenses. Dividing revenues (or expenses) by population is not the operating position, but simply per capita revenues (or per capita expenses). Thus, only change in total net position and unrestricted net position are divided by population.

Note that an issue with using population as the denominator is that the American Community Survey does not update yearly population for some cities. It uses a series of samples to arrive at one-year, three-year, and five-year estimates. One-year estimates are made for cities with a population of 65,000 or more, three-year estimates for cities with a population of 20,000 or more, and five-year estimates for all cities. One-year estimates were first released in 2005, three-year estimates in 2007, and five-year estimates in 2009. Because of the sample (cities with a population of 50,000 or more) and the period covered in the study (2006-2013), I use one-year estimates for 2006, and three-year estimates for 2007 to 2013. For missing data, I use simple linear interpolation. See https://www.census.gov/programs-surveys/acs/guidance/estimates.html for more information about ACS.

Appendix Table 3
Results When Using Actual (Non-Log) Values of Budgetary Solvency Measures

Independent Variables	Classic Operationalization of Government Form (Base is Council-Manager)						Nelson-Svara Classification of Government Form (Base is Council-Manager w/ Council-Appointed Manager and Mayor)					
	Operating Ratio		Change in Total Net Position Ratio		Unrestricted Net Position Ratio		Operating Ratio		Change in Total Net Position Ratio		Unrestricted Net Position Ratio	
	Panel 11		Panel 12		Panel 13		Panel 14		Panel 15		Panel 16	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
Main Independent Variables												
MC (mayor-council)	-0.010*	0.005	-0.014**	0.006	-0.106***	0.023						
CM (council-manager) w/ elected mayor, council-appointed manager							-0.010	0.006	0.001	0.008	-0.036	0.027
CM w/ elected mayor, mayor-council-appointed manager							-0.019***	0.007	-0.016*	0.009	-0.050	0.031
MC w/ council-appointed CAO (chief administrative officer)							-0.027**	0.011	-0.031**	0.014	-0.241***	0.050
MC w/ mayor-appointed CAO							-0.026***	0.009	-0.009	0.011	-0.188***	0.044
MC w/ mayor-council-appointed CAO							-0.013	0.012	-0.017	0.017	-0.150***	0.047
MC w/o CAO							-0.017**	0.008	-0.022**	0.010	-0.174***	0.035
Controls												
Housing price index (1-year lag)	0.000***	0.000	0.000**	0.000	-0.001**	0.000	0.000***	0.000	0.000***	0.000	-0.001**	0.000
% change in housing price index (1-year lag) (log)	0.001***	0.000	0.002***	0.000	0.002**	0.001	0.001***	0.000	0.001***	0.000	0.001	0.001
Private sector employment	0.126***	0.045	0.112*	0.063	0.961***	0.213	0.091**	0.044	0.078	0.060	0.935***	0.196
Unemployment rate	-0.005***	0.001	-0.002	0.002	0.006	0.006	-0.007***	0.001	-0.002	0.002	-0.003	0.006
Population (log)	-0.011***	0.003	-0.008*	0.004	-0.105***	0.014	-0.006**	0.003	-0.010**	0.004	-0.077***	0.012
Population change (log)	-0.005	0.011	0.110***	0.017	0.061	0.040	-0.010	0.008	0.082***	0.013	0.051	0.035
Median household income	-0.001**	0.000	0.000	0.000	0.008***	0.001	-0.001***	0.000	0.000	0.000	0.005***	0.001
Policy conservatism index	-0.006	0.009	0.040***	0.013	0.158***	0.042	-0.014	0.009	0.024**	0.012	0.092**	0.038
IGR dependence (log)	-0.017***	0.003	-0.005	0.005	-0.039**	0.015	-0.016***	0.003	-0.004	0.005	-0.032**	0.015
Property tax dependence	0.000	0.000	0.000	0.000	-0.001*	0.001	0.000	0.000	0.000	0.000	-0.001	0.001
Income tax dummy	-0.017	0.012	-0.010	0.014	-0.151**	0.060	-0.033***	0.011	-0.025*	0.013	-0.031	0.060
Sales tax dummy	0.008	0.010	-0.003	0.012	-0.171**	0.079	0.002	0.009	-0.017	0.013	-0.088**	0.038
Utility revenue dummy	0.028***	0.008	0.017	0.011	0.019	0.035	0.035***	0.007	0.025***	0.009	0.069**	0.030
Service index	0.000	0.001	-0.005***	0.001	-0.004	0.004	0.000	0.001	-0.003**	0.001	-0.009**	0.004
Year Dummies	Yes		Yes		Yes		Yes		Yes		Yes	
State Dummies	Yes		Yes		Yes		Yes		Yes		Yes	
Constant	1.141***	0.059	-0.279***	0.086	0.774***	0.257	1.120***	0.055	-0.140*	0.077	0.581**	0.229
N	5115		5116		5116		4020		4021		4021	
R-Sq.	0.278		0.321		0.410		0.340		0.354		0.432	

Note: Standard errors (S.E) are heteroskedasticity- and autocorrelation-consistent. The base state is Alabama, and the base year is 2006. Results for state and year dummies are not shown because of space consideration. All measures of budgetary solvency are three-year moving averages. *** significant at 1%, ** at 5%, and * at 10%, two-tailed tests.

Appendix Table 4
Results When Using Actual (Non-Log) Values of Budgetary Solvency Measures and Winsorizing at the 5th and 95th Percentiles

Independent Variables	Classic Operationalization of Government Form (Base is Council-Manager)						Nelson-Svara Classification of Government Form (Base is Council-Manager w/ Council-Appointed Manager and Mayor)					
	Operating Ratio		Change in Total Net Position Ratio		Unrestricted Net Position Ratio		Operating Ratio		Change in Total Net Position Ratio		Unrestricted Net Position Ratio	
	Panel 17		Panel 18		Panel 19		Panel 20		Panel 21		Panel 22	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
Main Independent Variables												
MC (mayor-council)	-0.009**	0.004	-0.011**	0.005	-0.117***	0.019						
CM (council-manager) w/ elected mayor, council-appointed manager							-0.010	0.006	0.001	0.008	-0.036	0.027
CM w/ elected mayor, mayor-council-appointed manager							-0.019***	0.007	-0.016*	0.009	-0.050	0.031
MC w/ council-appointed CAO (chief administrative officer)							-0.027**	0.011	-0.031**	0.014	-0.241***	0.050
MC w/ mayor-appointed CAO							-0.026***	0.009	-0.009	0.011	-0.188***	0.044
MC w/ mayor-council-appointed CAO							-0.013	0.012	-0.017	0.017	-0.150***	0.047
MC w/o CAO							-0.017**	0.008	-0.022**	0.010	-0.174***	0.035
Controls												
Housing price index (1-year lag)	0.000***	0.000	0.000**	0.000	-0.001***	0.000	0.000***	0.000	0.000***	0.000	-0.001**	0.000
% change in housing price index (1-year lag) (log)	0.001***	0.000	0.001***	0.000	0.002*	0.001	0.001***	0.000	0.001***	0.000	0.001	0.001
Private sector employment	0.119***	0.039	0.138**	0.053	0.867***	0.175	0.091**	0.044	0.078	0.060	0.935***	0.196
Unemployment rate	-0.005***	0.001	-0.001	0.001	-0.004	0.005	-0.007***	0.001	-0.002	0.002	-0.003	0.006
Population (log)	-0.010***	0.003	-0.009**	0.003	-0.081***	0.010	-0.006**	0.003	-0.010**	0.004	-0.077***	0.012
Population change (log)	-0.009	0.008	0.082***	0.011	0.066**	0.032	-0.010	0.008	0.082***	0.013	0.051	0.035
Median household income	-0.001***	0.000	0.000	0.000	0.005***	0.001	-0.001***	0.000	0.000	0.000	0.005***	0.001
Policy conservatism index	-0.009	0.008	0.031***	0.010	0.096***	0.033	-0.014	0.009	0.024**	0.012	0.092**	0.038
IGR dependence (log)	-0.015***	0.003	-0.003	0.004	-0.035***	0.013	-0.016***	0.003	-0.004	0.005	-0.032**	0.015
Property tax dependence	0.000**	0.000	0.000	0.000	-0.002***	0.001	0.000	0.000	0.000	0.000	-0.001	0.001
Income tax dummy	-0.023**	0.010	-0.019	0.011	-0.108**	0.045	-0.033***	0.011	-0.025*	0.013	-0.031	0.060
Sales tax dummy	0.004	0.009	-0.003	0.011	-0.017	0.035	0.002	0.009	-0.017	0.013	-0.088**	0.038
Utility revenue dummy	0.029***	0.006	0.021***	0.008	0.037	0.025	0.035***	0.007	0.025***	0.009	0.069**	0.030
Service index	0.000	0.001	-0.004***	0.001	-0.005	0.004	0.000	0.001	-0.003**	0.001	-0.009**	0.004
Year Dummies	Yes		Yes		Yes		Yes		Yes		Yes	
State Dummies	Yes		Yes		Yes		Yes		Yes		Yes	
Constant	1.147***	0.047	-0.183***	0.066	0.551***	0.200	1.120***	0.055	-0.140*	0.077	0.581**	0.229
N	5115		5116		5116		4020		4021		4021	
R-Sq.	0.313		0.363		0.442		0.340		0.354		0.432	

Note: Standard errors (S.E) are heteroskedasticity- and autocorrelation-consistent. The base state is Alabama, and the base year is 2006. Results for state and year dummies are not shown because of space consideration. All measures of budgetary solvency are three-year moving averages. *** significant at 1%, ** at 5%, and * at 10%, two-tailed tests.

Appendix Table 5
Results When Using Actual (Non-Log) Values of Budgetary Solvency Measures and Robust Regression

Independent Variables	Classic Operationalization of Government Form (Base is Council-Manager)						Nelson-Svara Classification of Government Form (Base is Council-Manager w/ Council-Appointed Manager and Mayor)					
	Operating Ratio		Change in Total Net Position Ratio		Unrestricted Net Position Ratio		Operating Ratio		Change in Total Net Position Ratio		Unrestricted Net Position Ratio	
	Panel 23		Panel 24		Panel 25		Panel 26		Panel 27		Panel 28	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
Main Independent Variables												
MC (mayor-council)	-0.009***	0.003	-0.008**	0.004	-0.127***	0.013						
CM (council-manager) w/ elected mayor, council-appointed manager							-0.008**	0.004	0.002	0.005	-0.041***	0.015
CM w/ elected mayor, mayor-council-appointed manager							-0.015***	0.004	-0.011*	0.006	-0.059***	0.018
MC w/ council-appointed CAO (chief administrative officer)							-0.025***	0.007	-0.030***	0.009	-0.255***	0.028
MC w/ mayor-appointed CAO							-0.018**	0.007	-0.003	0.010	-0.205***	0.030
MC w/ mayor-council-appointed CAO							-0.019**	0.007	-0.017*	0.010	-0.145***	0.031
MC w/o CAO							-0.014**	0.005	-0.019***	0.007	-0.188***	0.023
Controls												
Housing price index (1-year lag)	0.000***	0.000	0.000	0.000	-0.001***	0.000	0.000***	0.000	0.000***	0.000	-0.001***	0.000
% change in housing price index (1-year lag) (log)	0.001***	0.000	0.001***	0.000	0.002**	0.001	0.001***	0.000	0.001***	0.000	0.001	0.001
Private sector employment	0.118***	0.029	0.133***	0.036	0.914***	0.123	0.093***	0.031	0.060	0.041	0.903***	0.131
Unemployment rate	-0.006***	0.001	-0.004***	0.001	-0.005	0.003	-0.007***	0.001	-0.004***	0.001	-0.005	0.004
Population (log)	-0.009***	0.002	-0.009***	0.002	-0.098***	0.008	-0.006***	0.002	-0.006**	0.003	-0.077***	0.009
Population change (log)	-0.019***	0.005	0.075***	0.006	0.080***	0.021	-0.016***	0.005	0.087***	0.007	0.041*	0.022
Median household income	-0.001***	0.000	0.000	0.000	0.005***	0.001	-0.001***	0.000	0.000	0.000	0.005***	0.001
Policy conservatism index	-0.014***	0.005	0.012*	0.007	0.033	0.023	-0.013**	0.006	0.015*	0.008	0.049*	0.025
IGR dependence (log)	-0.012***	0.002	0.001	0.003	-0.020**	0.009	-0.013***	0.002	-0.001	0.003	-0.026**	0.010
Property tax dependence	0.000***	0.000	0.000*	0.000	-0.002***	0.000	0.000	0.000	0.000	0.000	-0.001**	0.000
Income tax dummy	-0.030***	0.008	-0.030***	0.010	-0.196***	0.034	-0.036***	0.009	-0.031**	0.013	-0.048	0.040
Sales tax dummy	0.002	0.007	0.001	0.008	-0.004	0.029	0.001	0.007	-0.015	0.010	-0.081***	0.030
Utility revenue dummy	0.038***	0.004	0.032***	0.004	0.094***	0.015	0.043***	0.004	0.038***	0.005	0.113***	0.017
Service index	0.000	0.001	-0.003***	0.001	-0.007***	0.002	-0.001	0.001	-0.003***	0.001	-0.013***	0.003
Year Dummies	Yes		Yes		Yes		Yes		Yes		Yes	
State Dummies	Yes		Yes		Yes		Yes		Yes		Yes	
Constant	1.164***	0.034	-0.163***	0.041	0.652***	0.144	1.124***	0.037	-0.201***	0.049	0.601***	0.155
N	5115		5116		5116		4020		4021		4021	
R-Sq.	0.245		0.240		0.332		0.313		0.280		0.383	

Note: The base state is Alabama, and the base year is 2006. Results for state and year dummies are not shown because of space consideration. All measures of budgetary solvency are three-year moving averages. *** significant at 1%, ** at 5%, and * at 10%, two-tailed tests.

Notes on Appendix Tables 3, 4, and 5:

The usual regression diagnostics are implemented for all models. For potential outliers, I examine studentized residuals, Cook's D and DFBETA, in addition to using graphical analysis such as leverage versus residual squared plot and partial-regression plot. If a potentially influential observation is found, I examine the data and check the CAFRs to see if the problem is incorrect data inputting. If the data are correct, I assess how the data point affects the findings by excluding and including the data point. Some data points change the magnitude of the coefficient. There is no clear agreement in the literature whether influential observations should be dropped, and some argue against automatically dropping such data points (e.g. see Fox 2008). This is why I use log transformation as a conservative approach to minimize the effects of marginally influential observations without dropping or replacing any observations (log transformation also minimizes heteroskedasticity).

Some, however, criticize the use of log transformation for the purpose of minimizing influential observations (see Feng et al. 2013). Thus, for the purpose of robustness testing, I use the actual values of the dependent variables rather than log-transformed values, and the results of those models are shown in appendix table 3. I implement two approaches to deal with the concern about potentially influential observations when using actual values of the dependent variables. Appendix table 4 shows the results for Winsorized estimators, which replace extreme values by certain percentiles. Here, I set the data below the 5^{th} percentile to the 5^{th} percentile, and data above the 95^{th} percentile to the 95^{th} percentile (see Dixon 1960). This is still a very subjective approach because there are no clear-cut rules for determining the cutoff percentiles (which determine what is an extreme value and what is not). Although the 5^{th} and 95^{th} percentile thresholds are typical, less conservative cutoff points can be used e.g. 1^{st} and 99^{th} percentiles. An alternative approach is robust regression—the results of which are shown in Appendix table 5. This approach is less subjective because it uses actual estimates of influence (specifically Cook's D) to identify potential outliers, and implements Huber and bisquare weighting to minimize influential data, rather than arbitrarily replacing values at certain cutoff percentiles as is done in Winsorized estimators (Verardi and Croux 2009). The weakness of robust regression, however, is that it is inefficient when assumptions about the error variance structure are violated, specifically heteroskedasticity. In any case, whatever approach is employed—using log-transformed values, actual values, Winsorized estimators, or robust regression—the main conclusion of the analysis does not change.

References:

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Fox, John. 2008. *Applied regression analysis and generalized linear models* (2^{nd} ed.) Thousand Oaks, CA: Sage

Verardi, Vincenzo and Christophe Croux. 2009. Robust regression in Stata. *The Stata* 9(3): 439-453.

Appendix Table 6
Results When Excluding Control Variables Except State and Year Dummies

Independent Variables	Classic Operationalization of Government Form (Base is Council-Manager)						Nelson-Svara Classification of Government Form (Base is Council-Manager w/ Council-Appointed Manager and Mayor)					
	Operating Ratio (log)		Change in Total Net Position Ratio (log)		Unrestricted Net Position Ratio (log)		Operating Ratio (log)		Change in Total Net Position Ratio (log)		Unrestricted Net Position Ratio (log)	
	Panel 29		Panel 30		Panel 31		Panel 32		Panel 33		Panel 34	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
Main Independent Variables												
MC (mayor-council)	-0.006***	0.002	-0.012***	0.002	-0.043***	0.005						
CM (council-manager) w/ elected mayor, council-appointed manager							-0.004*	0.003	-0.003	0.003	-0.025***	0.006
CM w/ elected mayor, mayor-council-appointed manager							-0.006**	0.003	-0.010***	0.004	-0.024***	0.007
MC w/ council-appointed CAO (chief administrative officer)							-0.009**	0.004	-0.013**	0.006	-0.053***	0.015
MC w/ mayor-appointed CAO							-0.013***	0.003	-0.017***	0.004	-0.086***	0.009
MC w/ mayor-council-appointed CAO							-0.007	0.005	-0.015**	0.006	-0.062***	0.014
MC w/o CAO							-0.008***	0.003	-0.017***	0.004	-0.068***	0.008
Year Dummies	Yes		Yes		Yes		Yes		Yes		Yes	
State Dummies	Yes		Yes		Yes		Yes		Yes		Yes	
Constant	1.118***	0.005	1.142***	0.005	1.633***	0.018	1.117***	0.006	1.145***	0.006	1.628***	0.023
N	5115		5116		5116		4020		4021		4021	
R-Sq.	0.218		0.253		0.276		0.240		0.262		0.313	

Note: Standard errors (S.E) are heteroskedasticity- and autocorrelation-consistent. The base state is Alabama, and the base year is 2006. Results for state and year dummies are not shown because of space consideration. All measures of budgetary solvency are three-year moving averages. *** significant at 1%, ** at 5%, and * at 10%, two-tailed tests.

Appendix Table 7
Results When Controlling for Other Municipal Reform Institutions

Independent Variables	Classic Operationalization of Government Form (Base is Council-Manager)						Nelson-Svara Classification of Government Form (Base is Council-Manager w/ Council-Appointed Manager and Mayor)					
	Operating Ratio (log)		Change in Total Net Position Ratio (log)		Unrestricted Net Position Ratio (log)		Operating Ratio (log)		Change in Total Net Position Ratio (log)		Unrestricted Net Position Ratio (log)	
	Panel 35		Panel 36		Panel 37		Panel 38		Panel 39		Panel 40	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
Main Independent Variables												
MC (mayor-council)	-0.004**	0.002	-0.005**	0.002	-0.019***	0.004						
CM (council-manager) w/ elected mayor, council-appointed manager							-0.004*	0.003	0.000	0.003	-0.016**	0.006
CM w/ elected mayor, mayor-council- appointed manager							-0.007***	0.003	-0.006*	0.004	-0.016**	0.007
MC w/ council-appointed CAO (chief administrative officer)							-0.011***	0.004	-0.011**	0.005	-0.048***	0.013
MC w/ mayor-appointed CAO							-0.009**	0.004	-0.003	0.005	-0.039***	0.009
MC w/ mayor-council-appointed CAO							-0.005	0.005	-0.006	0.006	-0.032***	0.011
MC w/o CAO							-0.006**	0.003	-0.009**	0.004	-0.038***	0.008
Other Municipal Reform Institutions												
Partisan elections	0.001	0.003	0.001	0.004	-0.016***	0.006	0.001	0.004	-0.002	0.004	-0.015**	0.007
% at-large council seats	-0.001	0.002	0.001	0.002	0.007	0.005	0.000	0.002	0.003	0.003	0.011**	0.005
Council term limits	-0.003	0.002	-0.002	0.002	-0.005	0.005	-0.002	0.002	-0.001	0.003	-0.001	0.005
Controls												
Housing price index (1-year lag)	0.000***	0.000	0.000**	0.000	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000	0.000
% change in housing price index (1-year lag) (log)	0.000***	0.000	0.001***	0.000	0.000*	0.000	0.000***	0.000	0.001***	0.000	0.000	0.000
Private sector employment	0.042***	0.015	0.038*	0.020	0.192***	0.040	0.036**	0.016	0.022	0.021	0.197***	0.042
Unemployment rate	-0.002***	0.000	-0.001	0.001	0.001	0.001	-0.002***	0.001	-0.001	0.001	0.000	0.001
Population (log)	-0.004***	0.001	-0.002	0.001	-0.019***	0.003	-0.002*	0.001	-0.002	0.002	-0.014***	0.003
Population change (log)	-0.003	0.003	0.033***	0.005	0.011	0.008	-0.003	0.004	0.033***	0.005	0.011	0.008
Median household income	-0.000**	0.000	0.000	0.000	0.001***	0.000	-0.000***	0.000	0.000	0.000	0.001***	0.000
Policy conservatism index	-0.002	0.003	0.013***	0.004	0.031***	0.009	-0.003	0.003	0.010**	0.004	0.029***	0.009
IGR dependence (log)	-0.006***	0.001	-0.001	0.002	-0.007**	0.003	-0.006***	0.001	-0.002	0.002	-0.008**	0.003
Property tax dependence	0.000	0.000	0.000	0.000	0.000*	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Income tax dummy	-0.006	0.004	-0.004	0.005	-0.035***	0.013	-0.010***	0.004	-0.007	0.005	-0.011	0.015
Sales tax dummy	0.003	0.003	-0.001	0.004	-0.026**	0.013	0.001	0.004	-0.007	0.004	-0.055***	0.015
Utility revenue dummy	0.010***	0.003	0.006*	0.003	0.005	0.007	0.013***	0.003	0.008**	0.004	0.013*	0.008
Service index	0.000	0.000	-0.001***	0.000	-0.001	0.001	0.000	0.000	-0.001**	0.000	-0.001	0.001
Year Dummies	Yes		Yes		Yes		Yes		Yes		Yes	
State Dummies	Yes		Yes		Yes		Yes		Yes		Yes	
Constant	1.146***	0.020	1.011***	0.027	1.723***	0.053	1.135***	0.022	1.017***	0.029	1.699***	0.052
N	5115		5116		5116		4020		4021		4021	
R-Sq.	0.280		0.327		0.405		0.317		0.331		0.420	

Note: The political institution variables are operationalized as follows: for partisan elections 1=partisan, 0=otherwise; for council term limits 1=term limited, 0=otherwise; for council seats, total at-large council seats are calculated as a percentage of total council seats. Data for political institution variables are from the 2001, 2006, and 2011 ICMA Form of Government Survey and internet search of municipal charters. Standard errors (S.E) are heteroskedasticity- and autocorrelation-consistent. The base state is Alabama, and the base year is 2006. Results for state and year dummies are not shown because of space consideration. All measures of budgetary solvency are three-year moving averages. *** significant at 1%, ** at 5%, and * at 10%, two-tailed tests.

Appendix Table 8
Results When Controlling for City Council Size

Independent Variables	Classic Operationalization of Government Form (Base is Council-Manager)						Nelson-Svara Classification of Government Form (Base is Council-Manager w/ Council-Appointed Manager and Mayor)					
	Operating Ratio (log)		Change in Total Net Position Ratio (log)		Unrestricted Net Position Ratio (log)		Operating Ratio (log)		Change in Total Net Position Ratio (log)		Unrestricted Net Position Ratio (log)	
	Panel 41		Panel 42		Panel 43		Panel 44		Panel 45		Panel 46	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
Main Independent Variables												
MC (mayor-council)	-0.005**	0.002	-0.006***	0.002	-0.019***	0.005						
CM (council-manager) w/ elected mayor, council-appointed manager							-0.005*	0.003	-0.001	0.003	-0.016**	0.006
CM w/ elected mayor, mayor-council-appointed manager							-0.008***	0.003	-0.007*	0.004	-0.015**	0.007
MC w/ council-appointed CAO (chief administrative officer)							-0.011***	0.004	-0.011**	0.005	-0.048***	0.013
MC w/ mayor-appointed CAO							-0.010***	0.004	-0.005	0.005	-0.041***	0.009
MC w/ mayor-council-appointed CAO							-0.005	0.004	-0.007	0.006	-0.035***	0.011
MC w/o CAO							-0.007**	0.003	-0.011***	0.004	-0.039***	0.008
City Council Size												
Council seats per 100,000 population	0.000	0.000	0.001	0.000	-0.002**	0.001	0.000	0.000	0.000	0.000	-0.001*	0.001
Controls												
Housing price index (1-year lag)	0.000***	0.000	0.000***	0.000	0.000*	0.000	0.000***	0.000	0.000***	0.000	0.000	0.000
% change in housing price index (1-year lag) (log)	0.000***	0.000	0.001***	0.000	0.000	0.000	0.000***	0.000	0.001***	0.000	0.000	0.000
Private sector employment	0.036**	0.016	0.031	0.021	0.203***	0.041	0.036**	0.016	0.023	0.021	0.198***	0.042
Unemployment rate	-0.002***	0.001	0.000	0.001	0.000	0.001	-0.002***	0.001	-0.001	0.001	0.000	0.001
Population (log)	-0.002	0.002	-0.001	0.002	-0.026***	0.004	-0.001	0.002	-0.001	0.002	-0.022***	0.004
Population change (log)	-0.003	0.003	0.032***	0.005	0.012*	0.007	-0.003	0.004	0.033***	0.005	0.011	0.008
Median household income	-0.000***	0.000	0.000	0.000	0.001***	0.000	-0.000***	0.000	0.000	0.000	0.001***	0.000
Policy conservatism index	-0.003	0.003	0.012***	0.004	0.030***	0.009	-0.003	0.003	0.011**	0.004	0.029***	0.009
IGR dependence (log)	-0.007***	0.001	-0.002	0.002	-0.010***	0.003	-0.006***	0.001	-0.002	0.002	-0.009***	0.003
Property tax dependence	0.000	0.000	0.000	0.000	0.000*	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Income tax dummy	-0.012***	0.004	-0.011**	0.005	-0.012	0.015	-0.011**	0.004	-0.007	0.005	-0.010	0.015
Sales tax dummy	0.000	0.004	-0.008*	0.004	-0.051***	0.014	0.000	0.004	-0.007	0.004	-0.051***	0.015
Utility revenue dummy	0.012***	0.003	0.009**	0.004	0.010	0.008	0.013***	0.003	0.009**	0.004	0.013*	0.008
Service index	0.000	0.000	-0.001**	0.000	-0.001	0.001	0.000	0.000	-0.001**	0.000	-0.001	0.001
Year Dummies	Yes		Yes		Yes		Yes		Yes		Yes	
State Dummies	Yes		Yes		Yes		Yes		Yes		Yes	
Constant	1.125***	0.027	0.996***	0.036	1.812***	0.064	1.122***	0.028	1.002***	0.037	1.796***	0.066
N	4212		4213		4213		4020		4021		4021	
R-Sq.	0.304		0.311		0.408		0.317		0.330		0.418	

Note: Data for council size are from the 2001, 2006, and 2011 ICMA Form of Government Survey. Standard errors (S.E) are heteroskedasticity- and autocorrelation-consistent. The base state is Alabama, and the base year is 2006. Results for state and year dummies are not shown because of space consideration. All measures of budgetary solvency are three-year moving averages. *** significant at 1%, ** at 5%, and * at 10%, two-tailed tests.

Appendix Table 9
Results When Controlling for Mayoral Veto

Independent Variables	Classic Operationalization of Government Form (Base is Council-Manager)					
	Operating Ratio (log)		Change in Total Net Position Ratio (log)		Unrestricted Net Position Ratio (log)	
	Panel 47		Panel 48		Panel 49	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
Main Independent Variables						
MC (mayor-council)	-0.008**	0.003	-0.008*	0.004	-0.024***	0.009
Mayor Veto	0.005**	0.003	0.002	0.003	0.005	0.006
MC x Mayor Veto	0.001	0.005	0.002	0.006	-0.001	0.011
Controls						
Housing price index (1-year lag)	0.000***	0.000	0.000***	0.000	0.000**	0.000
% change in housing price index (1-year lag) (log)	0.000***	0.000	0.001***	0.000	0.000	0.000
Private sector employment	0.036**	0.016	0.031	0.021	0.207***	0.041
Unemployment rate	-0.002***	0.001	-0.001	0.001	0.000	0.001
Population (log)	-0.004***	0.001	-0.003**	0.002	-0.020***	0.003
Population change (log)	-0.003	0.003	0.032***	0.005	0.015**	0.007
Median household income	-0.000***	0.000	0.000	0.000	0.001***	0.000
Policy conservatism index	-0.003	0.003	0.011**	0.004	0.028***	0.008
IGR dependence (log)	-0.007***	0.001	-0.002	0.002	-0.010***	0.003
Property tax dependence	0.000	0.000	0.000	0.000	0.000	0.000
Income tax dummy	-0.012***	0.004	-0.010**	0.005	-0.012	0.015
Sales tax dummy	0.000	0.004	-0.008*	0.004	-0.052***	0.014
Utility revenue dummy	0.011***	0.003	0.008**	0.004	0.007	0.007
Service index	0.000	0.000	-0.001**	0.000	-0.001	0.001
Year Dummies	Yes		Yes		Yes	
State Dummies	Yes		Yes		Yes	
Constant	1.144***	0.021	1.030***	0.029	1.727***	0.050
N	4210		4211		4211	
R-Sq.	0.306		0.311		0.423	

Note: The mayor veto is operationalized as follows: 1=mayor has veto, 0=otherwise. Data for mayoral veto are from the ICMA Form of Government Survey. Standard errors (S.E) are heteroskedasticity- and autocorrelation-consistent. The base state is Alabama, and the base year is 2006. Results for state and year dummies are not shown because of space consideration. All measures of budgetary solvency are three-year moving averages. *** significant at 1%, ** at 5%, and * at 10%, two-tailed tests.

Notes on Appendix Table 9

I do not interact mayoral veto with the Nelson-Svara government form subtypes because of the high multicollinearity that results.

Appendix Table 10
Results When Controlling for Other Socio-Demographic Characteristics

Independent Variables	Classic Operationalization of Government Form (Base is Council-Manager)						Nelson-Svara Classification of Government Form (Base is Council-Manager w/ Council-Appointed Manager and Mayor)					
	Operating Ratio (log)		Change in Total Net Position Ratio (log)		Unrestricted Net Position Ratio (log)		Operating Ratio (log)		Change in Total Net Position Ratio (log)		Unrestricted Net Position Ratio (log)	
	Panel 50		Panel 51		Panel 52		Panel 53		Panel 54		Panel 55	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
Main Independent Variable												
MC (mayor-council)	-0.004**	0.002	-0.004**	0.002	-0.020***	0.004						
CM (council-manager) w/ elected mayor, council-appointed manager							-0.004	0.003	-0.001	0.003	-0.015**	0.006
CM w/ elected mayor, mayor-council- appointed manager							-0.007***	0.003	-0.006*	0.003	-0.014**	0.007
MC w/ council-appointed CAO (chief administrative officer)							-0.010**	0.004	-0.010*	0.005	-0.046***	0.013
MC w/ mayor-appointed CAO							-0.008**	0.004	-0.005	0.004	-0.046***	0.009
MC w/ mayor-council-appointed CAO							-0.004	0.004	-0.007	0.006	-0.037***	0.011
MC w/o CAO							-0.006*	0.003	-0.009**	0.004	-0.040***	0.008
Other Socio-Demographic Characteristics												
% population 65 years old and above	0.000	0.000	-0.001***	0.000	0.000	0.001	0.000	0.000	-0.001***	0.000	0.000	0.001
% population 18 years old and below	0.000	0.000	-0.001	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.002**	0.001
% population with college degree	0.000	0.000	0.000	0.000	0.002***	0.001	0.000	0.000	0.000	0.000	0.001**	0.001
% population Latino	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
% population White	0.000**	0.000	0.000***	0.000	0.001**	0.000	0.000	0.000	0.000***	0.000	0.001***	0.000
% population Black	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Controls												
Housing price index (1-year lag)	0.000***	0.000	0.000***	0.000	0.000	0.000	0.000***	0.000	0.000***	0.000	0.000	0.000
% change in housing price index (1-year lag) (log)	0.000***	0.000	0.001***	0.000	0.000*	0.000	0.000***	0.000	0.001***	0.000	0.000	0.000
Private sector employment	0.022	0.018	-0.018	0.024	0.071	0.056	0.013	0.019	-0.037	0.025	0.124**	0.051
Unemployment rate	-0.001**	0.001	0.000	0.001	0.004**	0.002	-0.001**	0.001	0.000	0.001	0.001	0.001
Population (log)	-0.003**	0.001	-0.002	0.001	-0.019***	0.003	-0.002	0.001	-0.002	0.002	-0.015***	0.003
Population change (log)	-0.004	0.004	0.033***	0.006	0.002	0.009	-0.002	0.004	0.033***	0.006	-0.001	0.009
Median household income	-0.000	0.000	0.000	0.000	0.001*	0.000	-0.000**	0.000	0.000	0.000	0.000	0.000
Policy conservatism index	-0.006	0.004	0.011**	0.005	0.024*	0.013	-0.006	0.005	0.007	0.006	0.010	0.012
IGR dependence (log)	-0.006***	0.001	-0.001	0.002	-0.007**	0.003	-0.006***	0.001	-0.001	0.002	-0.008**	0.003
Property tax dependence	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Income tax dummy	-0.004	0.004	-0.005	0.005	-0.036***	0.013	-0.010**	0.004	-0.009*	0.005	-0.013	0.016
Sales tax dummy	0.003	0.003	-0.001	0.004	-0.023*	0.013	0.001	0.004	-0.006	0.004	-0.053***	0.015
Utility revenue dummy	0.010***	0.003	0.007**	0.003	0.011*	0.006	0.013***	0.003	0.010***	0.004	0.018**	0.008
Service index	0.000	0.000	-0.001***	0.000	-0.001*	0.001	0.000	0.000	-0.001**	0.000	-0.002**	0.001
Year Dummies	Yes		Yes		Yes		Yes		Yes		Yes	
State Dummies	Yes		Yes		Yes		Yes		Yes		Yes	
Constant	1.134***	0.024	1.022***	0.032	1.698***	0.069	1.121***	0.027	1.024***	0.034	1.705***	0.066
N	5067		5068		5068		4012		4013		4013	
R-Sq.	0.284		0.334		0.414		0.322		0.342		0.426	

Note: Data for other socio-demographic characteristics are from the American Community Survey. Standard errors (S.E) are heteroskedasticity- and autocorrelation-consistent. The base state is Alabama, and the base year is 2006. Results for state and year dummies are not shown because of space consideration. All measures of budgetary solvency are three-year moving averages. *** significant at 1%, ** at 5%, and * at 10%, two-tailed test.

Appendix Table 11
Median Annual Operating Ratio
by Basic Government Form

Year	Council-Manager Cities	Mayor-Council Cities	Total Number of Cities
2006	1.0670	1.0264	608
2007	1.0709	1.0337	617
2008	1.0288	0.9929	630
2009	0.9757	0.9597	638
2010	0.9699	0.9624	635
2011	0.9899	0.9846	635
2012	1.0073	0.9860	636
2013	0.9957	0.9883	642

Note: Author's calculations based on raw data from CAFRs. Number of cities varies by year because CAFRs are not available for some cities in certain years.

Appendix Table 12
Median Annual Change in Total Net Position Ratio
by Basic Government Form

Year	Council-Manager Cities	Mayor-Council Cities	Total Number of Cities
2006	0.1661	0.0842	609
2007	0.1652	0.0963	618
2008	0.1192	0.0380	630
2009	0.0565	0.0007	638
2010	0.0405	0.0185	635
2011	0.0550	0.0336	635
2012	0.0758	0.0336	636
2013	0.0536	0.0351	642

Note: Author's calculations based on raw data from CAFRs. Number of cities varies by year because CAFRs are not available for some cities in certain years.

Appendix Table 13
Median Annual Unrestricted Net Position Ratio
by Basic Government Form

Year	Council-Manager Cities	Mayor-Council Cities	Total Number of Cities
2006	0.4575	0.1574	609
2007	0.4735	0.1712	619
2008	0.4297	0.1379	630
2009	0.4051	0.1178	637
2010	0.3810	0.1060	635
2011	0.3882	0.0534	635
2012	0.4177	0.0682	636
2013	0.4301	0.0746	642

Note: Author's calculations based on raw data from CAFRs. Number of cities varies by year because CAFRs are not available for some cities in certain years.