Compensation and Financial Performance Measures: the Case of Municipal Managers

by Jean Xueqing Zhang

Bachelor of Business Administration
College of William and Mary, May 2004

Master of Science in Accounting
University of Virginia, May 2005

A Dissertation submitted to

The Faculty of
School of Business
of The George Washington University
in partial fulfillment of the requirements
for the degree of Doctor of Philosophy

January 31, 2012

Dissertation directed by:

Angela Gore
Associate Professor of Accountancy

The School of Business of The George Washington University certifies that Jean Xueqing Zhang has passed the Final Examination for the degree of Doctor of Philosophy as of September 21, 2011. This is the final and approved form of the dissertation.

Compensation and Financial Performance Measures: the Case of Municipal Managers

Jean Xueqing Zhang

Dissertation Research Committee:

Angela Gore, Associate Professor of Accountancy, Dissertation Director

William R. Baber, McDonough Professor of Accountancy, McDonough School of Business, Georgetown University, Committee Member

Christopher Jones, Assistant Professor of Accountancy, Committee Member

Krishna R. Kumar, Benjamin Franklin Professor of Accountancy, Committee Member

Yanfeng Xue, Assistant Professor of Accountancy, Committee Member

© Copyright 2012 by Jean Xueqing Zhang
All rights reserved

Dedicated to my parents, my husband and my son

Acknowledgments

I would like to thank my dissertation committee members Angela Gore, Bill Baber, Chris Jones, Krishna Kumar, and Yanfeng Xue for their support and guidance. I would like to acknowledge and extend my heartfelt gratitude to Angela Gore, my dissertation committee chair, without whom this journey would not have been possible. She has read numerous versions of my proposal and dissertation, her dedication and expertise has enabled me to learn about the research process. I also thank her for providing good advice on parenthood.

I am deeply indebted to Bill Baber for his guidance since the first day I joined this program. I wish to thank Chris Jones for providing critical and thorough comments. I am also indebted to Krishna Kumar for his encouragement and thought provoking comments and suggestion. I would like to thank YanFeng Xue for making many insightful suggestions. I thank all accounting faculty members for their encouragement and support.

I thank the George Washington University School of Business and Government and Nonprofit Section for financial support. I appreciate my friendship with my fellow doctoral students, Lucy, Zinan, Yuping, Amy, Li, Hang, and Yuan, who have traveled with me during this journey.

I wish to thank my parents for their encouragement and baby-sitting my son when I am busy working on my dissertation. I also thank my son, William, for being so cute and adorable. Finally, I thank my husband. The completion of this dissertation would not have been possible without his understanding and support.

Abstract of Dissertation

Compensation and Financial Performance Measures: the Case of Municipal Managers

This study examines associations between financial performance measures in municipal manager compensation contracts. I first examine a variety of accounting and market measures that proxy for financial performance. To gain better understanding of the different drivers that affect the sensitivity of performance measures, I study the weight of these performance measures in specifications of compensation paid to city managers. In particular, I examine the informational properties - noise and controllability - of performance measures, and the governance mechanisms as determinants of associations between performance measures and city manager compensation. I also consider associations with indicators of city corruption.

Results indicate that city manager compensation is associated with a variety of financial performance measures. Further, I find that the informational properties of performance measures affect the sensitivity of performance measures in compensation contracts. Specifically, financial performance measures are weighted less substantially where measures have more noise. One measure– surplus – has less weight where the budget is controllable by the city manager. In addition, I find limited evidence that supports the notion that governance attributes and incentive compensation function as complements. Finally, I find no association between corruption and compensation.

Table of Contents

Dedication iv
Acknowledgments v
Abstract of Dissertation vi
List of Tables viii
Chapter 1 Introduction 1
Chapter 2 Literature Review and Hypotheses 5
2.1 Agency Problem and Background 5
2.2 City Manager Compensation and Performance Measures 7
2.3 Institutional Background on Municipal Performance Measures 9
2.4 Measures of Financial Performance 11
2.4.1 Accounting Performance - Efficiency 11
2.4.2 Accounting Performance - Surplus 13
2.4.3 Accounting Performance - Fiscal Self-reliance 14
2.4.4 Accounting Performance - Revenue Diversification 15
2.4.5 Market Performance - Housing Prices 16
2.5 Informational Properties 17
2.5.1 Noise of performance measures 17
2.5.2 Controllability of performance measures 18
2.6 The Role of Municipal Governance 19
2.6.1 Voter Oversight 19
2.6.2 Council Oversight 21
2.7 Illegal Compensation - Corruption 23
Chapter 3 Methodology 25
3.1 Compensation and Performance 25
3.2 Informational Properties of Performance Measures 27
3.3 Governance Mechanisms 28
3.4 Illegal compensation-Corruption 29
Chapter 4 Results 30
4.1 Sample 30
4.2 Descriptive Statistics 30
4.3 Results on the Association Between Compensation and Performance 31
4.4 Results for the Effect of Informational Properties of Performance Measures 33
4.5 Results for the Influence of Municipal Governance 36
4.6 Results on Compensation and Corruption 38
4.7 Sensitivity Analysis 38
Chapter 5 Conclusion 40
5.1 Summary 40
5.2 Limitations 41
5.3 Future Research 42
References 43
Appendix A 49
Appendix B 51

List of Tables

Table 1 Sample Selection 53
Table 2 Descriptive Statistics 54
Table 3 Compensation and Performance Measures 55
Table 4 Compensation and Informational Properties 56
Table 4 Panel A: Compensation and Noise 56
Table 4 Panel B: Compensation and Controllability 58
Table 5 Compensation and Governance 59
Table 5 Panel A: Compensation and Political Competition 59
Table 5 Panel B: Compensation and Recall Attempt 60
Table 5 Panel C: Compensation and Provisions 61
Table 5 Panel D: Compensation and Staggered Council 63
Table 5 Panel E: Compensation and Oversight Index 64
Table 6 Compensation and Corruption 65
Table 6 Panel A: Sample Selection 65
Table 6 Panel B: Descriptive Statistics 66
Table 6 Panel C: Compensation and Corruption 67

Chapter 1 Introduction

The recent scandal over excessive compensation of government officials in Bell, CA drew national attention. Robert Rizzo, the city manager of Bell, receives almost $800,000 a year, far exceeding the national average. In response, Rizzo and two other highly paid Bell officials have resigned and City Council members have been threatened with recall (Quinones 2010). A total of eight city officials have been arrested, including the city manager (Martinez and Wilson 2010).

While the Bell example may be extreme, it raises questions about how city managers are compensated. For example, are city managers paid based on performance? What drives the sensitivity of these performance measures? Answers to these questions are important because local governments are a significant sector of the economy, with total revenue of $1,530,814 million and total expenditures of $1,593,088 million in the year 2008. In addition, of the $83,268 million spent on government payrolls, $49,070 million was spent on local government payroll in the year 2008.[1] Even so, little empirical evidence exists regarding how the stewards of citizens' resources are compensated.

Although compensation is rigorously studied in the corporate sector, it is not clear *ex ante* that corporate sector results apply. For example, in the corporate sector, accounting measures of performance for compensation purposes are designed to align managers' incentives with shareholders' incentives, and maximize shareholder wealth. In the municipal sector, however, such financial objectives are less straightforward. Citizens move to cities that best satisfy their preference patterns for public facilities and services, such as education, police protection, and parks (Tiebout 1956). Since citizens

[1] http://www.census.gov

have varying preferences, ex-ante it is not clear that financial performance measures are meaningfully associated with city manager compensation.

In this study, I investigate cross-sectional associations between financial performance measures and municipal manager compensation.[2] For this purpose, I first explore a variety of accounting and market measures that proxy for financial performance. To gain a better understanding of the different drivers that affect the sensitivity of performance measures, I examine the weight of these performance measures in incentive contracting. In particular, I investigate the informational properties - noise and controllability - of performance measures. I also examine whether governance mechanisms affect the use of financial performance measures. Finally, I examine the effect of corruption on the design of municipal compensation contracts. The presence of corruption suggests agency problems in local governments, which potentially affects manager compensation.

Details of my study are presented in later sections; some key findings are as follows. First, the evidence suggests that city manager compensation is associated with several financial performance measures. I find that city managers are compensated based on real estate values (market returns), fiscal responsibility, raising revenue internally, and generating revenue from multiple sources. Moreover, the results also indicate city manager pay varies directly with inefficiency, which suggests agency problems between managers and citizens in some municipalities.

[2] This study focuses on the salary of the chief administrative officer rather than elected officials because most elected officials work part-time with small salaries, and because the CAO position is present in many municipalities and their duties are fairly comparable.

Second, results reveal that informational properties affect the sensitivity of these measures. Specifically, I find that greater noise (or variance) in performance metrics decreases the sensitivity of performance measures. This supports the notion of efficient contracting between the municipality and the city manager since city managers are protected against fluctuations in performance measures. Additional analysis also indicates that surplus has less weight in manager compensation if the budget is primarily controlled by the manager.

Third, I find limited evidence of a positive association between governance characteristics and the sensitivity of performance measures in compensation contracts. This indicates that governance mechanisms play a minor role in monitoring city manager compensation. Finally, I find that corruption is not associated with city manager compensation contracting. This result needs to be interpreted with caution, however, owing to a small sample size.

This study offers several contributions to the extant literature. First, this research is the first to comprehensively explore the relation between manager compensation and measures of financial performance in the governmental context. Such measures are potentially useful for designing incentive contracts and making budgetary decisions. Second, I extend research in the municipal governance literature. While recent papers examine municipal governance (Baber et al. 2010; Gore 2009), none investigates municipal manager salaries. Third, the analysis provides the first empirical evidence on the controllability of, and noise in, performance measures in the governmental context. Finally, I extend the current literature on corruption by examining its association with municipal compensation. Many studies document the adverse effects of corruption (Rose-

Ackerman 1975; Shleifer and Vishny 1993; Mauro 1995; Burguet and Che 2004), however, none examines the association between corruption and local government compensation.

Beyond the impact on the extant literature, research on the use of financial information in government managers' compensation contracts also potentially interests those outside of academics. For example, results of this study can be used by council members to set compensation contracts for managers and apply performance measures to specific types of compensation. The results also may interest citizens and regulators. Citizens can use this study to assess whether managers' incentive contracts are aligned with their stewardship role over municipal resources. Since manager compensation in the municipal sector is not typically disclosed, the results from this study potentially help regulators assess whether regulation over compensation and the related disclosures are appropriate. Finally, this study also aids the ongoing research on performance measures by organizations such as the Governmental Accounting Standards Board (GASB), Government Finance Officers Association (GFOA), and International City/County Management Association (ICMA).

The remainder of this paper is organized as follows. Section 2 discusses relevant literature and hypotheses. Section 3 introduces the research design in this study. Section 4 describes the sample and presents the empirical results. Section 5 concludes.

Chapter 2 Literature Review and Hypotheses

2.1 Agency Problem and Background

In the corporate sector, owners are the principals and managers are the agents. Agency problems occur between owners and managers due to the separation of ownership and control of the firm. Current literature suggests mechanisms to address agency problems in the corporate sector. Examples include the market for corporate control (Manne 1965), labor market competition (Fama 1980), boards of directors, and contracting (Fama and Jensen 1983).

In the governmental sector, taxpayers are the principals and elected officials/managers are the agents. Similar to shareholders in the corporate sector, who invest in companies, taxpayers can respond to changes in governmental policies by choosing the locality for their investment in real estate (Yinger 1982). In the governmental sector, the utility of elected officials/managers depends on the likelihood of re-election, advancement, and compensation, while taxpayers' utility depends on taxes paid and services provided (Zimmerman 1977), and increases in their real estate investments (Yinger 1982).

Similar to the corporate sector, agency problems exist in the governmental sector between citizens and managers. Compared to for-profit entities, the governmental sector may experience more agency costs since market for takeovers is absent and disclosure is less transparent. For example, city managers are not required to disclose their compensation packages. Possible agency problems include shirking, perquisite consumption (Gore et al. 2011), corruption (Butler et al. 2009), inefficiency, or excess cash built-up rather than provision of current program services (Gore 2009). In addition,

the elected official/manager can use taxpayers' money to advance career objectives (Zimmerman 1977), to give higher compensation to public employees so as to buy their votes and collaboration (Frey et al. 2001), and to receive higher compensation themselves (Ferris and West 1999).

Voters can reduce agency costs by monitoring, relocating, or at the ballot box. However, compared to shareholders, citizens have less incentive to monitor the actions of elected officials/managers due to the cost of relocating and the collective action features of public monitoring and voting. Although municipalities compete for citizenry by providing the level of goods and services that reflects the needs of its citizens (Tiebout 1956), due to the cost of relocating, citizens find it difficult to respond to changes in municipal policies. Nevertheless, voters demand information on the stewardship role of the elected official/manager, e.g. voters "establish rigid, explicit operating procedures to constrain the politician's actions" (Zimmerman 1977). Although, it is unlikely for an individual voter to influence election results (Zimmerman 1977), citizens can form a collective voice, interest groups, which political institutions are more likely to respond to.

Due to these fundamental differences between corporate and governmental entities, different accounting and financial reporting standards are potentially required. In the corporate sector, the objectives of accounting and financial reporting standards include valuation (Francis et al. 2006; Barth et al. 2001), contracting, and stewardship (Kothari et al. 2009). In the governmental sector, accounting and financial reporting standards mainly serve a stewardship role. According to the GASB white paper (2006), "financial reporting should provide information regarding government's stewardship responsibilities" (p.21). In addition, governmental accounting and financial reporting

standards address the need for "public accountability information by helping stakeholders assess how public resources are acquired and used, whether current resources are sufficient to meet current service costs or whether some costs are shifted to future taxpayers, and whether the government's ability to provide services improves or deteriorates from the previous year" (p.2). Hence, in the governmental area, financial performance measures provide information concerning government officials' stewardship over the amount and disposition of taxpayers' resources.

2.2 City Manager Compensation and Performance Measures

According to agency theory (Jensen and Meckling 1976; Fama 1980; Fama and Jensen 1983), separation of ownership and control of the firm provides an opportunity for managers to pursue their self-interest in ways that contradict the interests of shareholders. Shareholders cannot perfectly observe the actions of managers, and thus, compensation contracts include performance measures that, to the extent possible, align the interests of managers with those of the shareholders.

In the private sector, performance measures that provide managers with incentives to maximize shareholder value typically include both accounting and market measures of performance. Current studies suggest that accounting information may be a better measure of performance than stock returns since stock price reflects anticipated future performance, while accounting information reflects delivered performance (Barclay et al. 2005). Moreover, accounting returns have a lower variance than stock returns. In addition, Bushman and Smith (2001) suggest that accounting measures of performance play an important role in compensation contracts, i.e. "creating incentives to take actions,

filtering common noise from other performance measures, and rebalancing managerial effort across multiple activities."

Similar to the corporate setting, the municipal setting also involves compensating managers with limited observability of their inputs. Performance-based compensation imposes risk on the city manager, and therefore, risk averse managers may prefer a fixed wage, rather than performance-based pay. Furthermore, performance based compensation may make managers feel more vulnerable to political risks (Gore et al. 2011).

Although many papers study the relation between compensation and performance measures in the corporate sector (e.g. Sloan 1993; Baber et al. 1996; Baber et al. 1998; Baber et al. 1999; Core et al. 2003; Core et al. 2008), few examine compensation and performance in the nonprofit and governmental sectors (Werner and Gemeinhardt 1995; Frumkin and Keating 2001; Baber et al. 2002; Gore 2009; Gore et al. 2011). Gore (2009) finds that municipalities with excess cash spend more on manager salaries and bonuses. In addition, Gore et al. (2011) investigate the determinants of ex ante severance offered to municipal managers. They find that managers with excessive salaries, or exposed to greater political risk, receive more severance pay. However, no prior study in the accounting literature focuses on the association between manager compensation and financial performance measures in the municipal sector.

According to the GASB (2006), the role of government includes "providing services and goods to constituents in an efficient, effective, economical, and sustainable manner." Hence, I predict that city manager compensation is positively associated with performance measures that proxy for these goals. On the other hand, risk-averse city managers may prefer a fixed compensation package rather than one based on

performance. In addition, since the goal of the municipality is not to maximize profit, incentive compensation may not be used in city manager compensation contracts. Moreover, it might be costly for the municipality to compensate city managers based on performance. I therefore state the following null hypothesis:

H1: Manager compensation is independent of financial performance measures.

In this study, I make the following assumptions. I assume that municipal manager compensation is linked to observed productivity – for example, municipal manager compensation may be linked to obtaining grants for cities (see appendix B). I also assume financial performance measures can be implicit or explicit. Examining a sample of manager compensation contracts, I find at least one instance where performance measures are set in the contract explicitly. For example, the city manager of Rancho Cordova is required to "produce additional revenues, identifiable savings or a combination of both that will be equal to or greater than four (4) times the City's investment in the City Manager" (see appendix B). Next, I provide background information on the use of performance measures in the governmental setting.

2.3 Institutional Background on Municipal Performance Measures

Professional municipal organizations support the use of performance measures in municipalities, including the International City/County Management Association (ICMA), the Governmental Accounting Standards Board (GASB), and the Government Finance Officers Association (GFOA).

The ICMA established the Center for Performance Measurement in 1997, which currently assists over 220 cities and counties in the United States and Canada with the

collection, analysis, and application of performance information.[3] As part of the effort, the ICMA provides model employment contracts which advocate the use of performance measures for manager evaluation purposes. For example, the performance evaluation for the city manager of Grandview, MO includes preparing "a balanced budget to provide services at a level directed by the Board" and making "the best possible use of available funds, conscious of the need to operate the City efficiently and effectively."[4] The GFOA also recommends the use of performance measures, including total operating expenditures and total capital expenditures, in budgeting, planning, and management (Tigue and Greene 1994).

In 1994, the GASB issued Concepts Statement No. 2, Service Efforts and Accomplishments (SEA) Reporting. The statement emphasizes the importance of accountability and SEA performance information for external financial reporting needs. The GASB's research on SEA reporting was further developed by a grant from the Alfred P. Sloan Foundation in 1997, with the objective of enhancing research on state and local government performance measures.

Performance measures are widely used in federal, state, and local governments (Holzer 2002; Hatry et al. 2003; Streib 1989). Legislation including the Chief Financial Officers Act of 1990, the Government Performance and Results Act of 1993, the Government Management Reform Act of 1994, and the Information Technology Management Reform Act of 1996 frequently requires federal agencies to measure program performance in meeting their goals.

[3] http://www1.icma.org/main/bc.asp?bcid=107&hsid=1&ssid1=50&ssid2=220&ssid3=297

[4] http://icma.org/upload/library/2006-07/{80BD9077-7FD7-4AF8-96D5-9A484582A6DB}.doc

2.4 Measures of Financial Performance

The outputs in the governmental sector are difficult to measure, and objectives are less clear compared to corporations. Thus, practical difficulties exist for constructing measures of performance that are comparable to stock price and corporate earnings, as it is also plausible that non-financial performance measures are important in setting municipal manager compensation contracts. For example, performance evaluation for the city manager of Grandview, MO includes responsiveness to "complaints from citizens" and recruiting and retaining "competent personnel for city positions". [5] Nevertheless, to keep the analysis tractable, this study focuses only on measurable financial performance metrics. Next, I discuss financial performance measures hypothesized to be associated with compensation.

2.4.1 Accounting Performance - Efficiency

In the nonprofit sector, due to a lack of stock market and profit-maximizing motive, stock price and earnings may not be used as meaningful measures of performance. Alternatively, efficiency is considered a good measure of performance in nonprofits, since donors prefer to see donations spent toward achieving the main goals of the nonprofit, rather than toward fundraising and administrative expenses. Efficiency is defined as the ratio of funds used towards programs rather than toward overhead expenses.

Although current literature in the nonprofit sector typically uses efficiency as a financial performance measure, results are mixed. On one hand, Baber et al. (2002) find that measures of accounting performance play a role in compensation to managers of

[5] http://icma.org/upload/library/2006-07/{80BD9077-7FD7-4AF8-96D5-9A484582A6DB}.doc

charitable organizations. Specifically, they find that changes in executive compensation are positively associated with changes in program spending, regardless of whether changes in program spending are attributable to changes in revenue raised or to changes in the relative costs of administering the charity.

On the other hand, Werner and Gemeinhardt (1995) fail to document a relationship between average annual pay and performance in nonprofit organizations. Performance is proxied by the average annual budget growth and administrative efficiency. They measure administrative efficiency as the ratio of administrative costs to total costs. In addition, Frumkin and Keating (2001) find that nonprofit CEO compensation is not associated with measures of financial performance. Specifically, their results fail to find an association between the level of nonprofit CEO total compensation and financial performance, as measured by improved fundraising results or administrative efficiency. The authors measure administrative efficiency as the ratio of non-administrative expenses to total expenses, while improved fundraising is measured as the dollar growth in contributed revenue.

Efficiency may also be a good measure of performance in the governmental sector. According to the GASB (2006), the role of government includes "providing services and goods to constituents in an efficient, effective, economical, and sustainable manner." Citizens prefer that municipalities spend more on services and less on administrative overhead, since politicians may "use some of their leeway to pay rents to public employees in order to 'buy' their electoral support as well as their collaborations" (Frey et al. 2001).

Gore (2009) finds that municipalities with high cash holdings are less efficient. In addition, she finds that municipalities with excess cash spend more on manager salaries and bonuses, where compensation is defined as the log of the chief administrative officer's total base salary. She does not directly measure the relation between municipal manager compensation and financial performance measures, however. She measures municipal inefficiency as the ratio of total administrative expenses deflated by total operating expenses. Assuming an objective of municipalities is to spend relatively more on services and less on administrative overhead, I posit a positive association between compensation and efficiency.

H1A: Municipal manager compensation varies directly with efficiency.

2.4.2 Accounting Performance - Surplus

The role of government includes providing services in a "sustainable" manner (GASB 2006). In the governmental sector, the excess of revenues over expenses is referred to as "surplus." To some extent, surplus measures the sustainability of programs, since it represents the ability of current year taxpayers to finance current programs and whether costs of current year programs are shifted to future taxpayers. Therefore, surplus represents a potential financial performance measure for the stewardship role of local governments.

The association between compensation and surplus is not straightforward. A surplus may suggest fiscal responsibility, i.e., providing services to citizens in a sustainable manner. Moreover, a surplus may reflect, to some degree, municipal wealth. This suggests a positive association between compensation and surplus. Unlike the corporate sector, however, the governmental sector does not have incentives to make a

profit. In this case, surplus may not be a meaningful measure of performance. In addition, from the standpoint of some citizens, a surplus can indicate that the municipality is collecting "too much" taxes or providing too few services. I therefore make no directional prediction of the relation between compensation and surplus.

H1B: Municipal manager compensation is independent of surplus.

Rejecting H1B in favor of a positive association suggests managers are compensated for fiscal responsibility. On the other hand, a negative association suggests managers are collecting too much taxes or providing too few services.

2.4.3 Accounting Performance – Fiscal Self-reliance

Local governments rely on individual and corporate income taxes, property taxes, user fees, sales taxes, etc. to fund operations. On one hand, assuming the local governments' goal includes the sustainability of services, then the proportion of general revenues raised locally measures a municipality's fiscal self-reliance. Bond holders may prefer municipalities with higher fiscal self-reliance since it demonstrates the ability of local governments to raise taxes to repay debt. City managers may be rewarded for entrepreneurial abilities that increase the revenue of the municipality. This suggests that city councils may reward managers who can raise more revenues locally.

On the other hand, city managers potentially are rewarded for obtaining outside sources to fund the municipality -- that is, for finding state and federal government revenue to subsidize municipal services. As an example, the city council of Mitchell, SD lists one reason for hiring a city manager is his/her ability to procure grants. Specifically, the council members are "convinced a city manager would pay for his or her salary by acquiring grant money" (Lawrence 2010). Under this scenario, I expect a negative

relation between fiscal self-reliance and city manager compensation. I therefore make no directional prediction of the relation between compensation and fiscal self-reliance.

H1C: Municipal manager compensation is independent of fiscal self-reliance.

Rejecting H1C in favor of a positive association suggests managers are compensated for fiscal self-reliance. On the other hand, a negative association suggests managers are encouraged to obtain resources from outside the municipality.

2.4.4 Accounting Performance - Revenue Diversification

In the corporate sector, stockholders can reduce risk by investing in a portfolio of stocks. In the municipal sector, however, citizens do not usually own homes in multiple jurisdictions. Hence, revenue diversification[6] reduces the risk of resource dependence on a single revenue source, and strengthens the organization's financial position (Chang and Tuckman 1994). Thus, in addition to the broad origination of revenue – intergovernmental vs. local - municipal governments can also prefer a variety of revenue sources.

The presence of a variety of revenue sources suggests that the cities can raise revenues more quickly (Gore 2009), and thus increase financial stability. In this case, managers are likely to receive greater compensation when the municipality has a greater variety of revenue sources. More revenue sources can also increase administrative costs, however, which suggests fewer resources available to pay managers. I therefore make no directional prediction of the relation between compensation and revenue diversification.

H1D: Municipal manager compensation is independent of revenue diversification.

[6] The distinction between fiscal self-reliance and revenue diversification is that fiscal self-reliance measures money raised internally versus externally, while revenue diversification reflects the total number of revenue streams, regardless of whether it is raised internally or externally.

Rejecting H1D in favor of a positive association suggests managers are compensated for greater revenue sources. On the other hand, a negative association suggests managers are encouraged to have fewer revenue sources.

2.4.5 Market Performance – Housing Prices

Corporate sector research suggests the importance of including market measures of performance in executive compensation (Jensen and Murphy 1990; Murphy 1985). Examining the relationship between firm performance and executive pay, Jensen and Murphy (1990) find that firm performance as measured by the change in shareholder wealth is positively related to the change in managers' cash compensation.

In the governmental sector, a potential measure of citizen wealth is real estate values (Yinger 1982; Epple and Schipper 1981; Dollery and Worthington 1995). Yinger (1982) suggests that housing prices are a potential measure of residual equity in the public sector, since citizens can capitalize when better services or lower taxes lead to increased real estate values.

Epple and Schipper (1981), using data in the Pittsburgh area from 1970 to 1978, find evidence that the log of the median house value is negatively associated with unfunded pension costs. This suggests that the local real estate market anticipates future tax liabilities and reflects the tax responsibilities in the local real estate market.

Similarly, city managers can be compensated for changes in governmental policies that increase citizen wealth as reflected in housing prices. Thus, I posit a positive association between compensation and changes in citizen wealth.

H1E: Municipal manager compensation varies directly with citizen wealth.

2.5 Informational Properties

2.5.1 Noise of performance measures

Studies in the corporate sector suggest that the weight of performance measures in optimal performance evaluation is associated with the informational properties - precision and sensitivity - of the measures (Banker and Datar 1989; Lambert and Larcker 1987; Kim and Suh 1993). Specifically, Banker and Datar (1989) suggest that the relative weight on each signal for performance evaluation is "directly proportional to the product of the sensitivity and precision of the signal." Precision is defined as the lack of noise in a signal, while sensitivity measures "the extent to which the expected value of a signal changes with the agent's action, adjusted for the correlation with the other signal which may also change with the agent's effort" (Banker and Datar 1989).

Many empirical papers examine the weight of performance measures in the corporate sector. Sloan (1993) finds that CEO cash compensation is more sensitive to earnings when stock prices provide a relatively noisy measure of executive performance. He defines noise as the component that "reflects factors influencing stock prices that are beyond the CEO's control and is assumed to be independent of the CEO's actions." Overall, Sloan's findings suggest that earnings-based performance measures shield executives from uncontrollable fluctuations in firm value. In addition, Lambert and Larcker (1987) find that firms place greater weight on market performance relative to accounting performance measures in compensation contracts when accounting measures of performance are noisy – that is, when the variance of earnings is high relative to the variance of market returns.

Similar to the corporate setting, the municipal setting also involves compensating managers with limited observability of their inputs, and performance measures may contain noise that is beyond managers' control. Performance measures with lower variance for incentive contracting may lead to efficient risk-sharing between the city manager and the municipality. In addition, risk averse managers may prefer performance measures with lower variance. Hence, I posit that noise in performance measures reduces the sensitivity of performance measures in municipal manager compensation contracts.

H2: The association between municipal performance measures and compensation is less strong for noisy performance measures.

2.5.2 Controllability of performance measures

I also consider the controllability of performance measures in addition to the noise, since performance measures are potentially more controllable by some city managers. Theory suggests that performance evaluation depends on both controllable and non-controllable performance measures, where non-controllable measures offer information about a manager's actions in addition to controllable measures (Demski 1976; Antle and Demski 1988).

Studies in the corporate sector suggest that incentive compensation for senior executives other than the CEO is based on both controllable individual performance and noncontrollable firm performance (Fisher and Govindarajan 1992; Bushman et al. 1995; Keating 1997). Bushman et al. (1995) employ survey data from 246 firms, and find that incentives for business unit managers depend on divisional performance, which is controllable, and firm-level performance, which is not directly controllable by the business unit managers. In particular, their findings suggest that the relative weight placed on firm-level performance for the division manager's bonus and stock

compensation depends on factors such as product and geographic diversification. In addition, Fisher and Govindarajan (1992) find that profit center manager cash compensation is positively associated with profit center sales as well as firm sales and ROE. This provides evidence that profit center managers are compensated on based on whether or not performance measures that are directly controllable by managers.

In municipal governments, performance measures are potentially assigned greater weight when the city managers are responsible for their performance measures, i.e., when the manager's actions influence the quality of performance measures. An example of responsibility includes whether managers are responsible for the budget. On the other hand, responsibility for budgeting represents the manager's ability to influence measures of performance, which suggests less weight on performance measures since managers can dictate the measured performance. Thus, the effect of controllability on the sensitivity of performance measures in manager compensation contracts is not straightforward.

H3: The association between municipal performance measures and compensation does not differ for controllable performance measures.

2.6 The Role of Municipal Governance

In addition to informational properties explored in the previous section, I also consider the role of municipal governance characteristics that potentially influence the design of manager compensation contracts. The types of governance mechanisms that I examine include voter and council oversight, which are discussed below.

2.6.1 Voter Oversight

Prior literature suggests voters monitor the actions of their government. For example, the tax and expenditure limitation measures in the 1970s and 1980s suggest that

citizens want more efficiency in government, and thus limit the government's ability to raise taxes and spending (Mullins and Joyce 1996).

Consistent with Baber et al. (2010), I define voter oversight as the extent that voters participate in the municipal governance process. In addition to regular elections, some municipal charters and/or state laws provide mechanisms beyond elections – such as initiative and referendum provisions – for citizens to participate directly in municipal government. Initiative provisions permit citizens to place charter, ordinance, or home rule changes on the ballot through petition; popular referenda allow citizens to petition to place charter, ordinance, or home rule changes advanced by the local government on the ballot before the change can take effect.

I also include a measure of voter activism, since elected officials may not act in the best interests of voters until challenged by voter actions. Consistent with Baber et al. (2010), I include whether citizens recently attempt to recall elected officials from office before the expiration of their terms as an indicator of voter activism. Not all of these provisions are available in each municipality, however.

Furthermore, I measure voter oversight in terms of political competition. Following Baber et al. (2010), political competition is defined as the probability that incumbents are replaced. It is defined as the ratio of the number of incumbents running for council less the number of incumbents elected to the council, deflated by the number of open seats on the council.

Voter oversight may influence the use of performance measures in municipal compensation contracts. On one hand, including performance measures in compensation contracts may be useful to align incentives of municipal officials with those of voters.

This suggests that voter oversight varies with the weights assigned to performance measures in compensation contracts. On the other hand, greater voter monitoring may reduce the need for performance-based compensation, since the voters can closely monitor the actions of the city officials. Based on the preceding discussion, I make no directional prediction on the effect of voter oversight and pay-for-performance sensitivity. The related null hypotheses follow.

H4: Sensitivity of manager compensation to performance measures is independent of voter oversight.

2.6.2 Council Oversight

In the corporate sector, the board of directors is generally considered one of the mechanisms that reduce agency problems between managers and owners by controlling and monitoring the actions of managers (Fama and Jensen 1983). The board is responsible for CEO hiring, termination and compensation (Fama and Jensen 1983; Jensen 1993). However, board members may not be effective in monitoring the CEO for a variety of reasons. For example, the board can be too large (Jensen 1993; Yermack 1996), board members may be too busy (Fich and Shivdasani 2006), and board members may lack independence (Jensen 1993; Bebchuk and Fried 2003; Shivdasani and Yermack 1999).

The municipal sector provides a unique setting to study the effect of board (council) oversight on compensation. Unlike the corporate sector, where CEOs can have significant influence over the appointment of board members, the local government offers no such power to the city manager. Instead, city managers are typically appointed by popularly elected council members, which suggests that councils are relatively

independent at municipal operations. Next, I discuss my proxy for the effectiveness of monitoring by the council, and the potential effect on pay-for-performance sensitivity.

Staggered boards are considered critical governance mechanisms in the corporate sector. Research suggests that staggered boards, a provision that only a portion of directors are elected simultaneously, are an anti-takeover device that facilitates entrenchment. Current corporate sector research provides mixed results for relations between staggered boards and CEO compensation. Faleye (2007) finds that firms with staggered boards have lower compensation incentives for their CEOs. Specifically, the author finds a negative association between compensation, measured by the change in cash compensation and change in total compensation, and the interaction between classified boards and the change in shareholder wealth. This suggests that staggered boards shield CEO compensation from poor firm performance. However, the author does not directly test the association between staggered boards and CEO compensation. In contrast, Hwang and Kim (2009) find that staggered boards are not associated with CEO compensation, as measured by salary plus bonus or total compensation. The authors offer no interpretation of their results, however, since the presence of staggered boards is not the focus of their analysis.

Similar to the corporate sector, some municipalities have staggered council elections where a portion of the council is elected each year, while other municipalities have councils where all members are elected at the same time. I presume that staggered boards weaken the stewardship role of council members and the responsiveness of the council to voter preferences. Consistent with this characterization, Gore (2009) finds that the presence of staggered councils is associated with increased municipal cash holdings,

which suggests that staggered councils are associated with agency costs. Based on results from the corporate sector and Gore (2009), if staggered councils imply decreased monitoring, then the presence of staggered councils reduces the sensitivity of performance measures in compensation contracts. However, less council monitoring may be associated with greater need for performance based compensation, since the council members cannot closely monitor the actions of the city manager. The corresponding null hypothesis is as follows.

H5: The sensitivity of manager compensation to performance measures is independent for municipalities with staggered councils.

2.7 Illegal Compensation – Corruption

Government officials can receive money illegally through bribes and kickbacks. According to Glaeser and Saks (2006), "between 1990 and 2002, federal prosecutors convicted more than 10,000 government officials of acts of official corruption, such as conflict of interest, fraud, campaign-finance violations, and obstruction of justice (p. 1053)."

Prior research suggests that public corruption can reduce the incentive to invest, reduce economic growth (Shleifer and Vishny 1993; Mauro 1995), increase the cost of procurement of goods and services (Burguet and Che 2004; Rose-Ackerman 1975), and increase spending on projects that are more likely to offer better opportunities for corruption (Shleifer and Vishny 1993; Mauro 1998).

This section examines the relation between corruption and compensation. In the U.S., the presence of corrupt officials may suggest underlying municipal agency problems, which potentially leads to greater compensation for managers. That is, managers employed in corrupt institutions may receive higher compensation, because

weak governance structures allow excessive compensation practices to occur. Another possibility is that compensation is a means to bribe managers to ignore the existence of corruption. This suggests that corruption and compensation are complements. However, modeling the role of incentive contracting for reducing corruption through the use of independent investigations, Prendergast (2000) suggests it is more efficient to allow corruption rather than use incentive contracting, since incentive contracting potentially grants compensation to bureaucrats who generate 'nuisance cases' to simply receive the bonus. Thus, if corruption substitutes for other forms of compensation, i.e., if bribes and kickbacks are considered part of the total compensation package, then corruption is negatively associated with compensation. Using data on reported earnings, household spending and asset holdings from Ukraine, Gorodnichenko and Peter (2007) find that public sector employees receive 24–32% less wages than their private sector counterparts, however, workers in both sectors have essentially identical level of consumer expenditures and asset holdings. The authors attribute their findings as evidence of the presence of bribes in the public sector. However, current literature does not provide direct evidence on the relation between corruption and compensation. Hence, the relation between performance measures and corruption is not straightforward. My hypothesis, in the null form, is as follows*:*

H6: Compensation is independent of corruption.

Chapter 3 Methodology

3.1 Compensation and Performance

I use the following regression specifications to examine relations between compensation and performance (H1), including both accounting and market measures of performance, after controlling for other compensation determinants identified in the extant literature. Specifically, I estimate the following regression using pooled cross-sectional time-series data (time and municipal subscripts are omitted):

Model 1: Log BASE SALARY = $\alpha_0 + \alpha_1$PERFORM + α_2 AGE + α_3TENURE + α_4DEGREE + α_5SIZE + α_6 STATE+ α_7YEAR + ε,

Model 2: BONUS = $\alpha_0 + \alpha_1$PERFORM + α_2AGE + α_3TENURE + α_4DEGREE + α_5 SIZE + α_6 STATE+ α_7YEAR + ε,

Model 3: %ΔBASE SALARY = $\alpha_0 + \alpha_1$ΔPERFORM + α_3YEAR + ε,

where Log BASE SALARY is the natural log of the Chief Administrative Officer's total base salary;[7] BONUS is a dummy variable equal to 1 if the manager received a bonus, else zero; %ΔBASE SALARY percent change in the chief administrative officers' base salary. PERFORM includes both accounting and market performance measures. Measures for accounting performance include efficiency (*Admin),* surplus *(SurplusPerCap),* fiscal self-reliance *(RevOwnPerCap),* and revenue diversification *(RDIndex),* which are calculated based on data from Census Bureau's Annual Survey of Governments. Following Gore (2009), I use the administration expense ratio (*Admin*) to measure municipal inefficiency. This measure is defined as the ratio of total administrative expenses less manager salary to total operating expenses, where

[7] The ICMA, the primary data source, lacks data on total compensation, but does have information on annual base salaries and whether managers receive a bonus (a dummy variable). The ICMA does not disclose the actual dollar amount for the bonus, however. This limitation potentially compromises the ability to detect associations for specifications of BONUS.

administrative expenses include central staff services, financial administration, and unallocable expenses (Figlio and O'Sullivan 2001). Assuming the goal of municipalities is to spend more toward programs and services for citizens rather than on administrative expenses, then a higher *Admin* ratio is associated with lower efficiency.

SurplusPerCap is defined as the per capita total revenues less total expenditures. *RevOwnPerCap* is the per capita revenues generated from property tax, sales tax, charges and interest. Similar to Gore (2009) and Copeland and Ingram (1982), I use a revenue diversification index (*RDIndex*) to measure sources of revenue. The index is computed as the product of one minus the fraction of total revenue from each source, or (1-(r1/R))(1-(r2/R)…(1-(rN/R)), where r is the amount of revenue received from a specific source, and R is total revenue. The revenue sources I include are: taxes, charges, interest, and revenues received from federal and state governments. A higher value of the index suggests a greater balance in revenue sources for the municipality.

Consistent with Yinger (1982) and Epple and Schipper (1981), I use local housing prices as a measure of market performance. These data are from the Government Finance Officers Association (GFOA). Market return (*DRetPropertyPerCap)* is a dummy variable set to one if per capita market adjusted[8] return on local housing prices >0, and zero otherwise.

Gore (2009) find that manager characteristics such as tenure, age, and degree are positively associated with compensation. Following Gore (2009), I also include manager characteristics as controls. Since the manager's age is specified as a range in the survey, the manager's age is included as separate dummy variables. Specifically, AGE1 is equal

[8] I adjust market return by using the Federal Housing Finance Agency House Price Index from http://www.fhfa.gov.

to 1 if ages < 30, else zero; AGE2 is equal to 1 if ages 31-35, else zero; . . . AGE10 is equal to 1 if ages >70, else zero. TENURE is log of the years the manager has been in his current position. DEGREE is a dummy variable equal to 1 if the manager has an undergraduate or graduate degree, else zero. In addition, I control for municipal size (SIZE) since city managers in large municipalities potentially receive greater pay due to greater job responsibilities. SIZE is the log of total population. YEAR is a dummy variable indicating the year. STATE is a series of dummy variable indicating the state.

3.2 Informational Properties of Performance Measures

The specifications below are used to examine the sensitivity of performance measures to informational properties of performance measures.

$$\text{Model 4: Log BASE SALARY} = \alpha_0 + \alpha_1 \text{PERFORM} + \alpha_2 \text{ PERFORM * INFO} + \alpha_3 \text{INFO} + \alpha_4 \text{AGE} + \alpha_5 \text{TENURE} + \alpha_6 \text{DEGREE} + \alpha_7 \text{STATE} + \alpha_8 \text{SIZE} + \alpha_9 \text{YEAR} + \varepsilon,$$

$$\text{Model 5: BONUS} = \alpha_0 + \alpha_1 \text{PERFORM} + \alpha_2 \text{ PERFORM * INFO} + \alpha_3 \text{INFO} + \alpha_4 \text{AGE} + \alpha_5 \text{TENURE} + \alpha_6 \text{DEGREE} + \alpha_7 \text{STATE} + \alpha_8 \text{SIZE} + \alpha_9 \text{YEAR} + \varepsilon,$$

$$\text{Model 6: \%}\Delta\text{BASE SALARY} = \alpha_0 + \alpha_1 \Delta\text{PERFORM} + \alpha_2 \Delta\text{PERFORM * INFO} + \alpha_3 \text{INFO} + \alpha_4 \text{YEAR} + \varepsilon,$$

where INFO is either *Noise* or *BudgetCAO*. I measure noise as the variance of performance measures. Similar to Lambert and Larcker (1987), *Noise* is the time-series variation in performances measures discussed above. Responsibility for budgeting represents the manager's ability to influence measures of performance, which suggests that performance measures are under the manager's control. *BudgetCAO* is a dummy variable equal to one if the manager is the primary person responsible for the budget, and zero otherwise. Other variables are defined previously.

The interaction term PERFORM * INFO indicates the sensitivity of performance measures to informational properties of performance. For example, $\alpha_2 < 0$ implies that the sensitivity of compensation to performance decreases as the variance (controllability) increases.

3.3 Governance Mechanisms

I use the following regression specifications to examine associations between governance and pay-for-performance sensitivity.

Model 7: Log BASE SALARY = $\alpha_0 + \alpha_1$PERFORM + α_2 PERFORM * GOV
+ α_3GOV + α_4AGE + α_5TENURE + α_6DEGREE
+ α_7STATE + α_8SIZE + α_9YEAR + ε,

Model 8: BONUS = $\alpha_0 + \alpha_1$PERFORM + α_2 PERFORM * GOV
+ α_3GOV + α_4AGE + α_5TENURE + α_6DEGREE
+ α_7STATE + α_8SIZE + α_9YEAR + ε,

Model 9: %ΔBASE SALARY = $\alpha_0 + \alpha_1$ΔPERFORM + α_2 ΔPERFORM * GOV
+ α_3GOV + α_4YEAR + ε,

where GOV is one of the following governance mechanisms. *Political competition* is the ratio of the number of incumbents running for council less the number of incumbents elected to the council deflated by the number of open seats on the council; *Both provisions* is an indicator equal to one if the municipality has initiative and referendum provisions, else zero; *No provisions* is an indicator equal to one if the municipality has neither initiative nor referendum provisions; *Recall attempt* is an indicator set to one if citizens attempted to recall either the mayor or a council member in the preceding five years; *Staggered* is an indicator variable equal to one if council elections are staggered; Following Baber et al. (2010), I also include the governance index, which is calculated as *Political competition* + (1 - *Staggered*) + *Both provisions* + *Recall attempt*. The index varies between 0 and 4, with higher values indicating greater oversight. PERFORM

includes both accounting and market measures of performance. The interaction term PERFORM*GOV measures the sensitivity of performance measures to governance mechanisms. Other variables are defined previously.

3.4 Illegal compensation-Corruption

Using the Lexis/Nexis data-base, I identify municipalities with an indictment for corruption-related crimes for local officials between Jan. 1st, 2000 and Dec. 8th, 2009. I use key words "indict!," "council!," "city manager," "town manager," "mayor," "city official," "town official," "city employee," and "town employee" to identify news releases that disclose the indictments of local officials and employees.

I use the following regression specification to examine the relation between corruption and compensation.

Model 10: $\text{Log BASE SALARY} = \alpha_0 + \alpha_1 \text{PERFORM} + \alpha_2 \text{CORRUPTION} + \alpha_3 \text{AGE} + \alpha_4 \text{TENURE} + \alpha_5 \text{DEGREE} + \alpha_6 \text{STATE} + \alpha_7 \text{SIZE} + \alpha_8 \text{YEAR} + \varepsilon,$

Model 11: $\text{BONUS} = \alpha_0 + \alpha_1 \text{PERFORM} + \alpha_2 \text{CORRUPTION} + \alpha_3 \text{AGE} + \alpha_4 \text{TENURE} + \alpha_5 \text{DEGREE} + \alpha_6 \text{STATE} + \alpha_7 \text{SIZE} + \alpha_8 \text{YEAR} + \varepsilon,$

Model 12: $\%\Delta\text{BASE SALARY} = \alpha_0 + \alpha_1 \Delta\text{PERFORM} + \alpha_2 \text{CORRUPTION} + \alpha_4 \text{YEAR} + \varepsilon,$

where CORRUPTION is a dummy variable equal to one if the municipality has an indictment.

Chapter 4 Results

4.1 Sample

Sample selection procedures are presented in Table 1. The sample begins with 11,489 municipal-year observations available in the International City/County Management Association (ICMA), Census, and Government Finance Officers Association (GFOA) databases. I exclude 5,330 observations without manager characteristics and 4,034 with missing financial performance measures. The final sample consists of 1,926 observations, after removing an additional 199 observations for cities experiencing manager turnover.

4.2 Descriptive Statistics

Descriptive statistics are presented in Table 2. Panel A presents descriptive statistics for select variables in the salary sample. The mean (median) annual *Salary* is 93,163 (89,001), and approximately 28% receive a bonus, which is similar to Gore (2009).

Panels B and C display Pearson correlations between key variables in this study. Panel B shows *Salary* is positively associated with market performance (p=<0.0001) and several measures of accounting performance, such as fiscal responsibility (p=<0.0001), fiscal self-reliance (p=0.0935), and diversified revenue sources (p=<0.0001). Panel C indicates *Bonus* is positively associated with *Admin* (inefficiency) (p=0.0791) and diversified revenue sources (p=0.0113). The preliminary evidence is consistent with the conjecture that while there are agency problems in some municipalities, city manager compensation is associated with financial performance measures.

----------Insert Table 2 here----------

4.3 Results on the Association Between Compensation and Performance

Table 3 presents the results for specifications of compensation regressed on performance measures (Models 1, 2, and 3). Columns 1-3 test the association between salary and financial performance measures. The dependent variable is the log of the city manager's base salary, and the independent variables are lagged accounting and market performance measures.[9] I winsorize all continuous variables at the first and ninety-ninth percentiles to control for outliers. All t-statistics are adjusted for robust standard errors clustered on municipality.

Results suggest that city manager salary is associated with financial performance. Column 3 presents the coefficient estimates that include both market and accounting performance measures. Estimates in column 3 indicate that salary is positively associated with market return (*DRetPropPerCap).* This suggests that city managers are compensated for increases in citizen wealth as reflected in property value, i.e., for return on property value in excess of the market return, manager salary is higher by 3.04% ($e^{0.03*1}-1 =0.0304$).

In addition, I find that *Salary* is also positively associated with accounting performance measures, specifically, *Admin, SurplusPerCap*, *RevOwnPerCap,* and *RDIndex* (t=4.78, t=3.09, t=9.21, and t=5.34) in column 3. The significantly positive relation between *Salary* and *SurplusPerCap* suggests city managers are paid for fiscal responsibility, i.e., for each 1% increase in *SurplusPerCap,* manager salary is higher by 0.065% ($e^{0.065*0.01}-1 =0.00065$). In addition, the significantly positive coefficient estimates for *RevOwnPerCap* and *RDIndex* suggest city managers receive greater salaries for fiscal self-reliance and generating revenue from multiple sources. However, the

[9] Similar results are obtained by using performance measures at time = t.

significantly positive association between *Salary* and *Admin* suggests agency problems since city managers receive greater pay at inefficient cities. In addition, consistent with Gore (2009), results indicate that manager salaries vary positively with municipal size, and the manager's tenure and degree. The explanatory power of the models in columns 1-3 is high, with adjusted R^2s between 75-79 percent.

Columns 4-6 of Table 3 test associations between lagged performance measures and the likelihood of receiving a bonus. The dependent variable is a dummy variable equal to 1 if the city manager received a bonus, and 0 otherwise. Consistent with the salary regressions in columns 1-3, the independent variables are financial performance measures and manager characteristics. Column 6 presents the coefficient estimates that include both market and accounting performance measures. I find that *Bonus* is positively associated with *RDIndex* and *SurplusPerCap,* which indicates that city managers receive bonuses for fiscal responsibility and generating revenue from multiple sources. The remaining performance measures are not significantly associated with the likelihood of receiving a bonus, however. A potential explanation is that ICMA does not disclose the actual dollar amount for the bonus. This data limitation may undermine the effectiveness of bonus specifications.

Columns 7-9 of Table 3 show the results for the salary changes model. The dependent variable is the percent change in the city manager's base salary from t-1 to t, while the independent variables are the lagged performance measures from t-2 to t-1. Consistent with the levels specifications, evidence in column 9 also indicates that city manager compensation is associated with performance measures. Specifically, I find that changes in the city manager's salary are related to fiscal responsibility (*SurplusPerCap*),

consistent with statements in GASB (2006) that state the role of government includes providing services in a "sustainable" manner. Consistent with the salary levels regression, the significantly positive coefficient for *Admin* suggests agency problems since city managers receive greater pay increases at inefficient cities. Overall, results in Table 3 provide evidence that city manager compensation is associated with financial performance measures, which suggests the local governments' stewardship role in aligning voter interests with that of the city managers. However, consistent with Gore (2009), findings in this study also suggest evidence of agency problems in local governments, since city managers receive greater pay at inefficient cities.

----------Insert Table 3 here----------

4.4 Results for the Effect of Informational Properties of Performance Measures

Table 4 evaluates H2 and H3 based on Models 4, 5, and 6. To examine the sensitivity of performance measures, I conduct the analyses considering the influence of noise on performance measures, where *Noise* is the time-series variation in performances measures from 1995 - 1999. Results are presented in Table 4, Panel A. Note that the sample size in Table 4 is smaller than in Table 3 because *Noise* is calculated over a 5 year period and not all municipalities have data for those five years. Columns 1-3 show the results for the effect of noise on the sensitivity of financial performance measures in city manager salary levels. Consistent with Sloan (1993) and Lambert and Larcker (1987), results suggest incentive compensation contracts shield city managers from noise that is beyond the managers' control. Specifically, I find that the coefficient estimate for *Admin*VarAdmin, SurplusPerCap*VarSurplusPerCap, RevOwnPerCap*VarRevOwnPerCap* and *RDIndex*VarRDIndex* are negative and

significant, which indicates that noise in performance measures reduces the sensitivity of city manager salary to financial performance measures. Estimates for the main effect of accounting performance measures are also statistically significant in predicted directions. This result is consistent with the notion of efficient risk sharing between the city manager and municipality since the manager is protected from fluctuations in performance measures.

Columns 4-6 present the results for the bonus model. The coefficient estimate for *DRetPropPerCap*VarRetPropPerCap* is negative and significant. Consistent with the levels regression, this provides additional evidence that noise decreases the weight on performance measures. In contrast with the salary specifications, the noise in accounting performance measures does not seem to impact the weight in bonus specifications. Again, a potential explanation for the lack of results is data limitations – there are a limited number of bonus observations.

Columns 7-9 of Table 4 Panel A contain the results for the salary changes model. The performance measures are the same as those in columns 7-9 of Table 3. Results show that the noise in *RDIndex* decreases the weight on revenue diversification, which is consistent with findings in columns 2 and 3 of Table 4 Panel A. Overall, Table 4 Panel A shows that noise in performance measures reduces the sensitivity of city manager compensation to financial performance measures.

Table 4 Panel B shows the effect of controllability on the weight of performance measures in city manager compensation contracts. Controllability is a dummy variable equal to one if the manager is the individual primarily responsible for preparing the budget, and zero otherwise. Columns 1-3 show the results for the salary model. While

most interactions with performance measures are not significant, I do find that the coefficient estimate for surplus (*SurplusPerCap*BudgetCAO)* is negative and significant. This provides weak evidence that surplus has less weight if it is more likely to be controlled by the manager. A possible explanation is that managers can potentially manipulate budgeted surplus more easily than some other performance measures.

Columns 4-6 of Table 4 Panel B present the results for the bonus model. Consistent with the salary specification, the coefficient estimate for *SurplusPerCap*BudgetCAO* is negative and significant, which provides additional evidence that performance measures have less weight if they are more likely to be controlled by the manager. However, the coefficient estimate for the real estate market measure (*DAdjRetProp*BudgetCAO)* is positive and significant. Considered together with the negative sign on the main effect, this suggests that controllability reduces the negative effect of property values.

Columns 7-9 of Table 4 Panel B present the results for the salary changes model. I use the same performance measures as those presented in columns 7-9 of Table 3. Consistent with the salary and bonus models, evidence in column 9 provides additional evidence that controllability decreases the sensitivity of current period surplus as an accounting performance measure (*SurplusPerCap)* in city manager compensation contracts.

To summarize, results in Table 4 suggest that noise in performance measures decreases the sensitivity of performance measures in city managers' compensation. In addition, I find that managers' ability to control the budget decreases the weight on surplus as a performance measure. A possible explanation is to discourage city managers

from deploying budget related strategies that maximize their compensation. Next, I examine the effect of municipal governance mechanisms on city manager compensation.

----------Insert Table 4 here----------

4.5 Results for the Influence of Municipal Governance

Table 5 examines the influence of municipal governance in pay-for-performance sensitivity based on the specification in Model 7, 8, and 9. Panel A reports the results for the effect of political competition. Following Baber et al. (2011), political competition is defined in terms of the probability that incumbents are replaced. Results from the salary specification in column 3 suggest cities with more political competition place greater weight on market returns (*DRetPropPerCap),* while results from the bonus model in column 6 indicate more weight on the ability to generate a variety of revenue streams and their own revenues (*RDIndex* and *RevOwnPerCap).* This result is consistent with prior literature (Mullins and Joyce, 1996) that suggests voters play a role in monitoring the actions of their government.

The salary changes specification in column 9 suggests municipalities with greater oversight place more weight on fiscal responsibility *(SurplusPerCap).* Overall, the results show limited evidence that political competition influences municipal performance measures in manager compensation contracting.

Table 5 Panel B examines the effect of prior citizen recall attempts. The only significant result is for the influence of real estate values in the bonus specification. That is, in column 4, the coefficient estimate for *DRetPropPerCap*Recall* is positive and significant. Thus, my measure of direct voter oversight - prior citizen recall attempts –

generally do not appear to affect the weights assigned to performance measures in city manager compensation contracts.

Panel C reports regression results for the effect of voter oversight provisions on performance measures. Column 3 shows that the presence of fewer voter oversight provisions decreases the sensitivity of performance measures with respect to surplus *(SurplusPerCap *NoProvision).* Results from this panel indicate that voter monitoring and incentive contracting are complements with respect to surplus. However, evidence from the bonus and salary changes specifications in columns 6 and 9 show that less potential for voter oversight *increases* the sensitivity on two performance measures *(RevOwnPerCap*NoProvision* and *SurplusPerCap *NoProvision),* which suggests that monitoring and incentive contracting are substitutes.

Next, I examine the effect of staggered council elections. The result of this test is presented in Table 5 Panel D. While the levels regressions from columns 1-6 show that staggered council has no effect on the sensitivity of performance measures in city manager compensation contracts, the changes specification in column 9 shows that less oversight is associated with decreased weight on *Admin*. The latter suggests that cities with staggered council elections reduce the weight on inefficiency when adjusting city manager salaries. One explanation for the lack of findings in this panel is that council members contribute to superior monitoring by having access to higher quality performance measures, or performance measures that are not publicly disclosed.

Following Baber et al. (2010), I construct a governance oversight index that considers political competition, recall attempt, voter oversight provisions, and staggered council. In column 6 Panel E, results show that more oversight is associated with greater

weight on revenue diversification (*RDIndex*Index)*. This provides additional evidence that monitoring and incentive compensation are complements.

Overall, results for Table 5 suggest that oversight by voters and council members play a limited role in city manager compensation contracts. The majority of the results show no effect, while some results suggest that monitoring and incentive compensation are complements.

----------Insert Table 5 here----------

4.6 Results on Compensation and Corruption

The sample selection procedures are presented in Table 6 Panel A. The sample includes 185 municipal-year observations (139 distinct municipalities) with indicted officials. I retain the first observation for each municipality with indicted officials. The final sample consists of 46 observations after removing an additional 93 observations with missing salary information. Descriptive statistics are presented in Table 6 Panel B. The mean (median) annual Salary is 111,027.72 (100,768.50). Contrary to prediction based on prior literature, the evidence from Table 6 Panel C suggest indictment of local officials do not affect city manager compensation. One explanation for the lack of result for Panel C is the small sample size.

4.7 Sensitivity Analysis

Gore (2009) finds that municipalities with excess cash spend more on city manager salaries and bonuses. Moreover, monitoring by the debt holders may reduce opportunistic behavior of the managers, therefore I expect a negative relation between the

level of debt and compensation. Thus, sensitivity analysis controls for debt and cash.[10] Similar results are obtained by including both measures (results not tabulated).

In sections 4.4 and 4.5, I test the effects of information properties and governance mechanisms separately. In reality, city manager compensation may be simultaneously affected by both constructs. As a robustness test, I include both informational properties and governance mechanisms in one regression (results not tabulated). Results for the salary level and salary change specifications are consistent with the conclusions from Tables 4 and 5. However, results are not as robust for the bonus specifications. A potential explanation is the resulting reduced sample size.

[10] I do not consider excess cash in the primary analysis because it will substantially limit the sample size.

Chapter 5 Conclusion

5.1 Summary

Although local governments are a significant sector of the economy, we know very little about how the stewards of municipal resources are compensated for their services. This study explores a variety of financial performance measures including market (real estate values) and accounting performance for city managers. Further, I study how the sensitivity of these measures are affected by the informational properties of the performance measures and governance mechanisms. Finally, I examine the association between manager compensation and corruption.

Using data from 1999-2003, I find that city manager compensation is associated with several performance measures. Specifically, the evidence shows that city manager compensation varies directly with market returns, fiscal responsibility, generating more revenue internally, and generating revenue from multiple sources. Consistent with Gore (2009), the evidence also suggests agency problems in some municipal governments, since manager pay is positively associated with inefficiency.

Further examination reveals that informational properties affect the sensitivity of these measures. Specifically, I find that compensation contracts protect city managers from the noise in performance measures, which is consistent with Sloan (1993) and Lambert and Larcker (1987). Moreover, I find that managers' ability to control the budget decreases the weight on surplus as a performance measure. These findings are consistent with the notion of efficient risk sharing between the city manager and the municipality.

In addition, I find voter and council oversight play a limited role in monitoring city manager compensation. Specifically, I find modest evidence that suggests governance mechanisms and incentive compensation are complements, i.e., greater oversight is associated with greater sensitivity of a few performance measures in city manager compensation contracts. Finally, I find no association between corruption and city manager compensation.

In summary, this study contributes to our understanding of the use of performance measures in incentive contracting for municipalities. The analyses also highlight the influence of informational properties and governance mechanisms on the use of these measures and the effect of corruption on city manager compensation contracting. These results are not only useful to regulators, city council and citizens, but also are important to current discussions about evaluating performance in the governmental context.

5.2 Limitations

Although this study supports the finding that informational properties and governance mechanisms affect the use of financial performance measures in city manager compensation contracts, it has some limitations.

First, the study assumes that all sample municipalities evaluate city manager performance using objective performance measures such as financial performance. The study can be improved by creating a compensation model that includes more subjective performance measures, i.e. citizen satisfaction. Second, due to the limitation of data availability, the analysis is confined to data from 1999 to 2003 for testing compensation and performance. The conclusion may be more robust if the sample covers more years of data.

Third, voter oversight in this study is measured at the aggregate level. However, voters are not homogeneous and may differ in their behavior, incentives and abilities to monitor city officials. For example, interest groups may have more incentives and ability to monitor the actions of the elected officials. Due to data limitation, I do not distinguish between the different types of voters. Hence, the inference in the current study might be impaired because of the failure to consider the role played by different types of voters.

5.3 Future Research

This study can be further extended in several ways. First, due to data limitation, compensation includes both salary and whether the city managers received a bonus. Future studies can consider total compensation. Second, future researchers may consider alternative measures of performance. In this study, I use measures that proxy for market and accounting performance. However, other performance measures may provide additional evidence on city manager incentives schemes.

Finally, future research may consider examining the role of the current economy on the relationship between compensation and performance measures. The relation between city manager compensation and performance might become either more or less significant during economic downturns or recessions. The current study does not examine whether the economy affects city manager compensation contracting and this will be further explored in my future work.

References

Antle R. and J. S. Demski. 1988. The Controllability Principle in Responsibility Accounting. *The Accounting Review* 63(4), 700-718.

Baber, W. 1990. Toward a framework for evaluating the role of accounting and auditing in political markets: the influence of political competition. *Journal of Accounting and Public Policy* 9(1), 57-73.

Baber, W., P. Daniel, and A. Roberts. 2002. Compensation to managers of charitable organizations: an empirical study of the role of accounting measures of program activities. *The Accounting Review* 77(3), 679-693.

Baber, W., S. Janakiraman, S. Kang. 1996. Investment opportunities and the structure of performance-based executive compensation. *Journal of Accounting Economics* 21(3), 297–318.

Baber, W., S. Kang and K. Kumar. 1999. The Explanatory Power of Earnings Levels and Earnings Changes in the Context of Executive Compensation. *The Accounting Review* 74(4), 459-472.

Baber, W., S. Kang and K. Kumar. 1998. Accounting Earnings and Executive Compensation: the Role of Earnings Persistence. *Journal of Accounting and Economics* 25(2), 169-193.

Baber, W., and A. Gore. 2008. Consequences of GAAP disclosure regulation: Evidence from municipal debt issues. *The Accounting Review* 83(3), 565-591.

Baber, W., A. Gore., K. Rich, and J. Zhang. 2010. An Empirical Investigation of Accounting Restatements and Governance in the Municipal Context. Working paper. Georgetown University, George Washington University and Loyola University Maryland.

Baber W. and P. Sen. 1984. The role of generally accepted reporting methods in the public sector: An empirical test. *Journal of Accounting and Public Policy* 3(2), 91–106.

Banker, R. D. and S. M. Datar. 1989. Sensitivity, Precision, and Linear Aggregation of Signals for Performance Evaluation. *Journal of Accounting Research* 27(1), 21-39.

Barclay, M., D. Gode, and S. Kothari. 2005. Matching delivered performance. *Journal of Contemporary Accounting and Economics* 1(1), 1-25.

Barth, M., W. Beaver, and W. Landsman. 2001. The relevance of the value relevance literature for financial accounting standard setting: another view. *Journal of Accounting and Economics* 31, 77–104.

Bebchuk L. A. and J. M. Fried. 2003. Executive Compensation as an Agency Problem. *The Journal of Economic Perspectives* 17(3), 71-92.

Burguet, R. and Y. K. Che. 2004. Competitive procurement with corruption. *RAND Journal of Economics* 35(1), 50–68.

Bushman, R. M., R. J. Indjejikian, and A. Smith. 1995. Aggregate Performance Measures in Business Unit Manager Compensation: The Role of Intrafirm Interdependencies. *Journal of Accounting Research* 33(Supplement), 101-128.

Bushman, R. and A. Smith. 2001. Financial accounting information and corporate governance. *Journal of Accounting and Economics* 32, 237–333.

Butler, A., L. Fauver, S. Mortal. 2009. Corruption, political connections, and municipal finance. *The Review of Financial Studies* 22(7), 2873-2905.

Chang, C. F., and H. P. Tuckman. 1994. Revenue diversification among non-profits. *Voluntas: International Journal of Voluntary and Nonprofit Organizations* 5(3), 273-90.

Core, J.E., R. W. Holthausen, and D. F. Larcker. 1999. Corporate governance, chief executive officer compensation, and firm performance. *Journal of Financial Economics* 51, 371-406.

Core. J., W. Guay, and D. Larcker. 2008. The Power of the Pen and Executive Compensation. *Journal of Financial Economics* 88(1), 1-25.

Core. J., W. Guay, and R. Verrecchia. 2003. Price versus Non-Price Performance Measures in Optimal CEO Compensation Contracts. *The Accounting Review* 78(4), 957-981.

Copeland, R., and R. Ingram. 1982. The association between municipal accounting information and bond rating changes. *Journal of Accounting Research* 20(2), 275-289.

Demski J. S. 1976. Uncertainty and Evaluation Based on Controllable Performance. *Journal of Accounting Research* 14(2), 230-245.

Dollery, B. E., and A. C. Worthington. 1995. The impact of fiscal illusion on housing values: An Australian test of the debt illusion hypothesis. *Public Budgeting and Finance* 15(3), 63-73.

Epple, D. and Schipper, K. 1981. Municipal pension funding: A theory and some evidence. *Public Choice* 37(1), 141-178.

Faleye, O. 2007. Classified boards, firm value, and managerial entrenchment. *Journal of Financial Economics* 83, 501–529.

Fama, E. F. 1980. Agency problem and the theory of the firm. *Journal of Political Economy* 88, 288-307.

Fama, E. F. and M. C. Jensen. 1983. Agency problems and residual claims. *Journal of Law and Economics* 26(2), 327-349.

Ferris, J. S. and E. G. West. 1999. Cost disease versus Leviathan explanations of rising government cost: An empirical investigation. *Public Choice* 98(3-4), 307-316.

Fich, E. M. and A. Shivdasani. 2006. Are Busy Boards Effective Monitors? *The Journal of Finance* 61(2), 689-724.

Figlio, D. and A. O'Sullivan. 2001. The local response to tax limitation measures: do local governments manipulate voters to increase revenues? *Journal of Law and Economics* 14, 233-257.

Fisher, J. and V. Govindarajan. 1992. Profit Center Manager Compensation: An Examination of Market, Political and Human Capital Factors. Strategic Management Journal 13(3), 205-217.

Francis, J., P. Olsson, and K. Schipper. 2006. Earnings quality. *Foundations and Trends in Accountin*g 1, 259–340.

Frey, B.S., M. Kucher and A. Stutzer. 2001. Outcome, process and power in direct democracy – new economic results. *Public Choice* 107(3-4), 271-293.

Frumkin P. and E. K. Keating, 2001. The price of doing good: executive compensation in nonprofit organizations. Working paper. Harvard University.

Glaeser E. L. and R. E. Saks. 2006. Corruption in America. *Journal of Public Economics* 90(6-7), 1053– 1072

Gore, A. 2009. Why do Cities Hoard Cash? Determinants and Implications of Municipal Cash Holdings. *The Accounting Review* 84(1), 183-207.

Gore, A., S. Kulp, and Y. Li. 2011. Golden handcuffs for bureaucrats? Ex ante severance contracts in the municipal sector. Working paper. The George Washington University.

Gore, A., S. R. Matsunaga, and E. Yeung. 2010. The Role of Technical Expertise in Firm Governance Structure: Evidence from Chief Financial Officer Contractual Incentives. *Strategic Management Journal* 32(7), 771-786.

Gorodnichenko Y., and K. S. Peter. 2007. Public sector pay and corruption: Measuring bribery from micro data. *Journal of Public Economics* 91(5-6), 963–991.

Governmental Accounting Standards Board (GASB). 2006. GASB white paper: Why governmental accounting and financial reporting is – and should be – different. http://www.gasb.org/white_paper_mar_2006.html.

Hatry, H., J. Zelio, and K. Mark. 2003. Governing for Results in the States. The Book of the States 2003 volume 36 (The Council of State Governments, Lexington, Kentucky) 411-418.

Holzer, M. 2002. Performance Measurement and Improvement in State Agencies. The Book of the States. Volume 35 (The Council of State Governments, Lexington, Kentucky) 361-369.

Hwang, B. and S. Kim. 2009. It pays to have friends. *Journal of Financial Economics* 93, 138–158.

Jensen, M. and W. Meckling. 1976. Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics* 3 (4), 305–360.

Jensen, M. 1993. The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems. *The Journal of Finance* 48 (July), 831-880.

Jensen, M. and K. J. Murphy. 1990. Performance pay and top management incentives. *Journal of Political Economy* 98(2), 225-264.

Keating, A. 1997. Determinants of divisional performance evaluation practices. *Journal of Accounting and Economics* 24(3), 243-273.

Kothari, S.P., K. Ramanna, and D. J. Skinner. 2009. What should GAAP look like? A survey and economic analysis. Working paper. MIT, Harvard, and University of Chicago.

Kim, O., and Y. Suh. 1993. Incentive efficiency of compensation based on accounting and market performance. *Journal of Accounting and Economics* 16, 25-53.

Lambert, R. and D. Larcker. 1987. An Analysis of the Use of Accounting and Market Measures of Performance in Executive Compensation Contracts. *Journal of Accounting Research* 25(Supplement), 85-125.

Lawrence, T. 2010. Voters will decide on manager proposal for Mitchell. *The Daily Republic*. http://www.mitchellrepublic.com/event/article/id/44498

Manne, H. 1965. Mergers and the market for corporate control. *Journal of Political Economy* 73(2), 110–120.

Martinez, M. and S. Wilson. 2010. Eight California city officials plead not guilty to corruption charges. http://articles.cnn.com/2010-10-21/us/california.bell.case_1_rizzo-corruption-charges-teresa-jacobo?_s=PM:US

Mauro, P. 1995. Corruption and growth. *The Quarterly Journal of Economics* 110(3), 681–712.

Mauro, P. 1998. Corruption and the composition of government expenditure. *Journal of Public Economics* 69(2), 263–279.

Mullins D. R. and P. G. Joyce. 1996. Tax and Expenditure Limitations and State and Local Fiscal Structure: An Empirical Assessment. *Public Finance and Budgeting* (Spring), 75-101.

Murphy K. 1985. Corporate performance and managerial remuneration. *Journal of Accounting and Economics* 7, 11-42.

Prendergast, C. 2000. Investigating Corruption. University of Chicago and NBER. Working paper.

Quinones. S. 2010. L.A. posts city employee salaries. Los Angeles Times. Aug. 7. page 3.

Rose-Ackerman, S. 1975. The Economics of Corruption. *Journal of Public Economics* 4, 187-203.

Shivdasani, A., and D. Yermack. 1999. CEO involvement in the selection of new board members: An empirical analysis. *Journal of Finance* 54(5), 1829–1853.

Shleifer, A., and R.W. Vishny. 1993. Corruption. *The Quarterly Journal of Economics* 108(3), 599–617.

Sloan, R. 1993. Accounting earnings and top executive compensation. *Journal of Accounting and Economics* 16, 55-100.

Streib, G. and T. H. Poister. 1989. Established and Emerging Management Tools: A 12-Year Perspective. The Municipal Yearbook 1989. Washington, DC:International City Management Association, 45-54.

Tiebout, C. M. 1956. A Pure Theory of Local Expenditures. *The Journal of Political Economy* 64(5), 416-424.

Tigue, P. and J. Greene. 1994. Performance measurement: The link to effective government. The Government Finance Officiers Association. Research Bulletin. Research & Analysis on Current Issues.

Werner, S., and G. Gemeinhardt. 1995. Nonprofit organizations: What factors determine pay levels? *Compensation and Benefits Review* 27(5), 53-60.

Yermack, D. 1996. Higher market valuation of companies with a small board of directors. *Journal of Financial Economics* 40, 185-212.

Yinger, J. 1982. Capitalization and the theory of local public finance. *Journal of Political Economy* 90(5), 917-943.

Zimmerman, J. 1977. The municipal accounting maze: an analysis of political incentives. *Journal of Accounting Research* 15(Supplement), 107-144.

Appendix A

Variable Definition

Dependent Variables	Description	Data Source
Log Base Salary	= natural log of the chief administrative officer's total base salary.	ICMA
Bonus	= a dummy variable equal to 1 if the chief administrative officer received a bonus, and zero otherwise.	ICMA
%ΔBASE SALARY	= percent change in the chief administrative officers' base salary.	ICMA
Performance Measures		
Admin	= ratio of total administrative expenses less manager salary to total operating expenses, where administrative expenses include central staff services, financial administration, and unallocable expenses.	Census
SurplusPerCap	= per capita total revenues less total expenditures.	Census
RevOwnPerCap	= per capita revenues generated from property tax, sales tax, charges and interest.	Census
RDIndex	= the product of one minus the fraction of total revenue from each source, or $(1-(r_1/R))(1-(r_2/R))\ldots(1-(r_N/R)$, where r is the amount of revenue received from a specific source, and R is total revenue.	Census
DRetPropPerCap	= a dummy variable set to one if per capita market adjusted (FHFA USA Index) return on local housing prices >0, and zero otherwise.	GFOA
Governance Measures		
Recall Attempt	= a dummy variable set to one if citizens attempted to recall either the mayor or a council member in the preceding five years.	ICMA
Both provisions	= an indicator variable equal to one if the municipality has initiative and referendum provisions, and zero otherwise.	ICMA
No provisions	= an indicator equal to one if the municipality has neither initiative nor referendum provisions, and zero otherwise.	ICMA
Staggered	= a dummy variable equal to one if city council elections are staggered, and zero otherwise.	ICMA
DPoComp	= a dummy variable equal to one when the ratio of the number of incumbents running for council less the number of incumbents elected to the council deflated by the number of open seats on the council exceeds the median for the sample	ICMA
Index	=DPoComp + (1-Staggered) + Both provisions + Recall attempt	ICMA
Information Properties		
BudgetCAO	=a dummy variable equal to one if the manager is the primary person responsible for the budget, and zero otherwise.	ICMA

VarAdmin	=the time-series variance in Admin from 1995-1999	Census
VarSurplusPerCap	=the time-series variance in SurplusPerCap from 1995-1999	Census
VarRevOwnPerCap	=the time-series variance in RevOwnPerCap from 1995-1999	Census
VarRDIndex	=the time-series variance in RDIndex from 1995-1999	Census
VarDRetPropPerCap	=the time-series variance in DRetPropPerCap from 1995-1999	Census
Corruption		
IndictMuni	= a dummy variable equal to one if the municipality has an indictment.	Lexis/Nexis
Control Variables		
Size	= log of population	Census
Tenure	= log of the total years the manager has been in his current position.	ICMA
Degree	= a dummy variable equal to one if the manager has an undergraduate or graduate degree, and zero otherwise.	ICMA
Age	= dummy variables that indicates manager's age category, where AGE1=ages <30, AGE 2=ages 31-35, . . . AGE10=ages>70.	ICMA

Appendix B

Rancho Cordova, CA

The City Manager shall have the power and shall be required to:
. . .

(e) Conduct research in administrative practices so as to bring about greater efficiency and economy in city government. Develop and recommend to the City Council long-range plans to improve city operations and to prepare for future city growth and development.

. . .

1. Return on Investment
   Each calendar year for the duration of this Agreement, City Manager commits to produce additional revenues, identifiable savings or a combination of both that will be equal to or greater than four (4) times the City's investment in the City Manager. During the annual evaluation by the City Council, the City Manager will present data supporting this commitment and the City Council will be the sole judge of whether or not this commitment has been met.

. . .

The City Manager and the City Council agree that the mandate for this position is to:

(a) Provide excellent, not mediocre, government services that are:

- Efficient
- Effective
- Well-respected
- Entrepreneurial

http://icma.org/main/ld.asp?ldid=21112&hsid=1&tpid=21&stid=96

Mitchell, SD
Voters will decide on manager proposal for Mitchell
By: Tom Lawrence, The Daily Republic

Mitchell citizens will vote on changing the structure of city government, as well as on a request to classify land near Lake Mitchell as park land on Nov. 2.
Mitchell City Council members decided to place those two issues on the fall ballot during their Tuesday night meeting at City Hall. They will join a request to allow the sale of package hard liquor on Sundays, which was already on the ballot.
The majority of the council came out in favor of hiring a city manager and creating a home-rule charter during a spirited, freewheeling, 30-minute discussion.

. . .

Houwman and other members of the council said they are convinced a city manager would pay for his or her salary by acquiring grant money and with innovative leadership.

. . .

Published July 07 2010
http://www.mitchellrepublic.com/event/article/id/44498

Table 1 Sample Selection

	Salary (1999-2003)
Total cities and towns in ICMA compensation database	11,489
Less governments with missing manager characteristics	(5,330)
	6,159
Less governments with missing financial information	(4,034)
	2,125
Less governments with manager turnover	(199)
Final Sample	1,926

Table 2 Descriptive Statistics

Panel A

Variable	N	Mean	Median	Std Dev	Lower Quartile	Upper Quartile
Salary	1926	93163.19	89001.50	30797.71	71340.00	110011.00
Tenure	1926	8.27	7.00	5.80	4.00	12.00
Degree	1926	0.92	1.00	0.26	1.00	1.00
Population	1926	34624.42	16700.00	67577.63	7667.00	37925.00
DAdjRetPropPerCap	1926	0.14	0	0.34	0	0
Admin	1926	0.15	0.13	0.09	0.08	0.19
SurplusPerCap	1926	0.26	0.21	0.28	0.09	0.34
RevOwnPerCap	1926	1.08	0.78	0.90	0.52	1.36
RDIndex	1926	0.29	0.30	0.07	0.25	0.33
Bonus	399	0.28	0	0.45	0	1.00

Panel B: Pearson Correlation Matrix of Key Variables for Salary and Performance (above diagonal) and Bonus and Performance (below diagonal)

	Bonus	DRetPropPerCap	Admin	SurplusPerCap	RevOwnPerCap	RDIndex
Salary	**1**	0.247***	-0.035	0.138***	0.038*	0.289***
DRetPropPerCap	0.074	**1**	-0.045**	0.073***	0.021	0.082***
Admin	0.088*	-0.027	**1**	-0.105***	-0.300***	0.260***
SurplusPerCap	0.069	0.027	-0.079	**1**	0.554***	-0.153***
RevOwnPerCap	-0.045	-0.021	-0.375***	0.618***	**1**	-0.554***
RDIndex	0.127**	0.127**	0.340***	-0.243***	-0.623***	**1**

N=1926 for salary and performance, and N=399 for bonus and performance.
*, **, *** indicate significance at p <.10, .05, and .01;
See Appendix A for variable definitions.

Table 3 Compensation and Performance Measures

Model 1: Log BASE SALARY = $\alpha_0 + \alpha_1$PERFORM + α_2 AGE + α_3TENURE + α_4DEGREE + α_5SIZE + α_6 STATE+ α_7YEAR+ ε

Model 2: BONUS = $\alpha_0 + \alpha_1$PERFORM + α_2AGE + α_3TENURE + α_4DEGREE + α_5 SIZE + α_7 STATE + α_8YEAR+ ε

Model 3: %ΔBASE SALARY = $\alpha_0 + \alpha_1\Delta$PERFORM + α_3YEAR + ε

	Pred. Signs	Dep. Var.= Log BASE SALARY	Dep. Var.= Log BASE SALARY	Dep. Var.= Log BASE SALARY	Dep. Var.= Bonus	Dep. Var.= Bonus	Dep. Var.= Bonus	Dep. Var.= %ΔBASE SALARY	Dep. Var.= %ΔBASE SALARY	Dep. Var.= %ΔBASE SALARY
		1	2	3	4	5	6	7	8	9
DRetProp PerCap	+/-	**0.043 (3.94)*** **		**0.030 (3.02)*** **	0.185 (0.32)		0.033 (0.01)	-0.0001 (-0.02)		-0.001 (-0.27)
Admin	+/-		**0.267 (4.70)*** **	**0.272 (4.78)*** **		-0.123 (0.004)	-0.044 (0.001)			
ChgAdmin									**0.091 (1.86)***	**0.092 (1.87)***
Surplus PerCap	+/-		**0.069 (3.23)*** **	**0.065 (3.09)*** **		**1.439 (3.90)** **	**1.448 (3.99)** **		**0.014 (1.97)** **	**0.014 (1.99)** **
RevOwn PerCap	+/-		**0.074 (8.91)*** **	**0.075 (9.21)*** **		-0.040 (0.02)	0.021 (0.01)			
ChgRevOwn PerCap									0.001 (0.05)	0.001 (0.04)
RDIndex	+/-		**0.522 (5.35)*** **	**0.511 (5.34)** **		**7.332 (3.89)** **	**7.924 (4.75)** **			
ChgRDIndex									0.033 (0.27)	0.033 (0.26)
Size		0.189 (30.79)***	0.201 (36.59)***	0.199 (35.96)***	0.264 (2.85)*	0.149 (0.73)	0.146 (0.68)			
logTenure		0.046 (6.70)***	0.042 (6.63)***	0.041 (6.52)***	0.353 (3.33)*	0.231 (1.35)	0.224 (1.27)			
Degree		0.127 (5.21)***	0.111 (5.07)***	0.109 (4.97)***	19.649 (0.01)**	18.713 (0.01)	12.925 (0.01)			
Intercept		9.268 (100.12)***	8.916 (99.81)***	8.955 (109.02)***	-5.557 (6.94)***	-5.568 (5.24)**	-5.642 (5.20)***	0.055 (18.36)***	0.051 (16.06)***	0.051 (15.28)***
Year Dummies		included	included	included	included	included	included	included	included	included
State Dummies		included	included	included	included	included	included			
Age Dummies		included	included	included	included	included	included			
Obs.		1926	1926	1926	399	399	399	648	648	648
R^2		0.7626	0.7856	0.7935				0.0055	0.0120	0.0121
Adj R^2		0.7546	0.7537	0.7863				0.0009	0.0028	0.0013
Chi-Square					76.1546***	86.1608**	85.3528**			
p-val					0.0379	0.0121	0.0140			

*, **, *** indicate significance at p <.10, .05, and 01; based on two-tailed tests.

t-statistics, computed using robust standard errors clustered on municipality are shown parenthetically. For brevity, estimates are not reported for year-specific intercept dummy variables. See Appendix A for variable definitions.

Table 4 Compensation and Informational Properties

Table 4 Panel A: Compensation and Noise

Independent Variables	Pred. Signs	Dep. Var.= Log BASE SALARY	Dep. Var.= Log BASE SALARY	Dep. Var.= Log BASE SALARY	Dep. Var.= Bonus	Dep. Var.= Bonus	Dep. Var.= Bonus	Dep. Var.= %ΔBASE SALARY	Dep. Var.= %ΔBASE SALARY	Dep. Var.= %ΔBASE SALARY
		1	2	3	4	5	6	7	8	9
DRetProperty PerCap	+/-	0.236 (0.50)		0.008 (0.19)	2.658 (2.90)*		3.183 (2.57)	0.037 (1.30)		0.041 (1.21)
Admin	+/-		0.449 (3.31)***	0.469 (3.45)***		4.140 (0.75)	2.420 (0.20)		-0.105 (-0.47)	-0.171 (-0.70)
Surplus PerCap	+/-		0.100 (3.43)***	0.099 (3.56)***		3.553 (6.80)***	3.471 (6.39)**		0.010 (0.47)	0.014 (0.78)
RevOwn PerCap	+/-		0.074 (4.68)***	0.076 (4.79)***		-0.705 (1.02)	-0.704 (0.94)		-0.025 (-0.64)	-0.019 (-0.47)
RDIndex	+/-		0.468 (2.53)**	0.448 (2.44)**		-3.183 (0.15)	-3.333 (0.16)		-0.385 (1.00)	0.273 (0.71)
DRetPropPerCap *VarRetProp PerCap	-	-0.021 (-0.12)		0.029 (0.20)	**-10.933 (3.26)***		**-13.200 (2.94)***	-0.181 (-1.85)*		-0.192 (-1.59)
Admin *VarAdmin	-		**-24.291 (-2.45)****	**-25.969 (-2.61)*****		-192.100 (0.04)	-292.100 (0.06)		57.958 (0.97)	66.960 (1.06)
SurplusPerCap *VarSurplus PerCap	-		**-0.054 (-3.28)*****	**-0.055 (-3.41)*****		0.018 (0.004)	0.133 (0.02)		0.006 (0.45)	0.006 (0.51)
RevOwnPerCap *VarRevOwn PerCap	-		**-0.023 (-1.93)***	**-0.023 (-1.84)***		-0.248 (0.13)	-0.200 (0.08)		-0.021 (-1.06)	-0.018 (-0.84)
RDIndex *VarRDIndex	-		**-140.987 (-8.39)*****	**-141.902 (-8.40)*****		7825.200 (0.74)	9674.700 (0.99)		**-296.852 (-3.39)*****	**-208.191 (-2.08)****
VarDRetProp PerCap		0.097 (0.83)		0.044 (0.40)	2.544 (0.78)		4.027 (1.27)	-0.031 (-0.61)		-0.029 (-0.53)
VarAdmin			8.648 (2.25)**	9.207 (2.42)**		-30.960 (0.01)	31.492 (0.01)		1.612 (1.81)*	1.514 (1.47)
VarSurplus PerCap			0.003 (0.18)	0.003 (0.17)		-1.742 (2.52)	-1.997 (3.19)*		-0.003 (-0.21)	-0.003 (-0.24)
VarRevOwn PerCap			0.061 (1.22)	0.053 (1.05)		0.226 (0.01)	0.090 (0.002)		-0.009 (-1.06)	-0.001 (-0.20)
VarRDIndex			62.079 (9.94)***	62.617 (10.03)***		-1399.700 (0.26)	-1863.200 (0.40)		-3.091 (-1.76)*	-4.246 (-2.02)**
Intercept		9.715 (49.60)***	9.279 (47.68)***	9.165 (66.21)***	5.732 (0.001)	4.300 (0.0005)	3.351 (0.0003)	0.056 (4.11)***	0.041 (4.66)***	0.048 (2.90)***
Controls		included	included	included	included	included	included			
Year Dummies		included	included	included	included	included	included	included	included	included
State Dummies		included	included	included	included	included	included			
Age Dummies		included	included	included	included	included	included			
Observations		681	681	681	216	216	216	141	141	141
R^2		0.7113	0.7616	0.7612				0.0570	0.0572	0.0899
Adj R^2		0.6844	0.7355	0.7343				0.0292	-0.0393	-0.0274

Chi-Square					72.2924	91.1655	93.9662			
p-value					0.0328	0.0074	0.0069			

*, **, *** indicate significance at p <.10, .05, and 01; based on two-tailed tests.

t-statistics, computed using robust standard errors clustered on municipality are shown parenthetically. For brevity, estimates are not reported for year-specific intercept dummy variables. See Appendix A for variable definitions.

Table 4 Panel B: Compensation and Controllability

Independent Variables	Pred. Signs	Dep. Var.= Log BASE SALARY	Dep. Var.= Log BASE SALARY	Dep. Var.= Log BASE SALARY	Dep. Var.= Bonus	Dep. Var.= Bonus	Dep. Var.= Bonus	Dep. Var.= %ΔBASE SALARY	Dep. Var.= %ΔBASE SALARY	Dep. Var.= %ΔBASE SALARY
		1	2	3	4	5	6	7	8	9
BudgetCAO	+	-0.087 (-0.55)	-0.157 (-0.92)	-0.141 (-0.82)	-8.664 (0.002)	-7.523 (0.002)	-7.095 (0.002)	0.014 (1.41)	0.013 (1.20)	0.011 (0.90)
DRetPropPerCap	+/-	0.050 (1.54)		0.019 (0.65)	-1.194 (2.27)		-1.650 (3.53)*	-0.020 (-1.60)		-0.014 (-1.12)
Admin	+/-		0.176 (1.35)	0.170 (1.29)		2.468 (0.16)	2.081 (0.11)		0.207 (0.91)	0.229 (0.92)
Surplus PerCap	+/-		0.191 (2.73)***	0.188 (2.75)***		3.504 (2.50)	4.147 (3.09)*		0.105 (2.51)**	0.102 (2.43)**
RevOwn PerCap	+/-		0.052 (2.17)**	0.053 (2.20)**		-0.751 (0.49)	-1.045 (0.81)		-0.075 (-1.11)	-0.074 (-1.08)
RDIndex	+/-		0.652 (2.36)**	0.641 (2.30)**		14.542 (2.12)	16.770 (2.70)		0.146 (0.51)	0.123 (0.42)
DRetPropPerCap *BudgetCAO	+/-	0.001 (0.02)		0.024 (0.77)	1.354 (2.17)		**1.821 (3.39)***	0.019 (1.26)		0.012 (0.80)
Admin *BudgetCAO	+/-		0.101 (0.68)	0.096 (0.64)		-4.635 (0.48)	-3.950 (0.35)		-0.218 (-0.90)	-0.238 (-0.91)
SurplusPerCap *BudgetCAO	+/-		**-0.134 (-1.80)***	**-0.133 (-1.82)***		-3.260 (1.81)	**-4.327 (2.83)***		**-0.097 (-2.23)****	**-0.094 (-2.15)****
RevOwnPerCap *BudgetCAO	+/-		0.026 (1.02)	0.024 (0.95)		1.026 (0.84)	1.746 (2.08)		0.083 (1.18)	0.083 (1.16)
RDIndex *BudgetCAO	+/-		-0.119 (-0.41)	-0.121 (-0.42)		-3.453 (0.11)	-3.964 (0.13)		-0.097 (-0.25)	-0.075 (-0.19)
Intercept		9.393 (55.62)***	9.063 (48.96)***	9.043 (50.06)***	-15.068 (0.003)***	-18.341 (0.005)***	-10.204 (0.002)***	0.059 (6.13)***	0.029 (2.70)***	0.032 (2.80)***
Controls		included	included	included	included	included	included			
Year Dummies		included	included	included	included	included	included	included	included	included
State Dummies		included	included	included	included	included	included			
Age Dummies		included	included	included	included	included	included			
Observations		1412	1412	1412	294	294	294	239	239	239
R^2		0.7567	0.7890	0.7901				0.0143	0.0611	0.0632
Adj. R^2		0.7444	0.7773	0.7783				-0.0026	0.0199	0.0134
Chi-Square					89.7338***	99.0877***	98.3444***			
p-value					0.0077	0.0052	0.0060			

*, **, *** indicate significance at p <.10, .05, and 01; based on two-tailed tests.

t-statistics, computed using robust standard errors clustered on municipality are shown parenthetically. For brevity, estimates are not reported for year-specific intercept dummy variables.

See Appendix A for variable definitions.

Table 5 Compensation and Governance

Table 5 Panel A: Compensation and Political Competition

Independent Variables	Pred. Signs	Dep. Var.= Log BASE SALARY	Dep. Var.= Log BASE SALARY	Dep. Var.= Log BASE SALARY	Dep. Var.= Bonus	Dep. Var.= Bonus	Dep. Var.= Bonus	Dep. Var.= %ΔBASE SALARY	Dep. Var.= %ΔBASE SALARY	Dep. Var.= %ΔBASE SALARY
		1	2	3	4	5	6	7	8	9
PoComp	+	-0.294 (-0.56)	-0.125 (-0.23)	-0.008 (-0.01)	32.948 (0.001)	-26.030 (0.002)	-48.956 (0.001)	-0.023 (-0.57)	-0.086 (-2.27)**	-0.109 (-2.84)***
DRetPropPerCap	+/-	0.038 (2.44)**		0.024 (1.62)	0.094 (0.04)		0.324 (0.34)	-0.010 (-1.31)		-0.012 (-1.47)
Admin	+/-		0.332 (3.72)***	0.318 (3.55)***		-6.507 (3.11)*	-6.744 (3.31)*		0.022 (0.29)	0.030 (0.38)
SurplusPerCap	+/-		0.077 (2.30)**	0.073 (2.20)**		1.903 (1.90)	1.644 (1.43)		0.006 (0.52)	0.006 (0.48)
RevOwnPerCap	+/-		0.079 (7.00)***	0.079 (6.94)***		-1.358 (4.04)**	-1.275 (3.74)*		0.017 (0.72)	0.020 (0.89)
RDIndex	+/-		0.544 (4.01)***	0.525 (3.87)***		1.998 (0.08)	3.08 (0.19)		0.123 (0.47)	0.117 (0.44)
DRetPropPerCap * PoComp	+/-	0.188 (1.64)		**0.209 (2.01)****	-2.292 (0.29)		-0.63 (0.02)	0.086 (1.03)		0.109 (1.43)
Admin *PoComp	+/-		-0.507 (-0.89)	-0.499 (-0.89)		29.876 (1.39)	29.151 (1.31)		0.135 (0.21)	0.058 (0.09)
SurplusPerCap * PoComp	+/-		0.137 (0.65)	0.142 (0.68)		-0.263 (0.01)	-1.799 (0.02)		**0.220 (1.84)***	**0.230 (1.85)***
RevOwnPerCap *PoComp	+/-		-0.041 (-0.51)	-0.054 (-0.69)		**23.519 (5.95)****	**30.418 (15.39)*****		-0.169 (-1.43)	-0.179 (-1.60)
RDIndex *PoComp	+/-		0.167 (0.22)	0.295 (0.41)		**314.300 (8.305)*****	**358.300 (8.305)*****		-1.160 (-0.78)	-1.183 (-0.81)
Intercept		9.410 (73.12)***	8.989 (75.54)***	8.948 (78.57)***	-14.07 (2.06)	-14.813 (2.78)	-6.65 (0.01)	0.050 (8.24)***	0.047 (7.22)***	0.049 (7.01)
Controls		included	included	included	included	included	included			
Year Dummies		included	included	included	included	included	included	included	included	included
State Dummies		included	included	included	included	included	included			
Age Dummies		included	included	included	included	included	included			
Observations		1314	1314	1314	276	276	276	223	223	223
R^2		0.7493	0.7893	0.7852				0.0080	0.0429	0.0528
Adj. R^2		0.7356	0.7710	0.7722				-0.0102	-0.0022	-0.0013
Chi-Square					91.4032***	133.4252***	130.9104***			
p-value					0.0056	<0.0001	<0.0001			

*, **, *** indicate significance at p <.10, .05, and 01; based on two-tailed tests.

t-statistics, computed using robust standard errors clustered on municipality are shown parenthetically. For brevity, estimates are not reported for year-specific intercept dummy variables.

See Appendix A for variable definitions.

Table 5 Panel B: Compensation and Recall Attempt

Independent Variables	Pred. Signs	Dep. Var.= Log BASE SALARY	Dep. Var.= Log BASE SALARY	Dep. Var.= Log BASE SALARY	Dep. Var.= Bonus	Dep. Var.= Bonus	Dep. Var.= Bonus	Dep. Var.= %ΔBASE SALARY	Dep. Var.= %ΔBASE SALARY	Dep. Var.= %ΔBASE SALARY
		1	2	3	4	5	6	7	8	9
Recall	+	0.118 (0.58)	0.093 (0.51)	0.115 (0.65)	-9.655 (0.001)	11.389 (0.004)	56.343 (0.01)	0.009 (0.60)	0.037 (1.32)	0.035 (1.26)
DRetPropPerCap	+/-	0.041 (3.02)***		0.031 (2.50)**	-0.372 (0.71)		-0.343 (0.56)	-0.005 (-0.70)		-0.005 (-0.65)
Admin	+/-		0.270 (3.39)***	0.261 (3.28)***		-1.671 (0.38)	-1.918 (0.516)		0.036 (0.51)	0.039 (0.55)
SurplusPerCap	+/-		0.076 (2.80)***	0.074 (2.79)***		0.696 (0.54)	0.229 (0.06)		0.021 (1.58)	0.021 (1.57)
RevOwnPerCap	+/-		0.079 (7.67)***	0.075 (7.59)***		-0.064 (0.02)	0.440 (1.12)		0.002 (0.01)	0.001 (0.05)
RDIndex	+/-		0.523 (4.36)***	0.511 (4.27)***		8.423 (2.42)	11.434 (4.78)**		0.170 (0.79)	0.167 (0.77)
DRetPropPerCap * Recall	+/-	0.072 (1.50)		0.048 (1.13)	**13.22** **(4.48)****		8.644 (0.02)	-0.004 (-0.15)		-0.008 (-0.24)
Admin * Recall	+/-		-0.079 (-0.51)	-0.117 (-0.73)		-78.341 (0.004)	-120.900 (0.07)		0.070 (0.17)	0.095 (0.25)
SurplusPerCap * Recall	+/-		0.034 (0.33)	0.013 (0.13)		53.371 (0.07)	53.742 (0.08)		-0.125 (-1.53)	-0.114 (-1.16)
RevOwnPerCap * Recall	+/-		0.006 (0.15)	0.007 (0.18)		-17.293 (0.03)	-16.234 (0.04)		0.87 (1.25)	0.091 (1.36)
RDIndex * Recall	+/-		0.513 (1.47)	0.458 (1.35)		237.700 (0.06)	148.500 (0.03)		-1.016 (-0.74)	-1.156 (-0.78)
Intercept		9.310 (80.30)***	8.922 (80.68)***	8.911 (86.38)***	-21.007 (0.02)	-19.197 (0.05)	-13.569 (0.04)	0.047 (9.00)***	0.041 (6.77)***	0.041 (6.61)
Controls		included	included	included	included	included	included			
Year Dummies		included	included	included	included	included	included	included	included	included
State Dummies		included	included	included	included	included	included			
Age Dummies		included	included	included	included	included	included			
Observations		1412	1412	1412	292	292	292	239	239	239
R^2		0.7521	0.7848	0.7857				0.0048	0.0294	0.0316
Adj. R^2		0.7396	0.7729	0.7737				-0.0122	-0.0132	-0.0198
Chi-Square					96.2538***	112.5906***	107.4759***			
p-value					0.0021	0.0003	0.0010			

*, **, *** indicate significance at p <.10, .05, and 01; based on two-tailed tests.
t-statistics, computed using robust standard errors clustered on municipality are shown parenthetically. For brevity, estimates are not reported for year-specific intercept dummy variables.
See Appendix A for variable definitions.

Table 5 Panel C: Compensation and Provisions

Independent Variables	Pred. Signs	Dep. Var.= Log BASE SALARY	Dep. Var.= Log BASE SALARY	Dep. Var.= Log BASE SALARY	Dep. Var.= Bonus	Dep. Var.= Bonus	Dep. Var.= Bonus	Dep. Var.= %ΔBASE SALARY	Dep. Var.= %ΔBASE SALARY	Dep. Var.= %ΔBASE SALARY
		1	2	3	4	5	6	7	8	9
BothProvisions	+	0.009	-0.012	-0.007	-16.307	-19.579	-16.340	0.014	-0.005	-0.002
		(0.05)	(-0.07)	(-0.04)	(0.01)	(0.01)	(0.01)	(1.66)*	(-0.54)	(-0.17)
NoProvision		-0.315	-0.210	-0.203	-1.433	-9.578	-8.662	0.005	-0.011	-0.009
		(-2.13)**	(-1.47)	(-1.41)	(0.000)	(0.002)	(0.002)	(0.77)	(-1.12)	(-0.82)
DRetPropPerCap	+/-	0.049		0.031	-0.883		-0.879	0.005		0.006
		(2.43)**		(1.47)	(1.24)		(0.91)	(0.47)		(0.50)
Admin	+/-		0.267	0.263		-2.483	-2.403		0.178	0.169
			(2.24)**	(2.19)**		(0.41)	(0.38)		(1.31)	(1.22)
SurplusPerCap	+/-		0.137	0.134		4.001	4.121		-0.006	-0.006
			(3.17)***	(3.11)***		(2.55)	(2.98)*		(-0.46)	(-0.48)
RevOwnPerCap	+/-		0.089	0.089		-1.093	-1.013		-0.023	-0.026
			(4.81)***	(4.82)***		(1.65)	(1.62)		(-0.62)	(-0.65)
RDIndex	+/-		0.474	0.467		15.256	15.993		-0.021	-0.041
			(2.50)**	(2.46)**		(2.20)	(2.56)		(-0.05)	(-0.11)
DRetPropPerCap * BothProvision	+/-	-0.010		0.009	1.312		1.287	-0.017		-0.015
		(-0.32)		(0.31)	(1.51)		(1.17)	(-1.03)		(-0.88)
Admin * BothProvision	+/-		0.110	0.114		-1.507	-1.813		-0.206	-0.176
			(0.65)	(0.67)		(0.06)	(0.08)		(-0.89)	(-0.77)
SurplusPerCap * BothProvision	+/-		-0.050	-0.048		-1.124	-1.559		0.039	0.039
			(-0.88)	(-0.85)		(0.15)	(0.29)		(1.44)	(1.42)
RevOwnPerCap * BothProvision	+/-		-0.005	-0.005		0.067	0.067		0.041	0.044
			(-0.24)	(-0.22)		(0.004)	(0.004)		(0.85)	(0.86)
RDIndex * BothProvision	+/-		0.149	0.162		-8.616	-8.539		0.029	0.018
			(0.61)	(0.66)		(0.55)	(0.54)		(0.07)	(0.04)
DRetPropPerCap * NoProvision	+/-	0.019		0.024	0.542		-0.011	-0.016		-0.016
		(0.61)		(0.84)	(0.23)		(0.001)	(-1.04)		(-0.91)
Admin * NoProvision	+/-		-0.091	-0.101		4.146	5.604		-0.280	-0.237
			(-0.56)	(-0.62)		(0.42)	(0.72)		(-1.61)	(-1.47)
SurplusPerCap * NoProvision	+/-		**-0.098**	**-0.098**		-3.879	-3.985		**0.042**	**0.042**
			(-1.65)*	**(-1.68)***		(1.62)	(1.86)		**(1.92)***	**(1.99)****
RevOwnPerCap * NoProvision	+/-		-0.032	-0.034		**1.869**	**2.432**		0.017	0.021
			(-1.39)	(-1.49)		**(2.77)***	**(5.16)****		(0.38)	(0.45)
RDIndex * NoProvision	+/-		-0.029	-0.051		-7.914	-5.262		0.374	0.373
			(-0.12)	(-0.22)		(0.33)	(0.15)		(0.56)	(0.56)
Intercept		9.361	8.951	8.978	-19.613	-17.19	-10.08	0.041	0.046	0.045
		(61.33)***	(63.58)***	(63.48)***	(0.004)**	(0.004)**	(0.002)**	(5.48)***	(6.81)***	(5.61)***
Controls		included	included	included	included	included	included			
Year Dummies		included	included	included	included	included	included	included	included	included
State Dummies		included	included	included	included	included	included			
Age Dummies		included	included	included	included	included	included			
Observations		1412	1412	1412	292	292	292	239	239	239
R^2		0.7555	0.7903	0.7921				0.0158	0.0545	0.0579

Adj. R^2		0.7421	0.7774	0.7787				-0.0096	-0.0091	-0.0192
Chi-Square					96.3263***	111.4722***	111.2016***			
p-value					0.0070	0.0032	0.0042			

*, **, *** indicate significance at p <.10, .05, and 01; based on two-tailed tests.

t-statistics, computed using robust standard errors clustered on municipality are shown parenthetically. For brevity, estimates are not reported for year-specific intercept dummy variables. See Appendix A for variable definitions.

Table 5 Panel D: Compensation and Staggered Council

Independent Variables	Pred. Signs	Dep. Var.= Log BASE SALARY	Dep. Var.= Log BASE SALARY	Dep. Var.= Log BASE SALARY	Dep. Var.= Bonus	Dep. Var.= Bonus	Dep. Var.= Bonus	Dep. Var.= %ΔBASE SALARY	Dep. Var.= %ΔBASE SALARY	Dep. Var.= %ΔBASE SALARY
		1	2	3	4	5	6	7	8	9
Staggered	+	0.052 (0.25)	-0.215 (-0.93)	-0.208 (-0.90)	-34.430 (0.11)	-42.171 (0.17)	-43.380 (0.18)	-0.003 (-0.36)	0.007 (0.63)	0.002 (0.19)
DRetPropPerCap	+/-	0.046 (1.57)		0.038 (1.47)	-0.076 (0.004)		-0.364 (0.08)	-0.023 (-1.15)		-0.040 (-1.69)*
Admin	+/-		0.113 (0.60)	0.108 (0.57)		-7.667 (1.82)	-8.182 (2.02)		0.580 (4.38)***	0.706 (3.54)***
SurplusPerCap	+/-		0.122 (1.81)*	0.122 (1.83)*		1.281 (0.12)	1.614 (0.16)		0.050 (1.28)	0.057 (1.52)
RevOwnPerCap	+/-		0.055 (1.86)*	0.054 (1.85)*		-1.402 (0.71)	-1.183 (0.59)		-0.010 (-0.16)	0.010 (0.17)
RDIndex	+/-		0.096 (0.32)	0.093 (0.31)		13.556 (1.09)	19.964 (2.81)*		-0.111 (-0.24)	-0.029 (-0.06)
DRetPropPerCap * Staggered	+/-	0.001 (0.02)		-0.003 (-0.10)	-0.155 (0.02)		0.167 (0.02)	0.021 (0.99)		0.039 (1.56)
Admin * Staggered	+/-		0.174 (0.86)	0.170 (0.84)		7.93 (1.52)	8.304 (1.69)		**-0.619 (-4.18)*** **	**-0.743 (-3.54)*** **
SurplusPerCap * Staggered	+/-		-0.051 (-0.71)	-0.053 (-0.75)		0.147 (0.002)	-0.524 (0.02)		-0.033 (-0.79)	-0.040 (-0.99)
RevOwnPerCap * Staggered	+/-		0.025 (0.83)	0.025 (0.82)		1.354 (0.61)	1.576 (0.94)		0.013 (0.21)	-0.007 (-0.11)
RDIndex * Staggered	+/-		0.500 (1.60)	0.489 (1.57)		-6.219 (0.19)	-10.506 (0.63)		0.277 (0.53)	0.194 (0.36)
Intercept		9.257 (44.27)***	9.108 (39.61)***	9.102 (39.46)***	9.101 (0.002)	14.732 (0.005)	24.082 (0.02)	0.050 (6.39)***	0.037 (3.79)***	0.041 (6.61)
Controls		included	included	included	included	included	included			
Year Dummies		included	included	included	included	included	included	included	included	included
State Dummies		included	included	included	included	included	included			
Age Dummies		included	included	included	included	included	included			
Observations		1412	1412	1412	292	292	292	239	239	239
R^2		0.7540	0.7881	0.7890				0.0069	0.0419	0.0556
Adj. R^2		0.7416	0.7763	0.7772				-0.0101	-0.0001	0.0054
Chi-Square					91.402***	102.9625***	98.1183***			
p-value					0.0044	0.0019	0.0050			

*, **, *** indicate significance at p <.10, .05, and 01; based on two-tailed tests.
t-statistics, computed using robust standard errors clustered on municipality are shown parenthetically. For brevity, estimates are not reported for year-specific intercept dummy variables.
See Appendix A for variable definitions.

Table 5 Panel E: Compensation and Oversight Index

Independent Variables	Pred. Signs	Dep. Var.= Log BASE SALARY	Dep. Var.= Log BASE SALARY	Dep. Var.= Log BASE SALARY	Dep. Var.= Bonus	Dep. Var.= Bonus	Dep. Var.= Bonus	Dep. Var.= %ΔBASE SALARY	Dep. Var.= %ΔBASE SALARY	Dep. Var.= %ΔBASE SALARY
		1	2	3	4	5	6	7	8	9
Index	+	-0.085 (-0.97)	-0.037 (-0.41)	-0.038 (-0.42)	-2.504 (0.004)	-7.698 (0.01)	-7.698 (0.01)	0.001 (0.42)	-0.002 (-0.41)	-0.002 (-0.45)
DRetPropPerCap	+/-	0.041 (2.43)**		0.026 (1.55)	-0.524 (0.77)		-0.288 (0.21)	-0.008 (-0.68)		-0.011 (-0.87)
Admin	+/-		0.256 (2.55)**	0.247 (2.47)**		1.987 (0.26)	1.628 (0.17)		0.027 (0.39)	0.034 (0.48)
SurplusPerCap	+/-		0.074 (1.92)*	0.072 (1.89)*		0.342 (0.06)	0.179 (0.02)		0.005 (0.24)	0.005 (0.26)
RevOwnPerCap	+/-		0.075 (5.88)***	0.074 (5.84)***		-0.726 (1.18)	-0.462 (1.18)		0.008 (0.22)	0.010 (0.30)
RDIndex	+/-		0.491 (3.00)***	0.471 (2.91)***		-7.200 (0.74)	-4.662 (0.74)		0.249 (0.48)	0.263 (0.50)
DRetPropPerCap *Index	+/-	0.011 (0.67)		0.015 (0.99)	0.672 (1.47)		0.381 (0.40)	0.002 (0.23)		0.003 (0.39)
Admin*Index	+/-		0.006 (0.07)	0.001 (0.01)		-4.392 (1.38)	-3.397 (1.11)		0.006 (0.09)	0.005 (0.07)
SurplusPerCap *Index	+/-		0.026 (0.68)	0.025 (0.66)		1.901 (1.51)	1.549 (0.95)		0.011 (0.71)	0.011 (0.69)
RevOwnPerCap *Index	+/-		-0.008 (-0.66)	-0.008 (-0.64)		0.591 (0.62)	0.925 (1.66)		-0.004 (-0.20)	-0.005 (-0.26)
RDIndex *Index	+/-		0.051 (0.36)	0.063 (0.45)		**20.010** **(6.288)****	**21.281** **(7.156)****		-0.115 (1.02)	-0.123 (-0.46)
Intercept		9.414 (73.77)***	8.997 (45.95)***	8.990 (80.52)***	-23.941 (0.04)	-12.408 (0.03)	-13.967 (0.03)	0.047 (7.13)	0.044 (5.21)	0.045 (5.18)
Controls		included	included	included	included	included	included			
Year Dummies		included	included	included	included	included	included	included	included	included
State Dummies		included	included	included	included	included	included			
Age Dummies		included	included	included	included	included	included			
Observations		1412	1412	1412	292	292	292	239	239	239
R^2		0.7572	0.7893	0.7904				0.0045	0.0217	0.0240
Adj. R^2		0.7449	0.7777	0.7786				-0.0126	-0.0212	-0.0278
Chi-Square					88.8487**	107.7769***	103.1709***			
p-value					0.0092	0.0009	0.0023			

*, **, *** indicate significance at p <.10, .05, and 01; based on two-tailed tests.

t-statistics, computed using robust standard errors clustered on municipality are shown parenthetically. For brevity, estimates are not reported for year-specific intercept dummy variables.

See Appendix A for variable definitions.

Table 6 Compensation and Corruption

Table 6 Panel A: Sample Selection

	Salary
Total cities and towns with indicted officials	185
Less governments with multiple indictments	(46)
	139
Less governments with missing salary information	(93)
Final Sample	46

Table 6 Panel B: Descriptive Statistics

Variable	N	Mean	Median	Std Dev	Lower Quartile	Upper Quartile
Salary	46	111027.72	100768.50	40481.88	82806.00	119798.00
Tenure	10	8.70	8.50	4.76	4.00	11.00
degree	11	0.90	1.00	0.30	1.00	1.00
Population	32	101537.22	56540.50	153154.19	10243.50	80513.00
DAdjRetPropPerCap	46	0.04	0	0.20	0	0
admin	30	0.19	0.23	0.13	0.04	0.25
SurplusPerCap	30	0.23	0.15	0.24	0.03	0.42
RevOwnPerCap	30	1.15	0.74	1.02	0.56	1.34
RDIndex	30	0.27	0.29	0.08	0.26	0.31

Table 6 Panel C: Compensation and Corruption

Independent Variables	Pred. Signs	Dep. Var.= Log BASE SALARY	Dep. Var.= Log BASE SALARY	Dep. Var.= Log BASE SALARY	Dep. Var.= %ΔBASE SALARY	Dep. Var.= %ΔBASE SALARY	Dep. Var.= %ΔBASE SALARY
		1	2	3	7	8	9
Indictment	+/1	0.004 (0.04)	-0.011 (-0.13)	-0.007 (-0.08)	0.002 (0.07)	-0.006 (-0.53)	-0.007 (-0.65)
DRetPropPerCap	+/-	0.042 (3.94)***		0.030 (2.99)***	-0.005 (-0.72)		-0.005 (-0.71)
Admin	+/-		0.269 (4.29)***	0.269 (4.27)***			
ChgAdmin						0.021 (0.30)	0.025 (0.35)
SurplusPerCap	+/-		0.068 (3.13)***	0.065 (3.05)***		0.019 (1.45)	0.019 (1.44)
RevOwnPerCap	+/-		0.075 (8.90)***	0.074 (8.86)***			
ChgRevOwnPerCap						0.001 (0.07)	0.002 (0.12)
RDIndex	+/-		0.527 (5.32)***	0.518 (5.23)***			
ChgRDIndex						0.122 (0.57)	0.117 (0.54)
Intercept		9.268 (100.09)***	8.918 (99.69)***	8.940 (99.45)***	0.048 (8.85)***	0.042 (7.02)***	0.043 (6.77)***
Controls		included	included	included			
Year Dummies		included	included	included	included	included	included
State Dummies		included	included	included			
Age Dummies		included	included	included			
Observations		1926	1926	1926	239	239	239
R^2		0.7626	0.7924	0.7933	0.0033	0.0155	0.0171
Adj. R^2		0.7544	0.7849	0.7857	-0.0095	-0.0099	-0.0126

*, **, *** indicate significance at p <.10, .05, and 01; based on two-tailed tests.

t-statistics, computed using robust standard errors clustered on municipality are shown parenthetically. For brevity, estimates are not reported for year-specific intercept dummy variables.

See Appendix A for variable definitions.