

BEYOND BUDGET RATIONALITIES: THE SOCIAL STRUCTURE OF PERFORMANCE  
BUDGETING AND ITS INDIRECT EFFECTS ON ORGANIZATIONAL PERFORMANCE  
WITHIN PUBLIC ORGANIZATIONS

BY  
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Submitted to the graduate degree program in Public Administration  
and the Graduate Faculty of the University of Kansas  
in partial fulfillment of the requirements for the degree of  
Doctor of Philosophy

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## Acknowledgements

Although writing a dissertation is an individual undertaking, in my opinion successfully completing a dissertation is a team event. The United States Army is a team of teams. Likewise, there are several teams responsible for any and all of my success as a doctoral student. The United States Army War College provided me the opportunity to pursue a PhD and become a faculty member at one of the most prestigious institutions responsible for developing senior leaders for the highest levels of government service. I have appreciated my fellow faculty members who supported me throughout my efforts to write a dissertation while executing my duties on faculty.

The Army places a premium in providing broadening experiences for its leaders to facilitate their professional development. There is no doubt my educational experiences with the University of Kansas Public Administration Department were professionally broadening. Each and every one of my teachers and the courses they taught were essential for my educational experience. There is no better faculty in the public administration discipline, and I consider myself fortunate to have studied under such a distinguished faculty.

My experience would not have been complete without the enlightenment and support of my fellow doctoral students. After meeting doctoral students from other universities, it became clear to me my peers were a special group: inquisitive, driven, and supportive of each other's interests. I am tremendously thankful for the friendships developed with my cohort peers and look forward to continued collaboration in the future. I am equally thankful for the entire administrative staff for their selfless and dedicated support of the faculty and students alike. No doubt, their efforts are the reason the department runs so smoothly and efficiently. My special thanks to Diana Koslowsky for her extraordinary support while I have been in absentia.



My dissertation committee was remarkably supportive of my efforts while in absentia. I am extremely grateful for their patience and support while I simultaneously fulfilled my responsibilities as a faculty member at the Army War College. Finally, I must recognize three faculty members most influential in my development as a doctoral student. Professor Steven Maynard Moody for dually supporting my doctoral student requirements and military obligations and interests, Professor Sanjay Pandey for his unrelenting and caring efforts to professionally develop doctoral students, and Professor Justin Marlowe for his superb patience, guidance, and mentorship. I am blessed to call Professor Marlowe both mentor and friend.

The Army family is recognized as an especially important team, and my family is no exception. I am eternally grateful for the love and support of my wonderful wife Suzanne, and my children Kennedy and Rachel. Any sense of accomplishment from my endeavors as a doctoral student has been drawn from their wellspring of love and faith in my efforts to achieve a goal set more than two decades ago when I made a decision to make the Army a career. I hope their journey along the way has been equally rewarding and satisfying.

## Abstract

Performance based budgeting reform in its latest stage continues to evolve after resurgence in popularity resulting from the Clinton Administration's National Performance Review and the international new public management (NPM) movement. Performance based budgeting is sometimes viewed with skepticism for various reasons including the capacity to determine and collect performance information, the veracity of performance information, and efficacy in terms of performance budgeting's ability to improve performance. The majority of performance based budgeting studies focus on the prevalence of performance budgeting in government jurisdictions, and whether or not performance based budgeting influences resource decision making. Few, if any studies focus on whether performance based budgeting actually influences organizational effectiveness or performance, for which performance based budgeting was intended.

This study intends to observe whether certain organizational characteristics associated with performance budgeting indirectly affect organizational performance. While organizational performance can also be observed through performance measures and bench marks, individual and organizational perceptions are equally important for gauging organizational performance. In doing so, this study applies an alternative approach to observe the indirect effects associated with performance based budgeting. The paradigm for public budgeting theory is the budget rationalities theory that describes budgeting's bargaining, negotiating, and control processes. However, a large portion of budgeting behavior linked to organizational performance may occur outside of the budget rationalities construct. This study proposes there is a second layer of budgeting; a management layer of budgeting focused on different priorities than those within the budget rationalities construct, and applies economic sociology theory to explain budgeting behavior in this management layer of budgeting.

Data Collected from the NASP – IV, National Administrative Studies Project is used to test one research question and three hypotheses. Results confirm the existence of performance budgeting's indirect effects on organizational performance, where information sharing and certain characteristics of trust moderate performance budgeting's influence on organizational performance. The results suggest that average and high performing organizations benefit the most from implementing performance budgeting. The study concludes with recommendations for potential approaches for further research.

## **Chapter One**

### **Introduction**

Organizations use budgets to shape objectives, affect local economic conditions, respond to various stakeholders and citizen needs, assess the past, and plan for the future (Schick 1990). Over the years, there have been a number of attempts to reform the government budget process. Paul Light (1997) describes such reform as an endless tide of continual change. Performance budgeting, which I define here as the use of performance information to inform resource allocation decision making processes for the provision of more efficient and effective government, is the latest in this long parade of reforms.

Performance budgeting's popularity continues to gradually grow at all levels of government. Consider, for instance that the City of Olathe, KS hired a full-time performance management coordinator. That a medium-sized city in the Midwest places such an emphasis on the practice is indicative of its popularity. But that growth has occurred despite much skepticism from both scholars and practitioners who question whether or not budget outcomes actually change as a result of using performance information, and if they do change, whether those changes are consistent with traditional public administration values like efficiency, effectiveness, and equity. If it is difficult to define objectives and agree on performance measures that can facilitate changing budget outcomes, why is performance budgeting continuing to grow as an accepted practice? Are there other unobserved factors motivating this trend?

In this study I explore the basic claim that performance budgeting is popular because it affects changes in organizations that subsequently affect performance. Maybe it is not budgetary outcomes that change, but the interactions within institutional budgeting structures that change. Such changes would most likely be subtle and indirect, and would work to the advantage of some and the

disadvantage of others. These indirect changes and their implications are the focus of this dissertation.

### *Performance: The Latest Reform*

An enduring theme of budget reform studies is whether or not reforms ever achieve their substantive goals and objectives. This theme currently pervades scholars' assessment of performance budgeting reform, and whether or not performance budgeting will endure into the future (Rubin 1990; Schick 1990). The reasons for skepticism abound. Performance budgeting attempts to change the deeply institutionalized line item budgeting process that has existed for over a century. Other reforms in the past fifty years such as the Planning, Programming, and Budgeting System (PPBS), Zero Based Budgeting (ZBB), and Target Based Budgeting (TBB) never fully lived up to expectations. More importantly, performance budgeting involves the interjection of performance measures into a pre-existing politicized budget process where various stakeholders bargain and compete for influence and resources. Stakeholder competition increases the possibility for distorting the intent of using performance measures to improve or change budget outcomes.

The "human element" of budgeting is critical, but often overlooked in the scholarly literature. Wildavsky's influential introduction of budgetary incrementalism that infused limited decision making capacity with the dynamics of the political process was the first theoretical account of budget outcomes that emphasized people and politics. While much of that perspective, especially *The Politics of the Budgetary Process* has been challenged from an empirical stand point, it remains clear that the human dimensions of the process have changed little. Budgeting is a process of negotiations and compromises achieved through a pluralist and fragmented approach by groups and individuals within institutions (Wildavsky 1961, 1964). In summation, budgets are shaped by individuals and

groups supporting or attempting to change different cultures, primarily in a hierarchical setting (Wildavsky 1986).

It is no wonder that budget reform might be difficult to achieve. In this case successful reform requires individuals and organizations to consider line item budgeting's institutionalized top-down process for overcoming organizational resistance to new processes, whereas performance budgeting introduces a bottoms-up approach to budgeting. While most budget reforms have failed to achieve their stated objectives, the budgeting literature informs us that each reform has left remnants that were integrated into subsequent budget reforms that influence contemporary budgeting processes today (Schick 1990; Rubin, 1990). What remains to be determined is where current performance budgeting practices will make lasting effects on budget reform and the budgeting literature.

Performance budgeting is not a new concept, but generated substantial momentum in the past fifteen years as part of the new public management (NPM) movement (Williams 2003). At the federal level, the Government Performance and Results Act (GRPA) implemented in 1997 was followed by the Performance Assessment Rating Tool (PART) initiated in 2002. At the state level, 47 of the 50 state apply some form of performance based budgeting (Melkers and Willoughby 1998). Finally, at the local level, Poister and Streib (1999) report that about 40% of cities use performance information in a meaningful way that influences allocations and incentives. Berman and Wang (2000) find similar results with county governments. At the local level, Melkers and Willoughby (2005) indicate what Schick and others have long discussed: the use of performance measures for budgeting and outcomes can be cumbersome and not always popular with practitioners who must implement processes in their organizations.

Several scholars have studied the effects of budgeting at different levels of government. For instance, Melkers and Willoughby (1998, 2005), Ho (2003, 2006a), Wang (2000), Jordan and

Hackbart (1999), Moynihan (2006a, 2006b), and Gilmore and Lewis (2006a, 2006b) have looked at the characteristics and prevalence of performance budgeting. The majority of these studies have looked at 1) whether performance budgeting is actually being used, and 2) whether performance budgeting influences resource allocations. Findings indicate there are challenges in determining reliable performance measures, and then applying performance information directly to resource allocation decisions.

Some have taken this argument even further. Radin has shown that performance measures actually create conditions of goal displacement (Merton 1936, 1940; Radin 2006). Rubin (2005) echoes Radin's concern for ethical dilemmas regarding the integrity and dissemination of performance data. Schick questions whether or not governments currently display the capacity to effectively utilize the performance budgeting process. Again, such processes can be complex, both in the determination of performance data input and the configuration of the data to budget costing and expenditure processes. Finally, much is left undetermined as to how governments can effectively link performance data to resource allocation and the determination of outputs (Schick 2002).

Dubnick (2005) provides a different perspective by showing how social mechanisms integrate account giving as a means for the communication and interpretation of performance information, but that such data may not provide sufficient accountability to ensure accuracy for appropriate decision making. In other words, an individual's perception and provision of performance data is susceptible to multiple influences that can distort information available for decision making. Frederickson and Frederickson (2006) mirror Dubnick and Radin's concerns, but in addition, they include a concern for how performance information is increasingly used in third party governance, as well as the potential for politicization that distorts the original intent of

performance measures.<sup>1</sup>

So why are performance budgeting processes expanding across all levels of government if they are difficult to use, difficult to operationalize, and difficult to interpret? I believe there are two plausible explanations. First, although Schick (1966) has been critical of performance budgeting, he has also been one of its earliest proponents. Schick recognized the promise of performance budgeting's usefulness when he studied efforts to incorporate PPBS into the federal government's budgeting process in the 1960s. The legacy of PPBS' lineage to performance budgeting is the inclusion of a process that directly links budgeting with the setting of priorities as a means of meeting policy objectives (Schick 1966). Schick (2002) believes the increasing demand for services and the increasing demand for both efficiency and quality of those services will continue to drive governments to find or reconcile performance oriented systems in order to meet citizen expectations of government.

Schick also believes performance budgeting has the promise to assist governments in the priority setting process in order to make better informed policy decisions, and supports his belief that the capacity to govern depends on the capacity to budget (Schick 1990, 2002). It is likely that Schick's comments will be especially relevant in the future for states and municipalities facing increasingly constrained budgets resulting from political and tax payer fiscal restraints (Mullins 2004; Smith 2004). Osborn and Hutchinson (2004) strongly argue and present cases where governments that use performance information are more capable of generating better resource allocations.

The second explanation for why performance budget reform may remain relevant within the foreseeable future is the basis for this study. Essentially, I believe there are indirect effects of performance information and budgeting that have been as of yet, overlooked. As previously

mentioned, most studies have focused on the prevalence and application performance budgeting within governments and whether or not performance information affects resource allocations. These studies have looked at the “what” (types of performance budgeting processes at various levels of governments) and the “how” (determination and application of various information measurements), but have not looked at the “why” performance budgeting processes are increasingly used by governments.

Frederickson and Frederickson refer to Mary Parker Follett’s contributions concerning the importance of how an organization communicates to achieve buy-in for successful policy implementation (Parker-Follett 1940; Frederickson and Frederickson 2006). Establishing relationships, trust and communication are important for implementing a new process such as performance budgeting. Interestingly, this brings us back to Wildavsky’s *The Politics of the Budgetary Process*, where he describes budgeting as the translation of financial resources into human purposes. He also describes how budgeting is a process of signaling through the use of a network of communications, where information is continually processed and transmitted to participants (Wildavsky 1986).

I am proposing that previous studies concerning performance budgeting focused primarily on the systems and processes rather than on the human dimensions associated with performance budgeting. If, as Wildavsky (1986) proposed, budgeting is also about communication, relationships, cultures, and negotiations, is there a possibility there are indirect effects as a result of implementing performance budgeting affecting organizational performance that have gone unobserved? In other words, is there a possibility that performance budgeting may subtly change relationships and organizational processes? Finally, I would propose that such indirect effects are more likely to be observed within local governments where administrators and political leaders may favor using



performance based budgeting processes as a means for gauging the quality and quantity of outputs as a result of their close proximity to citizens and their communities. One might argue that studying performance budgeting at the local level inhibits the scope of the research, but I would propose that findings at the local level are applicable and transferable to other levels of government. Studying local government is advantageous because the smaller unit of analysis provides for more readily accessible observations of complex concepts such as culture and change.

### *Theoretical Approach*

Traditionally, rational choice theory has been the preferred method for understanding resource allocation decisions and budgetary outcomes. Rational choice theory provides a framework for observing how budget decisions are derived from the interaction and gathering of information by individuals attempting to maximize utility for various purposes within an institutional setting (Niskanen 1971; Moe, 1984, 1989; Bendor and Moe 1985; Wilson 1989). Rational choice theory is convenient for budgeting because of its connections to economic theory, particularly social exchange theory, where economic exchange activity is directly related to social interactions (Scott 2000). Rational choice theory conveniently connects political and economic theory, especially in relation to public sector studies (Frederickson 2003). I would argue that the same applies with public budgeting, as described by Wildavsky (1964, 1986). Simon (1997) improved upon the “rational economic man” literature by introducing psychology and human behavior to the field. His concepts of bounded rationality and satisficing rested upon the notion that complete cognitive information is impossible, and individuals make decisions with less than satisfactory or incomplete information.

Dahl and Lindblom furthered Simon’s theory by introducing incremental theory, where decision making could be executed through incomplete, successive decision making processes (branch) versus extensively detailed (root) informational decision making (Dahl and Lindblom 1953;

Lindblom 1959). Lindblom's theory is especially relevant for public budgeting where forecasting of expenses and revenues are based upon incomplete information. However, it is Wildavsky's direct application of incrementalism to budgeting that cemented the theory's place in the literature. His theory revolves around a budgetary base with incremental adjustments, but he went much further in describing a process of negotiations and bargaining conducted within social, institutional, and cultural settings (Wildavsky 1966). Wildavsky connected the political, technical, and social aspects of budgeting by expounding on Dahl and Lindblom's (1953) proclamation that social and psychology theory were essential for the unifying political and economic theory in order to address public issues. Unfortunately, little has been added to Wildavsky's contributions of budgeting as a process of social exchange. Meyers provides some perspective regarding strategic budgeting, but limits his observations to congressional budget committees (Meyers 1994). Thurmaier and Willoughby (2001) also provide some perspective regarding state budgeting offices.

Herbert Simon (1997) declared that public administration should be multi-disciplinary in its approach, and that a number of disciplinary lenses could be applied to the field including psychology and sociology. Public budgeting could also benefit from such an approach. Accounting and management scholars have already set the stage by integrating these theoretical lenses into budget theory where an economic approach focuses on previously described rational choice theory, a psychological approach focuses on how individual behaviors shape budgeting processes, and a sociological approach focuses on how the role of budgeting shapes organizational process and structures (Covaleski et al. 2003). Fortunately, there is a field applicable to performance budgeting that is broad enough to include all three fields just mentioned: economic sociology. Economic sociology allows us to study the economic facets of budgeting while also looking at roles, values, norms, and culture of budget institutions; and perhaps most importantly how communication and

trust affect relationships that can ultimately affect the structure of organizational processes.

### *Economic Sociology*

Smelser defines economic sociology as “the application of the general frame of reference, variables, and explanatory models of sociology to that complex of activities concerned with the production, distribution, exchange, and consumption of local goods and services” (Smelser, 1976, 43). Here, Smelser integrates concepts of economic activities within organizations with sociological variables related to roles, values, norms, hierarchies, power, coalitions, and their relationships between each other (Smelser 1976).

Smelser’s definition of economic sociology is based upon traditional concepts of economic activity. I propose that modern local government activity is similar to the concepts that describe traditional economic activity. Governments produce services, distribute services, establish collaborative exchanges (and contracts) with vendors and neighboring governments, and are consumers of local production. Smelser indicates that economic sociology is applicable to public policy. If so, I propose that the study of the budget process, particularly performance budgeting’s effect on organizations, can be studied through an economic sociology lens.

Economic sociology’s lineage is embedded in both classical economic and sociological theory, but is also broad in its approach, including numerous fields and disciplines. Classic economic sociology traces its roots to the contributions of Comte, who believed that economics could not be separated from the study of society, but must be studied within a comprehensive, holistic approach (Zafirovsky 1999, 2001). Durkheim, in his discussions of the division of labor contended that non-contractual or non-market exchanges are equally important to economic systems as contractual market exchanges, and proposed that non-market transactions are embedded into institutional and shared rule systems (Durkheim [1894] 1964; Zafirovsky 1999, 2003). Weber explained how

economic behavior is not only shaped by utility, but also by relationships of individuals within political, religious and other social institutions (Weber [1922] 1968; Zafirovsky 1999, Swedberg 2001). Polanyi helped bring into focus the importance of government as a non-economic institution, in terms of the structure and functioning of the economy (Polanyi 1944, 1968; Zafirovsky 1999, 2001). In other words, government influences economic activity, and as such, is an institutional process within the confines of the economy. If so, then I propose that public budgeting is an extension of Polanyi's description of government influence on economic activity. Public budgeting is a governmental activity that influences economic activity, and thus applies to economic sociology.

In the past two decades Swedberg, Granovetter, and others have advanced the field in new directions from classical economic sociology to "new economic sociology." The key differences being 1) displacing over-reliance on industrial psychology, 2) advancing the study further into previously here to for economic domains and 3) advancing the concepts of embeddedness including the significance of networks embedded within social systems (Granovetter 1985a, Zafirovsky 2001, 1999; Smelser and Swedberg 2005). Granovetter's networks within institutional structures involved in economic exchange compliments Polanyi's description of government exchange and activities. Granovetter is credited with expanding Durkheim and Polanyi's concepts of social embeddedness through his introduction of networks and their effects on individual and group relationships (Granovetter 1985a, 1985b; Swedberg 2003). Swedberg (2003) furthers Granovetter's contributions by clarifying that new economic sociology's focus is drawn from three strands of sociology: network theory, cultural sociology, and organizational sociology.

Granovetter's observations of networks and their boundaries is compelling and relevant to performance budgeting. His discussion of strong and weak ties in personal relationships, later refined to incorporate White's coupling concepts involving trust, control and identities provide a

descriptive contrast between traditional line item budgeting and performance based budgeting (White 1966, 1992, 2008; Granovetter 1973, 1974, 2005a). Granovetter describes three different types of organizational structures: strongly decoupled organizations, weakly coupled organizations and strongly coupled organizations (Granovetter 2005a). This study proposes traditional line item budgeting is most adequately identified with the activities of a strongly decoupled structure lacking cross cutting ties and predisposed to the friction associated with public budgeting activity. Performance budgeting on the other hand is best identified with the activities of a weakly decoupled structure more likely to develop cross cutting ties and greater consensual outcomes, as well as pursuing innovative practices. Decoupled structures are more capable of affecting and influencing organizational change (Granovetter 2005a). Implementation of performance based budgeting creates the potential for changing the structural relationships and developing greater cross coordination among organizations.

While there is a social process of bargaining and negotiation as described by Wildavsky (1964), it is conducted in a manner that can be rigid and exists in a rules oriented culture protective of intra-organizational interests (Bozeman and Rainey 1998; Pandey and Garnett 2006; Pandey and Moynihan 2006; Garnett et al. 2008). Interjecting performance based budgeting facilitates individuals and organizations to communicate across functional responsibilities. Performance budgeting processes can create paradigm shifts from intra-organizational line item budgets where line item activity is departmentalized, to a process where the cost for each line item activity is accounted for across all departments. For instance, the sharing of information within a performance budgeting process may change how transactions costs are determined, possibly influencing not only organizational and individual relationships, but ultimately organizational performance.

One final consideration applicable to my theoretical approach is the inclusion of

Granovetter's and Marshall's similar descriptions of networked activities that I believe can be re-framed to support a description of local governments and performance based budgeting activities. Granovetter discussed economic exchange and networked business activity, where "business groups are "sets of legally separate firms bound by formal and/or informal ways" in a manner where there are predictable patterns of power and interactions (Granovetter 2005b, 429). Swedberg portrays Marshall's industrial districts "defined by geographical and social boundaries, not political boundaries" (Marshall 1919, [1920a] 1961; Swedberg 2003, 65). Granovetter's pattern of activities between formal and informal structures, combined with Marshall's declaration that political boundaries are not essential to networks, can be transferable to performance budgeting in local governments. Substitute departments for business groups and industrial districts, and I believe one can find similar parallels for applying economic sociology to local government budgeting activity.

#### *Expected Contributions*

Galbraith complained in the early 1970s that neo-classical and neo-Keynesian economic frameworks focused too much on market processes, incapable of analyzing concepts of planning and power, and that the study of economics had become a "non-political subject" (Galbraith 1973, Smelser 1976, 34). One could imply that Galbraith meant economic theory had lost its links to sociology and lineage to classical economists such as John Stuart Mill and Adam Smith (Zafirovsky 1999). Additionally, over-reliance on rational choice theory made for a mechanistic and narrow view of economic theory. There has since been a resurgence of appreciation for the integration of economic, institutional and sociological relationships. New institutional economics and economic sociology are competing for prominence as equal partners to rational choice and exchange theory. On a similar note, finance theory has also embraced a broader perspective and behavioral finance is becoming more prominent in its field (Shiller 2003). I believe that Simon, Schumpeter, Dahl, and

Lindblom would approve of the growing trend to incorporate the interdisciplinary works of sociology, and psychology into finance, economic and budgeting studies.

This research is intended to illuminate a missing link in the field of public budgeting, helping to bridge a gap similar to Galbraith's concern for the field of economics. Findings supporting the hypothesis that performance budgeting improves organizational performance through intervening variables would be an important contribution not only for budgeting but also for public administration and organization theory. Public budgeting has for the most part focused on processes and systems. Institutional budgeting structures are well documented, but there is little knowledge about the relationship between individuals and organizations involved in the budget process. Wildavsky, Meyers, Thurmaier and Willoughby provide insight into federal and state budgeting processes. This research attempts to add to the body of knowledge using local government and performance budgeting as a vehicle for studying these relationships, and furthers Goldscheid's analysis of the budget as "the skeleton of the state," integral to the development of the economy and to daily social life (Schumpeter 1954a, 6; Musgrave 1992; Swedberg 1993, 48)<sup>2</sup>

Contributions to practitioners are possible as a result of answering the research question: does performance budgeting create indirect effects that enhance organizational performance. Studies have concluded that performance budgeting is pervasive, but the efficacy of performance budgeting remains mixed for a variety of reasons. Sometimes however, measuring direct effects of policies and procedures in organizations does not tell the whole story, especially regarding the measure of quality and quantity of government services. In the case of performance budgeting, if a new organizational process alters various organizational characteristics, which in turn changes the social structure of an organization in a positive manner, there is potential for leveraging the results for more innovative and responsive government for citizens.

## *Summary*

This study intends to explore the possibility of budgeting's indirect effects on organizational performance. Performance based budgeting has been widely studied during the past two decades focusing on changes in resource allocations, and found to have minimal impact on changing resource allocations versus traditional line item budgeting processes. The process of developing, capturing and reporting performance information can be time and resource intensive, and is subject to interpretation. Why then would organizations continue to use performance based budgeting? One reason is the promise of improved organizational performance. Surprisingly, the body of public budgeting literature is limited in making this connection because of the difficulty of linking resource allocations to performance.

This study attempts to bridge this gap by observing possible indirect effects of performance budgeting through three organizational characteristics closely linked to both budgeting and economic sociology theory: information sharing, trust and organizational decentralization, specifically measuring budget decentralization. Chapter two looks at the origins of performance budgeting reform and its current status. Chapter three looks at the origins of economic sociology and the key concepts that are applicable to this study. Chapter four synthesizes the key elements of performance based budgeting and economic sociology in order to present the study methodology used in chapter five. Chapter five investigates the indirect effects of information sharing, trust, and budget decentralization on performance budgeting, and whether or not these organizational characteristics display mediating or moderating effects on the outcomes of organizational performance as a result of using performance budgeting. The final chapter will summarize the findings from the study and discuss options for further study.



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*Notes*

<sup>1</sup> Frederickson and Frederickson mention that appropriate use of performance measures can assist in the accountability and management of third party governance. I would infer that the benefits of performance measures as described for the third party governance of federal health care agencies are similar to the indirect effects of performance budgeting that I attempt to address in this study.

<sup>2</sup> Schumpeter is credited with interpreting Goldscheid's ideas in the influential work "The Crisis of the Tax state," and Musgrave is credited with framing this concept in contemporary theory as part of public finance and fiscal sociology. While this quote is credited to fiscal sociology, I believe it is important to the context of my study.

## Chapter 2

### Origins of Modern Performance Budgeting

Modern performance budgeting grew as a result of reform efforts attributed to Osborne and Gaebler's (1993) work espousing transformative government, Vice President Gore's National Performance Review (1993), and the international phenomenon of new public management (Lynn 1996, 2006; Tyler and Willand 1997; Barzelay 2001; Kettl 2002, 2005; Frederickson and Smith 2003; Kelman et al. 2003). All of these works address government reform attempts to bring about a more efficient, and effective government. While performance budgeting is connected to contemporary government reform in the United States during the 1990s and the first half of the current decade, performance budgeting *is not* a subset of new public management, but has been in existence long before the new public management reform. As a result of the United States transformative reform efforts, performance budgeting resurfaced as a means to aid the improvement of government efficiency and effectiveness, often resulting in confusion about performance budgeting's role as both reform and process.

There is also confusion about what exactly *is* performance budgeting. This chapter defines the origins of performance budgeting, and strives to bring clarity to performance budgeting's role in modern government. After describing performance budgeting's origins, two important arguments are presented. First, perceptions of the decline of budgeting's management function and subsequent emphasis of budgeting's control function are inaccurate and incomplete. Included in this first argument is an attempt to operationalize performance budgeting. As with many other contemporary theories, scholarly attempts to narrowly define performance budgeting resulted in the dilution of performance budgeting's role (and promise) in government activity. This chapter provides a more liberalized operationalization, and in doing so argues the second

point that the necessity of budgeting's management function, actually prevented performance budgeting from ever completely disappearing over the last century, but instead presented itself in various diffused conceptual processes across state and local governments. These two arguments are important for establishing the context for the following chapter's theoretical connection of performance budgeting with economic sociology.

Performance budgeting means many things to many people. Often concepts of performance budgeting, performance management, performance information, performance based budgeting, and program budgeting are used interchangeably to describe performance budgeting. The definitions used by scholars and applied by governments are equally varied, but essentially performance budgeting entails the use of information to measure inputs, outputs, and outcomes to assist in making budget decisions for various purposes of control, management, and accountability (Burkhead 1956; Schick 1964, 1971; Hyde 1992). This study uses the term performance based budgeting to elaborate contemporary performance budgeting and best account for varying conceptual descriptions. Prior to discussing specific roles, definitions, or functions of performance budgeting, it is important to dissect the history of performance budgeting. Scholars generally categorize a number of distinct periods during the past 100 years where performance budgeting was applied either as reform or process change (Schick 1971; McGill 2001; Kelly and Rivenbark 2003; Kelly 2005).

The origins of modern performance budgeting can be traced to the beginning of the twentieth century (Dahlberg 1966; Schick 1971; Mosher 1976; Williams 2003; Fleischman and Marquette; Kelly 2005). Performance budgeting was part of an overall effort by government reformers during the progressive era to bring greater accountability and managerial control over the budget process. The lead agency for developing the pre-cursor of the modern budget was the

New York City Bureau of Municipal Research (Dahlberg 1966; Schick 1971; Mosher 1976; Rubin 1993; Kelly and Rivenbark 2003; Kelly 2005).

At the time, budgeters and officials had extensive discretion in the preparation and format of budgets, and emphasis was lacking in terms of standardization and routine (Powell 1917; Willoughby 1918; Cleveland and Buck 1920; White 1933; Schick 1971). It is here that confusion originates between concepts of new public management reform and performance budgeting reform. This confusion results from the interpretation and application of executive responsibility for budget development and execution, and linking these responsibilities all the way back to early scientific management concepts (Schick 1971; Thayer 1972; Williams 2003; Kelly, 2005).

First, the development of the modern budget occurred nearly simultaneously with the popularity of scientific management. Secondly, the original intent of the modern budget *was* focused on the executive branch for the purpose of planning and control, and as a means for executing efficient and effective government (Cleveland, 1915; Schick, 1971; Rubin, 1996; Williams 2003). Reinforcing the link to scientific management was the relationship between Cleveland, William Willoughby, and Frank Goodnow, all who served on the 1912 Taft Commission on Economy and Efficiency and were closely associated with Luther Gulick who also worked at the New York Municipal Bureau. Gulick later provided the preeminent public management treatise, POSDCORB (Gulick 1937; Schick, 1971; Fleischman and Marquette 1986; Rubin 1996; Williams, 2003; Kelly 2005).

Indeed, even contemporary scholars such as Lynn (2001) argued there was no paradigm between traditional (including scientific management) and new public management. However, I argue in this paper there is an important difference between performance budgeting reform and

new public management reform that should be recognized in order to assuage the concerns of performance budgeting critics, and to discover possible new approaches for studying performance budgeting.

While performance budgeting is most closely associated with executive management, it is also much more. Performance budgeting has served different purposes during different time periods in the past 100 years. Wildavsky (1964) stated in *The Politics of the Budgetary Process*, “The purposes of budgets are as varied as the purposes of men....Nothing is gained, therefore by insisting that a budget is only one of those things when it may be all of them or many other kinds of things as well.” This statement rings true for how performance budgeting reform has been applied during different time periods. While it is true that performance budgeting was initially intended as a tool for executive management and planning control, it also served a number of other purposes.

Performance budgeting provided a means for gathering information and transmitting information not only for efficiency, but for a “better understanding of municipal activity and its results” (Cleveland 1904, 397; Williams 2003, 647). In other words, inform numerous actors and stakeholders about agency operations in a manner that would otherwise possibly go unnoticed. Performance budgeting information and reports could be used to inform and improve government services. Performance budgeting also presented the possibility for measuring outputs and outcomes, and to present budget and performance findings to the public (Dahlberg 1966; Khan 1997; Williams 2003). Such efforts could ultimately promote better informed and cooperative citizenship, enhancing the efficiency and utility of government services (Breure 1912; Williams 2003). My point here is performance budgeting’s promise is essentially unchanged from Breure’s assessment in 1912, originating from Progressive Era Philosophies.

But it was not just the New York Municipal Bureau's involvement in the promulgation of Performance budgeting. Numerous other major metropolitan cities were experimenting with budgeting initiatives. Additionally, a number of agencies were involved in the development of useful techniques to gather performance information including the Association for Improving the Conditions of the Poor (AICP), International Commerce Commission, and the Census Bureau, which introduced the use of social surveys to capture useful information. Initially, these surveys gathered information on New York City's settlement houses, providing social and health indicators used to assist in the improvement of social welfare conditions. These surveys went beyond simply providing information, they were used in "full scale policy analysis" (Treleven 1912, 272; Williams 2003, 647). The New York Municipal Bureau later borrowed this practice for obtaining outcome information for the purpose of making better informed budgeting decisions (Dahlberg, 1966; Krause 1980; Rubin 1996; Kahn 1997; Stivers 2000; Williams 2003).

*From Origins to Evolution: Reform Innovations Are Not Static*

This dissertation was motivated in part by Robert Merton's (1936) unintended consequences of social action regarding massive change in government and policy implementation during President Roosevelt's New Deal era. Merton's concept of unanticipated consequences has been a mainstay of public administration and public policy studies. I intend to expand on Merton's observations by proposing that unintended consequences are not always clear and precise. The consequence of change in government activity can 1) be layered and subtle, not immediately observable, and 2) positive change is equally possible (my interpretation of unintended consequences in the public administration literature is one of negative perceptions associated with policy and reform change).

Schick (1971) aptly describes an example of unintended consequences resulting from the adoption of the executive budget throughout state and local governments early in the twentieth century. Although the original intentions of the innovators at the New York Municipal Bureau, the 1912 Taft Commission, and 1937 Brownlow Commission strongly advocated the efficacy of the executive budget, something happened as the executive budget process was implemented (Goodnow 1912; Schick 1971; Kelly and Rivenbark 2003). According to Cleveland, the executive budget was originally intended to 1) document stated policies and programs, 2) coordinate government activity, and 3) provide a control process to prevent waste and abuse; but no budgeting process could equally accommodate all three policies and budgetary control advocates prevailed (Cleveland 1915, Schick, 1971).

As the executive budget was implemented and institutionalized, the emphasis on the use of information to improve administrative processes shifted focus to the control of expenditures. Originally the executive budget provided information about efficiencies and effectiveness of government activities, but legislative bodies became interested in how such information could be used for oversight purposes (Sands and Lindars 1912; Schick 1971; Williams 2003). At the time, controlling expenditures was an important concern of legislators as a result of the Progressive Era movement. The New York Bureau of Municipal Research led the efforts to refine the executive budget by developing separate, functional categories of spending that facilitated the accountability process for actual expenditures (Prendergast 1912; Williams 2003). Functional accounting and categories provided an important link to past historical expenditure activities and proposed future activities, as well as indicators of the productivity of specific activities.

Over the next several decades the use of functional budgeting categories, eventually

termed line “item budgeting” grew as accounting professionals assumed primacy in the budget process and refined functional categories from their original management focus to an accounting focus (Dahlberg 1966; Schick 1971; Kahn 1997; Williams 2003). As standardized line item budgeting matured, the accounting functions normally within the oversight of centralized state and local budgeting offices promoted and interjected their influence into the budgeting process (Schick, 1971).

The advent of routinized budgeting processes and uniform accounting classifications allowed greater participation from both budgeting officials and interested legislators, causing interest to shift from outputs and outcomes, to control of inputs. This evolutionary phenomenon was a consequence of accounting professionals’ influence in the budget process because they generally supervised budget activities. Accounting practices encouraged the use of “objects of expense” focusing on inputs rather than functional activity as a means of instituting control procedures (Dahlberg 1966; Schick 1971; Kahn 1997; Williams 2003). This focus on objects of expense and line item control allowed central budgeting authorities and legislators greater access to influence budgeting process inputs (Schick 1971; Fleischman and Marquette 1986; Mullins and Pagano 2005). The routinization of accounting functions allowed budget officers to exert their prominence in the budget process. Line item budgeting allowed budget officials the ability to influence how information was provided to legislators, how expenditures flowed from appropriations, and ultimately the ability to restrain agency expenditures during the budget execution cycle (Graves, 1932; Schick 1971). Schick adroitly compared central budget agency budget control to bureaucracy’s proclivity for expansion, control, monitoring, and reporting (Downs 1967; Schick, 1971).

The evolution to control oriented budgets and the prominence of the central budgeting



office with legislative oversight should not be considered a negative consequence, but quite the contrary. Budgeting's control function compliments public administration's concern for democratic control of bureaucratic agencies (Friedrich 1940; Finer 1941; Tullock 1965; Downs 1967; Niskanen 1971; Hecl 1977; Moe 1984, 1989; Waldo 1984; Meier 1993; Wood and Waterman 1994; Rubin 1997a, 1998, 2005; 2006; Wildavsky, 1964, 2001; Schick 1978; Meyers 1994; Thurmaier and Willoughby 2001; Radin 2000, 2006; Frederickson and Smith, 2003). The evolution to control oriented budgets also helped clarify Key's (1940) recognition that values mattered equally as much as efficiency and effectiveness when making budget allocation decisions. This discussion is important because while this study highlights budgeting's management functions, it cannot ignore the importance of budgeting's control functions.

The control oriented budget also laid the foundations for incremental budgeting (Lindblom 1959, 1979; Wildavsky, 1964). These foundations served to strengthen the institutionalization of the line item budget, which still prevails throughout the country today. Line item budgeting's reliance on inputs places an emphasis on historical budgets, commitments, and expenditures. This allows for greater supervision and cost control by legislators who hold the "power of the purse" (Fenno 1966 Wildavsky and Caiden 2004). To be clear, I am referring primarily to legislator's appreciation for the power to control not just appropriations, but the behavior of agencies in order to achieve stated political or policy goals (Wildavsky 1964, 1978). Incrementalism provided a vivid description of line item budgeting and stakeholders' behavior, interests, and in many cases projections of future activity (even though primarily based on historical information!) from the concepts of budgetary bases, mutual bargaining, flexibility and predictability within the budget process.

The appeal of incremental budget theory, although never adequately operationalized or

empirically confirmed, was powerfully descriptive, serving to reinforce the institutionalization of line item budgeting (Natchez and Bupp 1973; Wanat 1974; Bailey and O'Connor 1975; LeLoup 1978; Wildavsky 1979; Padgett 1980; Gist 1982; Berry 1990; Rubin 1990; Jones et al. 1997; Wildavsky and Caiden 2004). While some might lament Sayre's declaration of the "triumph of budget control's technique over purpose," the more important point is *not* that the management functions of the executive budget were subsumed by budgetary control functions, but that budget reform is evolutionary and reflects the time period in which it was originated and implemented (Lahee 1917; Sayre 1948, 135; Schick 1971, 21; Forrester and Adams 1997, 468).

Interest in performance budgeting reform began to re-emerge during the New Deal era in response to the massive growth of government agencies. The need for managing the growing federal budget and multiple new agencies brought a renewed interest in the management functions of the budget. Critics thought the federal Bureau of the Budget fell victim to the routinization of the budget process and lost concern for the management and coordination of budgeting activity. The President's Commission on Administrative Management resulted in the reorganization of the Bureau of the Budget, moving from the Treasury Department to the newly created Executive Office of the President in 1939 to better assist in the management and coordination of budgeting and government activity (GPO 1937; Smith 1945; Schick, 1971). As a result of the reorganization and heightened emphasis on management techniques postulated by Gulick's POSDCORB, a number of federal agencies including the Department of Agriculture, Tennessee Valley Authority, Census Bureau, Forrest service, and Bureau of Reclamation implemented various management functions and measurement techniques to assist in budget activities (Gulick 1937; Schick 1971).

Performance budgeting's focus at this point in time focused on the measurement of

government activity, which I believe is a major focus of contemporary performance budgeting reform. Clarence Ridley and Herbert A. Simon conducted a study for the International City Managers Association (ICMA) in 1938 and reprinted in 1943 providing the context that performance measurement serves as a beneficial tool for both legislators and administrators for decision making purposes (Ridley and Simon 1943; Burkhead 1956; Schick, 1971; Tyer and Willand 1997). This push for measuring government activity for budget decision making immediately subsided as World War II erupted.

From a public administration stand point, World War II caused a massive fundamental shift from a management focus to more humanistic and values oriented approach to administration. Noted scholars such as Waldo, Simon, and many others who were involved with the technical management of war processes learned that government could not rely solely upon scientific or technical processes to manage large government agencies (Waldo 1984; Schick 1971; Simon, 1997). A new focus emerged favoring democratic control of bureaucracy and rational processes to manage big government. But this was not exactly the case with budgeting. The management aspect of budgeting retained its traction from before the war, but its focus shifted to from performance measurement to functional accounting classification.

The driving force behind this change from measurements to functional accounting classifications resulted from the two Hoover Commissions released in 1949 and 1955. The Commissions, named after ex-President Herbert Hoover were officially named the Commission on Organization of the Executive Branch of the Government. These Commissions were intended to provide recommendations to the Congress by a highly experienced and respected body of government experts to assist both legislators and administrators in dealing with the robust growth of the federal government.

Previously termed “activity budgeting” or “functional budgeting,” the term “performance budgeting” was the invention of President Herbert Hoover, as a means of lending sales appeal to a new and improved method of budgeting (Mosher 1954; Schick 1971). The Hoover Commission presented performance budgeting as a means to improve management and efficiency while strengthening executive / legislative relationships. Performance budgeting would establish management boundaries and responsibilities, the costs for services, how much work to accomplish for delivering a specified level of services, and measure results based upon specified performance measurements (Seckler-Hudson 1953; Burkhead, 1956; Hyde 1992). While the spirit and intent of performance budgeting was to improve management functions, its focus was towards accounting classifications favoring budgeting’s control functions. One might argue the Hoover Commission’s intentions for performance budgeting reform unintentionally assisted in strengthening public budgeting and finance’s insularity from public management.

#### *Performance Budgeting: Old or New?*

This new interpretation of performance budgeting centered around a change in the budget form for the purpose of grouping revenues and expenditures in a manner aiding budget and administrative decision making (Burkhead 1956). Two diverging points of view exist regarding the efficacy of performance budgeting as a result of the Hoover Commission’s recommendations. The first point of view is the new budget form failed because of the complexity of functional accounting classifications, their questionable relationship to service outcomes, and the inability to adequately measure outcomes (Seckler-Hudson 1953; Miller 1996, Tyler and Willand 1997). Additionally, performance budgeting lacked the tools to account for these difficulties, compounded by the absence of strong advocates for implementing a budget process change. Central budgeting officials resented the incursion of management processes on

their turf. Performance budgeting was perceived as inferior to line item budgeting. Attempts to measure or account for budgeting activity were futile because “budgeting is 90 percent common sense,” implying that central budgeting officers and examiners were more intuitively capable of managing the budget process and providing informed recommendations to executive and legislative budget decision makers (Gentilcore 1958; Schick 1971).<sup>1</sup>

The other point of view is that performance budgeting never really died out, but was hybridized as a result of differing implementation by various state and local governments. Schick contends that hybridization, or the partial implementation of performance budgeting was a conscious decision by implementers to minimize resistance from various stake holder interests, and complexity of the performance budgeting process (Schick 1971). While state and local governments were adopting bits and pieces of performance budgeting, its application in its purest theoretical form fell out of favor as a result of a new budget reform, program budgeting.

Program budgeting, or more specifically Planning, Programming, Budgeting System (PPBS) was developed during World War II and emerged in the early 1960s through Department of Defense and the Rand Corporation efforts to insert the management function of planning into the program budget process (Mosher 1954; McKean 1958; Hitch and McKean 1960; Anthony 1971; Hitch 1965; Novick 1965a, 1965b, 1966; Schick, 1966; 1973; Enthoven and Smith 2005). The use of PPBS slowly migrated to other government agencies after its inception by the Defense Department in 1961, but it was President Johnson’s 1965 directive that all federal agencies implement PPBS that brought this budget reform to the forefront of budgeting activity.<sup>2</sup> While PPBS may have burst to the forefront of public attention, it failed to take hold and was renounced by the federal government (with the exception of the Department of Defense) in 1971 as a failed reform (Schick 1973; Wildavsky 1986, 1989a, Harlow 1973; Kelly 2005). DiMaggio

and Powell (1983), March and Olsen (1984, 1989), Scott (1995), and Selznick (1996), among others remind us that budgeting roles, rules, identities, and routines once legitimized, are very difficult to reform. Like other reforms though, elements of PPBS remain in various forms at all levels of government (Hatry and Cotton 1967; Mushkin 1969a,1969b; Schick 1971; Kelly 2005).

Whether by accident or design, the latest round of performance budgeting reform addresses many of the institutional and cultural concerns ignored by previous reforms. The intent of the current performance budgeting reform sought to bring about new efficiencies through the collection and assimilation of agency performance information, subsequently facilitating better management and policy decisions, and ultimately more effective government services (Martin 2002). One of the most important differences between the current performance budgeting reform and previous budget reform lies in agency implementation. Rather than attempting to change the *budget format* (as previous performance budget reforms), the current performance budgeting reform changes the budget process (Sayre 1948; Schick 1971, 1978; Wildavsky 1978, Grizzle 1986; Rubin 1992a, 1992b, 2005; Forrester and Adams 1997; Kelly 2005).<sup>3</sup> The distinction between budget format and budget process is important. Changing budget format has been the preferred method of implementing reform, but successfully reforming budget formats has been limited at best. The Hoover Commission's performance budgeting, PPBS, and zero based budgeting (ZBB) reforms all focused on changing budgeting's format to achieve desired reform outcomes.

While performance measurement activities are central to performance budgeting, the measurements themselves are only useful if they are integrated into the budget process. The use of performance information in the budget process varies from government to government, similar to Schick's description of hybrid budgets, based on the specific needs and desires of

individual governments.<sup>4</sup> As a result, the current performance budgeting reform does not necessarily threaten entrenched budget stakeholder interests as had previous reforms. Post World War II performance budget reform, PPBS and ZBB were perceived as threats to the powerful influence of budget officers and analysts and the predominance of budgeting's accounting function (Burkhead 1956; Gentilcore 1958; Schick 1971; Forrester and Adams 1997; Thurmaier and Willoughby 2001). Changing the budget format raised the possibility of changing organizational structures, replacing the emphasis from budgeting's accounting control function to a managerial function (Schick 1964, 1966, 1971, 1978). This was an affront to budgeting professionals (mostly trained in the accounting function of budgeting) who were skeptical that performance and program information were anything more than supplemental information incapable of trumping the expertise and judgment of professional budgeters (Gentilcore 1958; Schick 1971; Howard 1973).

The current performance budgeting reform was also different because instead of focusing on outputs as had the previous reforms, outcomes became the central focus. Performance information would be used to assist budget decision making in order to influence and improve outcomes (Melkers and Willoughby 1998, 2001; Hatry 1999; Willoughby and Melkers 2000, 2001; Martin 2002; Kelly and Rivenbark 2003; McNab and Melese 2003; Holzer and Yang 2004; Ho and Ni 2005; Ho 2006a; Yang and Holzer 2006; Walker 2007). The outcomes orientation is where the management function of budgeting becomes the central focus. Initially, this focus oriented on executive branch and agency accountability for producing outcomes in concert with stated or directed agency goals, but has since been used to describe a number of different approaches.

Performance budgeting is a means for developing better links between public

management and policy making to implement more effective public polices, and thus more effective public services (Coggburn and Schneider, 2003; Sterck and Scheers, 2006). Sterck and Scheers describe how policy objectives are overly abstract and vague, do not specify time constraints, and generally do not establish causal relationships between inputs, outputs, and outcomes. Performance budgeting provides a means for addressing these issues, facilitating the possibility for better management and government policy decision making. Concurrently, performance indicators provided by the Government Performance Project (Barrett and Greene 1999, 2000, 2005, 2008; Coggburn and Schneider 2003) illustrate a government's capacity to manage, which is directly related to how well a government distributes collective benefits and services. Performance indicators offer the possibility of assisting in making policy decisions more in line with stated government priorities and anticipated program outcomes.

More recently, research on budgeting's the management function helps us to understand the importance performance management's role in implementing performance budgeting reform (Ammons 2002; Lu 2007). This is important because such studies indicate there is more to performance budgeting than simply determining whether performance budgeting affects budget allocations and appropriations. Focusing on the management function quite possibly reveals new avenues to research and apply performance budgeting in a manner that improves both public management and the delivery of public services.

The multitude of performance budgeting definitions makes a theoretical study onerous at times. Scholars do not agree what definition should be used to describe performance budgeting. But there is an explanation for this conundrum. Budgeting is a multi-functional activity that can be approached, studied, and implemented in many different ways (Schick 1966; Wildavsky 1978). Performance budgeting terminologies include performance information, performance



management, performance budgeting, performance based budgeting, and even program budgeting (confusingly linked back to PPBS). Compounding this dilemma is the number of approaches for studying performance budgeting. Reform, measurements, benchmarking, accountability, outputs, outcomes, strategic planning, programs and processes, trust, and citizen engagement, are but a few means for approaching the study of performance budgeting.

However it would not be too presumptuous to offer that most studies of contemporary performance budgeting at the state and local level have in one form or another, oriented on determining whether government agencies use performance budgeting, and whether performance budgeting as a decision making process influences legislative appropriations. There is little proof that performance budgeting significantly influences the legislative appropriations process reinforcing the political rationality approach to budgeting, the dominance of central budgeting authorities, and the control function trumping the management function of budgeting (Joyce 1993, 1997; Rubin 2005; Moynihan 2006a; Ammons 2008). Finally, the never ending arguments that performance budgeting is too complex, that performance information is subject to manipulation, and local governments lack the capacity or political support to adequately implement performance budgeting continually concern budgeting scholars. (Rubin 1997b, 2005; Pollitt 2000; Radin 2000, 2006; Bouckaert and Peters 2002; Heinrich, 2002; Schick 2003; Dubnick 2005; Moynihan 2006a; Yang 2009).

There remains however, an interest in readdressing the merits of performance budgeting from the management function approach. For instance, coupling performance information and performance management can lead to better methods for analysis of performance information (Lu, 2007; Ammons 2008). This is an important trend because much of the criticism of performance budgeting originates from the conventional wisdom that political rationality and

budgeting's control functions continue to prevail in budget theory (Whicker 1992; Wildavsky 1964, 1978, 1989a).

And while the writings of many prominent budgeting scholars tend to support this hegemonic theoretical prevalence, when one delves deeply into their writings, often a balancing pragmatic tendency can be found leaving open the possibility of alternative approaches to budgeting theory (Wildavsky 1964, 1978, 2001; Schick, 1966, 1971, 2003). For instance Schick (1966, 2003) has discussed performance budgeting's potential for over forty years, often critically, but states when used under the proper conditions performance budgeting can improve public budgeting practices. Wildavsky (1989b, 29) believed that existing theory was not permanent (not to be taken for granted, but permeable), and the task of budgeting scholars is to "make theory out of disparate and disconnected material." Finally, Heclo (1994, 59) stated that we "should analyze budgeting as a complex, adaptive system."

These statements are important for two reasons. First, there has been a general rush to conclusions that the current round of performance budgeting reform is new and that contemporary performance budgeting is distinct from previous performance budgeting practices. Secondly, based on this presumption, I argue that performance budgeting has been practiced for many decades at frequency not unlike today, and thus there has been a smaller increase in the frequency of its use than previously offered by contemporary studies. This point is important because it links back to the observations of Schick, Wildavsky, and Heclo above. I am proposing performance budgeting was not new when the current round of reform occurred. It is not reform for the sake of reform that is important, but the adaptiveness of performance budgeting to meet a disparate number of needs by state and local governments to manage and provide services based on allocative constraints and economic conditions over the past several

decades.

### *Defining Performance Budgeting*

Defining performance based budgeting is no less difficult than defining a comprehensive budget theory that has been bantered about for decades. A comprehensive budget theory is an evolving phenomenon and has yet to crystallize. Tensions continue to exist between normative and empirical approaches to budgeting, and whether or not budget theory should be all-inclusive or consist of multiple discrete theories. (Key 1940; Lewis 1952; Wildavsky 1961, 1964; 1988; Schick 1988; Rubin, 1988, Forrester and Adams 1997).

Budgeting is also multi-functional, it has many purposes, some often overlooked. Wildavsky said it best when he stated “budgets are as varied as the purposes of men,” where budgets serve many purposes” (Wildavsky 1964, 4). Performance based budgeting is no different, serving many purposes, but never the less deserves attention. We have not discounted the value of continuing the pursuit towards a comprehensive theory of budgeting, and thus should not discount the value of performance based budgeting because there is no universal agreement on exactly what performance based budgeting means. My intention is to introduce some clarity to support my hypothesis regarding agency manager perceptions of what performance budgeting is, and whether or not performance budgeting is used in their agencies. More specifically, it is the *process* of performance budgeting rather than a precise definition or format for performance budgeting that is most important.

At the beginning of this chapter, I provided a general definition that performance budgeting involved the use of information concerning inputs and outputs to assist in resource allocation decisions, primarily to support agency management functions for the provision of efficient and effective government services. Even this excessively general definition is subject to

debate (Joyce 1996). Burkhead stated “There is no precise definition of performance budgeting; it has come to mean something different in every jurisdiction which puts it into operation” (Burkhead 1956, 139). After observing a number of government agency performance budgeting practices, Burkhead observed that a standardized practice of performance budgeting across a wide spectrum of government agencies was improbable because the necessary performance concepts must evolve from the political and administrative framework of each government’s specific needs. Additionally, a governmental unit’s size and complexity of operations influences the development of performance budgeting practices (Burkhead 1956).

Burkhead’s conclusions are echoed by contemporary budgeting scholars (Joyce, 1993, 1996; Melkers and Willoughby 2001; Rivenbark and Kelly 2006). Not with-standing an operationalized definition of performance budgeting, contemporary scholars have studied performance budgeting from a number of approaches providing diverse performance budgeting concepts and definitions. Rivenbark and Kelly (2006) describe performance budgeting in normative terms, where performance results are used to inform allocation decisions during budget preparation and budget adoption. They believe performance budgeting should focus on process, rather than outcomes, where the use of performance measurements combined with supporting budget requests constitutes performance budgeting regardless of whether such information subsequently influences allocation decisions. Their focus clearly supports the management and accountability budget functions described by Schick and others.

Melkers and Willoughby provide two important concepts in their evolving definition of performance budgeting: strategic planning and opening of communications between different actors in order to become more efficient and effective in the management of government operations and services. They define performance budgeting as the development of agency

mission, goals and objectives combined with a process that requests quantifiable data providing meaningful information about program outcomes that may then be useful for resource allocation decisions (Melkers and Willoughby 1998, 2001, and Willoughby and Melkers 2000, 2001; Willoughby 2004). Equally important, they also discuss potential synergies through the recognition of behavioral theories linking incentives of output and outcome targets to individual and group performance (Melkers and Willoughby 1998, 2005).

Robinson and Brumby (2005) provide an almost fully encompassing definition where performance budgeting is a process strengthening links between public funding for inputs, outputs and outcomes, using formal performance information for resource allocation decision making. Their definition includes a broad range of measures, output and outcome costs, and the assessment of efficiency and effectiveness through various analytical tools. Their perspective is clearly management focused when they state that performance budgeting's core objectives are "enhanced allocative and productive efficiency" (Robinson and Brumby, 2005, 5). McNab and Melese (2003) take a more general approach where performance budgeting is any initiative or reform attempting to quantify public sector outputs and outcomes, specifically for resource allocation decision making in the budget process.

A number of scholars however, are not comfortable with such a broad operationalization of performance budgeting. The most prevalent reason is the lack of findings that support performance budgeting's promise of influencing resource allocations (Joyce, 1993, Broom and McGuire 1995, Jordan and Hackbart, 1999; Larkey and Deveroux, 1999; Melkers and Willoughby 1998, 2000, Willoughby 2004; Wang, 2000; Rubin, 1992, 2005; Sterck and Scheers 2006, Gilmour and Lewis 2006a, Ho, 2006a; Moynihan, 2003, 2006b). The weak links between performance budgeting and resource allocation caused scholars to overly focus on the frequency

of using performance budgeting rather than how performance budgeting affected management decision making outside of the political process. Their logic was performance information is valuable for budget deliberations and therefore important, but irrelevant for budget decision making. The traditional budget process continues to prevail because political rationality in the legislative process prevents performance budgeting from ultimately influencing resource allocation decisions (Schick, 2001; Andrews and Hill, 2003; Sterck and Scheers, 2006).

Those scholars who focus on performance information include Joyce (1993, 2003) who believes performance information could be used to improve all stages of the budget process from budget preparation through budget evaluation. Wang and Berman (2001) discuss how performance information relies on the capacity of organizations to marshal and apply the appropriate resources consisting of people, funding, knowledge, and time to the budget process. Behn (2003) and Holzer and Yang (2004) believe that agencies use performance measures to evaluate and measure goals, and to motivate individuals and agencies to strive for improvement. Hilton and Joyce (2003) elaborate that performance measurement requires specifying a complex set of relationships involving inputs, outputs, and outcomes that are difficult to clarify and account for political and value judgments, resulting in their conceptual preference for “performance informed budgeting” rather than performance budgeting. Others have offered performance information’s potential for improving citizen trust and engagement, subsequently improving government performance through collaboration between citizens and government officials (King, 1995; Melkers and Willoughby 1998; Ho 2003; Ho and Coates 2004; Ho 2006a, 2006b; Franklin and Edbon, 2005; Yang and Holzer 2006).

Alternatively, Lu (2007) provides an informed discussion attempting to bridge the perceived gap between performance information and performance budgeting by delineating the

management function in Budgeting. Essentially, she states that performance management is the key to linking performance information and budgeting. She also updated Lauth's study of agency use versus budget analyst use of performance information confirming that agency use continues to grow in use and appreciation (Lauth 1985). Her study also reinforces the prospect that performance budgeting and performance measurements promote better managerial thinking and processes (Hatry 1999, Schick, 2001; Ammons 2002, 2008; Sterck and Scheers, 2006).

#### *Contemporary Budgeting.....Or Not.....*

Regardless of performance budgeting's promise or skepticism, there is a common perception pervading most of contemporary performance budgeting literature: the current iteration of performance budgeting reform (ongoing for more than one and a half decades) is new and distinct from the previous attempt attributed to the 1950s Hoover Commissions. There is also a perception that by 1960 performance budgeting reform had faded away, not to return until the emergence and attention of the new public management reform movement during the first Clinton Administration spearheaded by Osborne and Gaebler's treatise and Vice President Gore's National Performance review (Schick, 1971; Osborne and Gaebler, 1993, Gore, 1993).<sup>5</sup>

Schick (1971) contends that performance budgeting's demise resulted from insufficient studies confirming the validity of performance budgeting. Traditional line item budgeting was developed to ameliorate public discontent of corruption while the Hoover Commission's performance budgeting derived from massive growth in government and networked professional organizations, but lacked a crisis to institutionalize a new budget process (Schick, 1971). Schick's remarks are supportable if looking at budget formats, but if instead budget processes are analyzed, performance budgeting did not altogether disappear from a management function perspective. Schick provided a study by the Tax Foundation Inc. (1965) finding 38 states placed

performance budgeting or program budgeting in their budget documents (Schick, 1971).<sup>6</sup>

Schick's own analysis of state budgets from 1962-1969 determined that 35 of 48 states surveyed used some form of performance budgeting based on his conceptualization of hybrid budgets.

Performance in this case referred to the inclusion of (1) narrative information, (2) activity classification, (3) workload data, and (4) use of cost statistics (Schick, 1971).

One might argue that Schick's hybridization of performance budgeting concepts does not adequately relate to contemporary performance based budgeting. But I propose the importance is not exactness of definition, format, practice, or even process because of the difficulty of operationalizing performance budgeting's definition and exactly what it means for more than 80,000 different units of state and local government (Hilton and Joyce 2003). What *is* important is finding state and local governments practiced performance budgeting concepts that still continue today despite the rise (and fall) of PPBS, ZBB, and TBB reforms.<sup>7</sup>

The furor of PPBS began to subside around the same time that state and local governments began to experience difficulties balancing budgets as a result of several recessions in the 1970s and early 1980s. Additionally, there was pressure from the rapid growth of urban cities and a pent up demand for providing effective services in these urban areas. The Urban Institute and the National Commission on Productivity led the drive for research supporting the growing public management challenges faced by urban areas (DonVito and Hatry 1970; Hatry and Dunn 1971; Hatry and Fisk 1972; Winnie and Hatry 1972; Urban Institute and International City Management Association 1972; Waller et al. 1976; Hatry et al. 1977; Holzer 1977; Lee and Staffeldt 1977; Hatry 1978). In a "meta" review of seven budgeting books mostly dealing with state and local budgeting, Axelrod (1973, 584) remarked "*Increasingly, budgeting will focus on total performance, on input as well as output, on productivity as well as program impact, on*



*systems and procedures as well lofty policy analysis, on manpower utilization as well as measures of effectiveness, on making do this year as well as looking over the horizon, on resource management as well as program implementation, on constraints as well as opportunities.*” It would not be long afterwards that state and local governments experienced financial challenges from a series of recessions and hyper-inflation that reverberated until the mid-1980s. State and local governments would need to find productivity efficiencies linked to budgets.

Friedman’s (1979) study of performance budgeting in 88 cities found more than 70 percent of the cities used activity categorization of expenditures, program and activity narratives, and 50 percent of the cities used workload measurements. He also found 75 percent of these cities provided management reports relaying this information to city councils.<sup>8</sup> While the results of his study lacked robustness, Friedman provided some interesting concepts for my study. First, he remarked that performance budgeting achieves its effect when it changes routines. Some budgeting scholars have used this concept to question the validity of performance budgeting (also productivity or efficiency based budgeting processes) because *budget routines* infrequently change (Schick, 1966, 1971, Poister and McGowan 1984; Lauth, 1987, Forrester and Adams, 1997, Rubin, 1997b, 2000, 2005). But if we think about Schick’s management routine discussion, maybe performance budgeting can also achieve its effects if it changes *other* routines within an organization. Secondly, Friedman believed performance budgeting could change the interactions within organizations, and that new information flows and networks could provide for new relationships and power configurations within organizations (Friedman, 1979). I would clarify that maybe power configurations don’t change, but that other relationship characteristics, such as cooperation and organizational communication patterns might change.

While Friedman focused on traditional performance budgeting concepts, scholars in the 1980s shifted focus to performance measures that could improve the productivity of government services. Interestingly, these scholars observed similar challenges affecting performance budgeting practices throughout time, including the determinacy of valid performance measures, garnering support from organizational leadership and legislative authority, and the role of the central budget agencies versus governmental departments for interpreting performance measures (Poister and McGowan 1984; Grizzle 1982, 1985, 1987; Ammons 1985; Klay 1987; Lauth, 1987; Premchand 1987; Rabin 1987a, 1987b, 1988). However, scholars also confirmed positive correlations between budgeting and productivity. Cope (1987) found that 60 percent of 358 local governments developed performance indicators used for budgeting and management to bolster organizational productivity. O'Toole & Stipak (1988) provided similar findings that integrating budgets and productivity measures was prevalent and accepted.<sup>9</sup> Other findings indicate an expansion in the use of performance measures to aid in budget decision making from the mid-1980s until the mid-1990s, but have since tapered off (Poister and Streib, 1994; Lee, 1997; O'Toole and Stipak 2002).

### *Revisiting Performance Budgeting's Promise*

What exactly what is the state of contemporary performance based budgeting? Scholars have spent considerable time exploring the status and progress of performance budgeting over the past two decades. General findings indicate performance based budgeting at the state level has little influence on legislative processes and weak linkage between performance and resource allocation (Joyce 1993 1997; Broom and McGuire 1995; Jordan and Hackbart, 1999; Melkers and Willoughby 1998, 2001; Gilmour and Lewis 2006b; Sterck and Scheers 2006; Melkers 2006). Others believe performance based budgeting is not effective because it cannot overcome

the tendencies of political rationalities and value judgments that prevent or distort how performance information is used (Wildavsky 1964, 1979; Rubin 2000; Kelly 2003; Hilton and Joyce 2003; Shah and Shen, 2007). Moynihan (2006a) goes so far as to propose performance based budgeting is incompatible with the US style of democratic government because of its (perceived) relationship with new public management. He is suspicious of the flexibility inherent in the management function of performance based budgeting. His concern (and others) is directly related to perceptions that flexibility is incompatible with accountability processes (Moe 1994; Terry 1998; Radin 2000, 2006). Moynihan's concerns are not new or unusual tracing back to the study of the politics - administration dichotomy (Wilson, [1887] 1941).

Others however, are inclined to believe that performance based budgeting holds unfulfilled promise (Ho, 2006a). Performance based budgeting has been found to bring value to the budget deliberation process, the budget decision process, and communications between central budget offices and departments (Broom and McGuire 1995; Poister and Streib 1999; Willoughby and Melkers 2000, 2001; Ho 2006a; Rivenbark and Kelly 2006). Melkers and Willoughby (2005) and Melkers (2006) provide the most detailed observations yet looking beyond performance budgeting's direct influence on organizational and legislative processes, asking whether or not there are changes from traditional relations and communication patterns between actors as a result of implementing performance based budgeting.

Local government performance budgeting studies fared much like state government studies. A number of these studies look at the prevalence of performance based budgeting in cities and counties. One important difference between state and local government performance based budgeting is the difficulty in generalizing the findings. The variability between interpretations of performance budgeting between 50 states and thousands of local governments

is quite vast (Hilton and Joyce, 2003). Performance based budgeting varied from study to study with performance budgeting usage ranging between twenty and seventy-seven percent of local governments surveyed (Poister and Streib, 1999; Wang, 2000; Kelly and Rivenbark, 2003, Ho and Ni, 2005; Melkers and Willoughby, 2005; Mullins and Pagano 2005; Rivenbark and Kelly 2006).

Variability also existed in how surveys were operationalized. Survey samples ranged from large cities to city and county governments with populations over 50,000, and small cities with populations as small as 2,500. The smaller cities are equally important since they make up the bulk of local governments (Poister and Streib, 1999; Wang, 2000, 2002; Berman and Wang, 2000; Wang and Berman 2001; Kelly and Rivenbark, 2003, Ho and Ni, 2005; Melkers and Willoughby, 2005; Pagano and Mullins 2005; Rivenbark and Kelly 2006). City size is correlated with government capacity and the sophistication of budget departments and agencies to collect and use performance information for budget decision making (Ekstrom 1989; Wang 2000; Berman and Wang 2000, Wang and Berman 2001; Ho 2003; Holzer and Yang, 2004; Melkers and Willoughby, 2005; Mullins and Pagano, 2005; Yang and Holzer 2006). Performance based budgeting is also difficult to implement without political support from mayors and council (Berman and Wang 2001; Ho 2003, 2006a; Rivenbark and Kelly 2006).

Two interesting and recent findings are the importance of communication for implementing effective performance based budgeting processes, and development of citizen support of performance based processes for provision of government services. Routinization of performance based budgeting provides opportunity for improving budget development and deliberation by opening new or strengthening existing communication channels laterally and vertically throughout departments, agencies, and legislative bodies (Wang, 2000, Ammons et al.

2001; Melkers and Willoughby 2005; Melkers, 2006). Citizen input and participation in performance based budgeting processes continues to gain momentum. First it helps legitimize the performance based budget process as citizens are one of the external stakeholders able to influence political leadership. Secondly, it facilitates improved organizational and institutional communication, reinforcing the value of performance based budgeting (Ho and Coates 2002, 2004; Holzer and Yang 2004; Ho and Ni 2005; Melkers and Willoughby 2005; Yang and Holzer 2006).

### *Is Performance Budgeting Reform Fading or Just Resting?*

Some might argue performance based budget reform has worked its course for the time being. The most prevalent argument for performance based budgeting's demise is the perpetual argument that Wildavsky's political rationality trumps performance budgeting's management function (Wildavsky, 1979; Kelly and Rivenbark, 2003, Shah and Shen 2007). Mullins and Pagano (2005) go even further, kindly offering performance based budgeting may improve through information technology advances, but will always be hindered by Key's (1940) values dilemma. They hint that performance budgeting at the local level is incapable of sufficient advancement regardless of Tiebout's (1956) theory of local government efficiencies.

So is performance based budget reform doomed to failure and heaped on the pile of previous budgetary reform failures? My response is No! First and foremost, budgeting scholars have recognized budgeting is evolutionary in nature, taking bits and pieces of what worked, separating them from what did not work, and integrating the positive elements into the budget process (Cleveland, 1915; Key, 1940, Lewis, 1952; Schick, 1971; 1988; Rubin 1988; Forrester and Adams 1997; Melkers and Willoughby, 1998; Wang, 2000; LeLoup, 2002). This is exactly why performance budgeting never completely disappeared after the fervor of the Hoover

Commissions in the 1950s. It evolved. It was experimented with at all levels of government, but fitting the process to a budget format proved difficult.

If scholars are weary of performance budgeting, why has the practice continued to evolve at all levels of government? I believe performance budgeting continues to grow and evolve because it is not just a process for management control of the budget, but also a management tool for all levels of government that are constantly searching to improve the efficiency and effectiveness of government services. This is not a new concept, and has been discussed peripherally by numerous scholars each providing multiple approaches for studying performance based budgeting (Schick 1971; Kettl 1999; Snell 2000; Holzer and Yang 2004; Rivenbark and Kelly 2006; Sterck and Scheers 2006; Melkers 2006; Lu, 2007; Ammons, 2008).

I believe another reason for the continued growth and evolution of performance budgeting reform is its flexibility and adaptiveness that prevents it from neatly fitting into a singular category of reform. Larkey and Deveroux (1999) describe five different types of reform: rationalizing reforms (emphasizing analysis and reason); ad hoc administrative reforms; democratizing reforms (providing transparency and citizen input); power shifting reforms; and control based reforms (for constraining decisional behavior). Miller, Hildreth, and Rabin (2001) supplement Larkey and Deveroux's reform framework from a performance budgeting perspective. Performance budgeting's strategic planning and productivity analysis equate to rationalization reform, decisional efficiency and decentralization describes ad hoc reform, greater access and participation by citizens and stakeholders describes democratization reform, decentralization of power within the budget process describes power shifting reform, and shifting from input controls to output and outcomes monitoring reflects changes to agency based controls. Performance budgeting reform has been balanced and tended not to veer to extremes

between Larkey and Deveroux's reform categories.

Another possible reason for this balance is Schick's hybridization, where various governments have used performance based budgeting in a manner that best fits each individual government's means and priorities (Schick, 1971). But the hybridization does not come without a cost: operationalizing and standardizing performance based budgeting is difficult to achieve for scholars, governmental agencies and professional organizations such as Government Accounting Office (GAO), Government Accounting Standards Board (GASB), Government Finance Officers Association (GFOA), and International City/County Managers Association (ICMA).

Schick (1971) discussed the need for performance budgeting reform to find a happy medium between control and management objectives. Contemporary performance based budgeting reform has made progress, but there is more improvement possible. So where does this improvement come from? Melkers (2006) recommends, we need to revise our efforts and take a more holistic approach to the study of performance based budgeting. Too often we have been one-dimensional in the study of performance based budgeting, paying only precursory attention to other dimensions outside of resource allocation decision making (Ammons 2008).

This chapter had two purposes. First it introduced the historical roots of performance based budgeting and attempted to inform the reader that performance based budgeting has been an evolving reform, primarily management based but with roots in other types of reform as well. Second, it attempted to set the conditions for exploring a new theoretical approach for observing performance based budgeting that addresses the need to branch out from the narrow political or budget rationalities approach to budget theory. The next chapter offers the use of economic sociology theory as a means for observing performance budgeting's potential indirect effects on organizational processes unrelated to resource allocation decisions.

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*Notes*

<sup>1</sup> Schick documents the budget examiner responsible for monitoring the performance budgeting experiment by the New York State Health Department, Hugo Gentilcore, whose critical assessment of performance budgeting resulted in the experiment's termination as a general indictment of performance budgeting at the time.

<sup>2</sup> Golembiewski and Scott provide an interesting narrative describing a similar budget process developed by the State Department, not the Department of Defense, provided the impetus for President Johnson's 1965 directive for federal agencies to implement PPBS (Golembiewski and Rabin, eds. *Public Budgeting and Finance 4<sup>th</sup> ed.*, 1997).

<sup>3</sup> There are studies indicating budget format changes as a result of implementing contemporary performance budgeting procedures (see Broom and McGuire's 1995 study of state governments). However I do not believe such format changes have significantly changed the paradigm of line item budgeting, rather performance information has been packaged in ways that augment standard line item budget formats. I would argue however, both the post World War II Performance Budgeting reform and PPBS reform required specific changes to the budget format.

<sup>4</sup> For instance, Behn (2003) discusses eight different managerial purposes for performance measurements: evaluation, control, budgeting, motivation, promotion, celebration, learning, and organizational improvement.

<sup>5</sup> Schick described the prevailing attitude of budget practitioners, administrators, and legislators as indifferent; by 1958 performance budgeting was no longer on the agenda of annual State Budget Officers Meetings. He also refers to a 1960 Public Administration Review Symposium (Volume 20, No. 2) that asks up front whether performance budgeting theory works, using case studies from city, state and federal government agencies that indicated performance budgeting's potential and obstacles for successful implementation.

<sup>6</sup> These state governments also experienced the difficulty of operationalizing performance budgeting. Often during the PPBS era there was little distinction between performance budgeting and program budgeting. The purpose of program budgeting was to make informed decisions intended to facilitate efficient and effective provision of government services. As a result program budgeting was often used interchangeably with performance budgeting. While the manner in which these processes strove for efficiencies and effectiveness were different, their intended and stated objectives were similar.

<sup>7</sup> Schick's Hybridization also applies to PPBS and ZBB reform as well. One can still find elements of program budgeting and zero based budgeting in various state and local government budgets today.

<sup>8</sup> Unfortunately, Friedman does not provide demographic information about the cities in the study. Based upon the focus on urban issues at the time, and high percentage of cities using presumably sophisticated budgeting techniques, my assumption is the sample survey consisted of large, urbanized cities.



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<sup>9</sup> Surprisingly, they reverse their findings in a later study claiming while performance measures have been prevalent in the past two decades, they conclude their ability to influence management decision making is not as widespread as previously believed (O'Toole and Stipak 2002).

## Chapter 3

### Developing Economic Sociology Theory

#### *The Lost Art: The Management Function of Budgeting*

Many scholars distrust performance measurement reporting, often associated with public budgeting's management function (Rubin 1997b, 2005; Radin 2000, 2006; Bouckaert and Peters 2002; Grizzle 2002; Schick 2003; Dubnick 2005). One reason is scholars have been looking from the outside-in, from a principal-agent perspective rather than from inside an organization or in other words, from an intra-organizational perspective. Attention has generally been directed between central budget offices and their development of budgets, and relationships with legislative authorities. Little attention has been given to how budgeting affects organizational processes within government agencies. Do government managers base all of their management activities around the political aspects of budgeting? Or is there another dynamic or process at work within government agencies?

Is budgeting within organizations layered? I see Wildavsky, Schick, Rubin and many others looking at the outer, political layer of budgeting activity, or the budget rationalities layer of budgeting. But government agencies and their managers have to execute budgets within their scope of responsibilities after budgets have been formulated, and do so somewhat independent of central budget authorities who monitor budget activity, but do not direct or manage government activity. Maybe there are two layers of budget activity. There is an outer layer of budget activity that is political, but below that is another layer of budget activity oriented on budgeting's management function that I believe is particularly observable at the local level of government for two reasons. First, the knowledge and capacity of government oversight from elected officials is not as robust as with other levels of government, placing a higher reliance and delegation of

management functions to local government managers and authorities. Second, local government is most readily accessible by citizens. In other words the “face of government” is most easily visible at the local government level. Local government managers require a greater appreciation for how their decisions affect their communities that may not be explainable within a budget rationalities construct (Edelman 1964, 1988; Jones et al. 1977; Sharp 1986; Chadwick 2001; Thomas and Streib 2003).

Since there is little theoretical development of the management function of public budgeting, I have searched outside of the normative and rational theoretical bases found within the public budgeting discipline to find a theory useful for observing budgeting’s management functions. I have chosen economic sociology and in particular new economic sociology with its reliance on the concept of embeddedness as a primary condition for observing the management function of budgeting within local government. Embeddedness, for the purpose of this study refers to the budget process within local government embedded within the management of local government. Naturally, this is a bold statement; however I will attempt to clarify why this statement is not as presumptuous, or as forward as one might initially perceive it to be.

Previous budget reform including performance budgeting reform, assumed “budgeting drives management” (Schick 2001, 58; Miller et al. 2007). This falls in line with the normative budget theories where budgeting is a means for elected officials to influence executive government administration. However, consider the following statements: “budgeting cannot be reformed in isolation from the managerial systems and practices in which it is embedded,” and “performance budgeting can only thrive when it is embedded in managerial arrangements that make results paramount” (Schick 2001, 58; 2003, 102; Miller et al. 2007). Lu (2007) and Ammon’s (2008) discussions linking performance information, performance management and

performance budgeting reinforce Schick's statements and provide a starting point for developing a theoretical framework synthesizing performance budgeting and economic sociology.<sup>1</sup>

To place Schick's comments into perspective and relate them to core theoretical economic sociology concepts, this chapter begins with a discussion of alternative theories that might possibly explain how performance budgeting has the potential to influence organizational performance. Economic sociology theory is then presented as a theoretical base capable of explaining performance budgeting's influence as a change agent in local government budgeting processes. In order to do justice to the theory, it is necessary to provide the historical origins of economic sociology prior to explaining how economic sociology theory can be aptly transferred to public budgeting and specifically the management context of public budgeting theory.

#### *Theoretical Alternatives and Approaches*

Some postulate framing budgeting theory on political and economic constructs is too complex and destined to failure (Rubin, 1988, Schick 1973, 1988, 2003; Kiel and Elliott 1992, Forrester and Adams 1997). Covalleski et al. (2003) provide a framework for selecting appropriate budget theory from three specific disciplines: economic theory with analytical and explicit value orientation, psychological theory with individual motivational orientation, and sociological theory with organizational and institutional orientation. They also propose the possibility of integrative research combining various aspects of these disciplines to further research (primarily for participative budgeting studies). While their proposals focused on budgeting within the private sector, their proposal for integrative research provides similar opportunities for the public budgeting discipline, and economic sociology provides just such an opportunity for bridging gaps in public budgeting theory.

The sociological field, and in particular, organizational theories, have attempted to breach

gaps in public budgeting theory but never gained much traction. Forrester and Adams provide a detailed proposal for avoiding the development of immature budget reform doomed to failure from resultant and imminent political and economic complexity. They propose developing learning organizations that embrace organizational cultures and human capacity for change as a means for overcoming change resistance, allowing budget reform to be fostered to maturity (Forrester and Adams 1997). This requires changing from single loop to double loop learning and organizational feedback. Argyris (1982) define single loop learning as a "process of detecting and correcting error" within an organization's norms and processes. Referring to Rist, Forrester and Adams continue that single loop learning "is a continuous self-inspection process through which an organization uses information from budgeting, auditing, and program evaluations" (Forrester and Adams 1997, 476; Rist 1994, 191).

Single loop learning involves gathering data from past activities, comparing the data to organizational or budget objectives, and taking re-directive action to continue towards achieving organizational or budget objectives. What is missing from single loop learning is any activity that induces or integrates a holistic learning process prior to re-assessing objectives, allowing for decisional changes oriented towards achieving stated organizational and budget objectives. Morgan (1986) posits both private and public budgeting systems are constrained by past budget activity and restrictive budget documents, while budget accountability perversely distort budget information (Grizzle 2002; Dubnick 2005; and Radin 2006 offer similar arguments). Distorted budget information is exaggerated by the fragmentation of an organization's budget process, and cemented within an organization's conceptualization of budget activities (Morgan 1986; Forrester and Adams 1997).

"A second, higher level of learning, called double-loop learning, goes beyond self-

inspection and requires the organization to question the appropriateness of its operating norms, values, assumptions, strategy, and policy objectives. Innovative organizations tend toward double-loop learning” (Morgan 1986; Forrester and Adams 1997, 476). Moynihan (2005) discusses how single loop learning is a narrow based approach, while double loop learning is a broad based approach. Performance budgeting displays characteristics similar to double loop learning and provides a means for overcoming the constraints described by Morgan (Morgan 1986, Forrester and Adams 1997, 476).

Performance budgeting provides the opportunity to introduce dialogue linking budget information to management activity facilitating the removal of explicit and implied barriers described by Morgan’s budget information accountability paradox. If performance budgeting breaks down these barriers, an organization’s conceptualization of the budget process may be more receptive to process changes that can improve performance (Morgan 1986, Forrester and Adams 1997, Moynihan 2005).

Weick describes the difference between planned change and emergent change. Planned change is implemented to address major issues and to overcome inertia, while emergent change is an on-going, low key process reacting to daily contingent and routine activity. Small changes that are communicated across organizations often create change without the distractions and resistance associated with planned change (Orlikowski 1996; Weick, 2000). Performance budgeting does not necessarily create drastic change to an organization’s budget process, but augments it. Performance budgeting can be implemented without drastically changing an organization’s existing budget process.

Schick (2001) is an advocate of performance measurement but not in its current form of implementation. The problem is not performance measurements themselves, but in the

application of performance measurements: key users of performance measurements may not use the information as intended for performance based budgeting (see Moynihan 2006a as well). Schick believes that organizations must be changed or transformed to use performance measurements, and that organizational change should be a precursor for implementing performance budgeting (Schick 2001, 2003). This study seeks to contradict some of these observations and provide an explanation why performance budgeting at the local government level does not require new and distinct transformational processes.

Moynihan (2006b) expands the concept of performance budgeting and organizational learning through dialogue theory and how communication can arbitrate and inform actors in the budget process for the purpose of attaining improved organizational performance (see also Rainey and Bozeman 2000; Pandey and Garnett 2006; Garnett et al. 2008 as well). While performance information can create external conflict, it can also reduce intra-organizational conflict and improve information sharing, increased goal based learning, and enhanced performance (Moynihan 2006b).

Forrester and Adams (1997, 470-471) make an interesting statement to support their idea of budgeting and organizational learning: “Budgeting is not done for budgeting's sake, for example, to attain a true performance budget. Rather, it is done for the organization, to help it achieve its mission and objectives. If correct, a new budgeting framework can be adopted, namely, the organization and the human behavioral dynamics constituted within the organization. An organizational budgeting framework which includes behavioral dynamics can fundamentally alter how analysts and practitioners conceptualize and evaluate budget reforms.” This last statement is important. Budgeting is not the primary driver that budget theorists make it out to be. It is also a means for management and legislatures to achieve missions and

objectives (both from a management and political perspective).

While theories supporting organizational learning and experiential learning help describe how organizations accommodate new ideas, these theories are not explanatory enough by themselves to explain anything about permanency, adaptation, institutionalization or acculturation as a result of what might have been learned through the use of performance budgeting. What is missing is the study of how performance budgeting as a process affects organizations themselves. A paraphrased remark from Kettl indicates using performance measurements is “like talking about the weather, everyone does it but there is no consensus” (Kettl 1994; Osborne and Plastrik 2000, 249, Schick 2001, 40). The same can be said for budget theory. Everyone is talking about it, but we cannot reach consensus or accept alternative theories *about* budgeting.

#### *Developing a Starting Point for Exploring a New Alternative Budget Theory*

This study attempts to expand our theoretical foundations outside of public budgeting’s normal comfort zone and look into an area *about budgeting* (rather than *of budgeting*) that has little research foundation (Forrester and Adams 1997). Rather than continue looking at whether or not the current performance budgeting reform works, this study looks at whether performance budgeting influences other processes within an organization.

Are the environments and variables associated with public budgeting similar across the hierarchies of government? I propose in this study that local government budgeting holds unique characteristics that do not necessarily hold the same at the state and federal level of budgeting.<sup>2</sup> One such characteristic is that outcomes are more readily observable and measurable at the local level versus other levels of government where the dilemma of public goods and free riding is not



as prevalent. Take for instance national defense, a commonly used example of a public good: measuring various outputs of military operations is less likely to equate to desired outcomes, as opposed to city police or fire department response times to incidents. Second, if measurement of outcomes even if imperfect, are capable of providing a reasonable level of interpretation, can one assume that instituting new processes such as performance budgeting would entail different characteristics between different government hierarchies?

Taken a step further, instituting new or different organizational processes does not necessarily entail the promise of easily observable first order effects resulting in successful change. There are also second and third order effects that can be equally significant. They may be subtle or also easily observable. They may be immediate or take time to develop. Regardless, they can result in organizational changes that may or may not have been originally intended or even anticipated (Merton 1936; Scott 2004). I am proposing then, if there are second and third order effects, the ability to isolate and observe them are more probable at the local level of government budgeting.

Another question to consider is Schick's argument that performance budgeting requires organization, which translates into "human, financial and other resources to produce a collective result" (Schick 2003, 85). He subsequently frames this statement by describing how an organization can be just as equally inefficient as efficient, because organizations place internal needs and norms above external demands and conditions. I do not subscribe to this argument when it comes to local governments and local government budgeting, the framework for this study. While studies of federal performance budgeting processes indicate resource allocation is not influenced by performance budgeting, results from similar studies at the local level are less prevalent (Poister and Streib 1999; Robinson and Brumby 2005).

Performance budgeting at the federal level was initiated as a top down process. Contemporary local government performance budgeting has been initiated mostly as a bottoms up process, often by entrepreneurial administrators or legislators as a means for developing improved management and budgeting processes. Finally, local government's distinctiveness is recognized by the observation that performance measurement works better at the "functional area and agency level" of government than it does from central budget offices (Nathan, 2001, 13).<sup>3</sup> While many large cities have central budget offices, they are not as dispersed and independent as state agencies, allowing for greater access and discussion of budget issues between department heads and budgeting authorities. I intend to relate the functional level described by Nathan to local government departments of various populations.

*The Indirect Approach.....*

Scholars have touched upon related theory and environmental factors that affect budgeting. Wildavsky (1988, 2001) for instance, applied cultural theory to budgeting, probing into the humanistic side of budgeting and the boundaries between groups and individuals associated with budgeting. Other research provides limited discussion indicating performance budgeting creates synergies when integrated into a larger context of public sector reform where individual and work group preferences are fostered and affiliated with output and outcome targets (Diamond 2003a, 2003b, Poocharoen and Ingraham 2003, Robinson and Brumby 2005).

Behn (2003) discusses how measurements can affect performance in a variety of ways that may not be direct, observable, or function as expected. In other words, they may be indirect, and they may affect other processes. Performance budgeting at the state level has been found to facilitate "subtle contributions" to budget decision making. This subtleness comes from how information is introduced into the process, creating changes to information disclosure (Jordan

and Hackbart 1999, 85; Melkers and Willoughby 2005, 181).<sup>4</sup> However, Ammons (2002) provides an alternative explanation: performance changes may not be subtle, but under reported. Small changes simply do not receive adequate attention, while significant performance improvements are credited to other more tangible elements such as charismatic leaders, re-engineering or technology advances.

Ironically, what has *not* changed for almost 50 years is the knowledge that performance budgeting does not *need* to change outcomes or completely solve decision making problems. Rather that it can help bring budgeting issues into “sharper focus”, and is essentially a tool used for decision making dependent upon the skill of the users (Roberts 1960, 78). The point being performance budgeting’s promise for “sharper focus” implies that communication channels are important for transmitting budget information. Otley (1978) describes how we need to take a more contingent view of budget control that appreciates different types of organizations, environmental norms and values; both within the organization and within society itself.

A number of scholars have remarked how budgeting studies need to look beyond the institutional aspects of budgeting, zeroing in on agencies themselves (Joyce and Sieg 2000, Otley 1978). In this study, agencies are equivalent to city departments. If performance budgeting involves a change in routines (processes) and information flows are changed, it is important that we look at how performance budgeting affects intra-organizations, as this is where I assume that indirect affects exist in the use of performance budgeting. Economic sociology provides a theoretical framework for observing and explaining how performance budgeting affects routines and informational networks within local governmental departments.

### *Introducing Economic Sociology*

What is economic sociology? Economic sociology has yet to be clearly defined and

accepted within the mainstream of contemporary economic and sociological theory (Granovetter 1985a, 2002; Swedberg 1990, 1997, 2003; Swedberg and Granovetter 1992, 2001; Beckert 2002)<sup>5</sup>. One of the reasons for this problem is the difference between how economics and sociology approach economic sociology as a sub-discipline. Hirsch et al. (1987, 1990) describe the difference between the theoretical approaches with their “Dirty Hands, Clean Models,” where the economic approach is clean and simplistic, and the sociological approach is messy and not as dependable, because human behavior is not consistent. Regardless, these authors believe more emphasis on individual behaviors within participative (organizational and institutional) processes is necessary and beneficial to both fields of study (a necessary point for asserting the importance of this study). This same debate continues today over which field has primacy of Economic Sociology as a sub-discipline and where economic sociology fits within the intersection of both fields of study. While these debates continue, they are not helpful for strengthening the viability of economic sociology as an important contributor to both fields of study. There is an unintended consequence however, economic sociology’s broad concepts such as Granovetter’s (1985a) foundational “embeddedness” resonate across a wide spectrum of cross cutting disciplines (the embeddedness concept has already been applied within the finance and management disciplines) (Baker 1984; Williamson 1975, 1985; Dacin et al. 1999; Beckert and Zafirovsky 2006).

Broadly speaking, Zafirovsky and Levine (1997, 265) describe economic sociology as the study of “economic activity, relations, and processes within their social settings.” As previously mentioned in the introductory chapter, Smelser’s (1976, 43) definition is “the application of the general frame of reference, variables, and explanatory models of sociology to that complex of activities concerned with the production, distribution, exchange, and consumption of local goods and

services.” Guillén et al. (2002,6) define economic sociology as the “study of the social organization of economic phenomena related to production, trade, leisure, and consumption which may or may not be monetarily based, and analytically observable at the individual, household, organization, network, industry, nation, and global systems.” Smelser also framed economic sociology as the study of those activities concerned with the production, distribution, exchange, and consumption of scarce goods and services (Smelser 1963, 1976; Smelser and Swedberg 1994, 2005).

More importantly, economic sociology includes the study of the “non-economic aspects of social life” (Pareto 1932; Parsons and Smelser 1956, 1; Zafirovsky and Levine 1997). Tonkiss (2006) describes economic sociology in terms of knowledge, information, and signs (providing signaling indications). Zafirovsky portrays economic sociology in terms of exchange, action, and social structure, with trust as an integral mechanism for influencing these activities (Zafirovsky 2001). Dobbin (2004, 20-21) describes modern markets as social structures consisting of roles, conventions, and institutions characterized by conflicting and competing disputes over their composition. Economic sociology is also defined by both historical and comparative approaches (Granovetter 1990, 2002; Zafirovsky 1999; Dobbin, 2005). Finally, economic sociology provides explanation for organizational and institutional theory by identifying “values, ideas, institutions, organizations, and motivations including property rights, ideologies, cultural, and political and related structures in society as they impinge upon material welfare” (Waters 1991/1992, 7; Zafirovsky 1999, 599).

The introduction thus far intended to provide a broad theoretical framework for economic sociology and illuminate the vast array of research opportunities (including public budgeting) available within the economic sociology framework. It is also important to discuss economic

sociology's origins and the tensions between the competing disciplines prior to addressing specific elements of economic sociology relevant to my research.

Depending on a scholar's perspective, economic sociology has been traced as far back as Hobbes' ([1651] 2005) *Leviathan*, Adam Smith's ([1776] 1979) *Wealth of Nations*, Alexis de Tocqueville's (1835-1840) *Democracy in America*, John Stuart Mill's ([1844] 1968, [1848] 1884) *Essays on Some Unsettled Questions of Political Economy* and *Principles of Political Economy*, Comte's ([1844] 1983) subordination of economics within sociology, and Karl Marx's (1857-1858, 1859, [1867, 1885, 1894] 1967) works regarding the economy and society (Schumpeter 1942; Granovetter 1985b, Swedberg and Granovetter 2001; Swedberg 2003; Dobbin 2005; Smelser and Swedberg 2005). If not theoretically constrained, economic sociology's roots can be traced throughout the development of modern governments, economies and societies, reaching far beyond the scholars listed above (Backhaus 2002, Swedberg 2003).<sup>6</sup>

As a result, I will limit my discussions to those scholars most associated with the lineage between classic economic sociology and development of new economic sociology.<sup>7</sup> Secondly economic sociology is perceived differently by the economic and sociological disciplines, often skirmishing over the primacy of economic sociology, resulting in the perception that economic sociology is positioned in "no man's land" with neither discipline fully accepting of economic sociology's place (Schumpeter 1956, 134; Simon 1982, 389-391; Zafirovsky 1999, 595). Not to despair though, as this provides opportunity to explore new avenues of research. Economic sociology has also been described as the study of the "gray area overlapping economics and sociology," facilitating productive exchanges between the disciplines (Swedberg 1990; Davern and Eitzen 1995, 79; Davern 1997, 287).

### *Classical Economic Sociology*

While the concept of economic sociology traces back to Auguste Comte, John Stuart Mill and Adam Smith, the actual term economic sociology, is credited to William Stanly Jevons (Jevons ([1879] 1965, xvii; Schumpeter 1954b; Zafirovsky 1999, Swedberg 2003). Jevons, who is recognized for advancing the economic theory of marginal utility, also proposed the concept of economic sociology in his *Theory of Political Economy* to delineate economics from a number of other economic sub-disciplines including “fiscal science,” “commercial statistics,” “systemic and descriptive economics,” and “mathematical theory of economics” (Jevons 1876] 1905, [1879] 1965; Zafirovsky 1999, 594; Swedberg 2000, 286).

The writings of the classical economic sociologists were influenced by a period of turbulent change on the European continent resulting from industrial capitalism and development of modern governments often incapable of reacting swiftly enough to changing social conditions. For Jevons in particular, England was gripped in the throes of growing industrial capitalism and conflicting inequities resulting from the division of labor, affecting both economic and societal conditions. Bowman (1989, 1141) provides a provocative observation describing how Jevons’ writings provide a framework for using economic theory as a means of “social inquiry” integrating “economic explanation and public policy for the purpose of developing solutions to important social ills and conflicts” (Tool, 1979, 27-34-8).

It is Weber and Durkheim, however, who are most often mentioned in the development of classical economic sociology. Weber’s economic sociology pervades numerous portions of his works, and is credited by Swedberg (1999) for developing the formal concept of economic sociology (Swedberg 1999, 2003, 11). Most of Weber’s ideas regarding economic sociology can be found in *Economy and Society* ([1922] 1978) and his collection of works on religion and

society, including *The Protestant Ethic* (Swedberg, 2003, 12). Weber's description of economic sociology included a convergence of several concepts: economic sociology, social economy, and both social and economic action. One of the foundations for Weber's observations was his declaration that Mill's *homo economicus* was incomplete, that an individual's activities and decisions were based upon both economic and non-economic phenomena, and in doing so relates "social action" as an important aspect of economic activity (Weber [1922] 1978; Swedberg 1999; 2003). Social action is defined by breaking the two words into two separate parts: "social" meant orientation towards another actor, and "action" meant behavior "invested with a meaning" (Weber [1922] 1978; Swedberg 2003, 15). Weber added a framing concept for institutional structure by providing "order," that is established as social actions are routinized over time, becoming the objective for social action itself, ultimately providing "stability and permanency" (Weber [1922] 1978; Swedberg 2003, 15). Weber also discussed the importance of relationships between social actors. From an economic stand point, a relationship between two actors could be competitive, based upon power struggles while cooperation was contingent upon "communal" or "associative" interests. Communal relationships are based upon a sense of belonging within a group, while associative relationships are based upon shared interests regardless of group status (Weber [1922] 1978; Swedberg 2003, 16).

Weber's proposals regarding Economic Sociology arose from the perspective of the Austrian school of economics, whereas Durkheim's observations originate from the sociological discipline. Durkheim identified the economy as a series of inter-related institutions: 1) institutions related to the organization and production of wealth, 2) institutions related to the exchange of resources and 3) institutions related to the distribution of rent, interest and salaries.



These three types of institutions “formed the subject matter of Economic Sociology” (Durkheim [1909] 1978, 80; Swedberg 2003, 18). Within this formulation, Durkheim attacked the neoclassical argument that the division of labor for the purpose of production was purely an economic phenomenon separate from social life and the role of society. He strongly insisted a social dimension existed where the division of labor helped integrate society and made society more cohesive through the creation of dependencies between the division of labor and class (Durkheim [1893] 1984; Swedberg 2003).

Durkheim proposed a contract viewed solely as an economic instrument failed to appreciate the notion that self interest was insufficient to explain societal behavior for abiding by economic contracts or transactions. There had to be something beyond a contractual or exchange agreement that affected general behavior, because even the regulation of a contract was a social action. Durkheim proposed the answer was clearly evident: the “subordination of private interests to the general society is the very well-spring of all moral activity” (Durkheim [1893] 1984, xliii, 162; Swedberg, 2003, 18-19).

A re-occurring theme elaborated by Weber, Durkheim, and Simmel’s exchange theory is a description of how prices and market values are defined and determined as a result of social interactions. Value in any terms, monetary and otherwise is socially determined. (Weber [1922] 1968, 108-109; Durkheim, [1893] 1984, 27; Simmel [1907] 1990; Zafirovsky 1999; Kilby 2002). Of equal interest is the similar discussion by all three scholars regarding the roles of trust and reciprocity as an integral part of monetary or value exchange processes. Simmel discusses reciprocity in terms of transactions bounded by norms and obligations within “personalized networks of exchange” (Woolcock 1998, 161). Durkheim discusses trust in terms of values and moral obligations allowing for contractual exchange to occur, while Weber provides the concept

of “enforceable trust” where institutions and group mechanisms provide rules for voluntary compliance (Woolcock 1998 161).<sup>8</sup> Trust and reciprocity are the link between the economic exchange and the social exchange within societal transactions (Woolcock 1998; Kilby 2002).

In Simmel’s *Philosophy of Money* ([1907] 1990), he proposed that trust is multi-dimensional. For instance, monetary exchanges cannot occur without an element of trust. Likewise, society would collapse without the bonds of trust. Money abounds with both economic and social behavioral characteristics affecting elements of trust: “hope and fear, desire and anxiety” (Simmel [1907] 1978, 171; Swedberg 2003). Simmel further characterized trust as either routinized where expectations of continued activity develop a trust based on a “weak form of inductive knowledge,” and trust based on “non-rational belief” or quasi-religious faith,” such as monetary and credit transactions (Simmel [1907] 1978, 179; Swedberg 2003).

Simmel’s *Sociologie* ([1908] 1971) provided a discussion on the importance of interests beyond economic utilitarianism. He believed interests guided individuals to form social relations, and social relations could not exist without interests. He extended this concept further to examine and describe competition in a manner different from the economic discipline. Competition is not only confrontational in nature, but complimentary, whereas the individual seeks self improvement, reaching out to third parties or customers who are the object of interest between the actors involved in the competition (Simmel [1908] 1955; Swedberg 2003). Quite simply, Simmel implies individual behavior extends beyond rational utilitarian theory, and particularly that competition heightens individual actor interests often beneficial to all parties.

Perhaps no one has been credited for both disrupting and advancing economic and sociological theory more so than Vilfredo Pareto. Pareto is credited for both establishing the distinct separation between economics and sociology that continues to this day, and facilitating

the demise of economic sociology for decades (Parsons 1937, 1949; Samuelson 1983; Swedberg 1987; Camick 1989; Smelser and Swedberg 1994; Zafirovsky 1999; Aspers 2001; Dalziel and Higgins 2006).<sup>9</sup> Surprisingly though, Pareto is also credited for his pioneering work in connecting the importance of economic activity within the confines of the larger society, later used by contemporary economic sociologists to advance the “new” economic sociology (Pareto [1915/1916] 1935, 1927, 1932, 1935, 1972; Swedberg 1990; Zafirovsky and Levine 1997; Zafirovsky 1999; Dalziel and Higgins 2006).

Pareto attempted to explain how the economy and economic activity based upon the pursuit of material interests failed to account for the inclusion of societal interests and social ends (Pareto [1915/1916] 1935; Zafirovsky and Levine 1997; Zafirovsky 1999; Aspers 2001). Sociology, according to Pareto is the study of “human society in general,” and thus includes all disciplines, including economics (Pareto [1915/1916] 1935, 1, 2016; Aspers 2001, 524, 529). Pareto’s attempt to explain how economics and sociology are supplementary provides one of the most powerful arguments for economic theorists’ assertions for the distinct separation of the disciplines (Samuelson 1947, 1983; Parsons 1937; Zafirovsky and Levine 1997; Zafirovsky 1999; Dalziel and Higgins 2006). Pareto attempted to discern logical and non-logical actions, creating a foundation for rational theory and behavior. Pareto’s political economy described economic activity as a logical action capable of observation and easily quantified by the measurement of money and its transactional nature.<sup>10</sup> In fact, he stated this was probably the reason that political economy was much farther advanced than the study of sociology because it dealt with logical conduct (Pareto [1915/1916] 1935, 263, 1732; Aspers 2001, 524, 525). Whereas economic theory observed logical, quantifiable activity; sociological theory observed non-logical activity originating from “psychic states, sentiments and subconscious feelings”

(Pareto [1915/1916] 1935, 161; Aspers 2001, 526).

It is easy to imagine how such statements might become interpreted or misinterpreted. Pareto's logic was nuanced, surmising the prevalence of non-logical actions through his statement that "human beings have a very conspicuous tendency to paint a varnish of logic over their conduct" (Pareto [1906] 1971, 4; [1915/1916] 1935, 154; Aspers 2001, 526). He indicated logical activity was based upon both objective and subjective action, requiring "experimental-logical information," concluding much of human activity is guided by non-logical action (Pareto [1915/1916] 1935), 151; Aspers 2001, 525). Pareto also remarked that individual actions must account for how one perceives reality, the ends they wish to achieve, and the corresponding means used to achieve stated ends (Pareto [1906] 1971, 7-9; Aspers 2001, 527). Reality according to Pareto's logical and non-logical activity cannot be explained by singular causes, but through observing how "different phenomena interact giving rise to a series of actions and reactions" (Pareto [1915-1916] 1935, 1731; Aspers 2001, 541).

Pareto's influential works affected the writings of Talcott Parsons. Parsons' interpretations of Pareto's works are dichotomous: initially supportive, later skeptical, and yet still later conciliatory (see Parsons and Smelser, 1956). Parsons provided three important thoughts supporting my proposals. Parsons' interpretation of Pareto's *Treatise on General Society* and the cyclicity of societal changes underscored the existence of 1) "direct economic effects" (related to protectionist measures by government to manage social externalities that may or may not benefit economic activity), 2) indirect economic effects (that may or may not balance direct economic effects "in relation to other than economic elements of the social situation") and 3) social effects (Parsons 1935, 503).

Alfred Marshall's works compliment Weber and Pareto's discussions of social

economics and political economy, and provide two specific topics relevant for my study. First, an individual's character and faculties in the work place play an important role in relationships with others in the work place (Marshall 1920a, Aspers 1999). Marshall's discussion supported the explanation of production and accumulation of wealth, but there are parallels into other aspects of society, particularly for this study where values and professionalism may affect individual activity and behavior in local government (Aspers 1999). An individual's character and faculties within the role of management and budgeting might also be explained in means other than the political or budget rationality perspective.

Second, the discussion of individual traits and values leads to Marshall's conceptualization of knowledge and organization, one of four factors of production along with land, labor, and capital (Marshall 1920a; Schumpeter 1954b; Aspers 1999). Marshall mapped out knowledge and organization into four analytical levels: a societal level or "social group" (broadly defined as nations or nation states), a society's economy, followed by industries, and finally organizations or firms (Marshall 1920a, II, 209, Aspers 1999, 660). Marshall suggested there is an "atmosphere" surrounding industries that is malleable as a result of individuals displaying cooperation between different businesses within an industry. Knowledge created and transmitted from cooperative efforts can lead to organizational efficiencies (Marshall & Marshall [1879] 1994, 47, 52-53, [1920a] 1961, 268-273, 1920b, 283-288; Aspers 1999). As a result, industries tended to group together within clusters Marshall termed industrial districts: "industrial districts were defined by geographical and social boundaries rather than political boundaries" as tendered by political economists (Marshall [1920a] 1961, 1920b, Aspers 1999; Granovetter 2003, 65). Marshall also proposed the firm could not exist without good management and trust amongst employees, which must be preceded by individual character,

faculties and motives (Marshall 1920b, 351, Aspers 1999, 662-663).

Arguably, Joseph Schumpeter provides a bridge between classic economic sociology and new economic sociology. The importance of Schumpeter's economic sociology resides in his taxonomy of economic disciplines where he specifically identified economic sociology's co-existence with economic theory, political economy, applied economics, economic history, and economic statistics (Schumpeter 1954b; Zafirovsky 1999). Economic sociology related how values including market processes result from social relations within market activity and are thus "social phenomena" (Schumpeter 1951, 5-10; Zafirovsky 1999, 589). "Economic life is constantly acted upon by social and political factors. It lives in a social and political environment full of disturbances of its own...the non-economic causes play a dominant role in its drama" (Schumpeter 1951, 113-115; Zafirovsky 1999, 595). Schumpeter delineated between economic theory and economic sociology where the former observes economic behaviors, and the latter observes the institutions where economic behavior takes place (Swedberg 2003). Economic sociology provides the descriptive or explanatory background for the how and why economic activity effects individual behavior.

Equally important for my study is Schumpeter's discussion of the entrepreneur's role in linking economic theory with sociological analysis, suggesting that entrepreneurship increased economic wealth, but second and third generations generally ended up squandering the accumulated wealth of the original entrepreneurs (Swedberg 1991, 2003). While such observations indicate Schumpeter's interest in sociological study, the importance for my study is Schumpeter's observation that entrepreneurial behavior leveraged the effects of economic activity by overcoming the obstacles of tradition and resistance to change through re-arranging existing resources in ways that increase economic wealth (Schumpeter 1934; Swedberg 2003).

State and local governments often display entrepreneurial characteristics. Reminiscent of Tiebout's public choice model, state and local governments compete in ways to attract residents and business in order to maintain healthy economies and tax bases for the provision of services that residents desire. According to Tiebout, residents are mobile and will search for communities that best match their preferences (Tiebout 1956; Boyne 1996; Warner 2003). If state and local governments are in competition with one another, one can assume that an entrepreneurial spirit exists within local government as well. An example of entrepreneurialism that may or may not have backfired depending on one's point of view is the advent and growth of privatization of government services as a means of improving government efficiencies. Performance budgeting is another example where entrepreneurialism might be present as a means of enhancing government efficiencies and effectiveness.

If Schumpeter bridges new and old economic sociology, it is Talcott Parsons and Neil Smelser who highlight the importance non-economic phenomena effecting both the economy and society. They state "both the 'pure theory' of an economy *and* the ways which an economy is involved in the structure of collectivities in the society" must be investigated (Parsons and Smelser 1956, 16). Non-economic phenomena encompass psychological, social, political and physical characteristics not associated with the concept of pure economic theory and *homo economicus* (Parsons and Smelser 1956).

Parsons and Smelser provide an elaborate explanation for the interchange of economic and sociological theory based upon specific assumptions of human behavior. The basis for such a proposal begins with their explanation that the economy is a an "adaptive subsystem of the society" interchangeable with other "cognate subsystems" consisting of a polity, an integrative system, and value maintenance system, "each differentiated according to the appropriate system

exigency,” which the authors describe as a “classification of modes of relationship and bases of decision” (Parsons and Smelser 1956, 297). The authors elaborate how a social interaction is a process where actions and behavioral changes influence the state of a system and also the state of other co-existing systems. An action also contains both sanction and performance aspects related to expectations of corrections or rewards as a result of the action (Parsons and Smelser 1956). After describing the general concepts of social interaction, Parsons and Smelser describe the functional imperatives of a system of action and how social interchange influences social equilibrium.<sup>11</sup> The four imperatives are adaptation, goal gratification, integration, and value maintenance, all of which exist within a social system constantly affected by endogenous and exogenous cultural and motivational interests and pressures.

Briefly, adaptation explains how individuals or collectivities affect resources and facilities in pursuit of stated goals. Goal gratification, or goal attainment is the “relation between the system of reference” and endogenous and exogenous factors related to a specific system or subsystem that maximizes equilibrium. Integration implies efforts to “maintain solidarity in the relations between the collectivities in pursuit of effective functions.” Value maintenance refers to managing between pattern maintenance facilitating “positive motivation to act in accord with institutionalized values,” and tension management resulting from perceived or real instability from efforts to change within the system (Parsons and Smelser 1956, 18-19, 265-266). Value maintenance has also been defined as latent pattern maintenance legitimacy. The four functional imperatives described here are also referred to as the AGIL framework (adaptation, goal gratification, integration and latent pattern maintenance and tension management) (Parsons et al. 1953, Parsons and Smelser 1956, Smelser 2005).

An important distinction by the authors is the idea that a function’s boundaries within a



system are permeable and malleable: endogenous and exogenous factors efficaciously influence interchanges within a social system and its subsystems (Parsons and Smelser 1956). Parsons and Smelser complete their concept by describing the social system, as layered, existing at two distinct levels. The first level looks at a system of the economy in terms of the four functional imperatives, while the second looks at society as a system where the economy is a subsystem of society. In the second case, the economy *is* the adaptive function, cementing Parsons and Smelser's argument for the economy's role as a *functional imperative*, and subsequently a "*functional* subsystem of a society" (Parsons and Smelser 1956, 19-20).

Parsons and Smelser's definition of a process is also important for this study. First, they discuss the meaning of a *process* as it relates to a system. They define a process "within a given structure of the system in question and second, process which results in major changes in that structure." The former definition refers to a series of events by which a state of equilibrium can be attained through inputs and outputs operating over boundaries between units or sub systems. The latter definition refers to the means for explaining how major structural changes occur within a system (Parsons and Smelser 1956, 247-248). While Parsons and Smelser's discussion of a process describes economic activity, it could also describe a budget process as well.

Smelser (1963) provided further explanation to his work with Parsons by operationalizing various means for studying economic sociology, and furthering the logic for studying how both economic and non-economic variables affect one another during periods of social change. He explained how economics focused on the individual, while sociology focused on other persons around the individual, groups, and the social structure of institutions (Smelser 1963). Interestingly, Smelser includes a description of government activity as "constitutionalized intervention in the form of assistance, promotion, regulation, and manipulation of economic

behavior” (Smelser 1963, 72). From this statement, I believe we can infer that public budget functions and processes are integral for deciding and providing the resources for such activities listed in the description of “constitutionalized intervention.”

We have reached an important transition point in this chapter. The discussion thus far concentrated on describing classical or old economic sociology (Granovetter 1990; Swedberg and Granovetter 1992; Zafirovsky and Levine 1997; Zafirovsky 1999). Classic economic sociology faded to near obscurity for almost three decades, falling victim to the hegemonic instrumentalism of homo-economicus, partially supported by Parsons’ dissection of Pareto’s earlier works. Economic sociology also suffered from the narrow theoretical scope taken by industrial sociology and labor economics focusing on human relations within organizations, and failing to fully recognize the importance of social structures and the external organizational environment. Ultimately, interest in economic sociology and related fields lost momentum in the 1960s, in large part due to extensive changes in both external social and economic environments (Granovetter 1990). It was not until Mark Granovetter (1985a) integrated an already existing concept of *embeddedness* into economic sociology that a new period of economic sociology emerged, conveniently titled *new economic sociology*.

#### *Embeddedness: The Spring Board for New Economic Sociology*

While Granovetter often receives credit for re-energizing economic sociology through his discussion of embeddedness (Swedberg 1997), he proffers credit to other factors leading up to his work on embeddedness and the development of new economic sociology.<sup>12</sup> Granovetter credits the rise and confluence of institutional economics and economic imperialism (the economic discipline’s attempt to incorporate ownership of the study of non-economic entities), and sociology’s renewed interest with organizational structures and social networks (Becker

1957, 1976; Libenstein 1976; White 1981; Burt 1982, 1983; Granovetter 1985a, 1990; Hirshleifer 1985; Hirsch, et. al 1987; Farkas and England 1988; Mizruchi and Schwartz 1988; Lazear 2000). But the continuing competition between the economic and sociological disciplines was only one factor. Swedberg (1997) and Guillén et al. (2002) credit White's (1981) description of markets, Baker (1984) and Coleman's (1984) discussion of social structures of economic activity and markets, and Burt's (1982, 1983) discussion of structures and networks for providing the substantive theoretical background for Granovetter's embeddedness argument.

Granovetter's paper "Economic Action and Social Structure: The problem of Embeddedness," (1985a) sought to re-establish the role of sociology in the study of economic life. He proposed a resurgence of many of the ideas from the Austrian School of economics of which Weber, Schumpeter, and Hayek are associated, calling for an appreciation of societal roles in economic activity. Embeddedness itself was not a new concept, long associated with anthropologists, historians and political scientists alike proposing economic behavior was embedded in social relations in non-market societies, but declined with the advancement of a modernized, nuclear society (Granovetter 1985a).

Interestingly, the concept of embeddedness became myth-like after Granovetter's paper, but actually originated from two short remarks from Polanyi (1944) in his book *The Great Transformation*, where he frames economic exchange through reciprocity, redistribution, and markets (Barber 1995, 395; Zafirovsky 2003, 44; Beckert 2007). In describing the evolution of the market, he states "instead of the economy being embedded in social relations, social relations are embedded in economic activity," and he describes reciprocity as "as acts of barter, usually embedded in long range relations implying trust and confidence..." (Polanyi 1944, 57, 61;

Barber 1995, 401). The gist of Polanyi's embeddedness resulted from his observations of turbulent social and economic activity that led to the advent of World War II. He conjectured industrialization created conditions disembedding social exchange (and the value cohesive of social relations) from economic exchange that existed in pre-market societies prior to the great industrialization (Polanyi 1944; Smelser and Swedberg 1994; Ingham 1996; Piore 1996).

Granovetter (1985a, 482) proposed a new way of describing embeddedness, opposing the conventional wisdom of the "substantive school" (Polanyi 1944; Polanyi and Arensberg and Pearson 1957), and the "moral economy of history and political science" (Thompson 1971, Scott 1976). Granovetter skillfully argued a role for his concept of embeddedness, positioning and distinguishing his concept outside of the typical argument between sociologists and economists and their on-going debate between the notions of the atomized, under-socialized man and over socialized man (Parsons 1937; Wrong 1961; Williamson 1975, 1979, 1981; Hirschman 1977, Granovetter 1985a). Granovetter (1985a, 490) specifically positioned his argument of embeddedness as "the role of concrete personal relations and structures (or networks) within the context of economic activity."

In arguing for his positioning of embeddedness, Granovetter contrasted Williamson's (1975) *Markets and Hierarchies*, taking issue with Williamson's proposal that trust and malfeasance in the market place are dependent upon the certainty of transactions within the market place. Where there is uncertainty and large investments of resources (time, money, energy) to ensure economic transactions are completed, transactions will most likely occur in "hierarchically organized firms." Non-repetitive, less resource intensive, or one time transactions will most likely occur "between firms" or across a market interface" (Granovetter 1985a, 493). Williamson's proposal, and one of the objects of Granovetter's critique is the cost of such

transactions depends upon the amount of “trust or malfeasance” between market transactors, determined through rational behavior that leads to the most efficient organizational forms to negotiate transaction costs in the market (Granovetter 1985a, 493; See also Williamson 1975, 1979, 1981; Williamson and Ouchi 1981). The beauty of Granovetter’s critique and key assertion regarding “the role of concrete personal relations and structures (or networks)” within the economic context is how he states rational economic theory and behavior are still important. In doing so, he proceeds to open the door for discussing how non-rational behavior as perceived in economic theory is a place holder for introducing the importance of social relations within economic activity!

Granovetter’s embeddedness article undoubtedly was the springboard for breathing life back into the value of economic sociology’s ability to span both economic and sociological disciplines, spawning innumerable scholarly works from diverse fields including anthropology, history, political science, and public administration. Observations of embeddedness are rich and varied, including networks, various industrial districts and small businesses, marketing, entrepreneurship, financial institutions, currencies, locational decision making, acquisitions, management, technology, productivity, labor mobility, immigration, social capital, and even performance outcomes (Baum and Oliver 1992; Moorman et al. 1992; Leung 1993; Portes and Sensenbrenner 1993; Stearns and Mizruchi 1993; Poldony 1994; Lazerson 1995; Palmer et al. 1995; Romo and Schwartz 1995; Fligstein 1996; Uzzi, 1996, 1997, 1999, 2002; Poldony and Baron 1997; Woolcock 1998; Dacin et al. 1999; Granovetter 2002, 2005a; McKenzie and Millo 2003; Mizruchi et al. 2006; Clegg et al. 2008)<sup>13</sup> Dacin et al. (1999) provide a detailed lay down of the multiple theoretical approaches for observing embeddedness including structural, cognitive, cultural, political, institutional, strategic action, governance, inter-actor ties,

nesting, and outcomes. Of particular interest for this study are structural, political, inter-actor ties and outcomes; and how well they facilitate performance budgeting's capacity as a change agent.

Quite possibly one of the most helpful typologies for describing and categorizing embeddedness was provided by Zukin and DiMaggio (1990, 3) who attempted to assuage and address the concerns of both economic and sociology disciplines. They proposed economic sociology needs both disciplines. Social organization analysis requires political economy to understand how economic action frames rules, systems and pressures faced by managers in the constellation of firms and markets. Political economic analysis requires models mediating macro level processes and the variance of economic activity within industries. In other words, economic sociology spans the divide between the atomized, under socialized rational actor observed at the micro level, and over socialized actors that cumulatively affect the macro economy.

Zukin and DiMaggio (1990, 15) describe embeddedness as broadly construed to “the contingent nature of economic action with respect to cognition, culture, social structure, and political institutions.” Cognitive embeddedness referred to the limited ability of individuals and corporations from employing “synaptic rationality,” particularly in terms of individual actors’ awareness of interests and means-ends in the conduct of relationships (from my perspective, this builds upon Granovetter’s discussion of the importance of “non rational behaviors” in relationships and influencing of outcomes (Granovetter 1985a; Zukin and DiMaggio 1990, 16-17).

Cultural embeddedness refers to the “role of shared collective understandings in shaping strategies and goals,” where culture consists of the beliefs and ideologies, norms, and

“constitutive” understandings of structures and self regulating capabilities (Zukin and DiMaggio 1990, 17). Beckert (1999) suggests cultural embeddedness is difficult to operationalize, but offers Swidler’s (1986) description that actors rely on symbols, styles, and rituals through contextualized interpretation to develop strategies of action. For this study, my interest in types of cultural embeddedness include the particularities of local government management and existence of professional norms within the various departmental professions affecting contextualized interpretations in the role of developing strategic ends from resultant processes and interactions between individuals and city departments.<sup>14</sup>

Political embeddedness is about power relations shaping economic institutions and decisions through competition for resources by economic actors and non-market institutions. This is an important point. Zukin and DiMaggio’s (1990, 20) discussion of non-market institutions extends the idea of the market context of prices, wages, supply and demand, and contracts, to non-market government institutions and government policies at all levels of government creating a “complex web of relations and expectations.” Governments and individuals acting in official capacities converge into the arena of economic exchange through the implementation and execution of policy determined through the competition for resources.

Finally, Granovetter’s structural embeddedness contextualizes economic exchange patterns of on-going interpersonal relations. Structure in this case is the formulation of patterns of structures within social relations (Granovetter 1985a; Zukin and DiMaggio 1990). These patterns are another means for observing the context of networks and their connection to organizations, institutions, and social relations. Zukin and DiMaggio (1990) discuss network structures in terms of dense versus scattered and diffused networks. Networks became a very popular approach for observing embeddedness (Granovetter 1985a, 2002; Montgomery 1991;

Burt 1992, 2000; Provan 1993; Uzzi 1996, 1997; Wolinsky 1996; Zafirovsky 1999, 2001; Swedberg and Granovetter 2001; Uzzi and Gillespie 2002; Smelser and Swedberg 2005; Huang and Provan 2007; Provan, et al. 2009).

DiMaggio (1990) adds that culture, along with economic behavior is embedded in social structures. He defines culture as the “social cognition” representing a broad and varied categorization of conscious thoughts shared within a population, involving boundaries and existing within multiple levels of cognition consisting of norms, beliefs, scripts, strategies, logics, individual and group tastes, status, and hierarchies (DiMaggio 1990, 113-114, 1994). “Cultural embeddedness most often refers to the ways shared understandings and meanings come to give form to organization activities, structures and processes. This includes the collective understandings that shape organizational strategies and goals, ideologies that prescribe conceptions of the means and ends of individual action, and rules systems (including law) that categorize organizational actors and systems of organizational control” (Dacin et al. 1999, 328-329).

DiMaggio hints that one of the areas holding promise for observing cultural embeddedness is through the study of careers and professionalism (Bledstein 1976; DiMaggio 1990). While limited in detail, I found DiMaggio’s cultural embeddedness important for this paper. I am interested in whether culture and specifically professionalism in city government managers indirectly influences budgeting and performance outcomes in a manner undetermined by the conventional wisdom of rational budget theory.

Possibly one of the most important revelations from Zukin and DiMaggio (1990, 20) was their belief that “social embeddedness leads to outcomes not anticipated by neo-classical economists.” For my paper, I propose social embeddedness exists in local government budgeting, and particularly the introduction of performance budgeting as a change agent



influencing perceptions of local government performance. This must be approached with reasoned caution: social embeddedness is commonly used as an umbrella concept for justifying its multi-disciplinary utility throughout various fields of study (Williams 1976; Portes and Sensenbrenner 1993; Dacin et. al 1999; Perrow 2000). As such, embeddedness is not necessarily a panacea for describing all behavior within organizations, whether market or non-market oriented, but rather a launching pad for the revival of economic sociology under the guise of new economic sociology.

### *The New Economic Sociology*

New economic sociology attempted to distinguish itself by 1) displacing over-reliance on industrial psychology, 2) advancing the study into previously here to for economic domains, 3) advancing the concept of embeddedness including the significance of networks embedded within social systems (Smelser and Swedberg 2005, Zafirovsky 1999, 2001). Swedberg and Granovetter (1992, 2001) provide the most often cited conception of new economic sociology as 1) economic action is a form of social action, 2) economic action is socially situated, and 3) economic institutions are social institutions.

Economic activity and exchange do not exist in a vacuum, taking place in the context of some form of social action structured hierarchically through organizations or horizontally through various networks of individuals, groups, businesses, or industry groups. Economic activity also occurs through the social construction of contracts, rules and regulations; and through reciprocity and mechanisms of trust (Granovetter 1985a, 1992; 2002). Economic action that is socially situated specifically occurs within embedded networks of personal relationships (Granovetter 1985a, Swedberg and Granovetter 1992, 2001).

The discussion of economic institutions concurrently existing as social institutions draws

upon Berger and Luckman's (1966) *The Social Construction of Reality*, and Granovetter's (1992, 2002) idea of path dependent sequences and social networks. Organizations do not develop according to rational theories, but rather through the complexities of relationships that are not always inclined towards efficient decision making and organizational structures. "Economic institutions are constructed by the mobilization of resources through social networks, conducted against a background of constraints given by previous historical development of society, polity, market and technology" (Berger and Luckman 1966; Granovetter 1992, 2002; Swedberg and Granovetter 1992, 2001, 18). Granovetter describes "how individual actions, conditioned by incentives, trust and cooperation, power and compliance, and norms and identities that affect these states and actions, are shaped by and of themselves reshape larger institutional configurations" (Granovetter 2002, 49).

The importance of viewing economic institutions as social institutions is important for new economic sociology. First it stakes a claim for turf in the discussion of institutions postured by the new economic institutionalists led by the original efforts of Williamson, North and others (Williamson 1975, 1985; North 1990; Richter 2001). Second, it bridges the gap between the "micro" individual, rational behavior of actors and the "macro" conception that individual behaviors and actions are conditioned upon the institutions in which they exist (Granovetter 1973, 1985a, 2002). This idea will be revisited later in discussing how performance budgeting, acting as a change agent can influence organizational performance where individual incentives framed by the functions of trust and cooperation, power and compliance, norms and identities can generate new outcomes for organizations and organizational performance (Granovetter and McGuire 1998; Berger and Luckman 1966).

Economic sociology has been used to observe the human agency and social interaction within various levels of society and cultures. (Swedberg 1987; Zafirovsky 1999; Smelser and

Swedberg 1994, 2005; Dobbin 2005). This study looks at the human agency and social interaction of the budget process within local governments focusing on professional administrators responsible for the provision of government services. Swedberg (2003) provides the sociological lenses most useful for furthering new economic sociology as 1) social network theory, 2) cultural sociology, and 3) organizational sociology. Guillén et al. (2002) offer additional lenses for observing trust, social capital, and motivational commitment. I will briefly discuss aspects of the specific lenses applicable to my study of local government budgeting.

### *Networks*

Social network theory grew out of the development of Sociometry by Jacob Moreno and other researchers prior to World War II who were researching small group dynamics from a social psychology perspective, later applied to both neural and mathematical approaches (Moreno 1943, 1953; Coleman 1960; Rappaport 1963; Granovetter 1973). Social networks were also observed through studying corporate relations and interlocks between different types of corporate organizations (Mizruchi 1966; Palmer 1983; Swedberg 1997). Granovetter (1973) helped pioneer the structural nature of relationships capable of bridging the gap between micro, small group dynamics to large scale macro patterns within organizations and institutions. Granovetter proposed the density of networks and their relations in networks affected labor mobility and other social relations. He found that tightly connected, dense networks (strong ties) were disadvantageous for mobilizing resources. He offered instead that loosely connected, (weak ties), less dense social networks were more capable of mobilizing resources for personal or group benefit (Granovetter 1973). Granovetter's ideas led to his later discussion of embedded personal relationships and networks structures (Granovetter 1985a, 1985b).

One of the most prolific contributors to social structures and network theory is Ronald Burt,

whose concepts of network structures and social action in the market place influenced Granovetter's embeddedness argument (Burt 1982, 1983; Granovetter, 1985a). Burt's discussion of structural holes within networks clarifies the concept of social network activity. Borrowing from Simmel's "tertius gaudens," or third party who benefits from conflict between two parties, Burt proposed that within networks, there are gaps or structural holes astride networks that can be bridged by opportunist entrepreneurial actors (Simmel, [1908] 1950, 154, [1908] 1955; Burt 1992, 30-32; Swedberg 1997).

Successful bridging of structural holes can lead to positive and beneficial results for individuals and organizations. The propensity of structural holes is found to exist in less dense networks (Burt 1992, 2000, 2001). Burt found that dense networks are less effective for organizational performance, reinforcing classical social psychology network findings that dense networks display extensive enforcement of group norms resulting from greater intensity and duplication of information passed within the network (Festinger, Schachter and Black 1948, Burt 2001; Granovetter 2005a).

Burt provides a descriptive metaphor for how information is transported, communicated, and either generates or discourages trust within networks. Burt designated bandwidth amplification theory as the reliance on closed networks described in social capital and economic theory, proposing closed networks enhance trust and communication. Alternatively, he designated echo theory as the reliance on closed networks described in social psychology, proposing information resonates indirectly without enhancing trust and communication, serving to reinforce predisposed, pre-existing dispositions of trust (Burt 2001, 31). Burt's findings from his bandwidth and echo hypotheses serve to disconfirm conventional wisdom (particularly social capital theory) that it is not trust, but rather distrust which is enhanced or amplified within closed networks. He concludes closed networks may

actually impede performance, reinforcing his original concept of structural holes and lower density networks offering entrepreneurial advantages unavailable in closed networks (Burt 2001).

Granovetter's later research into networks borrowed from Coaseian Concepts and Marshall's industrial districts to discuss how business groups acted within social structures and networks. He countered Coase's explanation of a firm's existence resulting from activity specialization and transaction costs by suggesting that firms existed as a result of forming relational social structures. Business groups consisting of firms are grouped together simultaneously competing and cooperating with each other as a result of similar social structures found at individual and organizational levels (Coase 1937; Granovetter 2001, 327-328; 2005b, 429). Granovetter defines business groups as "those collections of firms bound together in some formal and/or informal ways characterized by an 'intermediate level' of binding," and classified as neither short term strategic alliances, nor legally consolidated firms, but as loose confederations or coalitions (Granovetter 2001, 329, 330; 2005b, 429). Granovetter's business group discussion expands upon Marshall's industrial districts, where as business groups span *both* geographical and political boundaries in a globalized environment.

Granovetter's discussion of boundaries and networks is a means for extending his weak ties concept by applying White's coupling and decoupling to identify the boundaries of networks. White's work centered on the conflict between trust, control, and both individual and organizational identity dependent upon the coupling or decoupling of social structures and networks (White 1966, 1992, 2008; Karafillidis 2008; also see Rauch and Hamilton 2001). Granovetter's "social construction of economic institutions" identified by incentives such as "trust, power, norms and identity.... enacted in vertical and horizontal relations" shifts from individual relationships to an institutional focus, identifying the social spaces, institutions and institutional sectors upon which individual relationships are coupled or decoupled from each other (Granovetter 2002, 49).

Granovetter offers the coupling concept to describe how actors channel novel information to and from pre-existing communities to develop new types of communities and community outcomes. He provides Saxenian's (1994) study of the Silicon Valley as an example of open (and loosely coupled) networks of personnel, ideas, and capital moving across social and organizational boundaries (Collins 1974; Friedkin 1980; Saxenian 1994; Granovetter 2002).

Granovetter draws upon social capital theory and the concept of "cross cutting ties" to strengthen his description of coupled networks, enlisting Lipset's (1963) and Gluckman's (1965) findings that relationships reduce friction and conflict within various societal institutions such as communities, governments, political and economic domains (Granovetter 2002, 52). Granovetter defines cross cutting ties as "some level of coupling between discreet networks or institutions" and providing "channels through which a strategic actor may leverage weak attachments across segments so as to assemble resources into a larger social entity" (Granovetter 2002, 52-53). Granovetter consolidates these concepts by developing three different types of structures and three different potential outcomes from the resultant structures. The first structure is a highly decoupled structure without cross cutting ties disposed to friction from conflicting interests, but also disposed to coalescing, influenced by large scale social phenomena. The second structure, the weakly coupled structure is more disposed to developing consensual outcomes during conflict, but also more likely to be affected by either the positive or negative influence of economic entrepreneurs advancing interests as a means for garnering power and influence within a larger social entity. The third structure, the highly coupled structure is more disposed to cooperative activity, but less likely to be influenced and coordinated by a centralized body, and is less adaptive to change. Finally, Granovetter asserts his coupling framework is equally pertinent to both structure and agency roles. In other words, Granovetter's coupling concept can be used to describe government agency organization

(Granovetter 2002, 53).

### *Trust and Social Capital*

Trust and the closely related concept of social capital permeate throughout the literature of embeddedness and networks beginning with Granovetter's (1973, 1985) example of personal relationships embedded into networks facilitating trust. Fligstein (2002a) proffers networks facilitate reciprocity and trust in social relations, and influences the flow of communication and information. Zafirovsky (2001) describes trust as an incentive influencing economic exchange, action, and social structure. Defining trust is equally problematic as defining embeddedness, with multiple meanings, definitions, disciplinary approaches, and cognitive associations (Williams 1976; Dacin et al. 1999).

Nevertheless, I will provide a few definitions from the economic sociology literature for discussion. Simmel defined trust as an unthinking belief, a "quasi religious faith" (Simmel [1907] 1978; Smelser and Swedberg 2005, 11). Coleman defined trust as a conscious bet calculated by anticipated gains and losses resulting from trusting someone else (Coleman 1990, Smelser and Swedberg 2005). Berezin (2005) separates emotion from trust to isolate the concept from pure economic theory, and borrowing from Coleman to describe trust as a cognitive act implying knowledge of uncertainty or risk. Zucker (1986, 1987) provides a multidimensional description of both individual and structural levels of trust. Trust involves relations between two actors potentially conditioned by third party actors. Trust also reflects the likelihood of good faith exchange through repeated and reliable processes. Information at any level of a structure can be either mutually supportive or undermine the production of trust. Lastly, Burt (2001) describes trust as a function of anticipated cooperation within networks and markets.

Granovetter (2002) borrows from Coleman's social framework of actors, resources, interests, and control to describe the dynamics within vertical and horizontal relationships: trust and power are

associated with vertical relationships, while trust and cooperation are associated with horizontal relationships. Granovetter (2002) indicates second and third order effects driven by trust and power dynamics can influence the determination of outcomes. Interests driven by trust and cooperation are also capable of reducing the deleterious effect of free ridership and prisoner's dilemma, countering Williamson's self interested guile and malfeasance of market relations (Olson 1965; Williamson 1975; 1985a; 2002).

Quite possibly the most detailed account of trust in networks is provided by Uzzi (1996, 1997). Uzzi remarked that trust is best developed within embedded ties through third party referrals and previous personal relations, setting new expectations between actors and resource exchange processes. Uzzi makes some astute observations relevant to public administration and budgeting. First, the greater prevalence of trust facilitates fewer requirements for control mechanisms. Second, trust is facilitated when extraordinary effort is voluntarily given and reciprocated. Finally, the concept of embeddedness facilitates flexibility in identifying, coordinating, and problem solving (Uzzi 1996, 1997, 47, 54).

Uzzi's synthesis of rational theory with embeddedness emphasizes decision processes are less constrained by bounded rationality when quality social ties are maintained, creating incentives for actors to search for deep solutions *within* established embedded relationships, rather than searching broadly *across* the spectrum of relationships (Uzzi 1997). Trust then, is most effective when strategizing and manipulation are absent, but is also autonomous to both engaged activity and social relations (Guillén et al. 2002; Granovetter 2002).

Often, economic sociology literature brings social capital into the discussion through the mention of reciprocity. Social capital originates from the incentive to build trust and reciprocity transmitted via interpersonal activity and informational networks, influencing economic and non-



economic activity (Coleman 1988, 1990; Putnam, et al. 1993; Granovetter 2005b; Gui and Sugden 2005). Kilby (2002) indicates networks cannot exist without trust, because behavior enforcement such as norms and rules are ineffective as stand-alone mechanisms and must be balanced by Woolcock's (1998) balancing of two types of social capital: autonomy and embeddedness. Autonomy refers to the ability to connect to external actors and networks.

Social capital is broadly defined as "the ability to secure resources by virtue of membership in social networks or larger social structures" (Portes and Mooney 2002, 305, 308). Another way of conceptualizing social capital is the nurturing of resources including social relations for the purpose of achieving individual interests (Coleman 1990, Smelser and Swedberg 2005). Access to resources however, does not guarantee positive outcomes, nor do actors' best intentions necessarily guarantee positive social outcomes (Portes and Landolt 1996; Portes 1998; Portes and Mooney 2002). Social capital theory is frequently applied to a number of areas related to this study: government performance, governance, government support of economic development, policy formulation, civic engagement, and confidence in government (Putnam et al. 1993; Putnam 1995; Tarrow 1996; Portes 1998, Portes and Mooney 2002).

The discussion of social capital is important for two reasons. First embeddedness, networks, and trust permeate the discussions of social capital as a means for advancing new economic sociology. Secondly, social capital draws heavily on civic engagement, an important concept important in the public administration discipline and especially in local government. This paper explores how trust, information, communication and decentralized (or autonomous) processes influence the budget process and management performance within local governments. The point here is economic sociologists borrow from numerous disciplines to advance the body of knowledge. I intend to do the same with this paper, drawing from a number of

multidisciplinary concepts to offer an alternative means for observing the budget process outside of the budget rationalities paradigm prominent in public budgeting literature.

*Setting the Conditions: Performance Budgeting's New Approach*

I have spent a substantial effort detailing economic sociology literature with the intention of justifying and applying various aspects of both classical and new economic sociology to performance budgeting. Prior to discussing how I intend to make sense of two disparate theoretical approaches, I must provide three limitations regarding economic sociology theory. First, economic sociology is not without its critics. Scholars have pointed out that Granovetter's embeddedness does not account for the negative impact of over or under embeddedness within culture and politics. Others question the ability to actually link embeddedness to macro structures (Zelizer 1988; Zukin and DiMaggio 1990; Nee and Ingram 1998; Krippner 2001; Swedberg 2003, 2007). Second, the broad theoretical interpretation of embeddedness, networks, trust, and social capital may actually hinder their explanatory value. McLean and Padgett (2004, 217) recommend greater specificity and differentiating social ties, something this study accomplishes by looking at a specific activity: local government public budgeting.

Finally, some scholars speculate classical and new economic sociology are indistinguishable from each other: both offer the promise of addressing residual and core economic issues from a sociological approach (Swedberg and Granovetter 1992; Zafirovsky and Levine 1997; Zafirovsky, 1999, 601, 603). Zafirovsky believes the only difference between the two is the greater methodological sophistication afforded by new economic sociology scholars. Still others desire to continue distinguishing between the two, supporting the revival of classical economic sociology and conjecturing new economic sociology has yet to sufficiently mature

into neo-economic sociology (Ritzer 1989; Piore 1996, 752; Zafirovsky 1999). An alternative point of view is new economic sociology is a continuation of classical economic sociology, eliciting greater methodological sophistication while simultaneously bringing attention to a sub-discipline marginalized by the continued debate between the instrumentalists and functionalists presiding in the economic and sociological disciplines.

What I have attempted to do thus far is offer a theoretical background for presenting an isomorphism of economic sociology and public budgeting theory using performance based budgeting as the catalyst. Changes in budget reforms and processes incur more than just first order effects, the purview of traditional budgeting theory. Performance budgeting for instance, acting as a change agent may also create second and third order effects capable of subtly changing organizational behavior, ultimately affecting organizational effectiveness.

Traditional public budgeting theory identifies budgeting as a separate entity, often taking precedence over management. While some might argue that bureaucratic control and agency theory facilitate this idea, I offer that such an approach is centric to federal and state budgeting processes (this point of view is supported by Key, Wildavsky, Rubin, Thurmaier and Willoughby, and at times Schick). Budgeting at the local level however, is more closely aligned with management functions requiring greater reliance on social structures and face to face personal relationships, both vertically and horizontally within organizations and externally with legislative bodies, interested stakeholders, and community citizens. This is not to say that traditional budgeting aligned with the political process and resource allocations does not apply, rather that budget decision making processes at the local level are more closely aligned with accounting and management processes (Nouri and Parker 1998; Smith 2004; Parker and Kyj 2006; Smith and Schiffel 2006; Miller, Robbins and Keum 2007).

Currently, neither traditional budgeting nor performance based budgeting theory adequately address the behavioral aspects of budgeting related to both management decision making and resource allocation processes. As a result, a new approach is necessary to fully explore budgeting theory at the local level of government. Wamsley and Zald (1973) argued the political aspects of budget reform had largely been ignored from the 1912 Taft Commission to the PPBS reform in the 1960s, and that budgeting was a rational surrogate market mechanism. Wamsley and Zald, Wildavsky, Schick, Rubin, Thurmaier and Willoughby to name a few, have since fully explored the political aspects public budgeting.

Economic sociology offers a new approach, allowing me to suggest that public budgeting at the local level is embedded within public management, borrowing upon Granovetter's concepts of embeddedness and coupling, as well as Thompson's (1967) pooled interdependencies. Granovetter proposed that intra-firm relationships are more important than authority within firms. Applying Granovetter's concepts to budgeting, I propose performance budgeting mediates changes to intra-organizational relationships, positively influencing organizational effectiveness within local government organizations.

A crucial point here is individual and organizational behaviors are linked to organizational structures and processes. The inclusion of behavioral activities into organizational processes implies the possibility of both direct and indirect effects associated with management decisions. Indirect effects may be more subtle and not initially noticed. Budgeting as an organizational or management process also implies the possibility of indirect effects as a result of budgeting decisions. Because performance budgeting is a change from traditional budgeting processes, performance budgeting can act as a change agent. Public budgeting scholars generally observe the direct effects of performance budgeting such as changes to

resource allocations. What is missing is whether there are indirect effects that influence organizational performance as a result of changing organizational coupling or pooled interdependencies. The next chapter provides a framework for the isomorphism of economic sociology and public budgeting theory, proposing performance based budgeting acting as a change agent, indirectly affects organizational behavior resulting from changed organizational couplings or pooled interdependencies, and such intra-organizational changes influence organizational performance.

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*Notes*

<sup>1</sup> It is important to note Schick explicitly states results must be a driving factor in the budget-management-performance equation, requiring extensive support by government leadership in order to achieve successful implementation.

<sup>2</sup> The focus of Schick and Kettl's research has been the federal level of domestic and international government. An important proposal from this study is the suggestion that functions of budgeting may be similar between government hierarchies, but the structures and processes at the local level contain unique characteristics requiring special consideration prior to assuming all budget processes are unidimensional.

<sup>3</sup> Nathan furthers Radin's (2000) discussion regarding the development of specific performance measurements to account for the uniqueness of specific federal programs versus the development of blanket performance measurements, and presents a similar case supporting agency or department level performance measures.

<sup>4</sup> Jordan and Hackbart use the term "implied" to describe how performance budgeting holds promise for influencing resource allocations, but "seldom used". They do however, remark how the performance budgeting process in Florida increased managerial flexibility, which I believe Melkers and Willoughby use to describe performance budgeting's promise for improving resource decision making procedures.

<sup>5</sup> I am delineating contemporary assertions of the perceived and actual divide between economic and sociological theory here. Classic economists and theorists dating back to Weber and Durkheim and beyond struggled over the "imperialism" of economic theory where all social actions originate from economic exchange. The classical theoretical explanations of economic sociology entailing both theoretical disciplines are further explained in this chapter. My point here is simply to evince my perception that both economists and sociologists struggle to clarify economic sociology's intersection between both disciplines.

<sup>6</sup> Zafirovsky (1999) poignantly reminds his readers to be careful about leaving out several important neo-classical economists whose works included concern for human and sociological conditions. His point is to remind us that contemporary economic sociology is weighted more towards the sociological discipline, tending to forget the contributions several economists whose work converged with sociology, including Jevons, Wicksteed, Mill, and Simmel's exchange theory.

<sup>7</sup> While economic sociology is often viewed within the margins of both economic and sociology disciplines, both disciplines argue rather strongly about its origins and the number of scholars associated with the concept can easily expand, addressing a multitude of ideas related to the development of neoclassical theory within both disciplines. Attempting to address every scholar attributed with economic sociology risks diluting the value of transferring the concept to public budgeting. Thus I made an assessment to address only those scholars most often associated with the theoretical concepts in this chapter.

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<sup>8</sup> From a public administration perspective, Woolcock might be pressing his argument by implying institutions and groups regulate behavior in the form of bureaucracies and familial group settings, or that individuals volunteering to abide by them develop trust, enforceable or otherwise. But if individuals volunteer to abide by such regulations, they may by way of routinization develop trust relationships.

<sup>9</sup> Talcott Parsons is credited by economists and sociologists alike for solidifying this distinction, particularly with his 1937 *The Structure of Social Action*. Economists and sociologists alike have debated Parson's work. Samuelson based his discussion of "rational and irrational behavior" upon Pareto's discussion of logical and non-logical actions, while Stinchcombe sought to countermand Parson, stating Parson created a "birthmyth," misrepresenting Pareto's actual contributions (Samuelson 1947; Stinchcombe 1986; Zafirovsky 1999; Dalziel and Higgins 2006). Ironically, Parson later recanted much of his original theoretical works with Neil Smelser and their 1956 *Economy and Society: A Study in the Integration of Economic and Social Theory*, discussed later in this chapter.

<sup>10</sup> Interestingly, Pareto remarked that sociology could not use the study of money as an instrument for logical observation, but sociology *could* be used to study the effect of tax levies and their impact on wealth and society, a mantle Joseph Schumpeter used in his 1919 *Crisis and the Tax State* (and later by Musgrave) to explain how fiscal tax policy can affect society. Schumpeter's connections with economic sociology are discussed later in the chapter.

<sup>11</sup> Social equilibrium is generally described by social economists as the natural order of both economic and social activity striving to achieve the concept of equilibrium.

<sup>12</sup> Dacin, Ventresca, and Beal (1999) provide an extensive list of embeddedness studies in "The Embeddedness of Organizations: Dialogue and Directions" (1999). Zafirovsky, in *Markets and Society* (2003, 46) remarked the often used term "social embeddedness" had "become paradigmatic" and "the hallmark of new economic sociology."

<sup>13</sup> Uzzi (1997), Dacin, Ventresca, and Beal (1999), and Granovetter (2002) provide numerous examples of embedded activity. Financial institutions and activity receive detailed attention. A question this paper attempts to answer is whether embeddedness exists within public organizations, and specifically within budget processes.

<sup>14</sup> Do professional societies for city managers, engineers, economic developers, and parks and recreation specialists for instance, influence behavior in non-rational or non-market ways affecting management, budgeting and decision making processes? Also how do different political structures, in this case form of government, exist that influence cultural embeddedness as described here?

## **Chapter 4**

### **Synthesizing Performance Budgeting and Economic Sociology**

This chapter provides a descriptive theoretical explanation as to why performance based budgeting remains a viable reform, borrowing from economic sociology to explain how the budget process is layered with a budget rationalities layer of existing governmental budgeting institutions, and a second layer of budgeting embedded in the management of government bureaus, agencies and departments. Schick (2003) offers how performance budgeting depends on the orientations of the administrators and legislators involved in the performance budgeting process confirming the possibility of distinguishing between legislative control and resource allocation, and the management and delivery of public services. He stated performance budgeting can only be “embedded” in management processes where results are paramount (Schick 2003, 102).

Whereas Schick implied we have not yet reached that stage, I propose its preexistence, established as a result of previous budget reforms, the professionalization of government and reality of budget constraints (exacerbated by economic downturns) requiring the provision of services with sub-optimal levels of resources. This management layer of budgeting is not solely focused on budget execution, which is jointly executed through legislative bodies, central budget agencies, and agency managers tasked with providing a desired level of services. Contrary to existing budget theory, there is more than the budgeting rationalities focus on legislative resource allocation and budget accountability processes. Public managers are fully aware of the importance of the political layer of budgeting, whether it is decision making, accountability, or the competition / compromise for securing a desired level of resources to accomplish agency missions.

I propose that managers also look these issues from another layered perspective where



the focus of budgeting and budget documents serve as both the means and constraints, guiding management's provision of government services somewhat independent of budget execution and accountability oversight. Budget execution is an important management function and managers are aware of the ramifications of ensuring effective budget execution, but it does not always take precedence in a manager's priorities in supervising and delivering the desired level of government services. Efficiency, effectiveness, outputs and outcomes are what drive much of public management processes, always on the forefront of a manager's priorities. I would submit managers do not review budget activity on a daily basis as do central budget authorities. Public managers do however, in one form or another supervise the delivery of outputs and outcomes on a daily basis

This conceptualizing of layered budgeting activity offers a reconciliation or truce between the age old debates of the Public Administration Dichotomy. The discussion of rational budgeting (Wildavsky 1964; Meyers 1994; Thurmaier and Willoughby 2001), agency theory (Tullock 1965; Downs 1967; Niskanen 1971; Moe 1984; 2006; Bendor and Moe 1985; Wood and Waterman 1991, 1993; 1994) and bureaucratic control theory (Friedrich 1940; Finer 1941; Ostrum 1973; Waldo 1984; Goodsell 2003) are still applicable at the legislative or political level of budget decision making and execution. Concurrently, managers must concern themselves with the issues and challenges of how to manage an organization described in the public management literature (Goodnow 1912; Gulick 1937; Appleby 1947; Wilson 1989, Lynn 2006). Instead of a dichotomy, there is a layered convergence where department and agency heads must be able to communicate and support legislative authority decision making, *and* they must manage their organizations as they see fit within the budget constraints they have been given. In other words, the public manager must have their feet planted firmly within both layers

of budgeting and to be successful, *but* within the management layer, budgeting is embedded in the management process rather than the focal point of management activity.<sup>1</sup>

The literature on performance based budgeting has been focused on the first layer of budgeting, observing whether performance based budgeting influences legislative decision making and resource allocation. But how can you tell if an agency's use of performance based budgeting actually influenced resource allocation? The old Catch-22 comes into play here. If an organization is successful and exceeds output and outcome expectations, why do they need additional funding? Likewise if an organization fails to meet desired output or outcome expectations, why would legislative authorities want to reinforce failure? How do we even know if the outputs or outcomes are accurate? Finally, at any level of government, there are cultural, traditional, and needs based requirements that trump re-allocating funds simply for the purpose rewarding performance (Wildavsky 1979, 1988, 2001; Wilson 1989; Rubin 1998, 2006; Melkers and Willoughby 2001; Swedlow 2001; White 2001; Melkers 2006; Lu 2008).

But what about the management layer of budgeting? First, I propose budgeting is embedded in the management layer of government activity. Second, performance based budgeting does not require structural change that could upset the status quo of power brokers in budgeting and management activities. Instead, performance based budgeting changes the flow of information within the already existing social structure networks in the organization. With the new information flow, variables such as trust, communication, and autonomy of decision making change, but the organizational structure remains the same. Third, introducing performance based budgeting brings about new couplings within the organization. As a result of new couplings, increased levels of trust, information availability and changes in decision making processes will have some sort of effect on the organization. How can we attempt to measure performance in a

manner that addresses the political layer of budgeting? Rather than looking at resource allocations, are there other ways to measure performance? This paper proposes that organizational performance is influenced by the introduction of performance based budgeting indirectly through perceptions of those involved in the management, decision making, provision, and delivery of government services.

### *Isomorphism*

Can the antecedents of economic sociology be used within a different framework where budgeting, government activity and government institutions are substituted for economic activity and economic institutions? I propose they can be substituted with similar explanatory value. Historically, governments have played key roles in regulating, monitoring, and even directing economic activity (Fligstein 2002b). However, recognition of this statement is not popular within the economic field. Government intervention within the economy is antithetical to the widely accepted canon that free market enterprise is the optimal course of action for maximizing societal wealth. Often what is lost in the concept of governmental provision of public goods and services to prevent distortion of social equity, is the reality that government also contributes to economic activity. Just ask any politician about the value of government activity within their districts. Try to take away such activity from a community and one of the first responses almost always includes an estimate of the foregone economic value benefiting that community.

Likewise, governments are in competition just as other economic entities are in competition. National, state, and local governments all compete for resources, another observation often overlooked or given only cursory attention within the economic discipline. Government competition becomes more readily apparent when shifting from national to state to local government. Quantity and proximity of governments begets greater competition for both

scarce and common resources. The greater quantity of governments allows businesses and citizens choices to influence local government provision of services (Tiebout, 1965; Phillips and Goss 1995; Salz 2001; Glaeser, et al. 2001; Edmiston and Turnbull 2003; Fox and Murray 2004; Plosila 2004; Bartik 2005).

Schick (2003, 85) states that performance budgeting requires organization, which translates into “human, financial and other resources to produce a collective result,” but he subsequently frames this statement by describing how an organization can be just as equally inefficient as efficient, because organizations often place internal needs and norms above external demands and conditions. I am not confident that Schick’s observations accurately apply to the local level, at least according to Tiebout’s theory supporting government competition. Arguably, local governments must be more cognizant of external demands of constituents and local conditions. Quite succinctly, the face of government is much more prevalent and personalized at the local level of government, and thus more socialized as well.

The use of performance based budgeting at the local level is unique when compared to state and federal government. Performance budgeting at the federal and state level has generally been a top down driven process. Local government performance budgeting is frequently initiated as a bottoms up process, by enterprising, entrepreneurial type administrators (and sometimes legislators) searching for better management and budgeting processes. Local government intentions can also be quite different from the new public management assertions that performance based budgeting’s function is to improve accountability and provide greater flexibility for managers.

Local government budgeting continues to grow albeit slowly through a diffusion of innovation (Melkers and Willoughby (1998, 2001, 2005, Willoughby and Melkers 2001;

Willoughby 2004, Ho 2006a; Ammons 2008). The diffusion and resilience of local government performance budgeting counters the specter of critical assessments by new public management scholars (Schick 2001, 2003; Kettl 2002, 2005; Radin 2000, 2006; Frederickson 2003; Frederickson and Frederickson 2006). Schick (2003), for instance, indicates performance based budgeting cannot be successfully implemented without transformational change. If this is true, why the diffusion and continued acceptance of performance based budgeting? Contrary to Schick's assessment, I offer that performance based budgeting simply transposes itself into ongoing budget and management processes. Organizational structure does not have to change, and as a result change may be more nuanced.

Performance based budgeting's uniqueness within local governments is highlighted by Radin's (2001) findings that performance measurement works better at the functional levels of government rather than from government supervisory and oversight bodies and processes. Radin's concept of functional level government can be applied to local government, where each particular department equates to a specific functional level of government, and again, implies the possibility of observing layered government activity, distinguishing between legislative oversight and management execution of functional government tasks.

As previously mentioned, the face of government at the local level is more personalized, and as a result both legislative and management behavior can be different from state and federal government. Why? Local government legislators and administrators live and work in vastly closer proximity to voters who also happen to be citizens and neighbors. The business of providing government services becomes more personal as compared to state and federal government. As a result there can be another perspective outside of budgeting rationalities where compromise and fair shares take precedence in resource allocation decisions. Manager

and administrator proximity to citizens and neighbors can heighten interest for delivering quality services in a manner unexplainable by the budget rationalities perspective. The uniqueness of local government budgeting provides a strong argument for the focus of this paper, and the discussion of the isomorphism of economic sociology and performance based budgeting will be limited to local government in terms of its explanatory value.

One of the defining concepts of economic sociology is economic action is a form of social action that is socially situated within economic institutions that are also socially situated, and this social embeddedness can be nested between hierarchies within institutions (Swedberg and Granovetter 1992, 2001). Using Parsons and Smelser's (1956) AGIL framework, I propose a tiered approach for addressing the linkage between government activity and budgeting activity. Parsons and Smelser described the economy's role within a larger societal context and subsequently as a subsystem. Government and budgeting activity can be substituted for economic activity in their model. Parsons and Smelser (1956) also indicate social interaction affects the state of these systems, and their boundaries are malleable for the purpose of achieving stability. Figure 4.1 provides a graphical representation and substitution of economic activity for government activity and performance based budgeting using Parsons and Smelser's AGIL framework and subsystems of society (Parsons and Smelser 1956, 16-20, 51-53).

< INSERT Figure 4.1 HERE >

Applying Granovetter and Swedberg's and Parsons and Smelser's frameworks, I propose government activity can be substituted for economic activity as previously discussed. Government activity, or governance, is a form of social activity that is socially situated, that governments like economic institutions are social institutions, and government hierarchies interact within government processes. The discussion of budgeting layers becomes relevant for

discussion here. There is a hierarchy of government activity, with the political or legislative level concerned with government oversight and resource allocation for the purpose of meeting the expectations of the polity, while delegating the execution of government activity to a management level tasked to provide efficient and effective government services. Governments, like economic institutions exist within a larger societal context, also containing a polity and both integrative and value maintenance systems.<sup>2</sup> Finally, governments operate exchange activities within social structures similar to business and industrial market activities. Not only does government activity create social value, government activity creates economic value including the purchase of inputs and contracting out of portions of its operations in the pursuit of producing government outputs and outcomes.

There are a number of possibilities for introducing the management process into my theoretical framework. Using Parsons and Smelser's model, the management level can be described as a subsystem of government activity.<sup>3</sup> Just as budgeting has several functions such as planning, management and control for instance, government activity also has a number of important functions such as providing public safety, public health, and public infrastructure, and economic development to name just a few. The management subsystem of government indicates how governments provide key services. Governments also must provide oversight and allocate resources for the organizations tasked with the management and provision of government services. Budgeting serves as a guide, constraint, and contract for organizations to execute their functionally assigned missions.

Organizations must manage their operations within the intent or directives of a budget. Organizations must also manage the execution of budgets in fulfilling their responsibilities for providing directed government services. From the management level of government activity, the

budget is a constraint driving how management decides to fulfill their directed responsibilities. While organizations compete for resources within the political or legislative layer of budgeting, once a budget is set, managers are concerned with providing the expected level of government services given the constraint of the budget.

Budget execution is an important task for government managers, helping to facilitate the provision of services as efficiently and most importantly, as consistently as possible. The literature on the management function of budgeting focuses on addressing budget execution and managerial discretion for redistributing allocated resources from assigned budgets, rather than as part of the entire spectrum of government management activity (Schick, 1964, 1978, Mayper, Granoff and Giroux 1991; Forrester and Mullins 1992; Thurmaier 1995b; Rubin 1997a, 1998, 2006; Lauth 2002, Cain, Choudhury, and Clingermayer 2004). This observation provides the logic for illustrating why budgeting is embedded within the management process of government activity. As Schick (2001, 58) has indicated, the budget does not necessarily drive management, particularly after the budget has been established. From a management perspective, budgeting is an important function for guiding how government services will be provided, *but* does not supersede the management function in precedence for the provision of government services. Rather budgeting is embedded in the management of government activity.

Budgeting's embeddedness is applicable not only for discussing its role within the management and provision of government services, budgeting is also a form of social action. Budgeting activity is a socially situated concept taking place within governments that are also social institutions. Public budgeting is not conducted in a vacuum, and budgets are the result of social activity with interaction between citizens, legislators, government agencies, industry, special interests and lobbyists, to name just a few of the social interactors involved in the budget



process.

There is some convergence of embeddedness and social activity with the budget rationality literature. The budget rationalists provide extensive details of the budget process and the social interaction between various budget actors, but the preponderance of observations orient on the political and legislative aspects of budgeting, overlooking the management layer of budgeting where social activity also plays an important role in the budget process (Wildavsky 1964; Meyers 1994; Rubin 1997a, 2000, 2006; Thurmaier and Willoughby 2001; Wildavsky and Caiden 2004). The literature on budget execution also contains some discussion of social interaction, but again mostly from a political or control perspective reliant upon central budget office supervision rather than departments and agencies tasked with providing and managing government services (Schick 1964, 1971, 1978; Rubin 1997a, 2006; Jones 1992; Thurmaier 1995a; Johansen et al. 1997; Lauth 2002; Dougherty et al. 2003).

The point of the discussion here is to assert the realm of social interaction in public budgeting theory extends beyond rational actors dealing with competition and compromise. Private budgeting and particularly the management accounting discipline has made broad inroads into the social interaction of budgeting beginning with principal-agent relationships, budget targets and manager performance, participatory budgeting, and how organizations communicate budget information (Argyris 1952; Simon et al. 1954; Hopwood 1976; Chenhall and Brownell 1988; Chow, et al. 1988; Shields and Young 1993; Shields and Shields 1998; Chong and Chong 2002; Marginson and Ogden 2005a, 2005b; Parker and Kyj 2006). If budgeting is a social or exchange process, what are the effects of implementing changes to the budget process upon pre-existing budget networks and social exchange processes? Despite several major reform efforts and Schick's (1971) description of budget hybridization as a result of such reforms, line item

budgeting remains the predominant budget process. While it is apparent that previous reforms failed to change government structures or the hegemony of budgeting's accounting function, were there any other indirect effects within government organizations that might have gone unnoticed?

Empirical findings from all levels of government indicate 1) performance based budgeting has not changed government or budget structures, and 2) performance based budgeting has limited ability to influence resource allocation decisions made by legislative authorities. Why then, has performance based budgeting slowly continued to evolve and grow in practice (albeit at slow trajectory)? Is the reason simply associated with Schick's hybrid budgeting or is something else motivating governments to continue implementing performance based budgeting?

The public budgeting literature has looked at resource allocation and sometimes output measurements as a means for measuring performance based budgeting's influence on the provision of public goods and services. But why have we neglected to concertedly search for whether or not performance based budgeting *actually* influences organizational performance? Can performance based budgeting, acting as a change agent change organizational behaviors such as trust, communication and interdependency (or cooperation) within public budgeting's social exchange structures, which in turn affect the exchange and production of outcomes? Figure 4.2 provides a graphical depiction of the isomorphism of Economic Sociology and Performance Based Budgeting.

<INSERT Figure 4.2 HERE>

*The Meat and Potatoes: The Theoretical Synthesis*

I have spent a substantial amount of explanatory effort to set up the specifics of my

theory. First, I propose that public budgeting is layered, with a political or legislative layer addressing the already well established rational budgeting theory. However, another layer of budget activity, a management layer with differing values and norms lies below the political layer of budgeting. The process of budgeting within the management layer is embedded in the execution of government activity. This layered approach to budget activity addresses the nested concept of embeddedness, spanning different organizational and institutional hierarchies (Dacin et al. 1999, 326, 339, 342).

Local government budgeting is unique and varied allowing for the best representation of performance based budgeting. Local governments and specifically local government departments are the social structures for individual interaction given existing norms, rules, and cultures for exploring the behavioral aspects of social interaction such as trust, communication, and organizational interdependencies within existing local government exchange processes. Budgeting, embedded in the management and execution of government activity is a form of exchange process for determining how resources are used to facilitate the provision of government services. Implementing performance based budgeting acts as a change agent, influencing pre-existing budget processes steeped in the traditional line item budget process.

Regardless of the existing budget processes, budgeting occurs within a networked structure of social action for both budget formulation and budget execution. Importing network theory concepts to public budgeting is unique but not unusual, the public administration and public management disciplines have addressed network theory in detail exploring the structure, management, and performance of networked organizations (Provan and Milward 1995; O'Toole 1997; Milward and Provan 1998; Arganoff and McGuire 1999, 2001, 2003; Meier and O'Toole 2001, 2003, 2004; Goerdel 2006; Provan et al. 2007; Hicklin et al. 2008; Huang and Provan

2007; Provan and Kenis 2008; Provan, et al. 2009).

The preponderance of public administration and public management studies revolve around the ability to identify and manage network structures. This study looks at the introduction of a new process (budgeting) into the existing network structure and its effects on the behaviors of individuals within the network structure. There is little or no physical or structural change to the network structure, rather we are looking for changes in behavior that might be capable of affecting outcomes. Since the network structures remain essentially unchanged, my assumption is behavioral changes influence indirect outcomes that are not as easy to observe, but are equally important for organizational outcomes.

These assumptions are related to the theoretical discussions provided by the classical sociologists. If as previously mentioned, line item budgeting remains the predominant method for budgeting, how can performance based budgeting, a process acting as a change agent, influence institutional norms and values in a way that facilitates a change of behaviors within the local government management? Changing behaviors implies something happens beyond the rationalist budgeting process and line item budgeting. In other words, something has to spark a change in behaviors beyond the conventional wisdom of departmental budget maximization and budget compromises with central budgeting authorities during budget formulation discussions.

What could explain such behavioral changes? Pareto's identification of logical and non-logical behavior (or rational and non-rational behavior) offers some explanation (Pareto [1906] 1971, [1915/1916] 1935, Milikan [1936] 1999; Bobbio [1964] 1999; Aspers 2001). Not all decisions related to the development of trust and cooperation resulting from performance based budgeting has to be logical or rational (from a budgeting sense). While it might be rational for each department to compete with each other and maximize individual department welfare, what

happens when the budget process becomes more personalized and departments must communicate and interface more as a result of introducing performance based budgeting? Do department managers make decisions related to the budget relying upon instincts and values associated with Pareto's non-logical versus logical behavior?

One example is how decision making might be influenced by technical professionalism: city managers, engineers, budgeters, planners, recreational specialists to name a few often belong to professional associations. A second example involves an individual's sense of community: local government department managers are the face of government, living working in the communities in which they preside. A third example involves personal incentives: department managers and staffs working closer together as a result of performance based budgeting may be more likely to cooperate, similar to the phenomena of the prisoner's dilemma where cooperation can become the preferred alternative (Axelrod 1984). Finally, the development of greater trust and awareness between departments may result from increased interaction from performance based budgeting processes, negating some measure of departmental competition.

### *The Social Construction of Budgeting*

So far I have discussed potential characteristics emanating from networked social structures, but have yet to describe the actual structures in place within local public budgeting. I use Granovetter's framework of networked social embeddedness to describe budgeting activity within local governments. The key elements of my framework originate from concepts of social networking and social embeddedness (Granovetter 1973, 1974, 1985a, 1985b, 2002). Granovetter's focus was the centrality of networked social relations producing elements of trust in economic life (Granovetter 1985a, 2002, 2005; Clegg et al. 2008). Granovetter's (1973, 1974) early work involved the identification and description of strong and weak ties within

organizations suggesting that networks within organizations could benefit from the development of weak ties, rather than networks of dense, strong ties that limit coordination, cooperation and innovation. Subsequently, he described how economic activity is embedded within networks of social activity and society (1985a).

Embeddedness refers to the inability of economic rationality theory to fully explain economic relations unless specifically situated within a wider conception of social relations. It is derived from such factors as the intensity and unity of a group's integration and social cohesiveness (Kilby 2002; Granovetter 1985a; Woolcock 1998). Fligstein (2002a) reinforces the concept of embeddedness by indicating networks and social relationships exist in all market interactions facilitating reciprocity, trust and information transfer, and where all structures exhibit common understandings of power and control structures. Markets are also based on sets of rules defining broader institutions. Fligstein's greatest contribution to this study reinforces my proposal that economic sociology is transferable from market to government activity. He states governments fulfill a variety of roles to make markets possible through regulation, incentives, intervention, mediation, and provide legal frameworks (Fligstein 2002a, 65, 2002b, 65). Governments then, actively influence market activities through the execution of their responsibilities for delivering desired goods and services to citizens.

Granovetter subsequently refined his discussion of strong and weak ties through coupled and decoupled relationships borrowing upon Putnam (1993) and Lin's (2000) theories of social capital, Gluckman's (1965) "cross cutting ties" and White's (1966, 1992, 2008) description of coupling and decoupling where resources, information and influence travel within specific social structures to elicit action and overcome "blockage" or resistance to change (Granovetter 2002, 52-53; Karafillidis 2008, 11). Granovetter also borrows from Burt's (1992) entrepreneur

straddling structural holes, and Schumpeter's economic entrepreneur as a means for describing how actors can leverage resources through a looser or fragmented structure to develop a larger resource base (Granovetter 2002).

Granovetter's evolutionary transition from strong and weak ties to coupling concepts for illustrating his social embeddedness theory was not unique, originating a decade earlier from Glassman's (1973) description of systems, and March and Olsen's (1975) discussion of individual intent and action (Salancik 1975; Weick 1976). Glassman described coupling as the degree of sharing of variables within two or more distinct systems, where loosely coupled systems infrequently shared variables (Glassman 1973, Weick 1976). March and Olsen illustrated how intent often does not precede action, but often proceeds action, facilitating loosely coupled activity (March and Olsen 1975, Weick 1976).

Weick proposed that coupled events are responsive and retain their own physical and logical identity (Weick 1976, 3). Some key observations spanning Weick's coupling theory relevant to this study include 1) loosely coupled systems are more adaptable in localized environments, 2) less likely to produce major change but more capable of affecting nuanced, smaller change within organizations, 3) encourage greater autonomy and decentralization fostering innovation, and 4) thrive best in diverse, segmented environments (Weick 1976; Orton and Weick 1990; Weick 2001).

This discussion brings us to the theoretical crux of my entire synthesis proposal. One of the essential points derived from Granovetter's theoretical presentation is his interjection of coupling and decoupling as a means for framing his concepts about how structures and agencies are inter-related and how external conditions and organizational form are inter-related (Swedberg and Granovetter 1992, 2001; Granovetter 2002). In doing so, he offers three specific types of

organizational structures: The highly decoupled structure, the weakly coupled structure, and the highly coupled structure.

The highly decoupled structure exists without cross cutting ties, is vulnerable to conflict from discordant interests, and less capable of converging for cooperative purposes in the face of developing social trends. The weakly coupled structure is more likely to develop consensus in the face of conflict, but must be facilitated by an entrepreneurial actor capable of influencing or persuading a larger entity to action and prevention of blockage or resistance from such action. Finally, the highly coupled structure is capable of a higher degree of cooperation, but potentially less capable of coordinated action from a centrally positioned entity (Granovetter, 2002, 53). Granovetter's discussion of socially constructed institutions provides my framework for distinguishing between local governmental budgeting structures. I propose that line item budgeting processes are associated with highly decoupled structures, while performance based budgeting processes are more associated with weakly decoupled structures.

Line item budgeting, originating from local government agencies, remains a fixture at all levels of government. Over time the line item budget evolved from a predominately executive oriented process focusing on executive discretion and accountability to a process focusing on executive control via legislative oversight (Goodnow 1912; Prendergast, 1912; Welton, 1912; Schick 1971; Williams, 2003). Routinized budgeting and uniform accounting procedures led to budgeting's accounting function becoming the central focus of budgeting, with central budgeting authorities assuming prominence in budget planning and execution (Downs 1967; Schick 1971).

Structural changes occurred when central budget authorities assumed significant responsibility for the budget process, changing the principle-agent status of local government managers and legislators. The principle-agent relationship between government managers



remains, but central budget authorities are a link or node in the networks that control how budget information is prepared, presented, monitored, and used for decision making purposes. The interjection of central budget authorities into the principle-agent relationship created a structure where budget information is prepared and disseminated to central budget authorities with minimal or no interaction between agencies of departments. Competition for resources between individual agencies becomes paramount, creating an environment reinforcing the budget rationality structures described by Wildavsky (1964), Schick (1971), Hecl (1977), Wilson (1989), Rubin (1997a), Meyers (1994), Thurmaier and Willoughby (2001).

As a result, each agency or department prepares and executes their budgets in a stove piped manner, fully cognizant of their own budgets and responsibilities.<sup>4</sup> This explanation of line item budgeting resembles Granovetter's description of a highly decoupled structure: few cross cutting ties, conflicting interests, and from a budgeting point of view little incentive for local government departments to cooperate in pursuit of overall government outcomes.

But what happens when governments implement performance budgeting into the budget process? Does the social structure of budgeting change? Performance budgeting scholars primarily observed changes to resource allocation with generally inconsequential findings, but have not yet delved into other possible changes resulting from the interjection performance based budgeting into the budget process (Joyce 1993, Broom and McGuire 1995; Jordan and Hackbart 1999; Poister and Streib 1999; 2005; Wang 2000, 2002; Melkers and Willoughby 1998, 2001, 2005; Gilmour and Lewis 2006a; Rivenbark and Kelly 2006; Sterck and Scheers 2006; Ammons 2008). Those governments that have implemented performance based budgeting have done so through both top down driven directives and a bottoms up grass roots diffusion, many that predated the current performance budgeting reform (Melkers and Willoughby 1998, 2000, 2005;

Willoughby and Melkers 2001, Wang 2000, 2002; Willoughby 2004; Kelly and Rivenbark 2003, Ho 2006a; Rivenbark and Kelly 2006).

While there are numerous methods for incorporating performance based budgeting into the budget processes, some unmistakable patterns have emerged. Performance based budgeting, unlike previous budget reforms has not significantly changed the budget process itself, nor has it changed organizational structures. Instead, it has changed the social structures of the budget process. But in order to observe such changes, one has to look at budgeting from a layered construct. The political role of budgeting, or the budget rationality layer of budgeting remains intact and relatively unchanged: there is still a central budget authority, often separate from government agencies or department managers. However, the management layer of budgeting can experience structural changes. How? Performance based budgeting within the management layer of budgeting is not focused on resource allocation, but rather how to improve government outcomes. If agencies and departments orient on the production of service outcomes, their focus can shift to detecting, observing, and acting upon interdependencies between agency and department activities.

With performance based budgeting, often an agency or department's outputs or outcomes is dependent upon another agency or department's inputs previously hidden or unobserved in a line item budget because a single department was assigned the entire responsibility for a task. One of the intended designs of performance based budgeting is to bring individuals from various agencies or departments together to explore and leverage joint efforts in the delivery of government products and services. If instead of competing for resources independent of each other, agencies and departments must communicate with each other in joint ventures and efforts, there is a possibility of developing trusting, reciprocal efforts.

The weakly coupled structure can be used to describe how performance based budgeting reform can be implemented and survive the initial difficulties frequently experienced during implementation (Forrester and Adams 1997). Reform traditionally required changing specific planning, management or control functions and integrating such reform within existing political and economic rationalities. However, this conception of reform is incomplete and akin to single loop learning processes, likely to fail unless organizational needs are also considered. Factoring in organizational culture, strategic goals and objectives facilitates the opportunity for developing a double loop learning process allowing for enhanced introspection, reflection, and communication within the organization (Argyris 1982, 1990; Morgan 1986; Forrester and Adams 1997).

Reform requires a bottom up approach irrespective of top down driven reform to allow an organization to accept and learn from such reform. Performance based budgeting offers the opportunity to not only change resource decision making and allocation (the focus of budgeting scholars), but also to facilitate the development of a learning organization. Successful public budgeting reform requires concern for both the internal and external needs and responsibilities of an organization (Rist 1994; Forrester and Adams 1997). This is an important observation supporting my proposal that budgeting is layered. The legislative, budget rationality layer fits the description of Forrester and Adams' external needs and responsibilities, while the management layer focuses on the internal needs and responsibilities of the organization.

I am not implying that the management layer of budgeting is completely discrete and separate from the legislative, budget rationalities layer. Managers are responsible for ensuring mutual appreciation for both layers of budgeting. Organizationally however, the internal focus of budgeting and management has a different orientation, focused on organizational needs to

deliver the expected bundle of government products and services approved and directed from the legislative, budget rationalities layer. Ho and Ni (2005) describe the city manager's role as a crucial conduit between departments and elected officials for translating performance goals into useful information and decision making by elected officials, but I believe this concept applies to department managers as well, although less frequently than city managers. Both city managers and department heads have contact with elected officials and must have an appreciation for both layers of budgeting and the relationships and responsibilities within those layers.

If budgeting is layered, the management layer of budgeting offers a different perspective on the use of performance information. Current budget theory is wary of the use of performance information as a result of an "institutionalized myth" that accountability is equivalent to performance (DiMaggio and Powell 1983; Meyer and Rowan 1977, Argyris 1990; Forrester and Adams 1997; Radin 2000, 2006; Heinrich 2002; Kelly 2002; Dubnick 2005, 4; Moynihan 2006a, 2006b). But what happens if information used in performance based budgeting is used for an additional purpose beyond oversight and resource allocation decision making? Performance based budgeting offers the possibility that organizations use performance information for internal purposes as well as externally for oversight processes. The management layer of budgeting uses performance information for managing their organizations.

Budget reform described by Forrester and Adams and my conceptualization of performance based budgeting does not occur within a vacuum: there must a facilitating mechanism to overcome organizational resistance and the fragmented, compartmentalized nature of the budget process (Argyris and Schon 1978; Sabatier and Mazmanian 1979, 1980, Sabatier 1986; Morgan 1986; Mazmanian and Sabatier 1989; Argyris 1990; Rubin 1990, 1997a; Rist 1994; Forrester and Adams 1997; Granovetter 2002). Referring to the discussion of the social

structure of budgeting, performance based budgeting provides a description of the weakly coupled structure with entrepreneurial actors serving to facilitate the implementation of performance based budgeting. But where does the entrepreneur come from in the public budgeting process? Performance based budgeting has often been implemented with a champion influencing the process from both top down and bottom up forces at the local level.<sup>5</sup>

What are the incentives for an individual or individuals assuming the role of the entrepreneur and championing the cause of performance based budgeting? I propose that individuals in leadership and management positions may do so for varying reasons falling under the umbrella of professionalism within public service, and a desire for improving the production and delivery of public goods and services. I propose there may also be more than one entrepreneur within local government facilitating the implementation of performance budgeting. These entrepreneurs facilitate the implementation of performance based budgeting, which acts as a change agent bridging the gaps within a weakly coupled system (or as just discussed, fragmented budget systems) in a manner less threatening than previous reforms that either challenged central budget authorities or required organizational structural change.

Performance based budgeting's role as a change agent alters communication and information sharing patterns as departments share information and team together to improve efficiencies as a result of sharing responsibility for production and delivery of outputs. Social interactions are changed through introducing performance based budgeting into the budget process. Although the majority of such changes should fall within the management layer of budgeting, there is also opportunity for changing the social structure of the legislative budget rationalities layer as well. If there are changes to the social structure of budgeting, are there other additional outcome changes?

The crux of my thesis is performance based budgeting creates the possibility for indirect changes unassociated with resource allocation decisions. Budget theory has focused on changes related to resource allocation decisions without considering the primary purpose of instituting performance based budgeting in the first place: performance! This is understandable though, because logically and from a budget rationalities approach, changes in resource allocations would be expected and readily observable when using performance based budgeting. Notwithstanding, this study looks at whether performance based budgeting improves the organizational performance of local governments and individual departments. Organizational performance can be indirect and not always captured by direct measurements and benchmarks for which budgeting and public management scholars alike have been searching (Mott 1972; Molnar and Rogers 1976; Cameron and Whetten 1983; Brewer and Selden 2000; Rainey 2003; Moynihan and Pandey 2005).

A major concern lies with the use of a global measurement versus single point measurements. Fortunately, the use of a global measure is gaining support due to its ability to generate a reasonable approximation of self reported employee perceptions of organizational performance (Wanous et al. 1982; Wanous and Hudy 2001; Moynihan and Pandey 2005; Garnett et al. 2008). While government outcomes are not always easy to directly measure, perceptions of effectiveness can have a powerful effect on organizational activity (Quinn and Rohrbaugh 1981, 1983; Borman and Motowidlo 1993; Ostroff and Schmidt 1993; Campbell 1990; Campbell et al. 1993; Day 2001). This study will measure the perceptions of city managers and department heads concerning their use of performance based budgeting and its influence on organizational performance.

Performance based budgeting can encourage the development of a learning organization.

For learning organizations, reform is never complete, so there is opportunity for continual change within the social structure of the budget process, which suggests the possibility for continual efforts to improve organizational performance. From a layered budgeting perspective, this is feasible. While continual efforts to improve effectiveness from a budget rationalities and resource allocation perspective will at best produce diminishing returns (how often do organizations retain savings from resulting efficiencies in follow-on fiscal years?), the management layer of budgeting is capable of continually striving toward organizational improvements in productivity and delivery of government services.

#### *Indirect Effects and Organizational Effectiveness*

Frederickson and Smith (2003, 98-99) deliberately separate public management and public administration, defining public management as the study of the “formal and informal processes of guiding human interactions toward public organizational objectives,” while Public Administration is the study of “design and evolution of structural arrangements for the conduct of public administration.” This study suggests that introducing performance based budgeting affects informal relationships in a way that changes the structure of relationships from highly decoupled relationships that I associate with line item budgeting, to weakly decoupled relationships that I associate with performance based budgeting. The changes to informal relationships offer the possibility to collaborate and innovate in ways that positively influence organizational performance without changing organizational structures.

Budgeting, like public management consists of formal and informal processes. Formal budgeting consists of the processes, systems, and controls established to prepare and execute budgets. Informal budgeting consists of characteristics and variables that influence formal budgeting processes (generally indirectly), and have not received much attention from the

budgeting discipline. The indirect effects of organizational characteristics are well known in management studies, but have only recently come to the attention of budgeting scholars. Melkers and Willoughby (2005) provide evidence that routinization of performance measures improves communication which indirectly affects the quality of decision making for resource allocations. Jordan and Hackbart (1999) cite a Congressional Budget Office study concluding that information sharing is an integral element of performance budgeting and policy process (CBO, 1997). Grizzle and Pettijohn (2002) discuss the importance of communication and bureaucratic structures. Bureaucratic structures define routinized control mechanisms and organizational fragmentation that create transaction costs and requirements for coordination mechanisms, but communication can bridge the gaps associated with organization fragmentation.

A strategic characteristic of budgeting is the establishment of a balance between a system of control mechanisms and the flexibility to adjust the budgeting process in order to react to changes and contingencies (Thurmaier and Willoughby 2001; Cain, Choudhury, and Clingermayer 2004). That flexibility is dependent on a number of factors. State and local governments display varying amounts of trust and devolution of budget execution based upon Rubin's (2006) discretion abuse cycle. The trust necessary for information sharing, coordination, and cooperation between various stakeholders is fleeting and must be continually nurtured in order to provide balance between monitoring and control systems, and stability for managing the budget execution process (Cain, Choudhury, and Clingermayer 2004).

Trust is dependent on the stability and tenure of leadership, and the cultivation of relationships (Thurmaier 1995b; Cain, Choudhury, and Clingermayer 2004). Informal relationships are based on role performance of key actors and the flexibility to make adjustments in the budget process (Rubin 1997a; Cain, Choudhury, and Clingermayer 2004). The link



between trust and the determination of delegated flexibility and discretion is dependent on the amount and quality of information sharing, coordination, and cooperation between various stakeholders in the budget process.

Organizational culture, commitment, and performance have received substantial attention. Their origins can be traced to concepts of scientific management, decision theory, and corporate organizational performance (Taylor 1911; Mayo 1933; Barnard 1938; Gulick 1937; Drucker 1945, 1954, 1973; Simon 1946, 1997; Mintzberg 1973; Deming 1982; Peters and Waterman 1982; Dennison 1990). Most interesting are recent studies of the indirect effects of communication and organizational performance (Rainey and Bozeman 2000; Moynihan and Pandey 2005, Pandey and Moynihan 2006; Pandey and Garnett 2006). These studies indicate that communication is an important facet to organizational performance, but face challenges for accurately observing complex individual and agency interactions (Ingraham and Kneedler 2000; Pandey and Garnett 2006). Of the three levels of communication (internal, external, and interpersonal); there is strong empirical support for internal organizational communications affecting organizational performance (Pandey and Garnett 2006). These findings support March and Simon's findings that employee communications and inclusion in the decision-making process improve organizational commitment and organizational performance (March and Simon 1958; Parker and Kyj 2006).

These findings are also supported within the accounting management field where participation in the budget process influences organizational performance. Extensive studies have produced mixed results from observing various factors and structural functions associated with participatory budgeting. Budget participation has been attributed to greater goal commitment, organizational commitment, and budget commitment in pursuit of managerial and

organizational performance (Argyris 1952; Becker and Green 1962; Hofstede 1967; Searfoss and Monczka 1973; Kenis 1979; Merchant 1981, Nouri and Parker 1998; Chong and Chong 2002). Chong and Chong (2002) state “performance is mainly a function of goal attainment with budget goal commitment as its predictor” (Locke 1968; Locke et al. 1981; Lock and Latham 1990; Wofford et al. 1992; Chong and Chong 2002, 69).

Budget participation positively influences morale, motivation and job efficacy, suggesting these variables positively influence organizational performance (French et al. 1960, 1966; Hansen 1966; Cherington and Cherington 1973; Hofstede 1967; Brownell and McInnes 1986; Mia 1988). Task uncertainty and budget participation have been related to job performance (Hopwood 1972; Otley 1978; Brownell 1981; Brownell and Hirst 1986; Govindarajin 1986; Brownell and Dunk 1991). Budget participation serves as a buffer and enhances interdependence in organizations with high task uncertainty (Brownell and Hirst 1986), while the locus of managerial control can serve as a moderator between budget and organizational performance (Brownell 1981). The overarching theme suggests managers in more decentralized organizations with high levels of budget participation perceived they had greater ability to influence organizational performance (Bruns and Waterhouse 1975; Brownell 1981). These findings resulted from testing a number of intervening or moderating variables associated with budget participation including goal commitment, information sharing, task complexity, need for achievement, locus of control, leadership styles, trust, ambiguity and job tension (Otley 1978; Brownell 1981, 1982a, 1983; Murray 1990).

Although there is little information available on the comparison between private budgeting participation and public budgeting participation, Williams et al. (1990) suggest there is a similarity between the two. Ingraham and Kneedler’s model of public management

performance attempted to dissect Moe's description of the government bureaucracies as "black boxes that mysteriously mediate between interests and outcomes." They propose that institutional and organizational factors play an important role in determining the effectiveness of government organizations (Moe 1987, 475; Ingraham and Kneedler 2000). This study attempts to integrate the concepts of a mediated public sector black box with a private sector mediated black box (explored within the management accounting field) to determine if there are organizational or institutional factors resulting from performance based budgeting that affect public organizational performance (Moe 1987; Shields and Shields 1998; Ingraham and Kneedler 2000; Parker and Kyj 2006).

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*Notes*

<sup>1</sup> I must be both careful and clear here to avoid becoming bogged down in the nuances of rational, agency, and bureaucratic control theories, or mistrust of public management theory. My intention is to describe budgeting as layered; operating simultaneously and independently from each other, but key individuals, especially agency and department supervisors and managers must be able to effectively function within both layers, but with more time spent in the management aspects of providing public services. Again, I repeat my statements above that budgeting is still important, but does not necessarily mean public managers focus on the budget in the same way that public budgeters focus on budgeting. Budgeting is embedded in public management theory, affecting all management activities, but is not the sole focal point of management activity.

<sup>2</sup> Parsons and Smelser explicitly state their model of social structure and action was capable of substituting other subsystems or activities for economic activity. I am proposing that government activity is an acceptable substitute.

<sup>3</sup> Describing the management level of government is difficult here, it could also be described as a functional imperative or even embedded within government activity, but none of them are precisely accurate. Management as a subsystem neglects its importance as a functional imperative in the spirit of public administration and public management disciplines. Likewise, the functional imperative description neglects the importance of discussing budgeting's layered hierarchy. Embedding budgeting within management and management within governments dilutes the suitability of the embeddedness concepts discussed in this paper. I chose the subsystem approach using the Parson and Smelser's logic of isolating a specific activity within society, in this case, government activity out of the set of various activities comprising society, and observing management as the subsystem of interest within government activity.

<sup>4</sup> I am not impervious to local government council or mayoral executive branch meetings where budget activities are discussed and official decision making occurs, I am simply inferring that local government departments and department heads are primarily concerned with protecting and managing their individual departments with minimal concern for overall local government outputs or outcomes, which are the purview of city managers, legislative and executive branch leaders.

<sup>5</sup> Examples include a bottom up approach where budgeting professionals implemented performance budgeting in Kansas City suburbs such as Olathe, KS; while in Denver, CO the mayor directed the implementation of performance based budgeting.

## **Chapter 5**

### **Methodology, Data Analysis and Results**

#### *Study Design*

This study explores whether certain organizational characteristics indirectly affect performance budgeting, which in turn affects organizational performance. Survey measures for information sharing, trust, and budget decentralization are used to test the research question of whether performance budgeting indirectly affects organizational performance. A discussion of the variables and survey measures is followed by a presentation of the methodological approach for mediated and moderated models tested using ordered logit regressions. Finally, an interpretation of the findings including the predicted probabilities taken from the regression results allow for a discourse summarizing the results of the study.

This study uses data from the National Administrative Studies Project - IV survey, gathering data from local administrators in areas of interest to public administration and public management. The data from the NASP-IV survey were gathered in a multi-method survey administered in a nationwide sample of cities with populations greater than of 50,000 residents. A total of 545 cities were surveyed, with a potential for up to 3,316 observations. The data allows for a comprehensive assessment of local government, and assessment by individual job positions. The study surveys city managers and chief administrative officers, assistant city managers and assistant chief administrative officers, chief financial or budget officers, and the directors of public works, personnel, planning, economic development, community services, and parks and recreation. Each of these positions has important relationships with management and budgeting processes.

The design of the study and survey sample was possible through the assistance of the International City / County Management Association (ICMA). ICMA is a professional association

devoted to supporting local government excellence and professional development (ICMA 2009). ICMA compiled and provided a list of potential respondents and contact information (with the exception of e-mail addresses) to the NASP-IV study team. The NASP –IV study team augmented the list with e-mail addresses and updated the list of potential respondents through publicly available resources to ensure respondent accuracy. The study protocol was reviewed and approved by the Institutional Review Board of the University of Kansas prior to administering the survey. The survey was administered through a letter sent via U.S. mail to each respondent providing details of the study and request for respondent participation. The letter provided respondents with the survey website and a secure participation code. Upon visiting the web site, participants were informed of their personal and privacy rights including voluntary participation in the survey. Follow-ups to the initial letter included e-mail, fax and telephone contacts.

Of the 3,316 possible survey participants, 1,538 responded to the survey resulting in a response rate of 46.4%. A potential of nine respondents was possible from each of the 545 city jurisdictions, with one respondent from 126 jurisdictions, two respondents from 130 jurisdictions, and three or more respondents from 289 jurisdictions. The different respondent job categories are reasonably distributed with the highest responses from 216 city managers or chief administrative officers and 223 responses from assistant city managers or assistant chief administrative officers, each representing 14 percent of the survey population. The lowest number of responses came from the 65 community development managers representing 4 percent of the survey population. General demographics for the survey sample are provided in Table 5.1.<sup>1</sup> The demographics reveal a population representative of senior level positions in white collar professions. The typical respondent is male, Caucasian, late 40s to mid 50s in age, well educated with more than 60 percent holding graduate degrees, and highly compensated with almost 70 percent earning over \$100,000.

<INSERT TABLE 5-1>

A large number of the measures in the NASP-IV survey were formed on the basis of previous NASP-I through NASP-III surveys where many of the measures were previously validated. Data from the National Administrative Studies Project – II (NASP-II) form the basis for developing this study. The NASP-II survey of state health and social service agencies was used to observe topics related to this study, including communication, rules culture, and performance, (Pandey and Garnett 2006; Garnett, Marlowe and Pandey 2006). Additionally the NASP –II survey supported exploratory work on performance budgeting using communication and political support as mediating variables (Nye, 2007).

#### *Research Question and Hypotheses*

*What are performance budgeting's indirect effects on organizations, and do those indirect effects change organizational performance?*

The dependent variable in this study is organizational performance. The survey question asks: *On an overall basis, please rate the effectiveness of your organization in accomplishing its core mission (0 to 10 Likert Scale)*. This global measurement provided by city managers and department heads assesses perceptions of overall organizational performance. The independent variables capture the implementation of performance budgeting. The mediating variables are information sharing, trust, and decentralized decision making. My hypothesis suggests the introduction of performance budgeting changes performance because it facilitates greater incidence of information sharing, trust, and decision making within an organization. Control variables include standard measurements from the public management literature including strategic management and organizational culture.

## *Organizational Performance*

Public administration and public management scholars have undertaken great efforts to develop models of performance to measure outputs and outcomes in the public sector (Lynn et al. 1999; O'Toole and Meier 1999, 2000, 2006; Ingraham and Kneeder 2000; Meier and O'Toole 2001; 2003; Ingraham et al. 2003). Generally agreed upon measures of performance fall within the framework provided by Boyne (2003): quantity and quality of outputs, efficiency, effectiveness, outcomes, monetary or resource value, and consumer satisfaction. An important finding from these efforts is the assessment that public management is a crucial function for successful organizational performance. How management 1) organizes processes and organizational structures, 2) uses various management tools including incentives, coordinating mechanisms, and structural networks, and 3) establishes organizational values and strategies including goals, missions and priorities for integrating and allocating resources, play equally important roles in developing performance models (Brewer and Selden 2000; Brewer 2005; Boyne and Walker 2005; Forbes and Lynn 2005; Hill and Lynn 2005; Forbes et al. 2006).

Measuring public performance is “complex and multidimensional,” generating numerous approaches for studying organizational performance. (Andrews 2007, 13). Quinn and Rohrbaugh's (1981, 1983) competing values framework offers a synthesis of organizational theory's efforts to define organizational effectiveness, concluding there is no single best method or means for determining and observing organizational effectiveness. All such measures are subjective and value driven, indicating both objective and subjective measurements are useful for observing organizational performance (Quinn and Rhorbaugh 1981, 138-139; 1983, 376; Brewer 2006).

Objective measures align with actual data captured by government agencies that monitor



performance, or from external organizations that either monitor or audit performance within government agencies. Objective measurements have been proclaimed the empirically preferred method for measuring performance (Meier and Brudney 2002; Andrews, et al. 2006; Boyne et al. 2006). Unfortunately, the verification of performance results and establishment of causal relationships is a continuing challenge (Pollitt 2000; Radin, 2000, 2006; Bouckaert and Peters 2002; Heinrich, 2002; Dubnick 2005; Moynihan 2006a; Yang 2009). Brewer (2006) echoes Quinn and Rohrbaugh's (1981, 1983) assertions that objective performance measures are socially constructed concepts, and as such should be treated no differently than subjective measures. Furthermore, the validity of using specific objective measures across the diversity of government agencies and programs can be problematic (Chun and Rainey 2005; Andrews et al. 2006; Pandey and Moynihan 2006). More specifically, objective performance measurements are susceptible to measurement error from resultant and varying degrees of interpretation, manipulation and perversion from their original intentions. Performance information obtained from one level of an organization may not adequately transfer the same message or meaning at higher levels of an organization responsible for developing and implementing policy (Bouckaert and Peters 2002).

Performance measures offer the means for developing greater accountability within public organizations. However, such intentions can also lead to biased information and the distortion of information to prevent principal-agent conflict, or even entice organizational cheating if organizational objectives or expectations are not being met (Bohte and Meier 2000; Bouckaert and Peters 2002; Dubnick 2005; Hood 2006; Pandey et al. 2007; Moynihan 2009; Yang 2009; Yang and Pandey 2009). Ultimately, either the perversion of information or cumulative interpretation of performance information over time can lead to goal displacement negating the original intentions for using performance information (Merton 1936; Bohte and

Meier 2000; Moynihan 2009).

Consequently, subjective and perceptual self reported measures from surveys are frequently used to measure overall perceptions of an organization's effectiveness, and are used in diverse domains of inquiry including public management and management accounting (Mahoney et al. 1963, 1965; Henemen 1974; Penfield 1974; Brownell 1982c; 1985; Brownell and McInnes 1986; Brownell and Dunk 1991; Kren 1992; Delaney and Huselid 1996; Youndt et al. 1996; Jennings and Ewalt 1998; Brewer and Selden 2000, Parhizgari and Gilbert 2004; Brewer 2005; Moynihan and Pandey 2005; Pandey and Moynihan 2006; Walker and Boyne 2006; Schäffer 2008) Studies also indicate that subjective measurements are moderately to highly correlated with objective measurements (Robinson and Pearce 1983; 1988; Dess and Robinson 1984; Pearce et al. 1987; Dollinger and Golden 1992; Powell 1992; Delaney and Huselid 1996; Brewer and Selden 2000; Brewer 2005; 2006; Walker and Boyne 2006).

Both multiple measure instruments and single global measurements have been used to study performance. Indexed multiple measures have encompassed dimensions of efficiency, effectiveness, fairness, and stakeholder satisfaction (Brewer and Selden 2000, Rainey 2003; Pandey et al. 2004, 2007; Brewer 2005, Walker and Boyne 2006). Single global scaled measurements do not provide the comprehensiveness of multiple scaled measurements, but are supported in the literature and increasingly used to measure overall perceptions of government performance rather than departmental or programmatic performance. Global measures also reduce validity issues associated from multiple measurements (Moynihan and Pandey 2005; Pandey and Moynihan 2006, Andrews et al. 2006).

Subjective observations from public performance studies focus on internal or external stakeholders. Both are useful, as external stakeholders provide important political, customer, and

citizen perspectives, while internal stakeholders are often the managers with expert knowledge tasked with executing government services and programs (Boyne and Walker 2005; Moynihan and Pandey 2005; Pandey and Moynihan 2006). The NASP-IV survey data used for this study complements previous performance studies utilizing the NASP-II survey (Pandey 2003; Moynihan and Pandey 2005; Pandey and Moynihan 2006; Garnett et al. 2008). The survey gathers information from senior leadership of local governments consisting of city managers, chief administrative officers and city department heads. These are individuals who are most likely to best understand the agency from a broad, inter-departmental perspective.

Like objective performance measurements, self reported subjective measurements can also experience measurement error. The most likely measurement error, common source bias or common methods variance, may result when both dependent and independent variables originate from the same survey source (Wall et al. 2004; Brewer 2005, 2006; Moynihan and Pandey 2005 Andrews et al. 2006). Common source bias is the “divergence between observed and true relationships among constructs” (Doty and Glick 1998, 374). Studies have found that common source bias can account for more than 25 percent of observed variation within the model construct (Cote and Buckley 1987; Doty and Glick 1988, 1998; Williams et al. 1989). However the literature also indicates the issue is exaggerated and resolvable as long as common source bias and its attenuating or muting effects are considered when interpreting study results. In other words, common source bias should be recognized but should not necessarily invalidate findings by and of itself (Spector 1987; Crampton and Wagner 1994, Spector and Brannick 1995; Doty and Glick 1998; Moynihan and Pandey 2005, Garnett et al. 2008).

Other potential issues include sample source bias and reliability. This study alleviates sample source bias by using a broad, global measurement where as any bias should be systemic and less

likely to undermine the study analysis (Moynihan and Pandey 2005). Additionally, the study uses two echelons of respondents, observing city and assistant city managers, and department heads. This approach is similar to Andrews et al. (2006), and supported by other comparable studies (Aiken and Hage 1968; Payne and Mansfield 1973; Walker and Enticott 2004). Reliability issues are alleviated through previous NASP - II studies that use the same global measure to observe performance of other agencies (Moynihan and Pandey 2005; Pandey and Moynihan 2006; Pandey et al. 2007; Garnett et al. 2008).

The discussion of organizational performance measures provides a number of important observations. Measuring organizational performance is complex and challenging because performance measures are difficult to both conceptualize and measure (Quinn and Rohrbaugh 1981, 1983; Boyne 2002; Andrews et al. 2006). Both objective and subjective measurements pose challenges for preventing or minimizing measurement error, but in the end researchers have concluded that all performance measures are subjective (Quinn and Rohrbaugh 1981, 1983; Brewer 2006). This study uses a subjective measurement of city government manager perceptions of organizational performance. Employee perception of organizational performance is increasingly accepted for measuring performance (Delaney and Huselid 1996; Jennings and Ewalt 1998; Brewer 2005, 2006; Kim 2005).

A number of studies have used the same organizational performance measurement utilizing the NASP-II survey, which forms the basis for this research using NASP-IV data (Pandey 2003; Moynihan and Pandey 2005; Pandey and Garnett 2006; Pandey et al. 2007; Garnett et al. 2008). A key point made by Pandey and Moynihan (2005) is this measure assesses a senior manager's overall perceptions rather than narrow program or intra-departmental interests. The NASP-IV provides the opportunity to reinforce their assessment. The survey gathers information from senior leadership of

local governments consisting of city managers, chief administrative officers and city department heads. These are individuals who are most likely to best understand the agency from a broad, inter-departmental perspective.

### *Independent Variable Survey Questions and Measurements*

#### *Implementation of Performance Budgeting*

A number of studies have looked at the prevalence of performance budgeting within state and local governments (Melkers and Willoughby 1998, 2001, 2005; Berman and Wang 2000; Wang and Berman 2001; Willoughby 2001; Wang 2000, 2002; Ho 2003, 2006a; Ho and Ni 2005). The items in this indexed measurement are similar to items used in several studies listed here, and the NASP-IV study team carefully considered the development of the items used for this measurement based upon these previous studies. This three item measurement is measured on a six point scale from strongly disagree to strongly agree with a range of 3-18, and has a Cronbach's Alpha of .858. This coefficient measures the reliability or consistency of the survey measurement. A coefficient of .70 or higher is the generally accepted standard for survey measurement reliability (Nunnally 1978; Devellis 1991). Specific survey questions which address this measurement are:

- Performance information is integrated in my department's budget preparation process.
- My department *regularly* compares actual achievement with performance objectives.
- I regularly use performance information to make decisions.

#### *Information Sharing*

**H1:** *Individual perceptions of organization performance are better among individuals who claim to use performance information than among those who do not claim to use performance information, and that relationship will be mediated by the individual's perceived level of information sharing.*

The literature from the management accounting field concerning information sharing and its

effects on organizational performance is robust and considered an important element of private budgeting processes (Parker and Kyj 2006; Hopwood 1976). Managerial accounting scholars use a principal-agent framework to observe relationships between superiors and subordinates, and information asymmetry during budget discussions affecting both individual relationships and organizations. Organizational performance has been found to improve where there is participation in the budgeting process and where information is shared vertically, both upwards and downwards within an organization (Baiman and Evans 1983; Penno 1984; Baiman 1990; Kren 1992; Simons 1995; Chenhall and Brownell 1988; Nouri and Parker 1998; Shields and Shields 1998; Parker and Kyj 2006).

Internal information sharing between agents can improve coordination between subunits within an organization (Kanodia 1993), improve resource allocation between subunits (Shields and Young 1993), and assist in reducing strategic uncertainties (Simons 1995), all of which assist in improving organizational performance. Parker and Kyj explored the indirect and mediating effects of information sharing, organizational commitment, and goal ambiguity on the budgeting process and individual performance, and found vertical information sharing in the budget process improves perceptions of performance (Parker and Kyj 2006). Chong and Chong explored how budget participation led to greater goal commitment, which led to greater sharing of job related information, which led to increased job performance (Chong and Chong 2002).

A number of public administration studies have looked at the importance of communications and organizational performance (Barnard 1938; Selznick 1997; Simon et al. 1950; Downs 1967; Wilson 1989; Garnett 1992, 1997; Poister and Streib 1999; Graber 2002; Moynihan and Pandey 2005; Pandey and Garnett 2006; Pandey and Moynihan 2006; Garnett, et al. 2008). The later studies looked at how a number of variables including culture, red tape, goal clarity, goal commitment, and

role ambiguity intervene or moderate communication's effects on organizational performance.

Information sharing is a specific communication behavioral process. Within the management field, it defines how key and proprietary information is shared between individuals in organizations, and allows for greater levels of worker satisfaction and organizational effectiveness (Guetzkow 1965; Huber and Daft 1987; Mohr and Spekman 1994). Information sharing within performance budgeting processes refers to the sharing of information relevant for linking budgeting to improved outcomes and performance.

Public budgeting scholars have also acknowledged the importance of communications in the budgeting process. From a budget rationalities perspective, Wildavsky (1964), Meyers (1994), Thurmaier and Willoughby (2001), Wildavsky and Caiden (2004), Rubin (2006) all discuss the importance of communication in the budget deliberation process. From a management perspective, performance based budgeting has been found to enhance organizational communications, facilitating the opening of new communications channels between the legislative and executive branches, and interdepartmental communications (Broom and McGuire 1995; Pettijohn and Grizzle 1997, 2002; Willoughby and Melkers 2000, 2001; Ammons et al. 2001; Chackerian and Mavima 2001; Willoughby 2004; Melkers and Willoughby 2005). While such observations have been generalized at all levels of government, this study proposes local governments are more predisposed to experiencing enhanced communications as a result of performance based budgeting (Wang 2000; Ammons et al. 2001; Ho 2006).

This study is interested in how communication influences organizational performance as a result of performance based budgeting. Melkers and Willoughby (2005) observe that performance based budgeting creates new routines that facilitate communication. Grizzle and Pettijohn (2002) discuss how bureaucratic structures establish routines and coordinating mechanisms resulting in

organizational fragmentation that require transaction costs to navigate the coordinating mechanisms. They offer performance based budgeting alters such routines as result of enhanced organizational communications and information sharing. Pettijohn and Grizzle's observation dovetails well into my synthesis of budgeting and economic sociology theory.

Streiss (1972) highlighted the importance of organizational structures and resultant communication patterns developed in both stable and unstable forms used both by individuals and groups for understanding budget decision making. Streiss builds his case with the help of a number of pre-budget rationalities scholars. Cherry (1957) discusses how organizational communication consists of networks superimposed within an organization (Streiss, 1972, 95). Burkhead (1956) and March and Simon (1958) discuss the significance of communications channels within public organizations, and intensity of use affecting efficiencies. Informal communication channels that are often social in nature co-exist with task oriented communication channels and reinforce each other (March and Simon 1958, Streiss 1972 116, 117).

It is Mosher (1954) however, who gives credence to my application of economic sociology to budget theory by stating "budgeting, like other social processes is a human undertaking carried on by people who are subject to a wide variety of influences and motivations." Public budgeting should recognize both political and social factors highlighting the importance of personal relationships within the budgeting process (Streiss 1972, 172, 173). Granovetter (1973, 1974, 1985a, 1992, 2002, 2005) provided strong/weak ties, structural embeddedness, and elaboration of Burt's (1992) coupling to directly link communications between individuals, organizations, and networks. Uzzi (1996, 1997), and Fligstein (2002a) augmented the discussion of how networks facilitate informal communication and sources of information. What has yet to be addressed is how performance budgeting affects communication within public organizations, which can then affect organizational



performance.

Information sharing is measured through three different measurements. The first is an indexed measurement originating from Katz and Kahn (1966), encompassing both vertical and lateral or horizontal information sharing, and specifically adjusted for the development of the NASP –II survey (Pandey and Garnett 2006; Garnett et al. 2008).<sup>2</sup> The NASP –IV study team updated the survey questions to include an additional horizontal information sharing question regarding communication and the adequacy of departmental resources. The Cronbach’s Alpha for the six item measurement is .825, and is measured on a five point scale from strongly disagree to strongly agree with a range of 3-15. Information sharing is also separated into its vertical and lateral information sharing items. The first three questions below provide the measurement for vertical information sharing, while the second three questions provide the measurement for lateral information sharing. The Cronbach’s Alpha for vertical information sharing is .751, while lateral information sharing is .828. Specific survey questions which address this measurement are:

- Downward communication of task performance directives and instructions is adequate.
- Downward communication about feedback on work performance is adequate.
- Upward communication about problems that need attention is adequate.
- Lateral communication about work related problems is adequate.
- Lateral communication giving social support to peers is adequate.
- Lateral communication about departmental resource needs is adequate.

### *Trust*

Conditions of trust within organizations can change for various reasons. This study proposes trust improves as a result of changing social structures from implementing performance budgeting, which then indirectly affects organizational performance. Other than in terms of political support,

the word “trust” is only used once in the survey. As a result, other measurements have been applied that intuitively include elements of trust in their dimensions. Trust is measured through three different measures. The first measure of trust indicates the respondent’s perceptions of their job role within the organization, measuring role clarity. Trust is related to how an individual perceives the clarity of their job goals, delegation of authority to make decisions, and expectations from superiors and the organization. The items measured were originally developed by Rizzo, House and Lirtzman (1970) to measure role ambiguity, and later confirmed by Boles and Babin (1994), and used with the NASP-II survey (Pandey and Wright 2006). The role ambiguity measurements were originally designed to indicate an employee’s lack of clarity regarding job performance and expectations relative to others within the organization (Rizzo et al. 1970; Boles and Babin 1994).

I am essentially turning this concept on its head by measuring high role clarity, the opposite of role ambiguity. If an employee feels comfortable and understands their role and place in the organization, there is a greater likelihood of trust derived from a high level of role clarity. The Cronbach’s Alpha for this three item measurement is .855, and is measured on a five point scale from strongly disagree to strongly agree with a range of 3-15. Specific survey questions which address this measurement are:

- My job has clear, planned goals and objectives.
- I feel certain about how much authority I have.
- I know exactly what is expected of me.

The second trust measurement indicates an individual’s values and whether or not they are compatible with the organization. The three item measurement was adapted from Wright’s (2007) measures of mission valence. The Cronbach’s Alpha for this three item measurement is .757, and is measured on a five point scale from strongly disagree to strongly agree with a range

of 3-15. Like the previous measurement, the element of trust is intuitively drawn from whether or not the individual is comfortable with the organization and whose values are congruent with the organization. If there is high value congruence, there is a greater likelihood that trust exists between the individual, the organization and co-workers. Specific survey questions which address this measurement are:

- This organization provides valuable public services
- I believe that the priorities of this organization are quite important
- My personal values are compatible with those of this organization

The final measurement of trust developed by Gianakis and Wang (2000) and refined from the NASP-II survey provides an indication of elected officials' trust for the organization and perception of the organization's effectiveness. The first item indicating elected official trust is the only item within the survey specifically focused on the word "trust." The second item involving elected official perceptions of organizational effectiveness provides a reasonably intuitive indicator that elected officials are more likely to trust an organization they perceive as effective in its core missions. The Cronbach's Alpha for this two item measurement is .939, and is measured on a seven point scale from strongly disagree to strongly agree with a range of 2-14. Specific survey questions which address this measurement are:

- Most elected officials trust the organization.
- Most elected officials believe that the organization is effective.

**H2:** *Individual perceptions of organization performance are better among individuals who claim to use performance information than among those who do not claim to use performance information, and that relationship will be mediated by the individual's perception of trust within the organization.*

Berezin (2005) provides a detailed description of trust as it applies to economic sociology.

First, she separates the concept of emotion from the concept of trust in order to delineate these concepts from pure economic theory. Trust is a cognitive act that implies perception about levels of uncertainty or risk. Trust determines how individuals and organizations approach and develop good faith exchange through reliable and routine activities that also may be conditioned upon third party actors (Zucker (1986, 1987; Berezin 2005) Coleman (1990) describes trust as a “bet on the future” based upon knowledge of the past (Berezin 2005).

The discussion here serves to highlight the synthesis of trust within economic sociology, public budgeting, and performance based budgeting. Reciprocity and trust provide the linkage for transactions within society and maintenance of social capital (Polanyi 1944; Coleman 1990; Barber 1995; Woolcock 1998; Kilby; 2002; Portes and Mooney 2002; Zafirovsky 2003; Beckert 2007). Firms cannot exist without good management and trust amongst its employees, where an individual’s character, faculties and motives are important characteristics for a productive organization (Marshall 1920a, Aspers 1999). Trust is the guiding force for Granovetter’s embeddedness concept where personal relations and social structural networks provide the impetus for describing any type of activity or exchange within the entire structure of society. Burt (1992, 2001), Granovetter (2002), White (1966, 1992, 2008), and Zucker (1986, 1987) provide the framework for coupling of activity within social and structural networks. These networks facilitate reciprocity and trust in social relations, influencing the flow of communication and information (Fligstein 2002a).

Zafirovsky (2001, 116-117), referring to a study by La Porta et al. (1997) offers that “trust is positively associated with economic performance in the sense that trust greatly affects the performance of a society’s institutions, including firms as well as governments.” This idea relates directly to my proposal that introducing performance based budgeting acts as a change agent altering social activity in a way that can improve organizational performance without substantially altering

organizational structures. Budgeting is a social activity no different than other activities discussed by economic sociologists. Trust within organizations can be altered by changes in the social activity of budgeting.

Even though the literature on trust and performance budgeting is sparse, my interpretation of budgeting scholars' findings reveals an implicit recognition of the importance of trust in the successful implementation of performance budgeting processes in state and local governments. While studies indicate mixed empirical evidence of improved performance, the studies generally find performance based budgeting improves vertical and lateral communication within organizations (Pettijohn and Grizzle 1997, 2002; Wang 2000; Willoughby and Melkers 2000, 2001; Ammons et al. 2001; Chackerian and Mavima 2001; Willoughby 2004; Melkers and Willoughby 2005; Ho 2006; Ammons 2008). Intuitively, improvement in communications from performance based budgeting processes indicates an alteration of trust as a result of altered social structures within these organizations.

### *Budget Decentralization*

This study looks at whether performance budgeting affects decentralization of decision making, which then affects organizational performance. Melkers and Willoughby (2001, 2005) present a number of related questions in their survey instruments related to decentralization, but do not directly address the issue. Only Berry, Brower and Flowers (2000) describe how decentralized planning authority at the state level improved performance as a result of using performance information.

One assumption of performance based budgeting is the notion that greater budget participation and information sharing might result in a change of budgetary relationships where there is less centralization and control from central budget authorities. Unfortunately, the research is

sparse and no survey items exist which directly relate to budget decentralization. The NASAP-IV survey team carefully constructed a two item measurement indicating a manager's ability to shift both financial and non-financial resources to accomplish core missions. The Cronbach's Alpha is .733 for the six point scale of strongly disagree to strongly agree with a range of 3-18. Specific survey questions which address this measurement are:

- My department is able to shift financial resources within its budget to accomplish its mission.
- My department is able to shift non-financial resources within its budget to accomplish its mission.

**H3:** *Individual perceptions of organization performance are better among individuals who claim to use performance information than among those who do not claim to use performance information, and that relationship will be mediated by the individual's perceived level of decentralized decision making capacity within the organization.*

Implementing performance based budgeting implies changes to organizational social structures and processes, including if and how decision making is decentralized. Decentralization as a result of implementing performance based budgeting has been an espoused value for quite some time (Simon et al. 1954; Sherwood 1955; Eghtedari 1960). Simon et al. (1954, 13) in their study of corporate controllers, defined decentralization as the "delegation of discretionary and decision making authority from higher to lower levels of the organization." Within their description of decentralization in a controllers department, group loyalty and communication channels are especially applicable to public budgeting and this study. Group loyalty refers to loyalty to the vertical structures within departments versus horizontally with other departments, while communication channels refers to the degree and intensity of communications, both functionally and

cross-functionally between departments (Simon et al. 1954).

Group loyalties and communication channels tend to be reinforcing: decentralized communications contributes to decentralized loyalties and vice versa (Simon et al. 1954, 20). This study intends to observe whether performance based budgeting facilitates decentralization, affects communication channels, and implicitly affects group loyalties. Burt's structural holes and entrepreneurial actors are a means of suggesting group loyalties can shift from centralized budget authorities to decentralized interdepartmental loyalty, and in doing so affect organizational effectiveness.

To be clear, the discussion of decentralization here is not about the issue of budget control. There has been concern and criticism that performance based budgeting is an extension of new public management and attempts to usurp legislative oversight through over-delegating responsibility to executive management (Radin 2000; 2006; Box et al. 2001; Frederickson 2003; Kettl 2002; 2005; Lynn 2006; Frederickson and Frederickson 2006). While the new public management mantra of greater responsibility with greater accountability was tempting, scholars were concerned about principle-agent conflicts and the manipulation of performance information (Radin 2000, 2006; Dubnick 2005). The concern for accurate and honest performance measurements is nothing new (Burkhead 1956; Hopwood 1973, Otley 1978). Surprisingly, this concern has not been amplified by contemporary budgeting scholars regarding the current performance based budgeting reform. Quite possibly, this may be the result of 1) the current reform gained more traction at the local level where there is greater face to face coordination between executive and legislative branches, and 2) the organizational structures remain intact, lessening resistance to change from interested stakeholders.

Decentralization is about giving managers and departments greater flexibility with central budget authorities and government hierarchies in communicating budget information, and

determining how to tailor budget guidance and goals for the provision of public goods and services (Thurmaier 1995a, 1995b; Thurmaier and Willoughby 2001). Performance based budgeting also offers the possibility of smoothing out the discretionary-abuse cycle described by Rubin (2006), providing state and local government administrators greater discretion to connect budget goals to desired levels of government services.

Granovetter (2005), Mishra (1996), and Burt (2000), describe how organizational structures can hinder or facilitate organizational performance. Granovetter suggests that organizations with weak ties or weak couplings are more likely to decentralize information sharing processes, and quite possibly decision making processes as well (Granovetter 1973, 1974, 1985a, 1992, 2005a). Social embeddedness and social capital highlight the importance of autonomous actors within social networks who are encouraged to interact with non-group members and other networks (Granovetter 1973, 1985a, 2002; Burt 1992, 2001; Woolcock 1998; Kilby 2002).

The concepts of weak coupling and structural hole entrepreneurs are important to my theoretical proposal. This study proposes that performance based budgeting facilitates local government managers and department heads to act more autonomously from central budgeting authorities and hierarchies to communicate, share information, and cooperate with other departments in pursuit of attaining greater effectiveness and efficiencies. This fits well with Woolcock's (1998, 164) description of senior government officials "governed by a professional ethos, committing them to negotiating and pursuing collective goals."

Burkhead (1956) and Eghtedari and Sherwood (1960) offer some insight on decentralization from the previous performance budgeting reform. The Tennessee Valley Authority budget decentralization resulted from establishing an organizational structure with a small central budget office and emphasis on divisional budget offices. The city of Los Angeles did



exactly the opposite, centralizing budget operations to counter a phenomena described as “uncertainty absorption,” where lower level departments attempt to avoid reporting information because it can alter their organizational power structures (March and Simon 1958, 165). Interestingly, while procedures in the Los Angeles case were centralized, department managers reported perceptions of greater autonomy.

However, I believe Eghtedari and Sherwood’s (1960, 67) description of March and Simon’s uncertainty absorption phenomena as incomplete. Their concern for lower department managers passing up judgments instead of facts is not necessarily a bad thing if we are discussing the communication of professional judgment in the execution of their duties. Just as Howard (1973) stated budgeters should be more concerned about judgment than mathematics, than so too should local government managers in communicating budget information in lieu of simply budget facts. Offering up professional judgments is a means for establishing greater participation, job efficacy, and perception of greater decentralized decision making not just from a budgeting perspective, but from an overall management perspective.

### *Controls*

The study controls for a number of factors relevant to this study. First, several standard demographic controls for public administration and public management are included in the study including sex, race, education, salary.<sup>3</sup> Second, other control variables regarding either economic sociology or public budgeting theoretical constructs used in previous studies where organizational performance was the dependent variable are also included in the study (Moynihan and Pandey 2005; Pandey and Moynihan 2006; Pandey et al. 2007; Garnett et al. 2008). A key idea discussed within the economic sociology construct was the concept of entrepreneurialism associated with the writings of Schumpeter, and Burt. An indexed variable of developmental or

mission culture indicates the degree of entrepreneurialism and commitment to innovation developed by Zammuto and Krakower (1991) with origins from Quinn and Rohrbaugh's (1981, 1983) discussion of competing values for achieving organizational effectiveness. The measure is based on a five point scale from strongly disagree to strongly agree with a range of 3-15, and has a Cronbach's Alpha of .792. Specific survey questions which address this measurement are:

- My department is a very dynamic and entrepreneurial place. People are willing to stick their necks out and take risks.
- The glue that holds my department together is a commitment to innovation and development. There is an emphasis on being the best.
- My department emphasizes growth and acquiring resources. Readiness to meet new challenges is important.

Another discussion introduced the concept of professionalism generating thought and action counter to rational theory, and specifically budget rationalities, which I attempt to apply to budgeting's embeddedness in management. I use a three item measure adapted from the NASP-II survey indicating the degree of enthusiasm for the profession and guide for professional standards. The seven point scale from strongly disagree to strongly agree with a range of 3-21 has a Cronbach's Alpha of .864. Specific survey questions which address this measurement are:

- I am proud to be in my profession.
- I use my profession to set standards for what I consider good performance for myself.
- I am enthusiastic about my profession.

A common function discussed in the performance based budgeting literature is its potential to enhance strategic planning and decision making (GASB 2001; Melkers and Willoughby 2001, 2005; Ho 2003, 2006). A single item measurement adapted from the NASP-II survey with a scale of 0 to

10 is used to indicate the degree of strategic planning and decision making. The survey question asks how effective a city is at making strategic decisions.

Two controls consider public budgeting and management issues: measuring the number of government employees and city budget expenditures. The logged size of the government and its expenditures can give some indication of the sophistication of a government's performance based budgeting processes (Ekstrom 1989; Ho 2003, 2006). Finally, the study controls for both total tenure within the organization and tenure in the respondent's current position. Distinguishing between the two is important because even though a respondent may have a long tenure within the organization, lateral and vertical job mobility is not uncommon in local government, and often one's point of view can be affected by their position and tenure in the position versus total tenure in the organization.

#### *Introducing Methods for Data Analysis*

The intention of this study is to determine the presence of indirect effects associated with the implementation of performance budgeting that enhance organizational performance. Limited dependent variable regression models will be used to determine any mediating effects of selected intervening variables (See Judd and Kenny 1981, Baron and Kenny 1986; Long 1997; Garnett, et al. 2008; and Wright and Pandey 2008 for examples). There are two approaches for testing for mediating and moderating effects: a multi-step regression process testing separately for mediation and moderation, and testing for mediation through structural equation modeling (Judd and Kenny 1981; James and Brett 1984; Kenny et al., 1998).

This study uses multiple regression, ordered logit model to analyze the data (Kenny et al. 1998; Frazier et al. 2004; Preacher and Hayes 2004). The logit regression model allows us to test for indirect effects, and observe the predicted probabilities and proportional odds ratios associated with the mediating variables and their indirect effects on the likelihood of the key independent variable

performance budgeting, to influence organizational performance.

### *Defining Mediating and Moderating Relationships*

A brief discussion is required to delineate the differences between mediating and moderating variable relationships because they can be easily interchanged and are somewhat nuanced in their conceptualization (Baron and Kenney 1986; Sheeran and Abraham 2003; Aguinis, 2004; Garnett et al. 2008). A variable is considered to be a mediating variable when it provides a direct causal relationship between an independent and dependent variable. A mediating variable should be the cause that creates the outcome between the independent and dependent variable. In other words, the mediating variable provides the “why” or “by what mechanism” for creating the relationship between the independent and dependent variables (Baron and Kenny 1983; Aguinis 2004, 5, Frone 1999).

Mediating variables are also characterized as intervening variables, where the effects of the independent variable are carried or channeled through the mediating variable (Aguinis 2004; Garnett et al. 2008). For example, this study proposes that information sharing is a mediating or intervening variable causing performance budgeting to positively influence organizational performance. Confirming a mediating variable’s effect is conducted through a three step regression process. First, there must be a statistically significant relationship between the independent and dependent variables. Next, there should be a significant relationship between the independent variable and the mediating variable: the mediating variable should be a statistically significant predictor of the independent variable. Finally, both the independent and mediating variable are regressed on the dependent variable. A significant relationship is established if the independent variable, previously significant, is found insignificant.<sup>4</sup> A graphical example of a mediating variable using the information sharing example above is provided in Figure 5.1

<INSERT FIGURE 5-1>

Instead of characterizing the effects between the independent and dependent variable, a moderating variable changes or affects the relationship of the independent variable with the dependent variable. A moderating variable explains “when” or “under what conditions” the independent variable causes outcomes in the dependent variable (Frone 1999; Aguinis 2004). Where as a mediating variable can be caused by an independent variable and be a cause of the dependent variable, a moderating variable cannot be a cause of the dependent variable (Shields and Shields 1998, 51; Aguinis, 2004, Garnett et al. 2008). A moderator variable can either weaken or amplify a casual effect, and can even reverse a causal effect (Kenny 2009). Revisiting the information sharing example above as a moderating variable, information sharing would moderate performance budgeting if it changed how performance budgeting influenced organizational performance. In other words, the interaction between information sharing and performance budgeting changes the relationship between performance budgeting and organizational performance.

Confirming moderating variables is a two step process where the independent variable is tested for significance, and in the second step the independent variable, moderating variable and an interaction variable consisting of both variables are regressed upon the dependent variable. A fully moderated variable is found when the interaction variable is significant and the independent variable is insignificant. A graphical example of a moderating variable using the information sharing above is provided in Figure 5.2. Figure 5.3 is an alternative graphical example is provided by Baron and Kenny (1986, 1174) displaying the independent, moderating, and interaction variables effecting the dependent variable.

<INSERT FIGURE 5-2>

<INSERT FIGURE 5-3>

One caution regarding mediating and moderating relationships: there is not always a neat or precise dichotomy between the two conceptualizations. A mediating variable may also have moderating characteristics, while a moderating variable may also have mediating characteristics. Careful crafting of theoretical models is necessary in order to exclude the possibility of generating unintended consequences as a result of a faulty model, or not clearly understanding the relationships between the conceptual variables and their effects on proposed models of study (Baron and Kenny 1986; Aguinis 2004, Edwards and Lambert 2007; Garnett et al. 2008). A variable can be found to be significant, but not fully mediated or moderated, further requiring the need to measure for mediated-moderated variables and moderated-mediated variables, which can result in difficult interpretations. Additionally, a fully moderated variable model is subject to even greater interpretation than mediated variable models because of the challenge in determining which of the two interacting variables is creating the change in the relationship between the independent and dependent variable. While the theoretical construct for this study focused on observing intervening effects, moderating effects are also captured to address the issues put forth when modeling intervening and interacting variables.

The use of intervening variables in economic sociology is not new. Smelser (1976) describes a classic case where Michaels (1959) employed the methodology to study oligarchy in relation to trade unions and political parties, observing how leaders can indirectly influence activities as a result of their own perceived indispensability. Smelser's main point however, is substantive variables can either be dependent, independent, or intervening depending on their place in the explanatory model, verifying the challenges of modeling and interpreting the results (Michaels 1959; Smelser 1976).

There are also limited examples of mediation within the management accounting discipline. Covaleski et al. (2003) provide a summary of examples of mediators influencing the link between

participatory budgeting and individual or job performance. Shields et al. (2000) observed stress as a mediator, Nouri and Parker (1998) observed resource adequacy, as a mediator, Chong and Chong (2002) observed budget goal commitment, acquisition of job relevant information, and resource adequacy as mediators, and Wentzel (2002) found perceptions of fairness as a mediator.

Ultimately, there are relatively few examples of studies observing mediating variables in either economic sociology or budgeting disciplines. Intervening models are used frequently in other disciplines such as psychology and organizational studies, and increasingly applied to public administration and public management studies indicating the value in exploring the concept within public budgeting. Figure 5.4 and Figure 5.5 provide graphical depictions of the mediating and moderating variable relationships proposed in this study.

<INSERT FIGURE 5-4>

<INSERT FIGURE 5-5>

#### *Data Analysis*

This study applies the ordered logit model to test the hypotheses. Ordered logit models are commonly used in the social sciences for analyzing data where the dependent variable is presented in a categorical format measuring levels of agreement or disagreement, and ordered groupings such as frequency of activities, income, and educational levels (Long 1997). Ordered regression models such as logit originate from McKelvey and Zavoina's (1975) efforts to observe latent, ordered, and categorical variables identified from data instruments such as surveys. Further development came from the biostatistics discipline with the proportional odds model that has since been refined and is an important element for interpreting logit models (McCullagh 1980; Long 1997). The logit model uses a maximum likelihood estimate (MLE) to estimate parameters for measuring the independent variable and the probabilities associated with the categorical changes in relationships between the

dependent and independent variables (Long, 1997; Woolridge 2006).

The logit model estimates provide two different interpretations. Logit coefficients are not the equivalent of Ordinary Least Squares (OLS) coefficient, but are a measure of log odds, providing an indication of change in the log odds of a one unit change of the observed variable. The second interpretation is provided by odds ratios that measure the amount of change moving from one categorical unit to another categorical unit based upon the probabilities of occurrence for the two observed units. This study uses the odds ratios to determine the predicted probability of changes in the relationship between the dependent variable (organizational performance) and the independent variable (performance budgeting) as a result of the various intervening variable measurements. The study also looks at predicted probabilities of an event change (change in the outcome of the dependent variable) based on changes of the categorical scale for the independent variable and intervening variable (Long 1997). The hypothesis in this study proposed the mediating variables information sharing, trust and budget decentralization would influence and cause performance budgeting to improve performance, as indicated by a unit change in the independent variable's index scale.

The ordered logit model is an excellent and accepted method for capturing and analyzing data from ordered, categorical data obtained from surveys measuring the strength of responses and categorical data such as income, education levels, organizational size and population. There are limitations with logit models. Unlike formulaic OLS models, logit models rely upon estimated parameters for defining and observing the relationship between the dependent and independent variable. Long (1997, 61) recognized this challenge posturing the remedy of searching “for an elegant and concise way to summarize the results that does justice to the complexities of the non-linear model.” As with OLS, there is also the potential for encountering endogenous explanatory



variables from an improper model fit (Woolridge 2006).

The logit model's use of the MLE prevents similar assessments to OLS accounting for variance,  $R^2$ , requiring substitute measures developed from model estimates (Aldrich and Forrest 1984). There are a number of pseudo  $R^2$  measures available, this study uses the McKelvey and Zavoina and Count  $R^2$  measurements. MLE properties are asymptomatic, and require fairly large sample sizes to adjust for MLE estimations. Acceptable sample sizes range from a minimum of 100, but preferably require greater than 500 (Aldrich and Forrest 1984; Long 1997). This study's sample size is well above minimum thresholds for ordered logit regressions.

There is a potential problem of heteroskedasticity as a result of using a survey sample with multiple respondents from the 545 different city jurisdictions participating in the survey. In order to correct for heteroskedasticity, the models were tested two different ways in order to obtain a more robust variance that accounts for the multiple respondents within the city groupings. The first used the Huber White Sandwich estimator, while the second test clustered the non-independent observations of respondents from the same city (Huber 1967, White 1980; Moulton 1986; Arellano 1987; Froote 1989; Williams 2000; Woolridge 2006; Garnett et al. 2008). Of the two tests, the cluster test was more rigorous and is used to report the findings in this study. Brant tests were also conducted to test the proportional odds assumption for the dependent and independent variables, and presence of parallel regressions between the variables in the logit model.<sup>5</sup>

#### *Data Preparation*

Prior to testing the models, the data had to be assessed for any missing data. The original survey instrument resulted in 1,538 responses for a response rate of 46.4%. A review of the data using the variables in this study revealed missing data among the respondents. There were 366 respondents with "missing at random" items in the survey, a total of 23.8% of survey respondents.

There are three different options for addressing the missing data when using logit regressions and MLE estimations (Harrell 2006). The first option is to delete those respondents from the sample. This would leave a sample size of 1172 participants, which is more than sufficient to address concerns regarding standard error confidence intervals and goodness of fit test concerns. However there remains the risk of sample bias depending on the nature of the data deleted from the sample. Concern should be taken to ensure the decision to delete data is based upon predictors of great overlying importance (Harrell 2006).

The second option is the use of a maximum likelihood technique to incorporate partial data, and the third option is imputing the missing data. Imputing data is a standard practice and is common among samples developed from surveys (Rubin 1987; Harrell 2006). A single conditional mean imputation can be used to substitute the mean or median for missing values, but this simple technique can over or underestimate variances and correlations (Harrell 2006). There are a number of multiple imputation techniques using random draws from the conditional distribution of the missing variable, or simulations to establish normal distributions of the missing variable. Bootstrapping can also be used to estimate the variances of regression coefficients of the missing variables in question (Rubin 1987, Schafer 1997; Harrell 2006).

After review of the possible options, a decision was made to delete the missing data from the sample. A review of the missing data did not indicate any trends suggesting the missing variables would create survey sample bias. The items with the highest percentage of missing data included salary, all three professional experience items, and tenure in current job position, each consisting of 5% or less of the missing data. In reviewing the data set, it appeared that respondents often chose not to answer items in groups related to personal questions. While imputation is a reliable alternative to generate the missing variables, imputations are still estimates open to question just as predicted

probabilities and odds ratios from MLE logit regressions are based on estimates, open to question and interpretation. As a result, I chose to simplify this issue by deleting the missing data from the survey sample.

### *Descriptive Statistics and Pearson Correlation Coefficients*

Descriptive statistics including means, standard deviations, scale ranges, and analysis of correlations for multicollinearity are provided in Tables 5.2 and 5.3. A review of the variables indicates slight to moderate skewness or kurtosis for a number of variables including organizational effectiveness, performance budgeting, information sharing, and political trust, entrepreneurialism, strategic decision making, education and age. However joint tests for normalcy on the variables in question were negative and the data in the survey sample generally follow normal distributions. Even though tests for normalcy were negative, the leptokurtic distributions of the dependent and several independent variables can still affect the outcomes of the predicted probabilities and odds ratios from the ordered logit regressions.

Table 5.2 provides the correlations for independent and control variables essential for the study hypotheses, while Table 5.3 provides correlations for demographic control variables.<sup>6</sup> A check for multicollinearity indicates the information sharing variables are highly correlated; however they are not actually regressed together, but are looked at separately. A review of each of the seven models indicated only minor to moderate correlation. The highest correlation within the seven models came from the demographic variables for the number of employees and size of budget expenditures at 0.86, and tenure and position tenure at .59. There is no surprise that the size of the government and budget expenditures would be correlated. The inclusion of both total tenure and position tenure is important because perceptions depend not only on time spent in the organization, but also within the time spent in the position. The scope of responsibilities of

department administrators expands, and experience in the position can matter regarding administrator perceptions.

<INSERT TABLE 5.2 HERE >

<INSERT TABLE 5.3 HERE>

### *Model Results*

This section discusses the general findings for the seven different models tested for both mediating and moderating effects. The literature supports testing for both types of relationships since it is possible the independent variable, performance budgeting tested with the information sharing, trust and budget decentralization variables may exhibit varying tendencies of both types of relationships (Baron and Kenny 1986, Garnett et al. 2008).

The priority and hypothesis for this study is the exploration and confirmation of mediating (intervening) relationships and causal relationships between performance budgeting and organizational performance. Such findings would highlight the efficacy of implementing performance budgeting as a means for improving organizational performance for public organizations, and most specifically local governments. Findings of moderated relationships, although not as noteworthy as mediating relationships would still further the importance to explore performance budgeting's relationship with organizational performance and with various endogenous and exogenous variables associated with the public administration and public management domains.

Lastly, findings of completely mediated or moderated variables, although possible, are not exactly the norm either. Variables can display varying characteristics of both tendencies depending on the model observed. Testing for one type may actually call for testing for the other at a later stage of research and analysis where mediating variables moderate other variables or moderating

variables mediate other variables (Baron and Kenney 1986; Edwards and Lambert 2007). If the variables are not completely mediated or moderated, a discussion of mediated-moderated relationships or moderated mediated relationships should be addressed. Detailed mediated and moderated findings for each model with key variables is provided in Appendix B.

### *Base Model Specifications*

The models were tested for mediating effects using the multi-step process provided by Baron and Kenny (1986). Specific information provided from the goodness of fit tests include the Wald test, and both the McKelvey & Zavoina and Count  $R^2$  for measuring variance. The Wald test is one of the two common tests for logit regressions, however the Wald Test is more appropriate for use with robust clustering (Stribney, 2005). While there are a number of measurements for variance, the McKelvey and Zavoina R-squared is preferred for use with latent ordinal and categorical variables to describe the variances of an MLE estimation (Veall and Zimmermann 1996; Long 1997; Freese and Long 2006).

First, the dependent variable, organizational performance was regressed upon the general model with the key independent variable performance budgeting, and the control variables consisting of entrepreneurialism, professionalism, strategic decision making, sex, race, education, salary, the logged value of the number of employees, the logged value of the of city budget expenditures, tenure employed in city government, and tenure in current position as a department head, assistant city manager, or city manager (or assistant/chief administrative officer). Performance budgeting tested significant:  $z = 5.19$ ,  $p = 0.00$ , Wald Chi-square = 428.65 (12 degrees of freedom), and McKelvey & Zavoina's  $R^2 = 0.449$ . The second step regressed the mediating variables with the key independent variable, performance budgeting. Of the seven models tested, the mediating variable Trust (Political Support) was insignificant and dropped from

further testing. Tables 5.4 and 5.5 provide measures of fit for the first and second step regressions.

<INSERT TABLE 5.4 HERE >

<INSERT TABLE 5.5 HERE>

#### *Mediated Variable Findings*

In order to find evidence of the mediating effects of information sharing, trust and budget decentralization, the third step regression must indicate the channeling effects of these variables, which would indicate a change in the performance budgeting variable coefficient between the first and third regressions. For there to be evidence of full mediation, the performance budgeting variable, which was statistically significant in the first step regression must become insignificant in the third step regression. A review of table 5.6 indicates none of the remaining six mediating variables are significant, indicating none of these variables display full mediation, and do not provide strong causal relationships for explaining how performance budgeting can influence organizational performance.

Table 5.6 provides the Odds ratio, z - statistic and p-value for the third regression with both the independent variable (performance budgeting) and mediating variables. If there had been indication of fully intervening effects, the performance budgeting variable would have changed to become statistically insignificant when compared with the base model depicted in Table 5.4. The z-statistics for each of the model variables changed relatively little from the base model (the regression without the mediated variables) and each of the third step mediated model tests.

The odds ratio is the anti-logarithm of the logit coefficients measuring the probability of an outcome change given a one unit change in the independent variable (Katz 2006, 126). In the models presented, the odds ratio indicates less than a one percent change in the probability of a respondent moving from one unit of measurement to another within the scale of the dependent

variable organizational performance, given a one unit change in the independent variable performance budgeting and inclusion of the mediating variables of information sharing, trust and budget decentralization. The odds ratio for the base model was 1.096. When performance budgeting was mediated, each model reduced the odds ratio by approximately one percent from a range of 1.081 to 1.089. This negative change indicates the mediating variables reduce the influence of performance budgeting's affect on organizational performance. The small or minimal change in the probability of an outcome strongly suggests that none of the intervening variables tested provide any causal effects for explaining why or how performance budgeting influences organizational performance.

<INSERT TABLE 5.6 HERE>

While there was no evidence of full mediator effects supporting the study's hypotheses, it is common practice to simultaneously test for moderation when testing for mediation (Barron and Kenny 1986; MacKinnon et al. 1989; Kraemer, et al. 2002; MacKinnon 2008). The managerial accounting discipline has an extensive body of literature observing mediating and moderating variables with the preponderance of these studies finding moderating effects (Nouri and Parker 1998; Shields et al. 2000; Chong and Chong 2002, Wentzel 2002). Shields and Shields (1998) provide an extensive list of forty-seven moderated variable studies from ranging from 1967 to 1998.

#### *The Persisting Potential for Mediated Findings*

At first glance, the limited number of mediating variable studies might lead one to conclude that budgeting activity is not conducive to mediated variable studies. Baron and Kenny (1986) and Long (1997) both indicate the importance of identifying the appropriate variables for mediated and moderated models as a key issue. This is no different for budgeting where a change in

organizational performance can be the result of any number of other organizational activities not associated with budgeting (Shields and Shields 1998). Careful consideration of model development for mediating and moderating variables is essential (Barron and Kenny 1986; Long 1997; MacKinnon 2008). This is especially important for this study, where both the temporal nature and ordering of the variables can substantially change the outcomes for organizational performance (MacKinnon 2008). For instance, reversing the order of the independent variable and mediating variable in these studies could potentially indicate greater modeling accuracy. A case could be made that information sharing and trust are indirectly affected or mediated by performance budgeting rather than vice versa in this study.

Public budgeting is also fraught with an innumerable set of variables that could affect the relationships discussed in this study. At first glance, the results of the mediated studies might indicate the presence of a spurious correlation between the mediating variables with the independent and dependent variables. In other words, the mediating variable is the sole influence on the causal relationship between performance budgeting and organizational performance (Simon, 1954). This is not the case however for the models used here since a relationship had already been established between the independent and dependent variables prior to establishing any relationship with the mediating variables. Rather in this case, the Rubin Causal Model applies to mediation models, where inferring the cause of an effect is equally important as determining an effect of a cause (Rubin 1974, 1977; MacKinnon 2008).

In retrospect, it should not be surprising to find that the models here were not fully mediated, but partially mediated. Partially mediated findings of themselves are important findings. First, my hypothesis suggested that the intervening effects of mediated variables were indirect. If so, what other indirect effects might affect the outcome of the models in this study? Information



sharing, trust, and decentralization are only a few of the many variables affecting the relationship between performance based budgeting and organizational performance.

There are both internal and external environmental factors affecting public budgeting relationships. Internal factors include the type of organizational structures observed, personal relationships, and the execution of budget processes. Each of these factors varies among the organizations observed in this study, and even minor, subtle, or indirect changes to such factors can affect budgeting relationships and organizational performance. External factors include the entire array of budget rationalities studies beginning with Key's (1940) choices dilemma and Wildavsky's (1964) politicization and rationalization of the budget process. External stakeholders within the various communities observed in this study play an important role in the budget process, often behind the scenes. The economic environment also plays an important role that could affect the models observed in this study. While it is clear that the current economic downturn has a considerably direct affect on organizational decision making and budget execution, it is equally possible there are indirect effects influencing organizational processes in reaction to fiscal stress and unanticipated (or even anticipated) economic conditions facing local governments today.

While none of the models indicated full mediation, the question remains to what extent did the mediating variables affect performance budgeting and organizational performance? Regardless of modeling construct challenges, findings of partial mediation are still important and support my theoretical proposals regarding the value of studying the indirect effects associated with public budgeting and organizational performance. Sobel and Goodman Tests provide an estimate for the amount of partial mediation within each model. Table 5.7 provides an indication of the amount of partial mediation for each model. The table provides two measurements. The first measurement is the percent of total effect that is mediated. This measurement is the proportion of total

mediated effect, explaining the extent of the mediation of the independent variable, performance budgeting, to the dependent variable, organizational performance (Alwin and Hauser 1975; MacKinnon 2008, 82). The second measure is the ratio of indirect to direct effect. This measurement provides the ratio of the mediated effect to the direct effect, allowing the comparison between indirect effects and direct effects (Sobel 1982; MacKinnon 2008, 83).

The figures in Table 5.7 indicate the partial mediating effects from information sharing, vertical information sharing and the two trust variables do not provide a complete causal effect, but they are still important for indirectly influencing a causal effect. Each of these mediating variables explain more than 25 percent of the total performance budgeting's effect on organizational performance. Additionally, the size of the mediating variable's effects corresponds to roughly 40 percent of the size of the direct effects observed in the models.

<INSERT TABLE 5.7 HERE>

While few budget studies observing mediating effects abound, we should not rule out its potential for furthering public budgeting theory to augment budget rationalities theory. The potential for further exploration of mediating effects in public budgeting is possible through careful consideration of both external and internal organizational characteristics. The findings above confirm the challenges in isolating the most appropriate variables for modeling indirect effects in the public budgeting process.

#### *Moderated Variable Findings*

This study's proposals focused first on exploring the existence of mediating effects because they provide greater capability to "explain central hypothesized linkages" (Stone 1992, 14; MacKinnon 2008, 11). The accounting management literature on participatory budgeting's effect on individual performance indicates the difficulty in developing accurate explanatory models. As a

result, most of these studies focused on moderated variable relationships. The remainder of this study will also concentrate on moderated relationships. Studies of moderating variables influencing budget activities in the public budgeting domain are notably absent, offering the potential for expanding the literature beyond existing budget rationalities.

Table 5.8 provides a summary of the model fit characteristics for the moderated test models. Of the remaining six variables tested, budget decentralization was not significant as a moderator. Decentralization is an important concept influencing management, organizational structure and decision making, and is a staple of the new public management philosophy (Simon et al. 1954; Kettl 2002, 2005; Pollit and Bouckaert 2004). Budget decentralization tested significant as an independent variable with the dependent variable organizational effectiveness, however, budget decentralization is not a causal factor influencing the relationship between performance budgeting and organizational performance. While budget decentralization plays an important role in management and decision making, it does not appear to influence performance budgeting's role for developing interdependencies that would facilitate organizational performance.

Information sharing and the breakdown into both vertical and horizontal information sharing were significant, with information sharing and horizontal information sharing at  $p < .05$  and vertical information sharing at  $p < .10$ . A detailed review of the predicted probabilities of these variables indicates there is little difference between the three variables with one small exception: the slope or change in predicted probabilities is slightly less when moving from one unit to another for horizontal information sharing. As a result, the greater part of the discussion will focus on information sharing as a whole, consisting of both vertical and horizontal information sharing.

This does not mean that vertical and horizontal information sharing are not important. On the contrary, vertical information sharing and information asymmetry are important topics in the

management accounting field, while horizontal information sharing is important to the discussion of isomorphism between budgeting and Economic Sociology (Argyris 1952; Simon et al. 1954; Hopwood 1976; Granovetter 1985a, 2005; Chenhall and Brownell 1988; Burt 1992, 2002; Shields and Young 1993; Uzzi 1996, 1997; Burt 1992, 2002; Shields and Shields 1998; Chong and Chong 2002; Marginson and Ogden 2005a, 2005b; Parker and Kyj 2006). The similar findings between the three different variables simply call for a parsimonious approach to explaining the moderating relationship of information sharing and performance budgeting.

One of the most important findings of the three moderating variables addressed in the narrative here is the change in relationship between performance budgeting and organizational performance. In all three cases, the moderating variable changed this relationship in an unanticipated manner. Instead of increasing the likelihood of improved organizational performance, all three moderating variables: information sharing, trust based on an individual's perception of role clarity in the execution their managerial responsibilities, and trust based on an individual's perceptions of value congruence with the organization have a negative influence in the relationship between performance budgeting and organizational performance.

However caution must be exercised when making this statement because when observing moderating variables, unlike mediating variables, it is difficult to determine which of the two variables involved in the interaction (e.g. information sharing and performance budgeting) is responsible for creating the change in the relationship between performance budgeting and organizational performance. It is also uncertain whether the combined effect of the two variables is somehow different from their individual effects. Additional testing for moderated-mediated relationships was not conducted as a result of 1) there being little change in the z-statistic and p-value from the original regression and the mediated regressions and 2) the moderated regressions for both

interaction variables tested insignificant while the interaction variable tested significant, indicating the variables were fully moderated (Baron and Kenny 1986; Edwards and Lambert 2007).

Table 5.8 provides the odds ratios indicating the change in outcome of the dependent variable organizational performance, based on a one unit change in the independent variable performance budgeting. As a reminder Table 5.4 provided the odds ratio of 1.096 for the base relationship between organizational performance and performance budgeting, indicating that for every unit change in performance based budgeting, the odds of higher perceived performance increase by a factor of .096. A review of the moderating relationships in Table 5.8 reveals odds ratios of 0.910, 0.898, and 0.809 respectively. A change in odds that is less than 1 indicates a reduction in likelihood of higher perceived performance by the difference between 1 and the odds ratio that is less than 1. The interpretation of the results reveals the inclusion of the moderating variables *reduce* the odds of perceived higher organizational performance by an estimated factor of .09, .10, and .19 respectively.

<INSERT TABLE 5.8 HERE>

*Predicted Probabilities: "The Rest of the Story"*

The review of the ordered logit estimates should not stop after conducting the initial regressions. The data presented in table 5.8 provide an overall snapshot of the moderating relationships across the range of the ordinal scales used in the regressions. The odds ratios provide only a partial understanding of the findings. The next step is to conduct an analysis of the data across the spectrum of the ordinal scaled measurements to look at the differences between moving from one unit of measurement to another at varying levels of the moderating variables and the independent variable performance budgeting to determine if the outcomes on organizational performance are different across the spectrum of the measurements.

This study observes low, average and high levels of organizational performance, performance

budgeting , and three moderating variables Information sharing, trust (role clarity) and trust (value congruence). Measuring low, average and high levels was conducted using the ordinal scales for each of the measurements. Low and high measurements for each variable were approximately one standard deviation (adjusted to the ordinal scale) below and above the mean for the observed variable. The average measurement is the mean for each variable. For example, organizational performance measurements were 5 for below average, 7 for average, and 9 for above average. The measurements for performance budgeting were 9, 12, and 15; while information sharing measurements were 17, 21, 26 respectively.

Table 5.9 provides a summary of the predicted probabilities. The table provides a different story from that provided by the odds ratios. The table is set up to display the interactions of low, average and high levels of performance budgeting with low, average and high levels of the moderated variable in order to display the predicted probability of change in performance as a result of the moderating variable interaction. In general, the table tells a similar story for each of the moderating variables and their influence on the relationship of performance budgeting and organizational performance. Changes for organizations that are perceived to be performing below average display less than one percent to a three percent change as a result of the moderating variable interactions. Average performing organizations tend to benefit the most from the interactions experiencing a fourteen to thirty-two percent change in performance. However, this drops off dramatically for high performing organizations, with the exception of the interaction with the trust (values) variable, which experienced its predicted peak in the high performing organization category.

<INSERT TABLE 5.9 HERE>

Appendix A also provides graphical descriptions of the interactions and predicted

probabilities provided in Table 5.9. The graphical presentations tell the same story but provide an excellent visual presentation including some of the curvilinear results of the logit regression. The graphics also provide a visual of the confidence levels for the predicted probabilities presented. A general trend beginning with average levels of organizational performance and increasing rapidly with high levels of organizational performance is the high confidence intervals at the lower levels of performance budgeting use. The graphs also indicate the low levels of interaction in the low performing organization and reduction in predicted probability of improving organizational performance when moving from an average to high performing organization.

*Interpretations: What Does it All Mean?*

The first order of business is to reconcile the differences between the odds ratios and the predicted probabilities. The odds ratios indicate the mediating variables change performance budgeting's relationship with organizational performance in a manner that indicates a reduction in organizational performance. However, the predicted probabilities indicate a somewhat different perspective where average performing organizations are positively influenced by the interactive effects of information sharing and trust in the performance budgeting process. How can this be? One possible explanation can be found in a review of the means and standard deviations of the observed variables. The dependent variable organizational performance provides a possibility for a divergence of findings. A review of the distribution of the organizational performance variable reveals the appearance of a skewed distribution, although the variable was tested and found to be a normal distribution. However, further review of the frequency of responses tells another story.

The majority of the respondents provided answers indicating their organization was either close to, or was a high performing organization. The mean for organizational effectiveness was 7.58 out of an ordinal scale of 0 to 10. Seventy-five percent of the respondents rated their organization 7,

8, or 9 for the survey item. If the highest score for organizational performance, 10 is added the percentage rises to eighty-two percent of the respondents. This leaves very little room for improvement, as managers already rate their organizations fairly high, and the interjection of interacting variables may not be capable of capturing the full effects of the moderating variables. Or this could be an issue with construct validity of the model variables. Quite possibly there could be other variables in the model influencing the findings and supporting the remarks by Baron and Kenny (1986) and Long (1997), especially since a number of the control variables including strategic decision making and entrepreneurialism consistently tested significant. Aside from the difficulty in determining which of the interacting variables influences the dependent outcome, it is possible that the existing high ratings from managers also influences the ability to measure the moderating variable effects on perceptions of organizational performance.

Manager ratings for organizational performance also raise the issue of self selection and common source bias. The issue of common source bias has already been addressed, and in many ways it should not be unusual for professionals in high level management positions to rate their organizations high for performance. But it does underscore the selection of subjective versus objective measures of performance. Both have their place in measuring organizational performance, and performance budgeting can assist managers in refining performance measurements and controls, however both objective and selective reporting measures have selection bias issues that must be dealt with (Burkhead 1956; Hopwood 1973; Otley 1978; Cote and Buckley 1987; Doty and Glick 1988, 1998; Williams et al. 1989; Bohte and Meier 2000; Radin 2000, 2006; Dubnick 2005; Pandey et al. 2007; Moynihan 2009). Nevertheless, self selection remains a valid tool for indicating organizational performance (Mott 1972; Lincoln and Zeitz 1980; Brewer and Selden 2000; Brewer 2005; Walker and Boyne 2006; Pandey and Moynihan 2005, 2006; Pandey et al. 2007).



Fortunately, the ability to determine estimated predicted probabilities along the ordinal scale of the observed variables provides the opportunity to break the general observations from the regression models down into various levels and categories to better pinpoint the effects of the observed intervening variables. It is apparent that specific organizational characteristics affect the relationship between performance budgeting and organizational performance with average performing organizations benefiting the most from implementing performance budgeting, while high performing organizations also benefit but to a lesser degree.

The interesting story here involves the lower performing organizations where the interacting variables had little effect. This highlights the importance of information sharing and elements of trust, reinforcing the literature on these two organizational characteristics. It also highlights the importance of these variables in relation to the isomorphism of public budgeting and economic sociology theoretical constructs. Developing and maintaining organizations with well defined mission sets and responsibilities that are capable and willing to share information and ideas are important tasks for organizational leaders. Without such structures and environments, it is unlikely that entrepreneurial activity can flourish and assist organizations to continually strive for improvement. This is especially important for local governments where citizens can more readily and directly benefit from improved government performance.

#### *Summary*

This chapter presented the statistical results of the theoretical proposals regarding the hypotheses that information sharing, trust and budget decentralization mediate performance budgeting's effects on organizational performance. The study used multi-step regression models to determine the mediating and moderating effects of three important theoretical constructs relevant to both performance based budgeting and economic sociology. The study found slight evidence of mediating effects from the

variables tested. However, testing for moderating effects found all three forms of information sharing (vertical, horizontal, and overall information sharing), and the trust variables for role clarity and value congruence displayed significant moderating effects between performance budgeting and organizational performance. Budget decentralization and trust in terms of political support of local government activity were insignificant.

The lack of findings for budget decentralization were not as surprising after reviewing previous performance budgeting reform where budget centralization actually bolstered performance budgeting implementation (Eghtedari and Sherwood (1960) . The findings for the importance of political support were more surprising however, because political support has been determined to be an important element for successful performance budgeting implementation at the local level (Berman and Wang 2000; Wang 2000; Ho 2006). Regardless, these particular variables are important and significant in other models. They simply did not have mediating or moderating effects in this particular model for observing performance in local government as a result of performance budgeting activity.

The study found the general models displayed a negative influence on the probability of improving organizational performance. This may result because of the frequency of self selection of high levels of organizational performance by the respondents. Further review of the estimated predicted probabilities at varying levels of the variables tested indicated high performing and especially average performing organizations benefit from performance budgeting resulting from changed relationships influenced by information sharing and elements of trust within an organization. Each of the different variables tested for moderation displayed similar findings. However there were slight differences worth mentioning because each of the variables themselves have important consequences for influencing how performance based budgeting affects

organizational performance. Appendix A helps to graphically highlight these differences.

### *Information Sharing*

Information sharing at low levels of perceived organizational performance does not greatly improve as a result of performance budgeting, which is unfortunate since the greatest benefits might accrue to low performing organizations. However this may also indicate other more pressing issues must be addressed within the organization that may have little to do with the moderated organizational variables used in this study. The large confidence intervals for low levels of information sharing also provide indication of other factors influencing perceptions of low organizational performance, although high self selection of performance also contributes to the large confidence intervals at lower incidences of performance budgeting as well.

Average organizations benefited the most while above average organizations continued to benefit, but at a decreasing rate. Both findings provide helpful indication that information sharing as a result of performance budgeting can benefit local government effectiveness, supporting communication's long articulated importance to organizational effectiveness in public organizations (Gulick 1937; Barnard 1938; Selznick [1949] 1997; Simon et al. 1950; Downs; 1967). This can also be observed in the confidence intervals of average and high information sharing, although at higher incidences of performance budgeting, confidence intervals increased again for high information sharing organizations (see Appendix A). This may indicate a similar yet opposite finding from lower performing organizations, where other factors other than high information sharing and high incidence of performance budgeting affect organizational performance.

### *Trust (Role Clarity)*

Trust developed as a function of role clarity is important for local government administrators to manage their organizations. Like information sharing, low performing organizations generate little

benefit from role clarity's influence on performance budgeting, while average organizations benefit the most and high performing organizations benefit at a decreasing rate of performance budgeting incidence. Observing the levels of role clarity provides two distinct differences from information sharing. First, while the confidence intervals for role clarity are similar to information sharing, the intervals at the low and high levels of role clarity are not as extreme as information sharing. Second, the probability of improving performance at higher incidences of performance budgeting begins to decrease slightly within average levels of role clarity. These two observations may be linked to a manager's internalized perceptions of role clarity closely linked to the manager's perceptions of his or her supervisor's confidence in the manager's abilities, whereas information sharing is more likely to be externalized and susceptible to both greater reliance and interference from others in the organization.

#### *Trust (Value Congruence)*

Trust in terms of value congruence is likely to be an even greater internalized process for managers. One would assume that high ranking professional managers would have a greater sense of value congruence and trust with others in their organization, especially given the manager's average length of organizational tenure of thirteen years. Performance budgeting's potential for improving organizations fits well with the survey measure observed. It was not surprising then, to find large confidence intervals for high performing organizations with low perceptions of value congruence and low incidence of performance budgeting. It is also not surprising to find that trust in terms of value congruence displayed the smallest confidence intervals across all levels of measurement. Why? Performance based budgeting offers a means for improving local public organizations which in turn benefit citizens and the community. Local government administrators are driven and guided by principles of service and professionalism providing similar values and norms from which to draw

from these administrators' experiences and observations.

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*Notes*

<sup>1</sup> The sample characteristics in Table 4.1 represent the adjusted survey sample of 1172 respondents. The percent of change for each characteristic was minimal. Justification for the adjusted survey sample is provided in the discussion of the data preparation.

<sup>2</sup> I provide both lateral and horizontal information sharing. Lateral information sharing is the terminology used by the public administration discipline, while horizontal information sharing is used by the management accounting discipline. This study acknowledges the importance of the management accounting discipline for this study.

<sup>3</sup> The variable for race is a dummy variable delineating white / Caucasian from minorities.

<sup>4</sup> Partially mediated variables are also possible where the independent variable remains significant to a lesser degree, however this study initially focuses on fully mediated variables. A discussion and presentation of partially mediated effects is provided later in the chapter.

<sup>5</sup> Not all models met the proportional odds assumptions; however this does not significantly impact the validity of the models. It does however increase the incidence of bias, ultimately affecting the confidence intervals in the model. The reason it does not significantly affect my findings is because my models assess indirect effects within mediated and moderated models that do not require precise relationships that might be expected from other models.

<sup>6</sup> The number of variables used in the study made it difficult to format them in one consolidated table.

## **Chapter 6**

### **Conclusions and Recommendations**

#### *Laying the Foundations for Alternative Studies in Public Budgeting and Performance Based Budgeting*

The importance of this study centers on a new approach for appreciating performance based budgeting and its role within public budgeting. The majority of public budgeting studies have not observed budgeting behavior. The few that provide behavioral observations have been normative in their approach (Wildavsky 1964; Meyers 1994; Thurmaier and Willoughby 2001). This study offers quantitative empirical findings through survey data gathered from local government organizations, borrowing from economic sociology and management accounting fields to offer an alternative approach for explaining the value of performance based budgeting. The study looked at the budgeting behavior of local governments and whether or not performance based budgeting influences organizational performance.

Performance based budgeting is an important process for many local governments even though some may argue performance budgeting as a method of budget reform is in a state of decline (O'Toole and Stipak 2002). Others repeatedly observe performance based budgeting has little influence to change resource allocation, victimized by Key's budgeting values dilemma and limited in its usefulness (Joyce 1993; Broom and McGuire 1995, Melkers and Willoughby 1998; Mullins and Pagano 2005; Gilmour and Lewis 2006a, 2006b; Sterck and Scheers 2006). Ultimately many scholars lack confidence in performance based budgeting, questioning the validity, accuracy, and accountability of reported performance information (Rubin 1997b, 2005; Radin 2000, 2006; Bouckaert and Peters 2002; Grizzle 2002; Heinrich 2002; Dubnick 2005; Moynihan 2006).

Why, based on the perceptions and attributes of public administration and public

budgeting scholars would any government endeavor to implement performance budgeting in the first place? It would appear that performance based budgeting is sure to fall by the way-side like previous and notable budget reforms. This study offers this is not the case: although changed somewhat since the 1950s reform, performance based budgeting remains intact and in use at the state and local level.

While the public budgeting literature indicates the novelty of the current round of performance budgeting reform, an in depth review finds performance based budgeting never really disappeared after falling out of favor with reformers in the 1960s. Instead, performance based budgeting remained in the background, still used by numerous governments in one form or another throughout the 1960s, 1970s, and 1980s prior to the Clinton Administration's government performance initiatives and the international new public management movement (Schick 1971; Friedman 1979; Rabin 1987b; Cope 1987; Grizzle 1982, 1985, 1986, 1987; Lauth 1987; Osborne and Gaebler 1993; Poister and Streib 1994).

Schick (1971) described how state governments hybridized performance budgeting processes from the original 1950s performance budgeting reform which stressed changes in both budget process and format. Schick's hybridization indicated state governments did not change budgeting formats, but instead used performance information as an additional tool for monitoring and improving government performance. When the second round of performance budgeting reform began in the 1990s, instead of changing budget formats, performance based budgeting again became a tool for improving government performance. While budget processes may have changed, performance based budgeting has not required changing organizational structures, and as a result is less threatening to established stakeholders within the traditional line item budgeting process (Schick 2001, 2003).



But this historical account of performance based budgeting only tells part of the story. Simply changing a budget process and expecting long lasting change is rather short sighted, especially if there are minimal changes to resource allocations and challenges to the validity of reported performance information. There must be some other benefit for implementing and retaining performance based budgeting. This study proposes that performance based budgeting creates indirect effects not associated with resource allocations and budgeting's role in the political process (Behn 2003). Such indirect effects are closely related to budgeting's relationship to management processes in government activities. Rather than focusing on budgeting's control functions, performance based budgeting offers a management tool for governments to strive for improvements both in efficiency and effectiveness of government activity.

Performance based budgeting provides the opportunity to approach public budgeting from a layered approach. There is the political layer accounting for the budget rationalities described by Key, Wildavsky, Rubin, Meyers, and Thurmaier and Willoughby where the central budget authority assumes a prominent role in the budget process. There is also a management layer where budgeting is embedded within the management process for providing government products and services. The management layer of budgeting focuses on outcomes, and as a result there is the possibility for creating interdependencies between government departments and agencies which in turn create changes to the social structures within the organizations. These interdependencies and altered social structures provide the basis for understanding how performance based budgeting can indirectly affect organizational performance. Economic sociology provides the means for developing this theoretical construct.

#### *Economic Sociology Constructs*

Generally speaking, economic sociology is the study of activities involving the production, distribution, exchange, and consumption of scarce goods and services that specifically includes a broad swath of non-economic activity as well as economic activity (Pareto 1932; Parsons and Smelser 1956; Smelser 1963, 1976; Smelser and Swedberg 1994, 2005). Economic sociology provides the means for studying public budgeting and budget behavior outside the lens of budget rationalities. The inclusion of both economic and non-economic activity provides the logic for why government organizations can be observed from the economic sociology lens. With the exception of the political economy field, theoretical economic constructs generally exclude governments as public entities, but governments have crucial roles affecting economic activity.

Economic sociology allows for the inclusion of non-economic activity and behaviors to observe and explain actions outside of the traditional rationality construct. Smelser (1963, 72) offers a description of government activity as a “constitutionalized intervention” capable of promoting, regulating, and manipulating economic behavior. Zafirovsky (2001) augments Smelser’s description of economic sociology by stating trust is an essential mechanism for influencing the exchange, action, and social structure of organizations. Pareto and Parsons provide descriptions of non-economic activity describing non-rational or non-logical thought processes. For example, professionalism is a concept that helps guide career government officials, but cannot be explained from rational behaviors alone.

Parsons’ *Treatise on society* offers how societal changes result from direct and indirect economic effects, and from social effects. These social effects link to Granovetter’s social structures, helping to describe the behaviors of individuals within government organizations (Parsons 1935; Granovetter 1985a). Marshall (1920a) offers the importance an individual’s

character and faculties augmenting the discussion of both professionalism and social structures. Additionally, his groupings of industrial districts and the development of trust based upon geographical and social boundaries rather than political boundaries are applicable to both government agencies and individuals. Schumpeter provided a discussion of entrepreneurial behavior applicable to local government, while Parsons and Smelser offered a model for explaining adaptive sub systems and various organizational and institutional characteristics linked to economic and non-economic behaviors existing within an overall social system.

These scholars represent traditional economic sociology, whereas Granovetter's embeddedness argument in 1985 began a new era dubbed new economic sociology. Whether or not the distinction was necessary is not as important as the positioning of economic sociology to address the importance of personal relationships, social networks and their influence in both economic and non-economic activity. Granovetter's social networks and later refinement of coupling relationships and cross cutting ties embedded into economic activity provide key pillars for transferring these concepts to public budgeting (Granovetter 1985a, 1985b, 1992, 2002, 2005). Burt (1992, 2002, 2007) expands Granovetter's networked social structures with his concept of structural holes linked to Schumpeter's economic entrepreneur, where an actor positioned astride a structural hole can bridge the gap to attain benefits, providing an explanation for performance budgeting's potential for improving organizational performance.

The social structural context of embeddedness applies to this study of performance budgeting in local government. When performance based budgeting is implemented, it acts as a change agent, influencing social structures without directly changing organizational structures. Economic sociology provides a means for understanding and observing change agent activities, bridging the gap between the micro – individual approach used in economic and psychological

studies and the macro-organization/agency approach used in sociological studies (Granovetter 1973, 1985a, 2002, Covalleski et al. 2003). Economic sociology provides a number of important contributions to the theoretical proposals in this study, but must be synthesized with public budgeting theory to support the hypotheses used in this study.

### *Theoretical Synthesis*

This study proposes that public budgeting can be observed as the study of human agency and social interaction of the budget process within local governments. The study is most applicable to local governments because they are much more varied than state and federal government, but more importantly because local government administrators are the face of government. Local government administrators are more likely to interface with constituents, and as a result more likely to develop interdependencies that provide incentive for pursuing innovative means to provide efficient and effective government services.

Public budgeting is a socially structured, networked activity involving the dissemination of information within formalized structures such as budget documents, accountability reports and through informal structural processes of information sharing from both internal and external elements. Public budgeting is not just about budget rationalities, there are also non-rational characteristics associated with budgeting. A few of those characteristics described in this study include the association of trust within relationships, the acculturation of a professional ethic guiding individuals in the execution of their responsibilities, and the spirit of entrepreneurialism motivating individuals to pursue innovative organizational improvement.<sup>1</sup> Organizations must have some driver to enhance these non-rational activities within the organization. Performance based budgeting acts a change agent influencing how organizations communicate, plan, and execute budgets. Performance based budgeting does not change budget formats, but rather

changes the social structures of the organizations, subtly changing the budget process itself, without substantially disturbing traditional line item budgeting processes.

The study of social interaction in the public budgeting process is actually not a new concept. A number of scholars have looked at social interactions related to public budgeting from the budget rationalities perspective. With few exceptions the budget rationalities perspective focuses on the political rationalities with its negotiating, bargaining and compromising that ultimately end up measuring the victories won or lost in the resource allocation decision making process (Wildavsky 1964; Hecl 1977; Wilson 1989 Meyers 1994; Rubin 1997a, 2006; Thurmaier and Willoughby 2001).

This study proposed public budgeting is layered with a budget rationalities layer and a management layer. The management layer of budgeting is not focused on the political battle and competition for resources. Within the management layer once a budget has been set, an agency or department is concerned with the execution of its core responsibilities to produce and deliver the desired level of government services as efficiently and/or effectively as possible. The budget becomes secondary; its purpose simply sets the limits for the execution of an agency or department's mission. Performance Based Budgeting's value resides in the management layer where agencies and departments can change or establish new relationships in an effort to strive for improved performance as a result of interdependencies developed from performance based budgeting's effects as a change agent (Thompson 1967).

Performance based budgeting allows for the development of greater cross cutting ties within various organizations. Granovetter (2002) describes these interdependencies as coupled relationships. He proposes three different types of coupled structures. This study proposes that traditional line item budgeting approximates a highly decoupled structure where there are few

cross cutting ties, and where conflicting interests (as a result of competition for resources and centralized budget processes) prevent cooperative endeavors even in the face of necessary social or fiscal change. Performance based budgeting approximates a weakly decoupled structure, where cooperation is more likely, but requires entrepreneurs or advocates to prevent competing stakeholders from disrupting the development and retention of interdependencies.

Weick (2001) offers support for performance based budgeting as a weakly coupled relationship. Loosely coupled systems are more adaptive in localized environments, capable of creating nuanced or small change within organizations without disruption, encouraging autonomy, innovation, and decentralization. Furthermore loosely coupled organizations flourish in diverse, segmented environments, a description easily matching the diversity of local governments and their segmentation between the different responsibilities of various local government departments.

### *Review of Empirical Findings*

The synthesis of performance based budgeting and economic sociology provides the basis for the research question and hypotheses applied to this study. The original research question asked *what are performance budgeting's indirect effects on organizations, and do those indirect effects change organizational performance?* The hypotheses used to test this question fell into three categories of organizational characteristics: information sharing, trust, and budgeting decentralization. Information Sharing was also separated by vertical and horizontal information sharing. Trust was separated into three different categories: trust based upon job role clarity, value congruence, and political support.

The hypotheses were tested using ordered logit regressions, testing for mediation as the primary model and moderation as the secondary model. None of the tested variables significantly

mediated organizational performance, indicating limited causal influence between performance based budgeting and organizational performance. These findings indicate modeling complex budget processes requires careful selection of endogenous and exogenous variables. However, five of the seven models tested significant for moderated relationships. Rather than being the causal influence, a moderated variable changes the relationship between the dependent and independent variable. The major difference between mediated and moderated findings is the inability to clearly identify which of the interacting variables is responsible for the changed relationships.

Two phases were used to interpret the moderated variable results. The first phase involved an interpretation of the overall findings for each tested variable. The findings indicated information sharing and trust based upon job role clarity and individual value congruence support the hypotheses, while trust based upon political support and budget decentralization did not provide sufficient model fit. All five variables with moderating relationships indicated a slightly negative change in the relationship between performance budgeting and organizational performance. At first glance, such findings would be disappointing. However the second phase of testing for predicted probabilities of change to performance budgeting and its effect on performance tell a different story.<sup>2</sup> Each of the variables were tested at low, average and high incidences of performance budgeting against the incidence of low, average and high levels of organizational performance. Rather than finding distinct different patterns between the information sharing and trust measures, they were fairly similar to each other.

Interpreting these results requires an explanation for why the general model results and specific results from the predicted probabilities are different. First, the negative influence of the moderating variables might provide incidence of diminishing returns as a result of the self selected perceptions of high performance by the survey respondents. If an administrator is working in a high

performing organization, increased incidence of new exogenous or endogenous variables may serve to disrupt existing cooperative relationships. An equally possible explanation is the mathematical formula used for predicting probabilities simply lacks explanatory value, again due to the self selected perceptions of high performance by the survey respondents. Either way, the high mean for organizational performance influences the general model findings by causing the measurement for predicted probabilities to capture the preponderance of observations at a point near the mean. As a result the probability of improving performance within the overall model decreases across the scale of the performance budgeting measure.

The ability to measure predicted probabilities allows for isolating varying levels of the moderating variable and dependent variable. By observing low, average and high levels of organizational performance, the results provide evidence to augment the interpretation of the general models. Additionally, the predicted probabilities provide indication of indirect organizational effects that positively influence organizational performance as a result of performance budgeting. Low performing organizations using performance budgeting are likely to experience only small changes, while average performing organizations and high performing organizations experience fairly high changes although in decreasing scale for high performing organizations.

These findings are not surprising. Low performing organizations are unlikely to benefit from any indirect effects of performance budgeting because there are other structural, organizational, or leadership issues that take precedence and require attention. Average performing organizations are more likely to benefit from increased information sharing and trusting relationships as a result of implementing performance based budgeting processes. High performing organizations also benefit, but from a decreasing scale possibly because they already operate at a high levels of information sharing, trust or similar indirect organizational characteristics, regardless of the level of performance



budgeting utilized within the organization.

### *Model Fitness*

Mediating and moderating models present a number of challenges. First and foremost, model fit is of greater importance than other regression models in order to better explain the nuances of mediating and moderating effects (Baron and Kenny 1986; Long 1997; Shields and Shields 1998). Mediated relationships have been used to observe various mental states affecting behavior and performance. Mediated relationships provide greater explanatory detail, but the results can be temporal and subject to tenuous mental states (Covaleski et al. 2003). Explaining the relationship and effects of the moderating variable and independent variable in moderating relationships is even more challenging. Ultimately, moderating relationships provide indication, but lack the explanatory value of mediating relationships. This is not to say the finding of moderated relationships is not important, but simply less explanatory for public budgeting studies where there are innumerable exogenous and endogenous factors are capable of affecting the relationship between budgeting and organizational performance (Shields and Shields 1998; Covaleski et al. 2003).

This study confirmed the difficulties experienced by the management accounting field where the variability of the findings across differing studies challenges the consistency of the findings for making general theoretical observations. Previous studies found inconsistent and varying results where only low and high levels of participatory budgeting influenced specific levels of the conditional variables tested. Like this study, they also confirm the difficulty of model fit for budgeting variables as a result of the conditionality of the budgeting variable with other budgeting and non-budgeting variables (Brownell 1982b; Hirst 1983, Brownell and Hirst 1986, Covaleski 2003).

Other concerns for the models used here include variability of performance budgeting

practices and implementation, and variability of city size in the sample population. With thousands of local government jurisdictions, there will almost always be variance in the practice and definition of performance based budgeting (Burkhead 1956; Joyce 1996; Hilton and Joyce 2003; Rivenbark and Kelly 2006). Although this provides a challenge from a quantitative stand point, it is good news for practitioners who share procedures and techniques through professional and regulatory agencies such the International City / County Managers Association (ICMA), and General Accounting Standards Board (GASB). While there is sufficient variance in city populations to make an assessment of cities over 50,000 used in this study, the majority of local government jurisdictions have populations of less than 50,000. Perhaps a study in the future can assess smaller local jurisdictions. A concern however with smaller jurisdictions is the lack of depth and capability to implement performance based budgeting (Ekstrom 1989; Rivenbark and Kelly 2006). Conversely, the evolving standardization of performance budgeting from professional and regulatory agencies offers the promise for greater ease in transferring performance budgeting practices to smaller governments.

#### *Contributions and Suggestions for Future Research*

Recalling a discussion by Wildavsky (1989b, 29) in the Origins of Performance Budgeting chapter, budget theory is developed through “disparate and disconnected material” in order to mould, shape and advance new theory. This study advances Wildavsky’s assessment of budgeting theory by providing an alternative for observing public budgeting outside of the traditional budget rationalities construct. The study uses economic sociology as a theoretical base to provide observations about public budgeting as more than a technical government process, but a humanistic endeavor where social structures within local government organizations can directly influence the relationship between performance based budgeting and organizational performance. This study makes several

contributions to public budgeting theory. First, the study recommends returning to the roots of public budgeting where management and performance were important tenets in the development of the line item budget. This study proposes public budgeting is layered with a budget rationalities perspective focused on the politics and competition for resources, and a management perspective as a second layer of budgeting focused on performance and the delivery of efficient and effective public services. Thus, we should acknowledge the importance of both types of budgeting perspectives (Schick 1966, 1971).

Schick (1971, 196) suggests budget innovators fail to address how budget changes affect values and interests, concentrating instead on how budget changes affect rationalities. Economic sociology offers a new approach for observing public budgeting while supporting traditional public administration norms oriented on societal and citizen values. Economic sociology also allows for the inclusion of both individual and organizational approaches to the study of public budgeting. This study proposed performance budgeting in local government creates weak or loosely coupled organizations where indirect effects resulting from social structural changes in the organization positively influence organizational performance without significantly altering existing organizational structures and stakeholder interests.

An alternative model represented the traditional paradigm in public budgeting and proposed organizations utilizing traditional line item budgeting resembled highly decoupled organizations that are stove-piped and less capable of cooperative action. These proposals are not far-fetched. Incremental budgeting theory advocates a fragmented, uncoordinated budget process allowing for a partisan political process to ensure fair shares in the competition for resources (Schick 1971, 197). Schick's discussion closely resembles the model for highly decoupled organizations. Performance based budgeting also offers a means for changing internal organizational learning processes through

changing how information is shared. Essentially, performance based budgeting can assist organizations to shift from single loop learning organizations to double loop learning organizations, influencing organizational performance (Argyris 1982; Forrester and Adams 1997, Moynihan 2006b).

Finally, public budgeting should borrow from the management accounting field to explore the psychological and sociological aspects of performance based budgeting and its effects on organizational performance. The management accounting field has used the concept of participatory budgeting in private organizations for decades to study the effects of manager participation in the budget process and both individual and organizational performance (Argyris 1952, 1953; Stedry 1960; Hofstede 1967; Hopwood 1976; Otley 1978; Searfoss and Monczka 1973; Kenis 1979, Brownell 1982c; Chow, et al. 1988; Shields and Shields 1998; Chong and Chong 2002; Covaleski 2003). These studies and many others have looked at a number of individual and organizational characteristics influencing budgeting and performance including motivation, stress, goal commitment, task uncertainty, task interdependence, resource adequacy, information sharing, and even budgetary slack.

This study indicates the potential for expanding public budgeting studies in a number of different directions. The use of economic sociology theory facilitated the discussion of layered budgeting and helps to bring into focus the management perspective of public budgeting that has long been neglected in favor of the budget rationalities perspective. The layered budgeting approach is appealing because it allows for the co-existence of budget rationality and management perspectives. While this study looked at local governments, many of the concepts used in this paper regarding a layered management approach to public budgeting may also be applicable for observing state and federal government budgeting activity as well. The variables

used for testing performance budgeting's indirect effects on organizational performance are only a few of the endogenous and exogenous variables available for testing. Economic sociology and management accounting fields highlight the human dimension of public budgeting, which has yet to fully explore individual and agency perspectives that might influence the social structures of public organizations.

Performance based budgeting may again fall out of popularity with researchers, but this study proposes it will continue to exist and evolve. In fact it is more likely to grow as standardization of performance reporting increases. The value of this study is the application of alternative theory to aid the advancement of existing public budgeting theory. Eghtedari (1960) quite possibly said it best when he remarked that performance budgeting has the potential to do much more than assist in resource decision making, but can also bring into sharper focus government agency missions and responsibilities, which according to this study influences positive outcomes including organizational performance.

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*Notes*

<sup>1</sup> Some might apply the concept of public service motivation to the description of entrepreneurialism or innovation.

<sup>2</sup> As a reminder, all three information sharing variables tested significant: vertical information at .10, information sharing and horizontal information at .05. With one exception the findings from all three measures revealed similar patterns. The rate of change in the predicted probability for change in the horizontal information sharing variable was somewhat less than the other two variables when moving from one unit of change to another. Since the findings for the three variables were generally similar, the discussion centered on the information sharing measure that included both vertical and horizontal measurements.

## Figures

Figure 4.1 Adaptation of Parsons and Smelser’s AGIL Framework and Subsystems of Society for Government Performance Based Budgeting

### Parsons and Smelser’s Functional Imperatives of a System of Action (AGIL Framework)

<b>A</b> daptation: Of an instrumental object or activity from various feedback mechanisms	<b>G</b> oal Gratification / Attainment: Set and implement goals for performance and gratification
<b>L</b> atency: (Value Maintenance Systems) preserve and transmit culture & values	<b>I</b> ntegration: maintain solidarity & subunit coordination

### Public Budgeting and Performance Based Budgeting Adaptation

<b>A</b> daptation: Government activity including the acquisition and management of resources for expected levels of government service	Performance based budgeting supports <b>G</b> oal attainment and management of government activity
<b>L</b> atency: (Value Maintenance Systems) influences culture & values <i>without changing organizational structures</i>	<b>I</b> ntegration: maintain ( <i>and improve</i> ) solidarity & subunit coordination

### Parsons and Smelser’s Differentiated Subsystems of Society

<b>A</b> Economy	<b>G</b> Polity
<b>L</b> <b>L</b> atency: (Value Maintenance Systems) preserve and transmit culture & values	<b>I</b> <b>I</b> ntegration: maintain solidarity & subunit coordination

### Public Budgeting and Performance Based Budgeting Adaptation (Government Activity Substituted for Economic Activity)

<b>A</b> Government (includes public budgeting and performance based budgeting activity)	<b>G</b> Polity (both external to government organizations and the polity of government employees within government organizations)
<b>L</b> <b>L</b> atency: (Value Maintenance Systems) preserve and transmit culture & values	<b>I</b> <b>I</b> ntegration: maintain ( <i>and improve</i> ) solidarity & subunit coordination

Figure 4.2. Economic Sociology and Performance Based Budgeting Isomorphism.

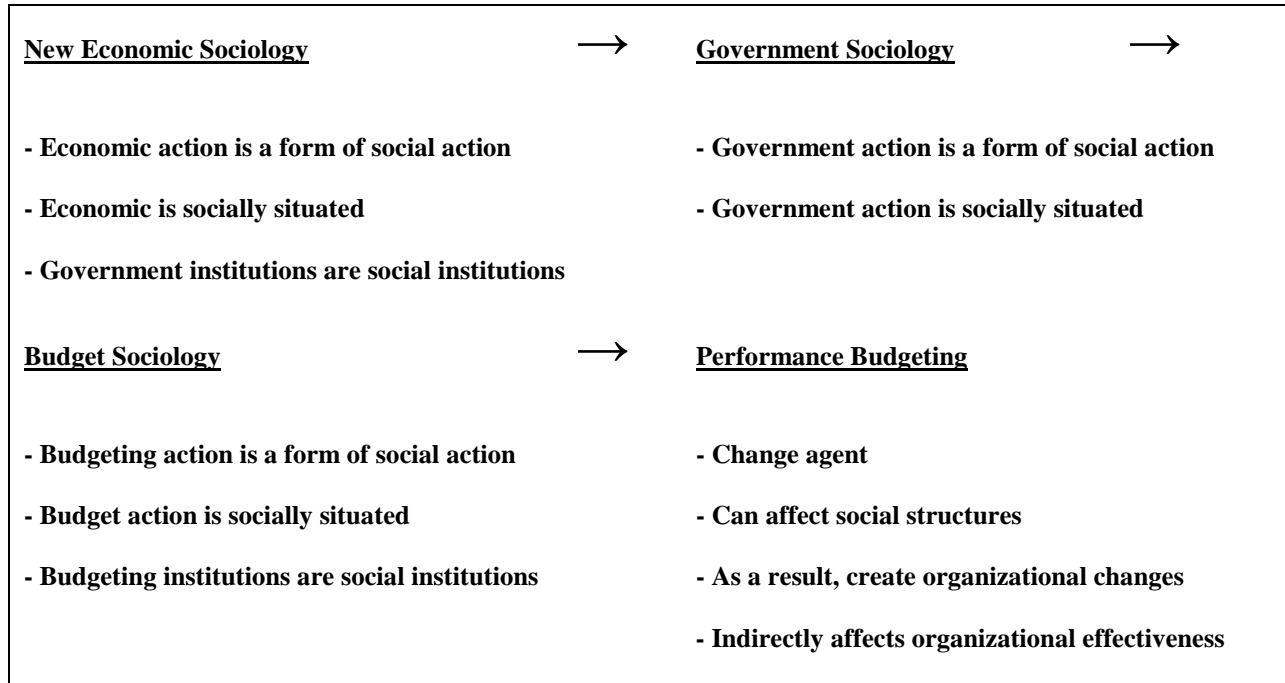


Figure 5.1. Mediating Variable Relationship Example

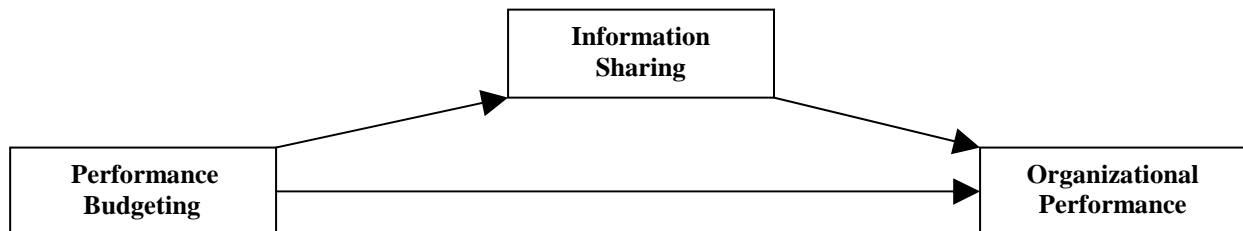




Figure 5.2. Moderating Variable Relationship Example

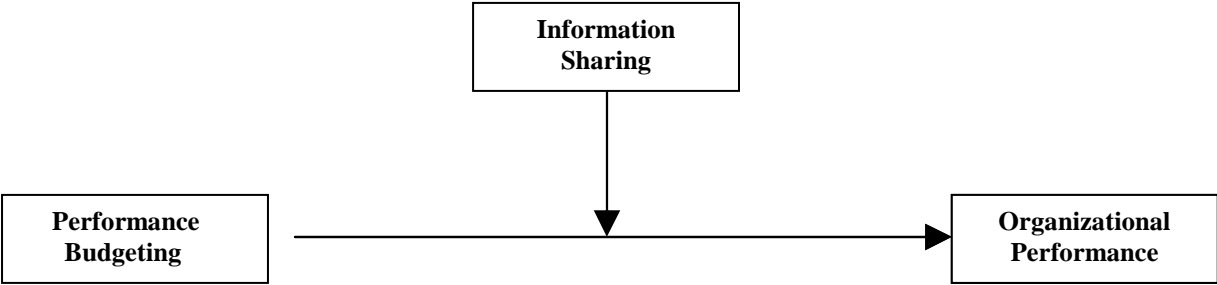


Figure 5.3. Baron and Kenny Moderated Variable Relationship

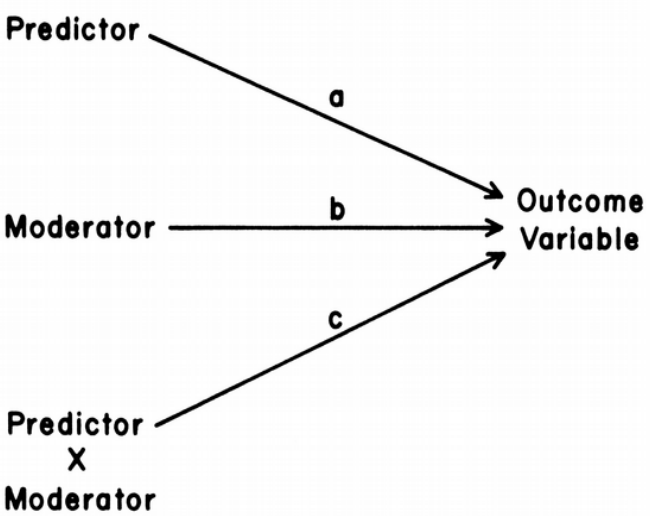


Figure 5.4. Performance Budgeting Mediator Relationships

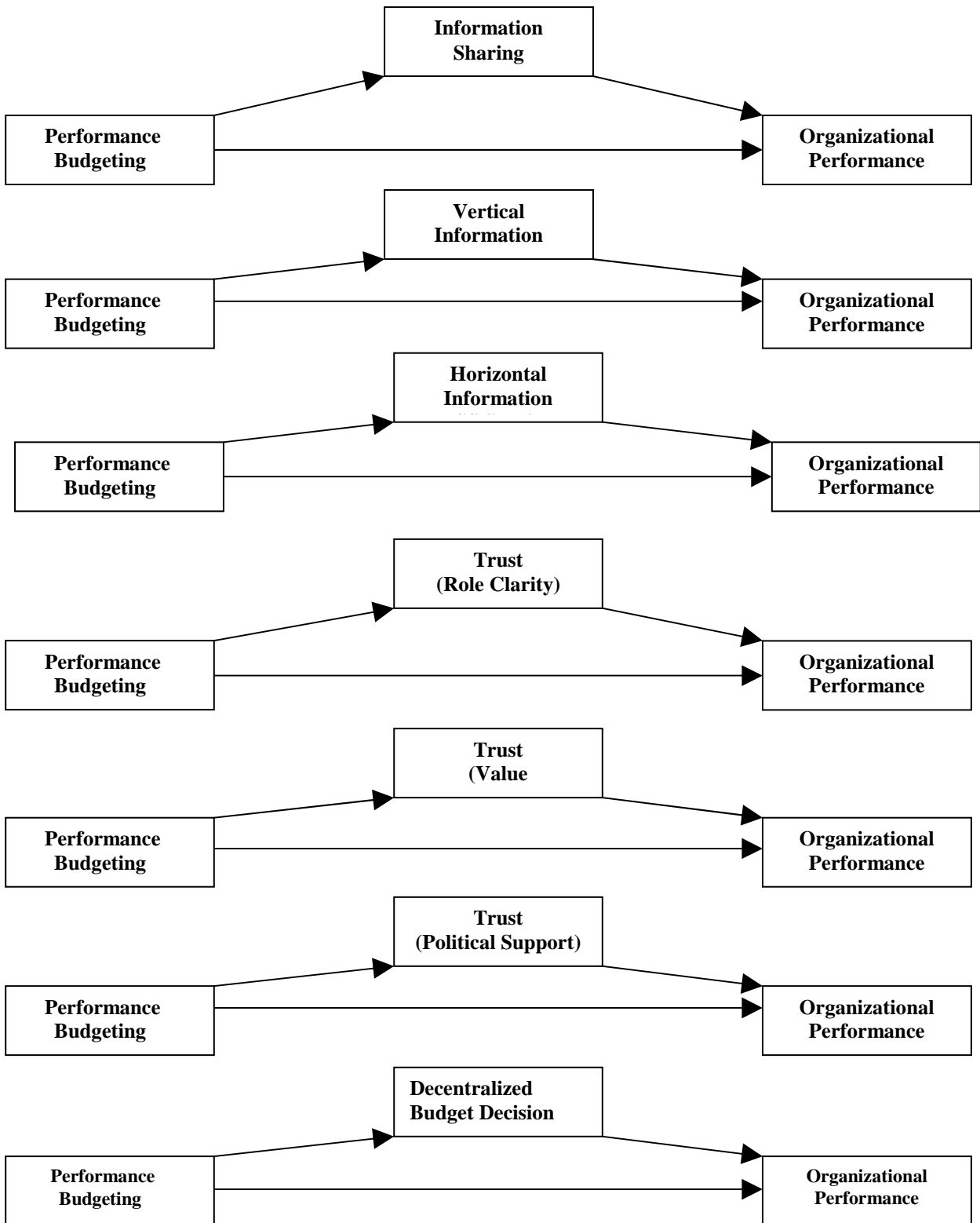
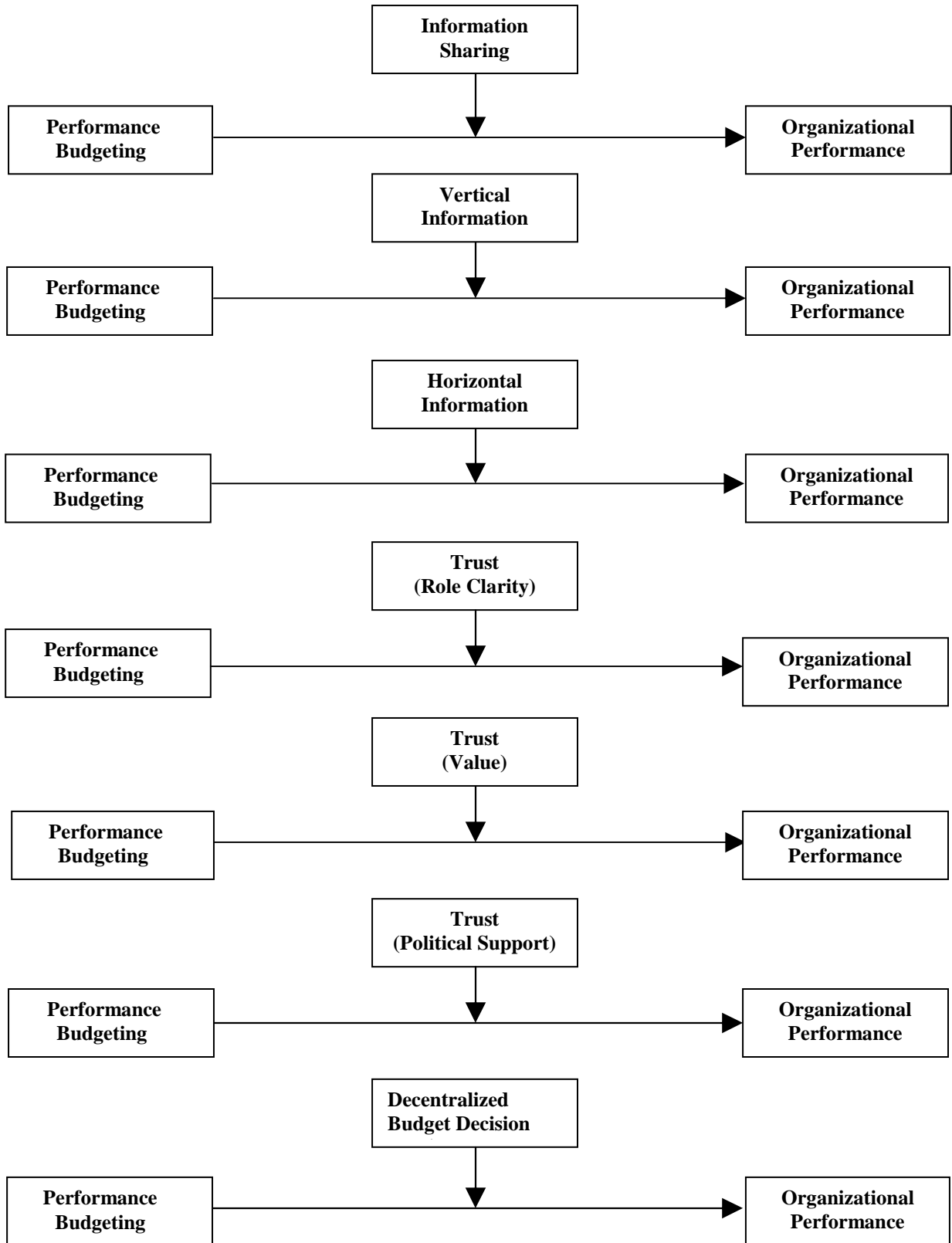


Figure 5.5. Performance Budgeting Moderator relationships



Tables

Table 5.1 Sample Characteristics

	<b><u>Percent</u></b>
<b>Gender</b>	
Female	29.8
Male	70.2
<b>Education</b>	
Some College	3.0
Bachelors	33.0
Masters in Public Affairs (MPA, MPP)	37.0
Other Graduate Degree	27.0
<b>Race</b>	
Hispanic Origin	3.8
Black or African American	5.5
White/Caucasian	87.7
Asian	2.0
<b>Salary</b>	
Less than \$50,000	1.3
\$50,000 to \$75,000	7.0
\$75,000 to \$100,000	22.7
\$100,000 to \$150,000	51.5
\$150,000 or more	17.5
<b>Functional Specialization</b>	
City Manager / CAO	14.0
Deputy or Assistant City Manager	14.2
Finance / Budgeting	12.4
Public Works	12.5
Personnel / HR	10.0
Economic Development	7.8
Parks and Recreation	13.6
Planning	10.9
Community Development	4.6

Table 5.2. Descriptive Statistics and Pearson Correlation Coefficients (Includes key control variables: Entrepreneurialism, Professionalism, and Strategic Decision Making)

	Mean	S.D.	Range	1	2	3	4	5	6	7	8	9	10	11	12
1. Org Perf	7.58	1.56	0 - 10	1.00											
2. Perf Budg	12.42	3.71	3 - 18	0.35	1.00										
3. *Info Share	21.82	4.14	9 - 30	0.44	0.31	1.00									
4. *Vert Info	10.70	2.46	3 - 15	0.41	0.29	0.85	1.00								
5. *Horiz Info	11.11	2.40	3 - 15	0.34	0.23	0.84	0.45	1.00							
6. *Trust(Role)	12.40	2.50	3 - 15	0.39	0.32	0.46	0.48	0.30	1.00						
7. *Trust(Value)	13.95	1.50	3 - 15	0.45	0.24	0.35	0.34	0.26	0.51	1.00					
8. *Trust(Polsup)	10.24	3.07	3 - 15	0.38	0.19	0.29	0.28	0.22	0.37	0.32	1.00				
9. *Buddecent	9.34	2.02	2 - 12	0.29	0.26	0.24	0.22	0.18	0.29	0.25	0.24	1.00			
10. Entrepren	11.55	2.40	3 - 15	0.38	0.31	0.34	0.29	0.28	0.35	0.30	0.20	0.24	1.00		
11. Profess	19.14	2.29	3 - 21	0.17	0.22	0.15	0.11	0.16	0.18	0.25	0.18	0.15	0.22	1.00	
12. Strat Dec	6.70	2.20	0 - 10	0.58	0.34	0.45	0.44	0.33	0.44	0.41	0.42	0.27	0.31	0.18	1.00

N = 1172

\* The starred variables were regressed individually, with the control variables in Table 5.2. For brevity, they are included in one table. The three information sharing variables, trust variables, and budget decentralization variables were regressed separately.

Table 5.3. Pearson Correlation Coefficients for Control Variables

	Mean	S.D.	Range	1	2	3	4	5	6	7	8
1. Sex	0.297	0.457	0 - 1	-0.05	-0.03	1.00					
2. Race	0.877	0.328	0 - 1	-0.008	-0.06	-0.05	1.00				
3. Educ	2.88	0.840	1 - 4	-0.02	-0.07	-0.04	-0.004	1.00			
4. Salary	3.76	0.862	1 - 5	0.20	0.11	-0.11	0.06	0.11	1.00		
5. (L) Employ	6.93	0.946	3.2 - 10.5	0.04	0.08	0.08	-0.15	0.04	0.06	1.00	
6. (L) Expend	11.99	0.970	9.5 - 15.8	0.05	0.06	0.07	-0.15	0.05	0.13	0.86	1.00
7. Tot Tenure	13.00	9.34	1 - 42	0.15	0.02	-0.04	0.06	-0.09	0.06	0.01	0.05
8. Pos Tenure	7.47	6.70	0 - 36	0.17	0.09	-0.06	0.07	0.006	0.08	-0.06	-0.07

N=1172

Table 5.4. First Step Mediating Regressions (Relationship of Dependent Variable Organizational Effectiveness with Independent Variable Performance Budgeting)

Dependent Variable: Organizational Effectiveness

Independent Variable	Odds Ratio	z-Score	P >  z	Wald Chi Squared (12)	McKelvey & Zavoina's R <sup>2</sup>
Performance Budgeting	1.096	5.19	p = 0.00	428.65	0.449

Table 5.5. Second Step Mediating Regressions (Relationship of Performance Budgeting with Each Specific Mediating Variable)

Information sharing	Vertical Information Sharing	Horizontal Information Sharing	Trust (Role)	Trust (Values)	Trust (Pol Sup)	Budget Decentralization
Odds Ratio = 1.065 z= 4.09 p = 0.00 Wald Chi Squared (12) =249.69 McKelvey & Zavoina's R <sup>2</sup> = .209 Δ R <sup>2</sup> = -0.240	Odds Ratio = 1.119 z= 4.08 p = 0.00 Wald Chi Squared (12) = 255.92 McKelvey & Zavoina's R <sup>2</sup> = .211 Δ R <sup>2</sup> = -0.238	Odds Ratio = 1.063 z=2.49 p = 0.00 Wald Chi Squared (12) = 232.38 McKelvey & Zavoina's R <sup>2</sup> = .200 Δ R <sup>2</sup> = -0.249	Odds Ratio = 1.131 z = 4.66 p = 0.00 Wald Chi Squared(12) = 258.98 McKelvey & Zavoina's R <sup>2</sup> = .214 Δ R <sup>2</sup> = -0.235	Odds Ratio = 1.095 z=2.02 p = 0.00 Wald Chi Squared (12) = 232.49 McKelvey & Zavoina's R <sup>2</sup> = .199 Δ R <sup>2</sup> = -0.250	z=0.93 p=0.335	Odds Ratio = 1.148 z = 4.82 p=0.00 Wald Chi Squared (12) = 238.63 McKelvey & Zavoina's R <sup>2</sup> = .215 Δ R <sup>2</sup> = -0.234

Table 5.6. Third Step Mediating Variable Regressions (Relationship of Dependent Variable Organizational Effectiveness with Independent Variable Performance Budgeting and Specific Mediating Variables)

Performance Budgeting	Information sharing		Vertical Information Sharing		Horizontal Information sharing		Trust (Role)		Trust (Values)		Budget Decentralization	
<b>Mediation: Odds Ratio</b>	<b>No 1.081</b>		<b>No 1.083</b>		<b>No 1.089</b>		<b>No 1.089</b>		<b>No 1.089</b>		<b>No 1.088</b>	
<b>z-score / pr</b>	<b>z</b>	<b>p</b>	<b>z</b>	<b>p</b>	<b>z</b>	<b>p</b>	<b>z</b>	<b>p</b>	<b>z</b>	<b>p</b>	<b>z</b>	<b>p</b>
<b>Perf</b>	<b>4.39</b>	<b>0.00</b>	<b>4.49</b>	<b>0.00</b>	<b>4.79</b>	<b>0.00</b>	<b>4.98</b>	<b>0.00</b>	<b>4.93</b>	<b>0.00</b>	<b>4.90</b>	<b>0.00</b>
<b>Budgeting</b>	<b>6.56</b>	<b>0.00</b>	<b>5.46</b>	<b>0.00</b>	<b>5.30</b>	<b>0.00</b>	<b>2.83</b>	<b>0.005</b>	<b>6.28</b>	<b>0.00</b>	<b>3.46</b>	<b>0.001</b>
<b>Mediator</b>												
<b>Entrepreneur</b>	<b>4.53</b>	<b>0.00</b>	<b>5.01</b>	<b>0.00</b>	<b>4.76</b>	<b>0.00</b>	<b>4.77</b>	<b>0.00</b>	<b>4.72</b>	<b>0.00</b>	<b>5.25</b>	<b>0.00</b>
<b>Professional</b>	<b>1.80</b>	<b>0.07</b>	<b>2.07</b>	<b>0.04</b>	<b>1.70</b>	<b>0.09</b>	<b>1.95</b>	<b>0.05</b>	<b>0.83</b>	<b>0.41</b>	<b>1.88</b>	<b>0.06</b>
<b>Strat Decision</b>	<b>11.67</b>	<b>0.00</b>	<b>11.86</b>	<b>0.00</b>	<b>12.47</b>	<b>0.00</b>	<b>12.46</b>	<b>0.00</b>	<b>11.96</b>	<b>0.00</b>	<b>13.05</b>	<b>0.00</b>
<b>Sex</b>	<b>-0.89</b>	<b>0.38</b>	<b>-0.79</b>	<b>0.42</b>	<b>-0.94</b>	<b>0.35</b>	<b>-0.95</b>	<b>0.34</b>	<b>-1.09</b>	<b>0.27</b>	<b>-0.82</b>	<b>0.41</b>
<b>Race</b>	<b>0.82</b>	<b>0.41</b>	<b>0.71</b>	<b>0.48</b>	<b>0.76</b>	<b>0.45</b>	<b>0.55</b>	<b>0.58</b>	<b>0.39</b>	<b>0.70</b>	<b>0.57</b>	<b>0.57</b>
<b>Education</b>	<b>0.32</b>	<b>0.75</b>	<b>0.17</b>	<b>0.86</b>	<b>0.26</b>	<b>0.80</b>	<b>0.07</b>	<b>0.95</b>	<b>-0.05</b>	<b>0.96</b>	<b>0.28</b>	<b>0.78</b>
<b>Salary</b>	<b>4.79</b>	<b>0.00</b>	<b>4.72</b>	<b>0.00</b>	<b>4.77</b>	<b>0.00</b>	<b>4.46</b>	<b>0.00</b>	<b>4.02</b>	<b>0.00</b>	<b>4.28</b>	<b>0.00</b>
<b>(L) # Employ</b>	<b>-0.25</b>	<b>0.80</b>	<b>-0.60</b>	<b>0.55</b>	<b>-0.04</b>	<b>0.97</b>	<b>-0.37</b>	<b>0.71</b>	<b>-0.38</b>	<b>0.70</b>	<b>-0.41</b>	<b>0.68</b>
<b>(L) Expend.</b>	<b>0.61</b>	<b>0.54</b>	<b>0.83</b>	<b>0.41</b>	<b>0.36</b>	<b>0.72</b>	<b>0.64</b>	<b>0.52</b>	<b>0.58</b>	<b>0.56</b>	<b>0.66</b>	<b>0.51</b>
<b>Total Tenure</b>	<b>1.80</b>	<b>0.07</b>	<b>1.81</b>	<b>0.07</b>	<b>1.96</b>	<b>0.05</b>	<b>1.99</b>	<b>0.05</b>	<b>1.67</b>	<b>0.10</b>	<b>2.18</b>	<b>0.03</b>
<b>Posn. Tenure</b>	<b>2.58</b>	<b>0.01</b>	<b>2.76</b>	<b>0.006</b>	<b>2.35</b>	<b>0.02</b>	<b>2.54</b>	<b>0.01</b>	<b>3.12</b>	<b>0.002</b>	<b>2.41</b>	<b>0.02</b>
<b>Wald Chi Square (13)</b>	<b>493.02</b>		<b>458.69</b>		<b>495.03</b>		<b>426.30</b>		<b>473.66</b>		<b>442.25</b>	
<b>McKelvey &amp; Zavoina's R<sup>2</sup></b>	<b>0.474</b>		<b>0.466</b>		<b>0.465</b>		<b>0.455</b>		<b>0.476</b>		<b>0.458</b>	
<b>Δ R<sup>2</sup> From Step 1</b>	<b>0.025</b>		<b>0.017</b>		<b>0.016</b>		<b>0.006</b>		<b>0.027</b>		<b>-0.009</b>	

Table 5.7. Partial Mediation Estimates

	Information Sharing	Vertical Information Sharing	Horizontal Information Sharing	Trust (Role)	Trust (Values)	Budget Decentralization
<b>Percent of total effect that is mediated</b>	<b>31.93 %</b>	<b>28.03 %</b>	<b>18.07 %</b>	<b>28.51 %</b>	<b>28.01 %</b>	<b>15.79 %</b>
<b>Ratio of indirect to direct effect</b>	<b>0.4691</b>	<b>0.3894</b>	<b>0.2205</b>	<b>0.3987</b>	<b>0.3891</b>	<b>0.1876</b>

Table 5.8. Second Step Moderating Variable Regressions (Relationship of Dependent Variable Organizational Effectiveness with Independent Variable Performance Budgeting, Specific Moderating Variable, and Interaction Term)\*

<b>Performance Budgeting</b>	<b>Information sharing</b>		<b>Vertical Information Sharing</b>		<b>Horizontal Information sharing</b>		<b>Trust (Role)</b>		<b>Trust (Values)</b>		<b>Budget Decentralization</b>	
<b>Moderation Odds Ratio</b>	<b>Yes 0.910</b>		<b>Yes 0.972</b>		<b>Yes 0.931</b>		<b>.Yes 0.898</b>		<b>Yes 0.809</b>		No	
<b>z-score / pr Perf</b>	<b>-1.04</b>	<b>0.30</b>	<b>-0.42</b>	<b>0.68</b>	<b>-0.91</b>	<b>0.36</b>	<b>-1.44</b>	<b>0.15</b>	<b>-1.51</b>	<b>0.13</b>	<b>0.27</b>	<b>0.79</b>
<b>Budgeting</b>	<b>0.12</b>	<b>0.91</b>	<b>0.16</b>	<b>0.87</b>	<b>-0.40</b>	<b>0.69</b>	<b>-1.37</b>	<b>0.17</b>	<b>0.62</b>	<b>0.53</b>	<b>0.30</b>	<b>0.76</b>
<b>Info sharing</b>	<b>1.96</b>	<b>0.05</b>	<b>1.69</b>	<b>0.09</b>	<b>2.07</b>	<b>0.04</b>	<b>2.71</b>	<b>0.007</b>	<b>2.13</b>	<b>0.03</b>	<b>0.96</b>	<b>0.34</b>
<b>Moderator</b>												
<b>Entrepreneur</b>	<b>4.52</b>	<b>0.00</b>	<b>5.02</b>	<b>0.00</b>	<b>4.72</b>	<b>0.00</b>	<b>4.74</b>	<b>0.00</b>	<b>4.71</b>	<b>0.00</b>		
<b>Professional</b>	<b>1.78</b>	<b>0.08</b>	<b>1.99</b>	<b>0.05</b>	<b>1.74</b>	<b>0.08</b>	<b>1.90</b>	<b>0.06</b>	<b>0.89</b>	<b>0.37</b>		
<b>Strat Decision</b>	<b>11.59</b>	<b>0.00</b>	<b>11.64</b>	<b>0.00</b>	<b>12.50</b>	<b>0.00</b>	<b>12.53</b>	<b>0.00</b>	<b>11.88</b>	<b>0.00</b>		
<b>Sex</b>	<b>-0.93</b>	<b>0.35</b>	<b>-0.78</b>	<b>0.43</b>	<b>-1.03</b>	<b>0.30</b>	<b>-0.78</b>	<b>0.43</b>	<b>-1.04</b>	<b>0.30</b>		
<b>Race</b>	<b>0.84</b>	<b>0.40</b>	<b>0.72</b>	<b>0.47</b>	<b>0.76</b>	<b>0.44</b>	<b>0.64</b>	<b>0.52</b>	<b>0.46</b>	<b>0.65</b>		
<b>Education</b>	<b>0.28</b>	<b>0.78</b>	<b>0.15</b>	<b>0.88</b>	<b>0.21</b>	<b>0.83</b>	<b>0.02</b>	<b>0.98</b>	<b>-0.06</b>	<b>0.95</b>		
<b>Salary</b>	<b>4.68</b>	<b>0.00</b>	<b>4.61</b>	<b>0.00</b>	<b>4.72</b>	<b>0.00</b>	<b>4.36</b>	<b>0.00</b>	<b>4.02</b>	<b>0.00</b>		
<b>(L) # Employ</b>	<b>- 0.32</b>	<b>0.75</b>	<b>-0.64</b>	<b>0.52</b>	<b>-0.10</b>	<b>0.92</b>	<b>-0.54</b>	<b>0.59</b>	<b>-0.52</b>	<b>0.60</b>		
<b>(L) Expends.</b>	<b>0.66</b>	<b>0.51</b>	<b>0.85</b>	<b>0.40</b>	<b>0.43</b>	<b>0.67</b>	<b>0.75</b>	<b>0.45</b>	<b>0.66</b>	<b>0.51</b>		
<b>Total Tenure</b>	<b>1.75</b>	<b>0.08</b>	<b>1.75</b>	<b>0.08</b>	<b>1.95</b>	<b>0.05</b>	<b>2.09</b>	<b>0.04</b>	<b>1.71</b>	<b>0.09</b>		
<b>Posn. Tenure</b>	<b>2.63</b>	<b>0.009</b>	<b>2.79</b>	<b>0.005</b>	<b>2.40</b>	<b>0.02</b>	<b>2.56</b>	<b>0.01</b>	<b>3.05</b>	<b>0.002</b>		
<b>Wald Chi Square (14)</b>	<b>513.15</b>		<b>472.75</b>		<b>518.44</b>		<b>493.82</b>		<b>487.49</b>			
<b>McKelvey &amp; Zavoina's R<sup>2</sup></b>	<b>0.475</b>		<b>0.466</b>		<b>0.467</b>		<b>0.457</b>		<b>0.479</b>			
<b>Δ R<sup>2</sup> From Step 1</b>	<b>0.260</b>		<b>0.017</b>		<b>0.018</b>		<b>0.008</b>		<b>0.030</b>			

\* Moderating variable regressions use the same first step used in the mediating regressions (see Table 5.4)



Table 5.9. Predicted Probabilities for Organizational Performance Under Varying Conditions

	<u>Low Perf Budget</u>			<u>Average Perf Budget</u>			<u>High Perf Budget</u>		
	<b>Low Perf</b>	<b>Avg Perf</b>	<b>High Perf</b>	<b>Low Perf</b>	<b>Avg Perf</b>	<b>High Perf</b>	<b>Low Perf</b>	<b>Avg Perf</b>	<b>High Perf</b>
<b>Infoshare</b>									
<b>Low Infoshare</b>	1.49%	22.31%	18.19%	1.95%	26.32%	14.62%	2.54%	30.28%	11.60%
<b>Average Infoshare</b>	1.45%	21.93%	18.55%	1.90%	25.94%	14.94%	2.48%	29.91%	11.86%
<b>High Infoshare</b>	1.40%	21.47%	19.02%	1.84%	25.46%	15.34%	2.40%	29.45%	12.20%
<b>Trust (Role Clarity)</b>									
<b>Low Trust</b>	0.95%	15.60%	26.11%	1.30%	19.62%	21.18%	1.77%	24.03%	16.76%
<b>Average Trust</b>	1.27%	19.34%	21.50%	1.74%	23.73%	17.04%	2.35%	28.24%	13.23%
<b>High Trust</b>	1.70%	23.43%	17.31%	2.31%	27.94%	13.46%	3.11%	32.17%	10.29%
<b>Trust (Values)</b>									
<b>Low Trust</b>	0.95%	15.60%	26.11%	1.30%	19.62%	21.18%	1.77%	24.03%	16.76%
<b>Average Trust</b>	0.96%	17.01%	24.14%	1.77%	25.73%	15.33%	3.22%	34.38%	9.04%
<b>High Trust</b>	0.90%	16.18%	25.19%	1.66%	24.75%	16.15%	3.03%	33.57%	9.58%

## Works Cited

- Aguiness, H. (2004). *Regression Analysis for Categorical Moderators*. New York, NY: Guilford Press.
- Aiken, M. & Hage, J. (1968). Organizational interdependence and intra-organizational structure. *American Sociological Review*, 33(6), 912-930.
- Aldrich, J. H. & Forrest, F. D. (1984). *Linear probability, logit and probit models*. Newbury Park, CA: Sage Corporation, Inc.
- Alwin, D. F. & Hauser, R. M. (1975). The decomposition effects in path analysis. *American Sociological Review*, 40, 37-47.
- Ammons, D. N. (1985). Common barriers to productivity improvement in local government. *Public Productivity Review*, 9(4), 293-310.
- Ammons, D. N. (2002). Performance measurement and managerial thinking. *Public Performance and Management Review*, 25(2), 344-347.
- Ammons, D. N. (2008). Performance budgeting success in local government: Is a new litmus test needed? Paper presented at the 2008 ASPA Annual Conference, Dallas TX, March 10, 2008.
- Ammons, D.N., Coe, C., & Lombardo, M. (2001). Performance-comparison projects in local government: Participants' perspectives. *Public Administration Review*, (61(1), 100-110.
- Andrews, R. (2007). Organizational capital and public service performance. Paper presented at the 9<sup>th</sup> Public Management Research Conference. Tucson, Arizona, October 25-27, 2007.
- Andrews, R., Boyne, G. A., & Walker, R. M. (2006). Subjective and objective measures of organizational performance: an empirical exploration. In G. A. Boyne, K. J. Meier, L. O'Toole, and R. M. Walker (Eds.), *Public service performance: perspectives on measurement and management* (14-34). Cambridge, England: Cambridge University Press.
- Andrews, R., Boyne, G. A., & Walker, R. M. (2009). Centralization, organizational strategy, and public service performance. *Journal of Public Administration Research and Theory*, 19(1), 57-80.
- Andrews, M. & Hill, H. (2003). The impact of traditional budgeting systems on the effectiveness of performance-based budgeting: A different viewpoint on recent findings. *International Journal of Public Administration*, 26(2), 135-155.
- Anthony, R. (1971). Closing the loop between planning and performance, *Public Administration Review*, 31(3), 388-398.

- Appleby, P. H. (1947). Toward better public administration. *Public Administration Review*, 7(2), 93-99.
- Arganoff, R. & McGuire, M. (1999). Managing in network settings. *Review of Policy Research*, 16(1), 18-41.
- Arganoff, R. & McGuire, M. (2001). Big questions in public network management research. *Journal of Public Administration Research and Theory*, 11(3), 295-326.
- Arganoff, R. & McGuire, M. (2003). *Collaborative Public Management: New Strategies for Local Governments*. Washington, DC: Georgetown Univ. Press.
- Arellano, M. (1987). Computing robust standard errors for within-groups estimators. *Oxford Bulletin of Economics and Statistics*, 49(4), 431-434.
- Argyris, C. (1952). *The Impact of Budgets on People*. New York, NY: The Controllershship Foundation.
- Argyris, C. (1953). Human problems with budgets. *Harvard Business Review*, 31(1), 97-110.
- Argyris, C. (1982). *Reasoning, Learning, and Action*. San Francisco, CA: Jossey-Bass.
- Argyris, C. (1990). *Overcoming Organizational Defenses: Facilitating Organizational Learning*. Boston, MA: Allyn and Bacon.
- Argyris C. & Schon, D. A. (1978). *Organizational learning: A theory of action perspective*, Reading MA: Addison-Wesley.
- Aspers, P. (1999). The economic sociology of Alfred Marshall: An overview, *The American Journal of Economics and Sociology*, 58(4), 651-667.
- Aspers, P. (2001). Crossing the boundaries of economics and sociology: The case of Vilfredo Pareto. *The American Journal of Economics and Sociology*, 60(2), 519-545.
- Axelrod, D. (1973). Post-Burkhead: The state of the art or science of budgeting. *Public Administration Review*, 33(6), 576-584.
- Axelrod, D. (1984). *The Evolution of Cooperation*. New York, NY: Basic Books.
- Backhaus, J. (2002). Fiscal sociology: What for? *American Journal of Economics and Sociology*, 61(1), 55-77.
- Bailey, J. J. & O'Connor, R. J. (1975). Operationalizing incrementalism: Measuring the muddles. *Public Administration Review*, 35(1), 60-66.

- Baiman, S. (1990). Agency research in managerial accounting: A second look. *Accounting, Organizations, and Society* 15, 341-371.
- Baiman, S. & Evans III, J. H.. (1983). Pre-decision information and participative management control systems. *Journal of Accounting Research*, 21(2), 371-395.
- Baker, W. (1984). The social structure of a national securities market. *American Journal of Sociology*, 89 (4), 775-811.
- Barber, B. (1995). All economies are embedded: The career of a concept and beyond. *Social Research*, 62(2), 387-413.
- Barnard, C. I. (1938). *The Functions of the Executive*. Cambridge, MA: Harvard University Press.
- Baron, R. M. & Kenny, D. A. (1986). The mediator-moderator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51 (6), 1173-1182.
- Barrett, K. & Greene, R. (1999). Government performance project, grading the states: A management report card, *Governing*, 12(5), 17-97.
- Barrett, K. & Greene, R. (2000). Grading the cities. *Governing*, 13(5), 22-91.
- Barrett, K. & Greene, R. (2005). *Grading the states 2005: A look inside*. Washington, D.C.: Government Performance Project.
- Barrett, K. & Greene, R.(2008). A management report card, grading the states: The mandate to measure, 2008. *Governing*, 21(6), 24-95.
- Bartik, T. J. (2005). Solving the problems of economic development incentives *Growth and Change* 36(2), 139-166.
- Barzelay, M. (2001). *The New Public Management: Improving Research and Policy Dialogue*. Berkley, CA: University of California Press.
- Baum, J. A. C. & Oliver, C. (1992). Institutional embeddedness and the dynamics of organizational populations. *American Sociological Review*, 57(4), 540-559.
- Becker, G. S. (1957). *The Economics of Discrimination*. Chicago, IL: University of Chicago Press.
- Becker, G. S. (1976). *The Economic Approach to Human Behavior*. Chicago, IL: University of Chicago Press.

- Becker, G. S. & Green, D. (1962). Budgeting and Employee Behavior. *Journal of Business*, 35(4), 392-402.
- Beckert, J. (1999). Economic action and embeddedness: The problem of the structure of action. Free University of Berlin, John F. Kennedy Institute, Based on various presentations, <http://irle.berkeley.edu/culture/papers/Beckert.pdf>, accessed April 13, 2008.
- Beckert, J. (2002). *Beyond the Market*. Princeton, NJ: Princeton University Press.
- Beckert, J. (2007). The great transformation of embeddedness: Karl Polanyi and the new economic sociology. MPIfG Discussion Paper 07/1, [http://74.125.93.104/search?q=cache:mpI\\_OT3CZfsJ:www.mpifg.de/pu/mpifg\\_dp/dp07-1.pdf+Is+karl+polanyi+the+originator+of+embeddedness%3F&cd=4&hl=en&ct=clnk&gl=us](http://74.125.93.104/search?q=cache:mpI_OT3CZfsJ:www.mpifg.de/pu/mpifg_dp/dp07-1.pdf+Is+karl+polanyi+the+originator+of+embeddedness%3F&cd=4&hl=en&ct=clnk&gl=us), accessed December 10, 2008.
- Beckert, J. & Zafirovski, M. (2006). *International Encyclopedia of Economic Sociology*. Florence, KY: Routledge, Taylor and Francis Group.
- Behn, R. D. (2003). Why measure performance? Different purposes require different measures. *Public Administration Review*, 63(5), 586–606.
- Bendor, J. & Moe, T. M. (1985). An adaptive model of bureaucratic Politics. *The American Political Science Review*, 79(3), 755-774.
- Bens, C. K. (1986). Strategies for Implementing Performance Management. *Management Information Service Report*, 18(11), Washington, D.C.: International City Management Association.
- Berezin, M. (2005). Emotions and the economy. In Smelser, N. J. & Swedberg, R. (Eds.), *The handbook of economic sociology*, 2<sup>nd</sup> ed. Princeton, NJ: Princeton University Press.
- Berger, P. L. & Luckmann, T. (1966). *The social construction of reality; a treatise in the sociology of knowledge*, Garden City, NY: Doubleday.
- Berman, E. & Wang, X. H. (2000). Performance measurement in U.S. counties: Capacity for reform. *Public Administration Review*, 60 (5), 409–420.
- Berry, W. D. (1990). The confusing case of budgetary incrementalism: Too many meanings for a single concept. *Journal of Politics*, 52(1), 167-196.
- Berry, F. S., Brower, R. S., Choi, S. O., Gao, W. X., Jang, H., Kwon, M. & Word, J. (2004). Three traditions of network research: What the public management research agenda can learn from other research communities. *Public Administration Review*, 64(5), 539-552.

- Berry, F. S., Brower, R. & Flowers, G. (2000). Implementing performance accountability in Florida: What changed, what mattered, and what resulted? *Public Productivity & Management Review*, 23(3), 338-358.
- Bledstein, B. (1976). *The culture of professionalism: The middle class and the development of higher education in America*. New York, NY: Norton.
- Bobbio, N. ([1964] 1999). Introduction to Pareto's sociology. *Banca Nazionale del Lavoro Quarterly Review*, 17(69): 183-206, In Cunningham, J. W. & McClure, M. (Eds.). (1999). *Vilfredo Pareto: Critical assessment of leading economists, volume 3*. London: Routledge.
- Bohte, J. & Meier, K. J. (2000). Goal displacement: Assessing the motivation for organizational cheating. *Public Administration Review*, 60(2), 173-182.
- Boles, J. S. & Babin, B. J. (1994). Role stress revisited: One or two constructs? *Journal of Marketing - Theory and Practice*, 2(3), 57-69.
- Borman, W. C. & Motowidlo, S. J. (1993). Expanding the criterion domain to include elements of contextual performance. In Schmitt, N., & Borman, W.C. (Eds.), *Personnel selection in organizations* (71-98). San Francisco, CA: Jossey-Bass.
- Bouckaert, G. & Peters, B. G. (2002). Performance measurement and management: The achilles heel in administrative modernization. *Public Performance and Management Review*, 25(4), 359-362.
- Bowman, R. S. (1989). Jevon's economic theory in relation to social change and public policy," *Journal of Economic Issues*, 23(4), 1123-1147.
- Boyne, G. A. (1996). Competition and local government: A public choice perspective. *Urban Studies* 33 (4-5), 703-721.
- Boyne, G. A. (2002). Concepts of local authority performance: An evaluation of the statutory frameworks in England and Wales. *Public Money & Management*, 22(2), 17-24.
- Boyne, G. A. (2003). Sources of public service improvement: A critical review and research agenda. *Journal of Public Administration Research and Theory*, 13(3), 367-94.
- Boyne, G. A., Meier, K. J., O'Toole, L. J. & Walker, R.M. (2005). Where next? Research on performance in public organizations. *Journal of Public Administration Research and Theory*, 15(4), 633-639.

- Boyne, G. A., Meier, K. J., O'Toole, L. J. & Walker, R.M. (2006). Public management and organizational performance: An agenda for research. In Boyne, G.A., Meier, K. J., O'Toole, L. J., & Walker, R.M. (Eds.), *Public service performance: Perspectives on measurement and management* (295-311). Cambridge, England: Cambridge University Press.
- Boyne, G. A. and R. M. Walker. (2005). Introducing the “determinants of performance in public organizations” symposium. *Journal of Public Administration Research Theory*, 15(4), 483-488.
- Bozeman, B. & Rainey, H. G. (1998). Organizational rules and the bureaucratic personality. *American Journal of Political Science*, 42(1), 163-189.
- Brewer, G. A. (2005). In the eye of the storm: Frontline supervisors and federal agency performance. *Journal of Public Administration Research and Theory*, 15(4), 505-527.
- Brewer, G. A. (2006). All measures of performance are subjective: More evidence on U.S. federal agencies. In Boyne, G.A., Meier, K.J., O'Toole, L.J. & Walker, R.M (Eds.), *Public service performance: Perspectives on measurement and management* (35-54). Cambridge, England: Cambridge University Press.
- Brewer, G. & Selden, S.C.. (2000). Why elephants gallop: Assessing and predicting organizational performance in federal agencies. *Journal of Public Administration Research and Theory*, 10(4), 685-712.
- Broome, C. & McGuire, L.A.. (1995). Performance based government models: Building a track record. *Public Budgeting and Finance*, 15(4), 3-17.
- Brownell, P. (1980). *Participation in the budgeting process: When it works and when it doesn't*. Cambridge, MA, Alfred P. Sloan School of Management, Massachusetts Institute of Technology.
- Brownell, P. (1981). Participation in budgeting, locus of control and organizational effectiveness. *The Accounting Review*, 56(4), 844-860.
- Brownell, P. (1982a). A field study examination of budgetary participation and locus of control. *The Accounting Review*, (57(4), 766-777.
- Brownell, P. (1982b) The role of accounting data in performance evaluation, budgetary participation and organizational effectiveness. *Journal of Accounting Research*, 20(1), 12-27.
- Brownell, P. (1982c). Participation in the budgeting process: When it works and when it doesn't. *Journal of Accounting Literature*, 1, 124-150.

- Brownell, P. (1983). The motivational impact of management-by-exception in a budgetary context. *Journal of Accounting Research*, 21(2), 456-472.
- Brownell, P. (1985). Budgetary systems and the control of functionally differentiated organizational activities. *Journal of Accounting Research*, 23(2), 502-512.
- Brownell, P. & Dunk, A.S. (1991). Task uncertainty and its interaction with budgetary participation and budget emphasis: Some methodological issues and empirical investigation. *Accounting, Organizations, and Society*, 16(8), 693-703.
- Brownell, P. & Hirst, M. (1986). Reliance on accounting information, budgetary participation, and task uncertainty: Tests of a three way interaction. *Journal of Accounting Research*, 24(2), 241-249.
- Brownell, P., & McInnes, J. M. (1986). Budgetary participation and managerial performance. *The Accounting Review*, 61(4), 587-600.
- Bruere, H. (1908). The bureau of municipal research. *Proceedings of the American Political Science Association*, 5, 111-121.
- Bruns, W. J. & Waterhouse, J. H. (1975). Budgetary control and organization structure. *Journal of Accounting research*, 13(2), 177-203.
- Burkhead, J. (1956). *Government budgeting*. New York, NY: John Wiley.
- Burt, R. S. (1982). *Toward a structural theory of action: Network models of social structure*. New York, NY: Academic Press.
- Burt, R. S. (1983). *Corporate profits and cooptation: Networks of market constraints and directorate ties in the American economy*. New York, NY: Academic Press.
- Burt, R. S. (1992). *Structural holes: The social structure of competition*. Cambridge, MA: Harvard University Press.
- Burt, R. S. (2000). The network structure of social capital. In Sutton, R. I. & Staw, B. M. (Eds.), *Research in Organizational Behavior*. Greenwich CT: JAI Press.
- Burt, R. S. (2001). Bandwidth and echo: Trust, information, and gossip in social networks. In Rauch, J. E. & Cassella, A. (Eds.), *Networks and markets*. New York, NY: Russell Sage.
- Burt, R. S. (2002). The social capital of structural holes. In Guillén, M. F., Collins, R., England, P., & Meyer, M. (Eds.), *The new economic sociology: Developments in an emerging field* (148-192). New York, NY: Russell Sage Foundation.
- Burt, R. S. (2007). Structural holes. In Grusky, D. B. & Széleányi, S. (Eds.), *The inequality reader: Contemporary and foundational readings in race, class, and gender* (498-501). Boulder, CO: Westview Press.



- Cain, C., Choudhury, E. & Clingermayer, J. C. (2004). Turnover, trust, and transfers: An examination of local government budget execution. *International Journal of Public Administration* 27(8-9), 557-576.
- Cameron, K. S. & Whetten, D. A. (1983). *Organizational effectiveness: A comparison of multiple models*. New York, NY: Academic Press.
- Campbell, J. L. (1993). The state and fiscal sociology. *Annual Review of Sociology*, 19, 163-185.
- Campbell, J. P. (1990). The role of theory in industrial and organizational psychology. In Dunette, M.D., & Hough, L.M. (Eds.), *Handbook of organizational psychology*, 2<sup>nd</sup> ed. Palo Alto, CA: Consulting Psychologists Press.
- Campbell, J. P., McCloy, R. A., Oppler, S. H., & Sager, C. E. (1993). A theory of performance. In Schmitt, N. & Borman, W. C. (Eds.), *Personnel selection in organizations* (35-70). San Francisco, CA: Jossey-Bass.
- Camick, C. (1989). Structure after 50 years: The anatomy of a charter. *American Journal of Sociology*, 95(1), 38-107.
- Chackerian, R. & Mavima., P. (2001). Comprehensive administration reform implementation: Moving beyond single issue implementation research. *Journal of Public Administration Research and Theory*, 11(3), 353-77.
- Chadwick, A. (2001). The electronic face of government in the internet age. *Information, Communication & Society*, 4(3), 435-457.
- Chenhall, R. H. & Brownell, P. (1988). The effect of participative budgeting on job satisfaction and performance: Role ambiguity, as an intervening variable. *Accounting, Organizations, and Society*, 13, 225-234.
- Cherrington, D. J., & Cherrington, J. O. (1973). Appropriate reinforcement contingencies in the budgeting process. *Journal of Accounting Research*, 11, 225-253.
- Cherry, C. (1957). *On human communication*. New York, NY: Wiley.
- Chong, V. K. & Chong K. M. (2002). Budget goal commitment and informational effects of budget participation and performance: A structural equation modeling approach. *Behavioral Research in Accounting*, 14, 65-86.
- Chow, C. W., Cooper, J. C., & Waller, W. S. (1988). Participative budgeting: effects of a truth-induced pay scheme and information asymmetry on slack and performance. *The Accounting Review*, 63(1), 111-122.
- Chun, Y. H. and H. G. Rainey. (2005). Goal ambiguity in U.S. federal agencies. *Journal of Public Administration Research and Theory*, 15(1), 1-30.

- Clegg, S., Kornberger, M., & Pitsis, T. (2008). *Managing and organizations: An introduction to theory and practice*, 2<sup>nd</sup> ed. London: England, Sage Publications Ltd.
- Cleveland, F. A. (1904). Municipal accounts. *Political Science Quarterly*, 19(3), 391-401.
- Cleveland, F. A. (1915). Evolution of the budget idea in the United States. *Annals of the American Academy of Political and Social Science*, Vol. 62.
- Cleveland, F. A. & Buck, A. E. (1920). *The Budget and Responsible Government*. The Macmillan Company.
- Coase, R. H. (1937). The nature of the firm. *Economica*, 4(16), 386-405.
- Cogburn, J. D. and Schneider, S. K. (2003). The quality of management and government performance: An empirical analysis of the American states. *Public Administration Review*, 63(2), 206-213.
- Coleman, J. S. (1960). The mathematical study of small groups. In Glenscoe, S. H. (Ed.), *Mathematical Thinking in the Measurement of Behavior*. New York, NY: Free Press.
- Coleman, J. S. (1984). Introducing social structure into economic analysis. *The American Economic Review*, 74(2), 84-88.
- Coleman, J. S. (1988). Social capital in the creation of human capital. *The American Journal of Sociology*, 94S, 95-120.
- Coleman, J. S. (1990). *The foundations of social theory*. Cambridge, MA: Harvard University Press.
- Collins, H. (1974). "The TEA set: tacit knowledge and scientific networks. *Science Studies*, 4, 165-186.
- Comte, Aguste ([1844] 1983). *Discours sur l'Esprit Positif*, Paris: Vrin.
- Congressional Budget Office (CBO). (1997). *Using performance measures in the federal budget process*, 45; *Office of Program Policy Analysis and Government Accountability, performance-based program budgeting in context: History and comparison report 96-77A*. Tallahassee, FL.
- Cope, G. H. (1987). Local government budgeting and productivity: Friends or foes? *Public Productivity Review*, 41, 45-57.
- Cote J. A. and Buckley, M. R. (1987). Estimating trait, method, and error variance: Generalizing across 70 construct validation studies. *Journal of Marketing Research*, 24, 315-318.

- Covaleski, M. A., Evans III, J. H., Luft, J. L. , & Shields, M. D. (2003). Budgeting research: Three theoretical perspectives and criteria for selective integration. *Journal of Management Accounting Research*, 15(1), 3-49.
- Crampton, S. M. and J. A. Wagner. (1994). Percept-percept inflation in microorganizational research: An investigation of prevalence and effect. *Journal of Applied Psychology*, 79(1), 67-76.
- Dacin, T. M., Ventresca, M. J., & Beal, B. D. (1999). The embeddedness of organizations: dialogue and directions. *The Journal of Management*, 25(3), 317-356.
- Dahl, R. A. & Lindblom, C. E. (1953). *Politics, economics, and welfare: Planning and politico-economic systems resolved into basic social processes*. New York, NY: Harper and Row Publishers.
- Dahlberg, J. S. (1966). *The New York bureau of municipal research, pioneer in government administration*. New York, NY: New York University Press.
- Dalziel, P., & Higgins, J. (2006). Pareto, Parsons and the boundary between economics and sociology. *American Journal of Economics and Sociology*, 65(1), 109-126.
- Davern, M. (1997). Social networks and economic sociology: A proposed research agenda for a more complete social science. *The American Journal of Economics and Sociology*, 56, 287-302.
- Davern, M. & Eitzen, D. S. (1995). Economic sociology: An examination of intellectual exchange. *The American Journal of Economics and Sociology*, 54, 79-88.
- Day, D. V. (2001). Assessment of leadership outcomes. In Zaccaro, S. J. & Klimoski, R. J. (Eds.), *The nature of organizational leadership: Understanding performance imperatives facing today's leaders* (384-412). San Francisco, CA: Jossey-Bass.
- Delaney, J. T. and M. A. Huselid. (1996). The impact of human resource management practices on perceptions of organizational performance. *Academy of Management Journal*, 39(4), 949-69.
- Deming, W. E. (1982). *Quality, productivity, and competitive position*. Cambridge, MA: Massachusetts Institute of Technology, Center for Advanced Engineering.
- Deming, W. E. (1986). *Out of the crisis*. Cambridge, MA: Massachusetts Institute of Technology, Center for Advanced Engineering Study.
- Denison, D. R. (1990). *Corporate culture and organizational effectiveness*. New York, NY: John Wiley.

- Dess, G. G. and R. B. Robinson Jr. (1984). Measuring organizational performance in the absence of objective measures: The case of the privately-held firm and conglomerate business unit. *Strategic Management Journal*, 5 (3), 265–73.
- Devlis, R.F. (1991). *Scale development theory and application*. Newburt Park, CA: Sage Publications.
- Diamond, J. (2003a). Performance budgeting: Managing the reform process. IMF Working Paper WP/03/33.
- Diamond, J. (2003b). From program budgeting to performance budgeting: The challenge for emerging market economies. IMF Working Paper WP/03/169.
- DiMaggio, P. J. (1990). Cultural aspects of economic organization and behavior. In Friedland, R. & Robertson, A. F. (Eds.), *Beyond the market place: Rethinking economy and society*. New York, NY: Aldine.
- DiMaggio, P. J. (1994). Culture and economy. In Smelser, N. J. & Swedberg, R. (Eds.), *The handbook of economic sociology* (27-57). Princeton, NJ: Princeton University Press.
- DiMaggio, P. & Powell, W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 149-160.
- Dobbin, F. (2004). Introduction: The sociology of the economy. In Dobbin, F. (Ed.), *The sociology of the economy*, (1-25). New York, NY: Russell Sage Foundation.
- Dobbin, F. (2005). Comparative and historical approaches to economic sociology. In Smelser, N. J. & Swedberg, R. (Eds.), *The handbook of economic sociology*, 2<sup>nd</sup> ed. (26-48). Princeton, NJ: Princeton University Press.
- Dollinger, M. J., and P. A. Golden. (1992). Interorganizational and collective strategies in small firms: Environmental effects and performance. *Journal of Management*, 18 (4), 695–715.
- DonVito, P. & Hatry, H. P. (1970). *Measuring the effectiveness of local government services*. Washington D.C.: Urban Institute.
- Doty, D. H. and Glick, W. H. (1988). Method variance in I/O research: Major effect of mythical beast? Paper presented at the Annual Meetings of the Society of Industrial and Organizational Psychology, Dallas TX.
- Doty, D. H. and Glick, W. H. (1998). Common methods bias: Does common methods variance really bias results? *Organizational Research Methods*, 1(4), 374-406.

- Dougherty, M. J., Klase, K. A., & Song, S. G. (2003). Managerial necessity and the art of creating surpluses: The budget-execution process in West Virginia cities. *Public Administration Review*, 63(4), 484-497.
- Downs, Anthony (1967). *Inside bureaucracy*. Boston, MA: Little, Brown.
- Drucker, Peter. (1945). *The Concept of the corporation*. New York, NY: The John Day Company.
- Drucker, Peter. (1954). *The practice of management*. New York, NY: Harper and Row.
- Drucker, Peter. (1973). *Management tasks, responsibilities, and practices*. New York, NY: Harper and Row.
- Dubnick, M. (2005). Accountability and the promise of performance: In search of the mechanisms. *Public Performance & Management Review*, 28(3), 376-417.
- Durkheim, E. ([1894] 1964). *The division of labor in society*. New York, NY: The Free Press.
- Durkheim, E. ([1909] 1978). Sociology and the social sciences. *In On Contributions to "L'Année Sociologique" (71-90)*. New York, NY: Free Press.
- Durkheim, E. ([1893] 1984). *The division of labor in society*. Translated by Halls, W.D. New York, NY: Free Press.
- Edelman, M. J. (1964). *The symbolic uses of politics*. Urbana, IL: The University of Illinois Press.
- Edelman, M. J. (1988). *Constructing the political spectacle*. Chicago, IL: University of Chicago Press.
- Edmiston, K. D. & Turnbull, G. (2003). Local government competition for economic development. Working Paper 03-07, August 2003, Urban and Regional Analysis Group.
- Edwards, J. R. and Lambert, L. (2007). Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. *Psychological Methods*, 12(1), 1-22.
- Eghtedari, A. & Sherwood, F. (1960). Performance budgeting in Los Angeles. *Public Administration Review*, 20(2), 63-69.
- Elmore, R. F. (1997). The paradox of innovation in education: Cycles of reform and the resilience of teaching, In Altshuler, A. A. & Behn R. D. (Eds.), *Innovation in American government: challenges, opportunities, and dilemmas*. Washington, D.C.: Brookings Institution.

- Ekstrom, C. (1989). Budgetary practices in smaller units of government. *Public Budgeting and Finance*, 9(2), 76-86.
- Enthoven, A. C. and Smith, K.W. (2005). *How much is enough? Shaping the defense program, 1961-1969*. Santa Monica, CA: Rand Corporation.
- Fama, E. (1980). Agency problems and the theory of the firm. *Journal of Political Economy*, 88(1), 288-307.
- Farkas, G. & England, P. (1988). *Industries, firms, and jobs: Sociological and economic approaches*. New York, NY: Plenum Press.
- Fenno, R. F. Jr. (1960). *The Power of the purse: Appropriations politics in Congress*. Boston, MA: Little Brown and Company.
- Festinger, L., Schachter, S. & Black, K. (1948). *Social pressures in informal groups*. Cambridge, MA: MIT Press.
- Finer, H. (1941). Administrative responsibility in democratic government. *Public Administration Review*, 1, 335-50.
- Fisher, G. W. (1969). *Taxes and politics, a study of Illinois Public Finance*. Urbana IL: University of Illinois Press.
- Fleischman, R. K. & Marquette, P. R. (1986). The origins of public budgeting: Municipal reformers during the progressive era. *Public Budgeting and Finance*, 6(1), 71-77.
- Fligstein, N. (1996). Markets as politics: A political-cultural approach to market institutions. *American Sociological Review*, 61(4), 656-73.
- Fligstein, N. (2002a). Agreements, disagreements, and opportunities. In Guillén, M. F., Collins, R., England, P., & Meyer, M. (Eds.), *The new economic sociology: Developments in an emerging field*. New York, NY: Russell Sage Foundation.
- Fligstein, N. (2002b). *The architecture of markets: An economic sociology of 21st century capitalist societies*. Princeton, NJ: Princeton University Press.
- Follett, M. P. (1940). The giving of orders. In Metcalf, H. C. & Urwick, L. (Eds.), *Dynamic administration: The collected papers of Mary Parker Follett (50-70)*. New York, NY: Harper & Brothers Publishers.
- Forbes, M., Hill, C. J., & Lynn Jr., L. E. (2006). Public management and government performance: An international review. In Boyne, G. A., Meier, K. J., O'Toole, L., & Walker, R. M. (Eds.), *Public service performance: Perspectives on measurement and management (254-274)*. Cambridge, England: Cambridge University Press.

- Forbes, M. and Lynn Jr., L. E. (2005). How does public management affect government performance? Findings from international research. *Journal of Public Administration Research and Theory*, 15(4), 559-584.
- Forrester, J. P. & Adams, G. B. (1997). Budgetary reform through organizational learning: Toward an organizational theory of budgeting. *Administration and Society*, 28(4), 466-488.
- Forrester, J. P. & Mullins, D. R. (1992). Rebudgeting and the serial nature of the municipal budgetary process. *Public Administration Review*, 52(5), 467-473.
- Fox, W. F. & Murray, M. N. (2004). Do economic effects justify the use of fiscal benefits? *Southern Economic Journal* 71(1), 78-92.
- Fraizier, P. A., Barron, K. E., & Tix, A. P. (2004). Testing moderator and mediator effects in counseling psychology research, *Journal of Counseling Psychology*, 51(1), 115-134.
- Franklin, A. & Edbon, C. (2005). Are we all touching the same camel? Exploring a model of participation in budgeting. *American Review of Public Administration*, 35(2), 168-185.
- Fredrickson, D. G. & Frederickson, H.G. (2006). *Measuring the performance of the hollow state*. Washington, D.C.: Georgetown University Press.
- Frederickson, H. G. & Smith, K. B. (2003). *The public administration theory primer*. Boulder, CO: Westview Press.
- Freese, J. & Long, J.S. (2006). *Regression models for categorical dependent variables using stata*. College Station, TX: Stata Press.
- French, J. R. P., Jr., Israel, J., & As, D. (1960), An experiment on participation in a Norwegian factory: Interpersonal dimensions of decision-making, *Human Relations*, 13(1), 3-19.
- French, J. R. P., Jr., Kay, E. & Meyer, H. H. (1966). Participation and the appraisal system. *Human Relations*, 19(1), 3-20.
- Friedkin, N. (1980). A test of Granovetter's 'strength of weak ties' theory. *Social Networks*, 2, 411-422.
- Friedman, L. (1979). Performance budgeting in American cities. *Public Productivity Review*, 3(4), 50-62.
- Friedrich, C. J. (1941). Public policy and the nature of administrative responsibility. *Public Policy*, 1, 3-24.
- Frone, M.R. (1999). Work stress and alcohol. *Alcohol Research and Health*, 23, 284-291.

- Froot, K. A. (1989). Consistent covariance matrix estimation with cross-sectional dependence and heteroskedasticity in financial data. *Journal of Financial and Quantitative Analysis* 24: 333–355.
- Galbraith, J. K. (1973). Power and the useful economist. *American Economic Review*, 63(1), 1-12.
- Garnett, J. L. (1992). *Communicating for results in government: A strategic approach for public managers*. San Francisco, CA: Jossey-Bass.
- Garnett, J. L. (1997). Trends and gaps in the treatment of communication in organization and management theory. In Garnett, J. L., & Kouzman, A. (Eds.), *Handbook of administrative communication* (21-60). New York, NY: Marcel-Dekker, Inc.
- Garnett, J. L., Marlowe, J. & Pandey, S.K. (2008). Penetrating the performance predicament: communication as a mediator or moderator of organizational culture's impact on public organizational performance. *Public Administration Review*, 68(2), 266-281.
- Gentilcore, H. J. (1958). Unpublished memorandum to John J. Coorigan. December 19, 1958 (provided in Schick, 1971).
- Gianakis, G. A. & Wang, X. H. (2000). Decentralization of the purchasing function in municipal government: A national survey. *Journal of Public Budgeting, Accounting, and Financial Management*, 12(3), 421-440.
- Gilmour, J. B. & Lewis, D. E. (2006a). Does performance budgeting work? An examination of the Office of Management and Budget's PART Scores. *Public Administration Review*, 66(5), 742-752.
- Gilmour, J. B. & Lewis, D. E. (2006b). Assessing performance budgeting at OMB: The influence of politics, performance, and program size. *Journal of Public Administration Research and Theory*, 16(2), 169-186.
- Gist, J. R. (1982). Stability and 'competition' in budgetary theory. *American Political Science Review*, 76(4), 859-872.
- Glaeser, E., Kolko, J., & Saiz, A. (2001). Consumer City. *Journal of Economic Geography*, 1, 27-50.
- Glassman, R. B. (1973). Persistence and loose coupling in living systems. *Behavioral Science*, 18(2), 83-98.
- Gluckman, M. (1965). *Politics, law, and ritual in tribal society*. Chicago, IL: Aldine.



- Golembiewski, R. T. & Scott, P. (1997). A micropolitical perspective on rational budgeting: A conjectural footnote on the dissemination of PPBS. In Golembiewski, R. T. & Rabin, J. (Eds.), *Public budgeting and finance (public administration and public policy)*. New York, NY: Marcel Dekker, Inc.
- Goerdel, H. T. (2006). Taking initiative: proactive management and organizational performance in networked environments. *Journal of Public Administration Research and Theory*, 16(3), 351-368.
- Goodnow, F. J. (1912). The limit of budgetary Control. *Proceedings of the American Political Science Association*. Ninth Annual Meeting.
- Goodsell, C. T. (2003). *The case for bureaucracy: A public administration polemic*, 4<sup>th</sup> ed. Washington, DC: CQ Press.
- Gore, A. (1993). *Creating a government that works better and costs less. Report of the national performance review*. Washington, D.C.: U.S. Government Printing Office.
- Government Accounting Standards Board, of the Financial Accounting Foundation (GASB). (2001). *Performance measurement at the state and local levels: A summary of survey results*. Available from <http://www.seagov.org/surveyII.pdf>, accessed November 8, 2008.
- Government Printing Office (GPO). (1937). *U.S. president's committee on administrative management, report with special studies*. Washington, D.C.
- Govindarajin, V. (1986). Impact of participation in the budgetary process on managerial attitudes and performance: universalistic and contingency perspectives. *Decision Sciences*, 17, 496-516.
- Graber, D. (2002). *The power of communication: Managing information in public organizations*. Washington, D.C.: CQ Press.
- Granovetter, M. (1973). The strength of weak ties. *The American Journal of Economic Sociology*, 78(6), 1360-1380.
- Granovetter, M. (1974). *Getting a job: A study of contacts and careers*. Cambridge, MA: Harvard University Press.
- Granovetter, M. (1985a). Economic action and social structure, the problem of embeddedness. *American Journal of Sociology*, 91(3), 481-510.
- Granovetter, M. (1985b). Economic embeddedness. In Calhoun, C., Gerteis, J., Moody, J., Phaff, S. & Verk, I. (Eds.), *Contemporary sociological theory*, 2<sup>nd</sup> ed. Malden, MA: Blackwell Publishing LTD.

- Granovetter, M. (1990). The old and new economic sociology: A history and an agenda. In Freidland, R. & Robertson, A. F. (Eds.), *Beyond the marketplace: Rethinking economy and society*. New York, NY: Aldine de Gruyter.
- Granovetter, M. (1992). Economic institutions as social constructions: A framework for analysis. *Acta Sociologica*, 35(1), 3-11.
- Granovetter, M. (2001). Coase revisited: Business groups in the modern economy. In Granovetter, M. & Swedberg, R. (Eds.), *The sociology of economic life*, 2<sup>nd</sup> ed. (327-356). Boulder, CO: Westview Press. Originally published in 1995, *Industrial and corporate change*, 4(1): 93-130.
- Granovetter, M. (2002). A theoretical agenda for economic sociology. In Guillén, M. F., Collins, R., England, P., & Meyer, M., (Eds.), *The new economic sociology: Developments in an emerging field* (35-59). New York, NY: Russell Sage Foundation.
- Granovetter, M. (2005a). The impact of social structure on economic outcomes. *The Journal of Economic Perspectives*, 19(1), 33-50.
- Granovetter, M. (2005b). Business groups and social organization. In Smelser, N. J. & Swedberg, R. (Eds.), *The handbook of economic sociology*, 2<sup>nd</sup> ed. Princeton, NJ: Princeton University Press; New York, NY: Russell Sage Foundation.
- Granovetter, M. & McGuire, P. (1998). The making of an industry: Electricity in the United States. In Callon, M. (Ed.), *The laws of the markets*. London: Blackwell.
- Graves, M. (1932). State expenditure control. *Proceedings of the Annual Conference Under the Auspices of the National Tax Association*, 148-149.
- Grizzle, G. A. (1982). Measuring state and local government performance: Issues to resolve before implementing a performance measurement system. *State and Local Government Review*, 14, 132-136.
- Grizzle, G. A. (1985). Performance measures for budget justification: Developing a selection strategy. *Public Productivity Review*, 8(4), 328-343.
- Grizzle, G. A. (1986). Does budget format really govern the actions of budget makers? *Public Budgeting and Finance*, 6(1), 60-70.
- Grizzle, G. A. (1987). Linking performance to funding decisions: What is the budgeter's role? *Public Productivity Review*, 41, 33-44.
- Grizzle, G. A. (2002). Performance measurement and dysfunction: The dark side of quantifying work. *Public Performance and Management Review*, 25(4), 363-369.

- Grizzle, G. A. & Pettijohn, C. D. (2002). Implementing performance-based program budgeting: A system-dynamics perspective. *Public Administration Review*, 62 (1), 51-62.
- Guetzkow, H. (1965). Communications in organizations. In March, J. (Ed.), *Handbook of organizations*. Chicago, IL: Rand McNally and Company.
- Gui, B. & Sugden, R. (2005). Why interpersonal relations matter for economics. In Gui, B. & Sugden, R. (Eds.), *Economics and social interaction: Accounting for interpersonal relations* (1-22). Cambridge: Cambridge University Press.
- Guillén, M. F., Collins, R., England, P., & Meyer, M. (2002). The revival of economic sociology. In Guillén, M. F., Collins, R., England, P., & Meyer, M., (Eds.), *The new economic sociology: Developments in an emerging field* (1-32). New York, NY: Russell Sage Foundation.
- Gulick, L. (1937). Notes on the theory of organization. In Gulick, L. & Urwick, L. (Eds.), *Papers on the science of administration*. New York, NY: Augustus M. Kelley Publishers.
- Hanson, E. I. (1966). Budgetary Control Function. *The Accounting Review*, 41(2), 239-43.
- Harlow, R. L. (1973). On the decline and fall of PPBS. *Public Finance Review*, 1(1), 85-105.
- Harrell, F.E. Jr. (2006). *Regression modeling strategies with applications to linear models, logistic regression, and survival analysis* 2d ed., New York, New York: Springer-Verlag New York, Inc.
- Hatry, H. P. (1978). The status of productivity measurement in the public sector. *Public Administration Review*, 38(1), 28-33.
- Hatry, H. P. (1999). *Performance measurement: Getting results with a chapter by Joseph S. Wholey*. Washington, D.C.: The Urban Institute Press.
- Hatry, H. P., Blair, L. H., Fisk, D. M., Greiner, J. M., Hall, J. R., & Schaenman, P. S. (1977). Washington D.C.: The Urban Institute.
- Hatry, H. P. & Cotton, J. F. (1967). *Program planning for state, county, city*. Washington, D.C.: State and Local Finance Project of The George Washington University.
- Hatry H. P. & Dunn, D. R. (1971). *Measuring the effectiveness of local government services: Recreation*. Washington D.C.: Urban Institute.
- Hatry, H. P. & Fisk, D. M. (1972). *Improving productivity and productivity measurement in local governments*. Washington D.C.: U.S. Government Printing Office.
- Hecl, H. (1977). *A government of strangers, executive politics in Washington*. Washington, D.C.: Brookings Institution, 1977.

- Heclo, H. (1994). Naturalistic inquiry in Washington and Whitehall. *Public Budgeting and Finance*, 14(1), 58-65.
- Heinrich, C. J. (2002). Outcomes-based performance management in the public sector: Implications for government accountability. *Public Administration Review*, 62(6), 712-725.
- Henemen, H. G. (1974). Comparisons of self and superior ratings of managerial performance. *Journal of Applied Psychology*, 59(5), 638-642.
- Hicklin, A., O'Toole Jr., L. J., & Meier, K. J. (2008). Serpents in the sand: managerial networking and nonlinear influences on organizational performance. *Journal of Public Administration Research and Theory*, 18(2), 253-273.
- Hill, C. J. and Lynn Jr., L. E. (2005). Is hierarchical governance in decline? Evidence from empirical research. *Journal of Public Administration Research and Theory*, 15(2), 173-195.
- Hilton, R.M. & Joyce, P.G. (2003). Performance information and budgeting in historical and comparative perspective. In Peters, B.G., & Pierre, J. (Eds.), *Handbook of public administration*, (402-412). Thousand Oaks, CA: Sage Publications, Inc.
- Hirsch, P., Michaels, S., & Friedman, R. (1987). 'Dirty hands' versus 'clean models': Is sociology in danger of being seduced by economics? *Theory and Society*, 16 (3), 317-36.
- Hirsch, P., Michaels, S., & Friedman, R. (1990). Clean models vs. dirty hands: Why economics is different from sociology. In Zukin, S. & DiMaggio, P. (Eds.), *Structures of capital: The social organization of the economy*, (39-56). New York: Cambridge University Press.
- Hirshleifer, J. (1985). The expanding domain of economics. *American Economic Review*, 75(6), 53-68.
- Hirschman, A. (1977). *The passions and the interests*. Princeton, NJ: Princeton University Press.
- Hitch, C. J. & McKean, R. *The economics of defense in the nuclear age*. Harvard University Press: Cambridge, MA 1960.
- Hitch, C. J. (1965). *Decision-making for defense*. Berkeley and Los Angeles: University of California Press.
- Hilton, R. M. & Joyce, P. G. (2003). Performance information and budgeting in historical perspective. In Peters, B. G., & Pierre, J. (Eds.), *Handbook of public administration*. Thousand Oaks, CA: Sage Publications.

- Ho, A. T. (2003). Perceptions of performance measurement and the practice of performance reporting by small cities. *State and Local Government Review*, 35(2), 163-171.
- Ho, A. T. (2006a). Accounting for the value of performance measurement from the perspective of midwestern mayors. *Journal of Public Administration Research and Theory*, 16(2), 217-238.
- Ho, A. T. (2006b). Citizen participation in performance measurement. In Box, R. C. (Ed.), *Democracy and public administration*, Armonk, NE: M.E. Sharpe.
- Ho, A. T. & Coates, C. (2002). Citizen participation: Legitimizing performance measurement as a decision tool. *Government Finance Review*, 18(2), 8-10.
- Ho, A. T. & Coates, C. (2004). Citizen-initiated performance assessment: The initial Iowa experience. *Public Performance & Management Review*, 27(3), 29-50.
- Ho, A. T. & Ni, A.Y., (2005). Have cities shifted to outcome-oriented performance reporting? A content analysis of city budgets. *Public Budgeting and Finance*, 25(2), 61-83.
- Hobbes, T. ([1651] 2005). *Leviathan. Parts 1 and 2*. Martinich, A.P. (Ed.). Orchard Park, NY: Broadview Press.
- Hofstede, G. H. (1967). *The game of budget control: How to live with budgetary standards and yet be motivated by them*. London: Assen, Van Gorcum & Comp.
- Holzer, M. (1977). The demand for productivity in the municipal civil service. *Public Administration Review*, 37(5), 505-508.
- Holzer, M. & Yang, K. (2004). Performance measurement and improvement: An assessment of the state of the art. *International Review of Administrative Sciences*, 70(1), 2004, 15-31.
- Hood, C. (2006). Gaming in target world: The targets approach to managing British public services. *Public Administration Review*, 66(4), 515-521.
- Hopwood, A. G. (1972). An empirical study of the role of accounting data in performance evaluation: Selected studies 1972. *Journal of Accounting Research*, (1972), 156-182.
- Hopwood, A. G. (1976). *Accounting and Human Behavior*. Englewood Cliffs, NJ: Prentice Hall.
- Howard, S. K. (1973). *Changing state budgeting*. Lexington, KY: Council of State Governments.
- Huang, K. & Provan, K. G. (2007). Structural embeddedness and organizational social outcomes in a centrally governed mental health services network. *Public Management Review*, 9(2), 169-189.

- Huber, P. J. (1967). The behavior of maximum likelihood estimates under nonstandard conditions. In *Proceedings of the fifth Berkeley symposium on mathematical statistics and probability*. Berkeley, CA: University of California Press, vol. 1, 221–223.
- Huber, G. & Daft, R. (1987). The information environment in organizations. In Jablin, F. M., Putnam, L. L., Roberts, K. & Porter, L. (Eds.), *Handbook of organizational communication: An organizational perspective* (130-164). Newbury Park, CA: Sage Publications.
- Hyde, A. C. (1992). Budgeting systems and management: An instrument for securing administrative efficiency and economy. In Hyde, A.C. (Ed.), *Government budgeting: theory, process, politics* (323-330). Belmont, CA: Moore Publishing Co.
- Ingham, G. (1996). Some recent changes in the relationship between economics and sociology. *Cambridge Journal of Economics*, 20(2), 243-275.
- Ingraham, P. W., Joyce, P. G., & Donahue, A. K. (2003). *Government performance: Why management matters*. Baltimore, MD: John Hopkins University Press.
- Ingraham, P. W. & Kneeder, A. E. (2000). Dissectioning the black box: Toward a model and measures of government management performance. In Brudney, J. L., O'Toole, L. J. & Rainey, H. G. (Eds.), *Advancing public management* (235-252). Washington, DC: Georgetown University Press, 2000.
- ICMA, International City/County Management Association. (2009). Who We Are. <http://www2.icma.org/main/bc.asp?bcid=656&hsid=1&ssid1=17&ssid2=22>, accessed June 21, 2009.
- James, L. R. & Britt, J. M. (1984). Mediators, moderators, and tests for mediation, *Journal of Applied Psychology*, 69(2), 307-321.
- Jennings, E. T., & Ewalt, J. G. (1998). Interorganizational coordination, administrative consolidation, and policy performance. *Public Administration Review*, 58 (5), 417–28.
- Jevons, W. S. ([1876] 1905). *The principles of economics*. London: MacMillan.
- Jevons, W. S. ([1879], 1965). *The theory of political economy*, 5<sup>th</sup> ed. New York: Augustus M. Kelley.
- Johansen, C. K., Jones, L. R. & Thompson, F. (1997). Management and control of budget execution. In Golembiewski, R. T., & Rabin, J. Eds., *Public budgeting and finance*, 4<sup>th</sup> ed. New York, NY: Marcel Decker, Inc.
- Jones, B. D., Greenburg, S., Kaufman, C. & Joseph, D. (1977). Bureaucratic response to citizen–initiated contact: Environmental enforcement in Detroit. *American Political Science Review*, 71(1), 146-175.

- Jones, B. D., True, J. L., & Baumgartner, F. R. (1997). Does incrementalism stem from political consensus or from institutional gridlock? *American Journal of Political Science*, 41(4), 1319-1339.
- Jones, L. R. (1992). Public budget execution and management control. In Rabin, R. (ed.), *The handbook of public budgeting*. New York, NY: Marcel Decker, Inc.
- Jordan, M. M. & Hackbart, M. M. (1999). Performance budgeting and performance funding in the states. *Public Budgeting and Finance*, (19(1), 68-88.
- Joyce, P. (1993). Using performance measures for federal budgeting: Proposals and prospects. *Public Budgeting and Finance*, 13(4), 1-13.
- Joyce, P. (1996). Appraising budget appraisal: Can you take politics out of budgeting? *Public Budgeting & Finance*, 16(4), 21-25.
- Joyce, P. (1997). Using performance measurement for budgeting: A new beat or is it the same old tune? In Newcomer, K. E. (Ed.), *Using performance measures for public and nonprofit programs* (75: 45-61). San Francisco, CA: Jossey Bass Publishers.
- Joyce, P. (2003). *Linking performance and budgeting: Opportunities in the federal budget process, managing for performance and results series*. Washington, DC: IBM Center for the Business of Government.
- Joyce, P. G. & Sieg, S. (2000). Using performance information for budgeting: Clarifying the framework and investigating recent state experience. Paper prepared for the 2000 Symposium of the Center for Accountability and Performance of the American Society for Public Administration, Washington, D.C.
- Judd, C. M. and D. A. Kenny. (1981). Process analysis: Estimating mediation in treatment evaluations, *Education Review*, 5, 602-619.
- Kahn, J. (1997). *Budgeting democracy: State building and citizenship in America, 1890-1928*. Ithaca, NY: Cornell University Press.
- Kanodia, C. (1993). Participative budgets as coordination and motivational devices. *Journal of Accounting Research*, 31, 172-189.
- Karafilidis, A. (2008). Networks and boundaries. Paper presented at the International Symposium, Relational Sociology: Transatlantic Impulses for the Social Sciences, Berlin, September 25-26, 2008.
- Katz, D. and Kahn, R. L. 1966. *The social psychology of organizations*. New York, NY: Wiley.
- Katz, M. H. (2006). *Multivariable analysis: A practical guide for clinicians*, 2<sup>nd</sup> ed. Cambridge: Cambridge University Press.

- Kelly, J. M. (2002). Why we should take performance measurement on faith (facts being hard to come by and not terribly important). *Public Performance & Management Review*, 25(4), 375-380.
- Kelly, J. M. (2003). The long view: Lasting (and fleeting) reforms in public budgeting in the twentieth century. *Journal of Public Budgeting, Accounting & Financial Management*, 15(2), 309-326.
- Kelly, J. M. (2005). A century of public budgeting reform, the “Key” question. *Administration and Society*, 37(1), 89-109.
- Kelly, J.M. & Rivenbark, W. (2003). *Performance budgeting for state and local government*. Armonk, N.Y.: M.E. Sharpe.
- Kelman, S., Thompson, F., & Schedler, K. (2003). A dialogue on the definition and evolution of the field of public management. *International Public Management Review*, 4(2), 1-19.
- Kenis, I. (1979), Effects of budgetary goal characteristics on managerial attitudes and performance. *The Accounting Review*, 54(4), 707-721.
- Kenny, D.A. (2009). Moderator variables: an introduction, <http://davidakenny.net/cm/moderation.htm>, accessed June 27, 2009.
- Kenny, D. A., Kashy, D., & Bolger, N. (1998). Data analysis in social psychology. In Gilbert, D., Fiske, S., & Lindzey, G. (Eds.), *Handbook of Social Psychology*, 4<sup>th</sup> ed. New York, NY: McGraw-Hill.
- Kettl, D. F. (1994). Measuring performance when there is no bottom line. Paper prepared for the Conference of the New Zealand Politics Research Group, Victoria University of Wellington, July 8, 1994.
- Kettl, D. F. (1999). The global revolution: Reforming government-sector management. In Pereira, L.C.B. & Spinks, P. (Eds.), *Reforming the state: managerial public administration in Latin America* (41-74). Boulder, CO: Lynne Rienner Publishers.
- Kettl, D. F. (2000). *The global public management revolution: A report on the transformation of governance*. Washington, D.C. : Brookings Institution Press.
- Kettl, D. F. (2002). *The transformation of governance: Public administration for twenty-first century America*. Baltimore, MD: Johns Hopkins University Press.
- Kettl, D. F. (2005). *The global public management revolution*, 2<sup>nd</sup> ed. Washington, D.C.: Brookings.
- Key, V.O. (1940). The lack of a budgetary theory. *American Political Science Review*, 34(6), 1137-1144.



- Kiel, L.D. & Elliott, E. (1992). Budgets as dynamic systems: Change, variation, time and budgetary heuristics. *Journal of Public Administration Research and Theory*, 2(2), 139-156.
- Kilby, P. (2002). *Social capital and civil society*. Brisbane, Queensland: Foundation for Development Corporation.
- King, L. M. (1995). Operating and capital budget reform in Minnesota: Managing public finances like the future matters. *Government Finance Review*, 11(1), 7-10.
- Kim, S. (2005). Individual-level factors and organizational performance in government organizations. *Journal of Public Administration Research and Theory*, 15(2), 245-261.
- Klay, W. E. (1987). Management through budgetary incentives. *Public Productivity and Management Review*, 41(Spring), 59-71.
- Kraemer, H. C., Wilson, G. T., Faiburn, C. G., & Agras, W. S. (2002). Mediators and moderators of treatment effects in randomized clinical trials. *Archives of General Psychiatry*, 59, 877-883.
- Kraus H. P. (1980). *The settlement house movement in New York City, 1886-1914*. New York, NY: Arno Press.
- Kren, L. (1992). Budgetary participation and managerial performance: The impact of information and environmental volatility. *The Accounting Review*, 67, 511-526.
- Krippner, G. R. (2001). The elusive market: Embeddedness and the paradigm of economic sociology. *Theory and Society*, 30(6), 775-810.
- Lahee, A. W. (1917). The New York City Budget. *Municipal Research*, Vol. 88.
- Larkey, P. D. & Devereux, E.c.A. (1999). Good budgetary decision processes. In Frederickson, H.G., & Johnston, J.M. (Eds.), *Public management reform and innovation: Research, theory, and applications*. Tuscaloosa, AL: University of Alabama Press.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1997). *The American Economic Review*, 87(2), 333-338.
- Latham, G. P., & Saari, L. M. (1979). The effect of holding goal difficulty constant on assigned and participatory set goals. *Academy of management Journal*, 22, 163-168.
- Lauth, T. P. (1985). Performance evaluation in the Georgia budgetary process. *Public Budgeting and Finance*, 5(1), 67-82.
- Lauth, T. P. (1987). Budget productivity in state government: Not integrated yet, but friendly. *Public Productivity and Management Review*, 41(Spring), 21-32.

- Lauth, T. P. (2002). The midyear appropriation in Georgia: A threat to comprehensiveness. *State and Local Government Review*, 34(3), 198-204.
- Lazear, E. P. (2000). Economic imperialism. *Quarterly Journal of Economics*. 115(1), 99-146.
- Lazerson, M. (1995). A new phoenix: Modern putting-out in the modern knitwear industry. *Administrative Science Quarterly*, 40(1), 34-59.
- Lee, R. D. (1997). A quarter century of state budgeting practices. *Public Administration Review*, 57(2), 133-140.
- Lee, R. D., & Staffeldt, R. J. (1977). Executive and legislative use of policy analysis in the state budget process: Survey results. *Policy Analysis*, 3, 305-405.
- LeLoup, L. T. (1978). The myth of incrementalism: Analytical choices in budgetary theory. *Polity*, 10(4), 488-509.
- LeLoup, L. T. (2002). *Budget theory for a new century*. In Khan, A. & Hildreth, W. B., (Eds.), *Budget theory in the public sector*. Westport, CT: Quorum books.
- Leung, C. K. (1993). Personal contacts, subcontracting linkages, and development in the Hong Kong- Zhujiang delta region. *Annals of the Association of American Geographers*, 83(2), 272- 302.
- Lewis, V. B. (1952). Toward a theory of budgeting. *Public Administration Review*, 12(1), 42-54
- Libenstein, H. (1976). *Beyond economic man*. Cambridge, MA: Harvard University Press.
- Light, P. C. (1997). *The tides of reform: making government work, 1945-1995*. New Haven CT: Yale University Press.
- Lin, N. (2000). *Social capital: A theory of social structure and action*. New York, NY: Cambridge University Press.
- Lincoln, R. R. and Zeitz, G. (1980). Organizational properties from aggregate data: Separating Individual and structural effects, *American Sociological Review*, 45(3), 391-408.
- Lindblom, C.E. (1959). The science of 'muddling through.' *Public Administration Review* 19, 79-88.
- Lindblom, C.E. (1979). Still muddling, not yet through. *Public Administration Review*, 39(6), 517-26.
- Lipset, S. M. (1963). *Political man*. Garden City, NJ: Doubleday/Anchor.

- Locke, E. A. (1968). Toward a theory of task motivation and incentives. *Organizational Behavior and Human Performance*, 157-189.
- Locke, E. A. & Latham, G. P. (1990). *A theory of goal setting and task performance*. Englewood Cliffs, NJ: Prentice Hall.
- Locke, E. A., Shaw, K. N., Saart, L. M., & Latham, G. P. (1981). Goal setting and task performance: 1969-1980. *Psychological Bulletin*, 90(1), 125-152.
- Long, J. S. (1997). *Regression models for categorical and limited dependent variables*. Thousand Oaks, CA: Sage.
- Lu, Y. (2007). Performance budgeting: The perspective of state agencies. *Public Budgeting and Finance*, 27(4), 1-17.
- Lynn, L. E. (1996). *Public management as art, science, and profession*. Chatham, N.J.: Chatham House.
- Lynn, L. E. (2001). The myth of the bureaucratic paradigm: What traditional Public administration really stood for. *Public Administration Review* 61(2), 144-160.
- Lynn, L. E. (2006). *Public management: Old and new*. New York, NY: Routledge.
- Lynn, L. E., Heinrich, C. J., & Hill, C. J. (1999). *Improving governance: A new logic for empirical research*. Washington, D.C. Georgetown University Press.
- Mahoney, T. A., Jerdee, T. H., & Carroll, S. J. (1963). *Development of managerial performance: A research approach*. Cincinnati, OH: South-Western Publishing Co.
- Mahoney, T. A., Jerdee, T. H., & Carroll, S. J. The jobs of management. *Industrial Relations*, 4(2), 97-110.
- MacKinnon, D. P. (2008). *Introduction to statistical mediation analysis*. New York, NY: Psychology Press.
- MacKinnon, D. P., Weber, M. D., & Pentz, M. A. (1989). How do school-based drug prevention programs work and for whom? *Drugs and Society*, 3, 125-143.
- March, J. G. & Olsen, J. P. (1975). *Choice situations in loosely coupled worlds*. Unpublished Manuscript, Stanford University.
- March, J. G. & Olsen, J. P. (1984). The new institutionalism: Organizational factors in political life. *American Political Science Review*, 78(3), 734-749.
- March, J. G. & Olsen, J. P. (1989). *Rediscovering institutions: The organizational basis for politics*. New York, NY: The Free Press.

- March, J. G. and Simon, H. A. 1958. *Organizations*. New York, NY: John Wiley.
- Marginson, D., & Ogden, S. (2005a). Coping with ambiguity through the budget: The positive effects of budgetary targets on managers' budgeting behaviours. *Accounting, Organizations and Society*, 30(5), 435-456.
- Marginson, D., & Ogden, S. (2005b). Encouraging strategic behaviour while maintaining management control: Multi-functional project teams, budgets, and the negotiation of shared accountabilities in contemporary enterprises. *Management Accounting Research*, 16(3), 269-292.
- Marshall, A. (1919). *Industry and trade*. London: Macmillan.
- Marshall, A. ([1920a] 1961). *Principles of economics*. Edited with annotations by C.W. Guillebaud (two volumes). London: Macmillan and Co.
- Marshall, A. (1920b). *Industry and trade. A study of industrial technique and business organization; and their influences on the conditions of various classes and nations*. London: Macmillan and Co.
- Marshall, A. & Marshall, M. P. ([1879] 1994). *The economics of industry*. Bristol: Thoemmes Press.
- Martin, S. (2001). Using program attributes to measure and evaluate state economic development strategies. *Economic Development Quarterly* 15(1), 45-57.
- Martin, L. L. (2002). Budgeting for outcomes. In Khan, A. & Hildreth, W. B. (Eds.), *Budget theory in the public sector* (246-260). Westport, CT: Quorum Books.
- Marx, K. ([1867] 1906). *Capital: A critique of political economy*. New York, NY: Modern Library.
- Marx, K. ([1867, 1885, 1894] 1967). *Capital, volumes I, II, III*. New York, NY: International Publishers.
- Marx, K. ([1859] 1970). *A contribution to the critique of political economy*. New York, NY: International Publishers.
- Marx, K. ([1857-1858] 1973). *Grundrisse: foundations of the critique of political economy*. Translated by Martin Nicholas. New York, NY: International Publishers.
- Mayo, E. (1933). *The human problems of an industrial civilization*. New York, NY: MacMillan.
- Mayper, A. G., Granoff, M. & Giroux, G. (1991). An analysis of municipal budget variances. *Accounting, Auditing, and Accountability Journal* 4(1), 29-50.

- Mazmanian D. A. & Sabatier, P. A. (1989). *Implementation and public policy, with a new postscript*. Latham, MD: University Press of America.
- McCullagh, P. (1980). Regression models for ordinal data. *Royal Statistical Society*, 42(2), 109-142.
- McGill, R. (2001). Performance budgeting. *International Journal of Public Sector Management*, 14(5), 376-390.
- McKean, R. N. (1958). *Efficiency in government through systems analysis*. New York, NY: Wiley.
- McKelvey, R. & Zavoina, W. (1975). A statistical model for the analysis of ordinal level dependent variables. *Journal of Mathematical Sociology*, 4, 103-120.
- McKenzie, D. & Millo Y. (2003). Constructing a market, performing theory: The historical sociology of a financial derivatives exchange. *American Journal of Sociology*, 109(1), 107-145.
- McLean, P. D. & Padgett, J. F. (2004). Obligation, risk, and opportunity in the renaissance economy: beyond social embeddedness to network co-constitution. In Dobbin, F. (Ed.), *The sociology of the economy* (193-227). New York, NY: Russell Sage Foundation.
- McNab, R. M. & Melese, F. (2003). Implementing the GPRA: Examining the prospects for performance budgeting in the federal government. *Public Budgeting and Finance*, 23(2), 73-95.
- Meier, K. J. (1993). *Politics and the bureaucracy: Policymaking in the fourth branch of government*, Pacific Grove, CA: Brooks/Cole.
- Meier, K. J. & Brudney, J. L. (2002). *Applied statistics for public administration*. Orlando, FL: Harcourt College.
- Meier, K. J. & O'Toole Jr., L. J. (2001). Managerial strategies and behavior in networks: A model with evidence from U.S. public education. *Journal of Public Administration Research and Theory*, 11(3), 271-294.
- Meier, K. J. & O'Toole Jr., L. J. (2003). Public management and educational performance: The impact of managerial networking. *Public Administration Review*, 63(6), 689-699.
- Meier, K. J. & O'Toole Jr., L. J. (2004). Desperately seeking Selznick: cooptation and the dark side of public management in networks. *Public Administration Review*, 64(6), 681-693.
- Melkers, J. E. (2006). On the road to improved performance. *Public Performance and Management Review*, 30(1), 73-95.

- Melkers, J. E., & Willoughby, K. (1998). The state of the states: Performance based budgeting requirements in 47 out of 50. *Public Administration Review*, 58(1), 66-73.
- Melkers, J. E., & Willoughby, K. (2001). Budgeters' views of state performance-budgeting systems: Distinctions across branches. *Public Administration Review*, 61(1), 54–64.
- Melkers, J. E., & Willoughby, K. (2005). Models of performance-measurement use in local governments: Understanding budgeting, communication, and lasting effects. *Public Administration Review*, 65(2), 180-191.
- Merchant, K. A. (1981). The design of the corporate budgeting system: Influences on management behavior and performance. *The Accounting Review*, 56(3), 813-829.
- Merton, R. K. (1936). The unanticipated consequences of purposive social action. *American Sociological Review*, 1(6), 894-904.
- Merton, R. K. (1940). Bureaucratic structure and personality. *Social Forces* 18, 560-568.
- Meyer, J. W. & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), 340-363.
- Meyers, R. T. (1994). *Strategic budgeting*. Ann Arbor MI: University of Michigan Press.
- Mia, L. (1988). Managerial attitude, motivation and the effectiveness of budgetary participation. *Accounting, Organizations and Society*, 13(5), 465-75.
- Michaels, R. (1959). *A sociological study of the oligarchical tendencies of modern democracy*. Translated by Eden, P. & Cedar, P. New York, NY: Dover Publications.
- Mikesell, J. L. (1995). *Fiscal administration: Analysis and applications for the public sector*, 4<sup>th</sup> ed. Belmont, CA: Wadsworth Publishing.
- Milikin, M. ([1936] 1999). Pareto's sociology. *Econometrica*, 4: 324-337. In Cunningham, J. W. & McClure (Eds.), *Vilfredo Pareto: Critical assessment of leading economists, volume 3* (3-15). London: Routledge.
- Mill, J. S. ([1848] 1884). *Principles of political economy*. New York, NY: Appleton and Company.
- Mill, J. S. ([1844] 1968). *Essays on Some Unsettled Questions of Political Economy*, New York, NY: Augustus Kelley.
- Miller, G. J. (1996). Productivity and the budget process. In Rabin, J.W., Hildreth, W.B., & Miller, G. J. (Eds.), *Budgeting: Formulation and execution*, Athens, GA: Carl Vinson Institute of Government, The University of Georgia.

- Miller, G. J., Hildreth, W. B. & Rabin, J. (2001). Introduction. In Miller, G., Hildreth, W. B. & Rabin, J. (Eds.), *Performance-based budgeting* (1-15). Boulder, CO: Westview Press.
- Miller, G. J., Robbins, D., & Keum, J. (2007). Incentives, certification, and targets performance budgeting. *Public Performance and Management Review*, 30(4), 469-495.
- Milward, H. B. & Provan, K. (1998). Principles for controlling agents: The political economy of network structure. *Journal of Public Administration Research and Theory*, 8(2), 203-221.
- Mintzberg, H. 1973. *The nature of managerial work*. New York, NY: Harper and Row.
- Mishra, A.K. (1996). Organizational responses to crisis: The centrality of trust. In Kramer, R. M. & Thomas, T. (Eds.), *Trust in organizations* (261-287). Newbury Park: Sage, 261-287.
- Mizruchi, M.S. (1966). What do interlocks do? *Annual Review of Sociology*, 22, 271-298.
- Mizruchi, M. S. & Schwartz, M. (1988). *Intercorporate relations: The structural analysis of business (structural analysis in the social sciences)*, Cambridge: Cambridge University Press.
- Mizruchi, M.S., Stearns, L.B. & Marquis, C. (2006). The conditional nature of embeddedness: A study of borrowing by large U.S. firms, 1973-1994. *American Sociological Review*, 71(2), 310-333.
- Moe, T. (1984). The new economics of organization. *American Journal of Political Science*, 28(4), 739-777.
- Moe, T. (1987). An assessment of the positive theory of congressional dominance. *Legislative Studies Quarterly*, 12, 475-520.
- Moe, T. (1989). The politics of bureaucratic structure. In Chubb, J. & Peterson, P. (Eds.), *Can governments govern?* Washington D.C.: Brookings Institution.
- Moe, T. (1994). The "reinventing government" exercise: misinterpreting the problem, misjudging the consequences. *Public Administration Review*, 55(2), 135-46.
- Moe, T. (2006). Political control and the power of the agent. *Journal of Law, Economics, and Organization*, 22(1), 1-29.
- Mohr, J. & Spekman, R. (1994). Characteristics of partnership success: partnership attributes, communication behavior, and conflict resolution. *Strategic Management Journal*, 15, 135-152.
- Molnar, J. J. & Rogers, D. L. (1976). Organizational effectiveness: An empirical comparison of the goal and system resource approaches. *Sociological Quarterly*, 17(3), 401-413.

- Montgomery, J. (1991). Social networks and labor market outcomes: Toward an economic analysis. *American Economic Review*, 81(5), 1408-1418.
- Moreno, J. (1943). *Sociometry and the cultural order*. New York, NY: Beacon House, Inc.
- Moreno, J. (1953). *Who shall survive? Foundations of sociometry, group psychotherapy and sociodrama*. New York, NY: Beacon House, Inc.
- Morgan, Gareth. (1986). *Images of Organizations*. Beverly Hills, CA: Sage.
- Moore, A. T., Nolan, J., Segal, G. F. (2001). *Competitive cities: A report card on efficiency in service delivery in America's largest cities*. Los Angeles, CA: Reason Public Policy Institute.
- Moorman, C., Zaltman, G., & Deshpande, R. (1992). Relationships between providers and users of market research: The dynamics of trust within and between organizations. *Journal of Marketing Research*, 29(2), 314-328.
- Mosher, F. (1954). *Program budgeting: Theory and practice*. Chicago, IL: Public Administration Service.
- Mosher, F. (1976). *Basic documents of American public administration, 1776-1950*. New York, NY: Holmes and Meier.
- Mott, P. E. (1972). *The characteristics of effective organizations*. New York, NY: Harper Collins.
- Moulton, B. R. (1986). Random group effects and the precision of regression estimates, *Journal of Econometrics* 32(3), 385-397.
- Moynihan, D. P. (2003). Performance based budgeting: Beyond rhetoric. *Poverty Reduction and Economic Management*, The World Bank, 78, 1-4.
- Moynihan, D. P. & Pandey, S. K. (2005). Testing how management matters in an era of government by performance management. *Journal of Public Administration Research and Theory*, 15(3), 421-439.
- Moynihan, D. P. & Pandey, S. K. (2006a). Managing for results in state government: Evaluating a decade of reform. *Public Administration Review*, 66(1), 77-89.
- Moynihan, D. P. & Pandey, S. K. (2006b). What do we talk about when we talk about performance? Dialogue theory and performance budgeting. *Journal of Public Administration Research Theory*, 16(2), 151-168.
- Moynihan, D. P. & Pandey, S. K. (2009). Through a glass, darkly: Understanding the effects of performance regimes. *Public Performance & Management Review*, 32(4), 592-603.



- Mullins, D. R. (2004). Tax and expenditure limitations and the fiscal response of local government: Asymmetric intra-local fiscal effects. *Public Budgeting & Finance* 24(4), 111-147.
- Mullins, D. R. & Pagano, M. A. (2005). Local budgeting and finance: 25 years of developments. *Public Budgeting and Finance*, 25(4s), 3-45.
- Murray, D. (1990). The performance effects of participative budgeting: an integration of intervening and moderating variables. *Behavioral Research in Accounting*, 2, 104-123.
- Musgrave, R. A. (1992). Schumpeter's crisis of the tax state: An essay in fiscal sociology. *Journal of Evolutionary Economics*, 2(2), 89-113.
- Mushkin, S. J. (1969a). PPB in Cities. *Public Administration Review*, 29(2), 167-178.
- Mushkin, S. J. (1969b). PPBS in city, state and county: An overview. *Innovations in planning, programming and budgeting in State and Local Government*, U.S. Joint Economic Committee, Washington, D.C.: U.S. Government Printing Office.
- Natchez, P. B., & Bup, I. C. (1973). Policy and Priority in the Budgetary Process. *The American Political Science Review*, 67 (3), 951-963.
- Nathan, R. P. (2001). Introduction. In Forsythe, D. W. (Ed.), *Quicker, better, cheaper? Managing performance in American government*, Albany NY: Rockefeller Institute Press.
- Nee, V. & Ingram, P. (2001). Embeddedness and beyond: institutions, exchange, and social structure. In Brinton. M. C. & Nee, V. (Eds.), *The new institutionalism of sociology* (19-45). Stanford, CA: Stanford University Press.
- Niskanen, W. A. (1971). *Bureaucracy and representative government*. Chicago IL: Aldine and Atherton, Inc.
- North, D. (1990). *Institutions, institutional change, and economic performance*, New York, NY: Cambridge University Press.
- Nouri, H. and R. J. Parker (1998). The relationship between budget participation and job performance: The roles of budget adequacy and organizational commitment. *Accounting, Organizations, and Society*. 23(5/6), 467-483.
- Novick, D. (1965a). Introduction: The origin and history of program budgeting. In Novick, D. (Ed.), *Program budgeting: Program analysis and the federal budget*. Cambridge, MA: Harvard University Press.
- Novick, D. (1965b). The department of defense. In Novick, D. (Ed.), *Program budgeting: Program analysis and the federal budget*. Cambridge, MA: Harvard University Press.

- Novick, D. (1966). Origin and history of program budgeting. *RAND Corporation Paper No. P3427*. Santa Monica, CA: Rand Corporation.
- Nunnally, J. (1978). *Psychometric theory*. New York, NY: McGraw-Hill.
- Nye, R. K. (2007). Revealing indirect links between budget and mission effectiveness. Paper prepared for the Association for Budgeting and Financial Management Conference, October 25-27, 2007.
- Olson, M. (1965). *The logic of collective action*. Cambridge, MA: Harvard University Press.
- Orlikowski, W. J. (1996). Improvising organizational transformation overtime: A situational change perspective. *Information Systems Research*, 7(1), 63-92.
- Orton, D. J. & Weick, K. E. (1990). Loosely coupled systems: A reconceptualization. *Academy of Management Review*, 15(2), 203-223.
- Osborne, D. & Gaebler, T. (1993). *Reinventing government: How the entrepreneurial spirit is transforming the public sector*. New York, NY: Penguin Group.
- Osborne, D. & Hutchinson, P. (2004). *The price of government: Getting the results we need in an age of permanent fiscal crisis*. New York, NY: Basic Books.
- Osborne, D. & Plastrik, P. (2000). *The reinventors fieldbook: Tools for transforming your government*. Danvers, MA: Jossey-Bass, Inc.
- Ostroff, C. & Schmitt, N. (1993). Configurations of organizational effectiveness and efficiency. *The Academy of Management Journal*, 36(6), 1345-1361.
- Ostrum, V. (1973). *The intellectual crisis in public administration*. University of Alabama: University of Alabama Press.
- Otley, D. T. (1978). Budget use and managerial performance. *Journal of Accounting Research*, 16(1), 122-131.
- O'Toole, D. E. & Stipak, B. (1988). Budgeting and productivity revisited: The local government picture. *Public Productivity Review*, 12(1), 1-12.
- O'Toole, D. E. & Stipak, B. (2002). Productivity trends in local government budgeting. *Public Performance & Management Review*, 26(2), 190-203.
- O'Toole Jr., L. J. (1997). Treating networks seriously: Practical and research-based agendas in public administration. *Public Administration Review*, 57(1), 45-61.
- O'Toole, Jr. L. J., & Meier, K. J. (1999). Modeling the impact of public management: implications of structural context. *Journal of Public Administration Research and Theory*, 9(4), 505-526.

- O'Toole, Jr. L. J., & Meier, K. J. (2000). Networks, hierarchies, and public management: modeling the nonlinearities. In Heinrich, C.J. & Lynn, L.E. Jr. Eds.), *Governance and performance: New perspectives* (263-291). Washington D.C.: Georgetown University Press.
- O'Toole, Jr. L. J., & Meier, K. J. (2006). Networking in the penumbra: Public management, cooptative links, and distributional consequences. *International Public Management Journal*, 9(3): 271-294.
- Padgett, J. F. (1980). Bounded rationality in budgetary research. *American Political Science Review*, 74(1), 354-372.
- Palmer, D. (1983). Broken ties: Interlocking directorates and intercorporate coordination. *Administrative Quarterly*, 28(1), 40-55.
- Palmer, D., Barber, B., Zhou, X., & Soysal, Y. (1995). The friendly and predatory acquisition of large U.S. corporations in the 1960s. *American Sociological Review*, 60(4), 469-500.
- Pandey, S. K. (2003). National administrative studies project (NASP-II): A national survey of managers in the state health and human services agencies. Camden, NJ: Rutgers University.
- Pandey, S. K., Coursey, D. H., & Moynihan, D. P. (2004). Management capacity and organizational performance: Can organizational culture trump bureaucratic red tape? Paper presented at the Determinants of Performance in Public Organizations: Advancing Knowledge in Public Management Conference, Cardiff University, Wales.
- Pandey, S. K., Coursey, D. H., & Moynihan, D. P. (2007). Organizational effectiveness and bureaucratic red tape: A multi-method study. *Public Performance and Management Review*, 30(3), 398-425.
- Pandey, S. K. & Garnett, J. L. (2006). Exploring public sector communication performance: testing a model and drawing implications. *Public Administration Review*, 66(1), 37-51.
- Pandey, S. K. & Moynihan, D. P. (2006). Bureaucratic red tape and organizational performance: testing the moderating role of culture and political support. In Boyne, G. A., Meier, K. J., O'Toole Jr., L. & Walker, R. M. (Eds.), *Public performance: Perspectives on measurement and management*. Cambridge, England: Cambridge University Press.
- Pareto, V. ([1906] 1971). *Manual of political economy*. London: Macmillan Press Ltd
- Pareto, V. ([1915/1916] 1935). *Mind and society, a treatise on general sociology*. New York, NY: Dover Publications.
- Pareto, V. (1927). *Manuel d'économie politique*, Paris: Marcel Girard.

- Pareto, V. (1932). *Traité de sociologie générale*, Paris: Payot.
- Pareto, V. (1935). *The mind and society*. English translation of Trattato di Sociologia Generale, 2<sup>nd</sup> ed. Translated by Bongiorno, A. and Livingston, A. London: Jonathan Cape.
- Pareto, V. (1972). *Manual of political economy*. English translation of Manuale di Economia Politica (French ed., 1927). In Schwier, A. S. & Page, A. N. (Eds.), Translated by Schwier, A. S. London: Macmillan.
- Parhizgari, A. M., and Gilbert, R. G. (2004). Measures of organizational effectiveness: Private and public sector performance. *Omega: The International Journal of Management Science*, 32 (3), 221–29.
- Parker, R. & Kyj, L. (2006). Vertical information sharing in the budgeting process. *Accounting, Organizations, and Society*, 31(1), 27-45.
- Parsons, T. (1935). Review of the mind and society and Pareto's general sociology. *American Economic Review*, 25(3), 502-508.
- Parsons, T. (1937). *The structure of social action: A study in social theory with special reference to a group of recent European writers*. New York, NY: McGraw-Hill.
- Parsons, T. (1949). *The structure of social action*, 2<sup>nd</sup> ed. New York: Free Press.
- Parsons, T., Bales, R. F. & Shils, E. A. (1953). *Working papers in the theory of action*. Glencoe, IL: Free Press.
- Parsons, T. & Smelser. (1956). *Economy and society: A study in the integration of economic and social Theory*. London: Routledge and Kegan Paul.
- Payne, R. & Mansfield, R. (1973). Relationships of perception of organizational climate to organizational structure, context, and hierarchical position. *Administrative Science Quarterly*, 18, 515-526.
- Pearce, J. A. II, Robbins, D. K. & Robinson Jr., R. B. (1987). The impact of grand strategy and planning formality on financial performance. *Strategic Management Journal*, 8 (2), 125–34.
- Penefield, R. V. (1974). Time allocation patterns and effectiveness of managers. *Personnel Psychology*, 27(2), 245-255.
- Penno, M. 1984. Asymmetry of the pre-decision information and managerial accounting. *Journal of Accounting Research*, 22(1), 177-191.

- Perrow, C. (2000). An organizational analysis of organizational theory. *Contemporary Sociology*, 29(3), 469-476.
- Peters, T. & Waterman, R. (1982). *In search of excellence*. New York, NY: Harper and Row.
- Pettijohn, C. D., & Grizzle, G. A. (1997). Structural budget reform: Does it affect budget deliberations? *Journal of Public Budgeting, Accounting and Financial Management*, 9(1), 26-45.
- Phillips, J. M. & Goss, E. P. (1995). The effect of state and local taxes on economic development: A meta analysis. *Southern Economic Journal* 62(2), 320-333.
- Piore, M. J. (1996). Review: Review of the handbook of economic sociology. *Journal of Economic Literature*, 34(2), 741-754.
- Plosila, W. H. (2004). State science and technology based economic development policy: History, trends, and developments, and future directions. *Economic Development Quarterly* 18 (2), 113-126.
- Poister, T. H, and McGowan, R. P. (1984). The use of management tools in municipal government: A national survey. *Public Administration Review*, 44(3), 215-223.
- Poister, T. H. & Streib, G. (1994). Municipal management tools from 1976 to 1993: An overview and update. *Public Productivity & Management Review*, 18(2), 115-125.
- Poister, T. H. & Streib, G. (1999). Performance measurement in municipal government: Assessing the state of the practice. *Public Administration Review*, 59(4), 325-335.
- Poister, T. H. & Streib, G. (2005). Elements of strategic planning and management in municipal government: Status after two decades. *Public Administration Review*, 65(1), 45-56.
- Polanyi, K. (1944). *The great transformation*. New York, NY: Farrar and Rinehart.
- Polanyi, K. (1968). *Anthropology and economic theory*. In Fred, M. (Ed.), *Readings from anthropology*, New York, NY: Thomas Y, Crowell Co.
- Polanyi, K., Arensberg, C., & Pearson, H. (1957). *Trade and market in the early empires*. New York, NY: Free Press.
- Podolny, J. (1994). Market uncertainty and the social character of economic exchange. *Administrative Science Quarterly*, 39(4), 458-483.
- Poldony, J. & Baron, J. (1997). Resources and relationships: social networks and mobility in the work place. *American Sociological Review*, 62(5), 673-693.

- Pollit, C. (2000). Is the emperor in his underwear: An analysis of the impacts of public management reform. *Public Management Review*, 22(2), 181-199.
- Pollitt, C. & Bouckaert, G. (2004). *Public Management Reform: A Comparative Analysis*, 2<sup>nd</sup> ed. New York, NY: Oxford University Press.
- Poocharoen, O. & Ingraham, P. (2003). Integration of management systems. In *Government performance project, paths to performance in state and local government: A final assessment from the Maxwell School of Citizenship and Public Affairs*.
- Portes, A. (1998). Social capital: Its origins and applications in modern sociology. *Annual Review of Sociology*, 24, 1-24.
- Portes, A. & Landolt, P. (1996). The downside of social capital. *American Prospect*, 26, 18-22.
- Portes, A. & Mooney, M.. (2002). Social capital and community development. In Guillén, M.F., Collins, R., England, P., & Meyer, M. (Eds.), *The new economic sociology: Developments in an emerging field* (148-192). New York, NY: Russell Sage Foundation.
- Portes, A. & Sensenbrenner, J. (1993). Embeddedness and immigration: Notes on the social determinants of economic action. *American Journal of Sociology*, 98, 1320-1350.
- Powell, F. W. (1917). The recent movement for state budget reform, 1911- 1917. *Municipal Research*, Vol. 91.
- Powell, T. C. (1992). Organizational alignment as competitive advantage. *Strategic Management Journal*, 13(2), 119–34.
- Preacher, K. J. & Hayes A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models, *Behavioral Research Methods Instruments, and Computers*, 36(4), 717-731.
- Premchand, A. (1987). Government budgeting and productivity. *Public Productivity Review*, 10(3), 9-19.
- Prendergast, W. A. (1912). Efficiency Through Accounting. *Annals of the American of political and social science*. XLI (May), 43-56.
- Provan, K. G. (1993). Embeddedness, interdependence, and opportunism in organizational supplier-buyer networks. *Journal of Management*, 19(4), 841-856.
- Provan, K. G., Fish, A., & Sydow, J. (2007). Interorganizational networks at the network level: A review of the empirical literature on whole networks. *Journal of Management* 33 (3), 479-516.

- Provan, K. G., Huang, G. K., & Milward, H. B. (2009). The evolution of structural embeddedness and organizational social outcomes in a centrally governed health and human services network. *Journal of Public Administration Research and Theory*, Advance Access, January 27, 2009, accessed May 9, 2009.
- Provan, K. G. & Kenis, P. (2008). Modes of network governance: structure, management, and effectiveness. *Journal of Public Administration Research and Theory*, 18(2), 229-252.
- Provan, K. G. & Milward, H. B. 1995. A preliminary theory of interorganizational effectiveness: A comparative study of four community mental health systems. *Administrative Science Quarterly* 40 (1), 1-33.
- Provan, K. G. & Milward, H. B. (1998). Principles for controlling agents: The political economy of network structure. *Journal of Public Administration Research and Theory*, 8(2), 203-221.
- Provan, K. G. & Milward, H. B. (2001). Provan, K. G. & Milward, H. B. (2001). Do networks really work? A framework for evaluating public sector organizational networks. *Public Administration Review*, 61(4), 414-423.
- Putnam, R. D., Leonardi, R., Nanetti, R. Y. (1993). *Making democracy work*, Princeton, NJ: Princeton University Press.
- Putnam, R. D. (1995). Bowling alone: America's declining social capital. *Journal of Democracy*, 6(1): 65-78.
- Quinn, R. E. and Rohrbaugh J. (1981). A competing values approach to organizational effectiveness. *Public Productivity Review*, 5(2), 122-140.
- Quinn, R. E. and Rohrbaugh J. (1983). A spatial model of effectiveness criteria: Towards a competing values approach to organizational analysis. *Management Science*, 29(3), 363-377.
- Rabin, J. (1987a). Introduction. *Public Productivity Review*, 10(3), 5-8.
- Rabin, J. (1987b). Budgeting for improved productivity. *Public Productivity Review*, 10(3), 3-71.
- Rabin, J. (1988). Budgeting and productivity: Rejoinder to the rejoinder. *Public Productivity Review*, 12(1), 13-14.
- Radin, B. (2000). The government performance and results act and the tradition of federal management reform: Square pegs in round holes. *Journal of Public Administration and Research Theory* 10(1), 111-35.

- Radin, B. (2001). Intergovernmental relationships and the federal performance movement (285-306). In Forsythe, D. (ed.), *Quicker, better, cheaper? Managing performance in American government*. Albany, NY: State University of New York Press.
- Radin, B. (2006). *Challenging the performance movement: Accountability, complexity, and democratic values (public management and change)*. Georgetown, D.C.: Georgetown University Press.
- Rainey, H. G. (2003). *Understanding and Managing Public Organizations, 3d Edition*. San Francisco, CA: Jossey Bass.
- Rainey, H. G., and Bozeman, B. (2000). Comparing public and private organizations: Empirical research and the power of the a priori. *Journal of Public Administration Research and Theory*, 10(2), 447-469.
- Rainey, H. G., Pandey, S. K. & and Bozeman, B. (1995). Research note: public and private manager's perception of red tape. *Public Administration Review*, 55(6), 567-574.
- Rappaport, A. (1963). Mathematical models of social interaction. In Luce, R., Bush, R., & Galanter, E. (Eds.), *Handbook of Mathematical Psychology*, New York, NY: Wiley.
- Rappaport, A. & Horvath, W. (1961). A study of a large sociogram. *Behavioral Science*, 6(4), 279-291.
- Rauch, J. F. & Hamilton, G. G. (2001). Networks and markets: Concepts for bridging disciplines. In Rauch, J.F. & Cassella, A. (Eds.), *Networks and markets*. New York, NY: Russell Sage Foundation.
- Richter, R. (2001). New economic sociology and new institutional economics. Paper Presented at the Annual Conference of the International Society for New Institutional Economics, September 13-15, Berkeley, CA.
- Ridley, C. E. & Simon, H. A. (1943). *Measuring municipal activities: A survey of suggested criteria for appraising administration*. Chicago, IL: The International City Managers Association.
- Ritzer, G. (1989). The permanently new economy: The case for reviving economic sociology. *Work and Occupations*, 16(3), 243-273.
- Rist, R. C. (1994). The preconditions for learning: Lessons from the public sector. (189-205). In Leeuw, F. L., Rist, R. C. & Sonnichsen, R. C. (Eds.), *Can governments learn? Comparative perspectives on evaluation and organizational learning*. New Brunswick, NJ: Transaction.
- Rivenbark, W. C. & Kelly, J. M. (2006). Performance budgeting in municipal government. *Public Performance and Management Review* 30(1), 35-46.



- Rizzo, J. R., House, R. J., & Lirtzman, S. I. (1970). Role conflict and ambiguity in complex organizations. *Administrative Science Quarterly*, 15, 150-163.
- Roberts, R. S. (1960). USDA's pioneering performance budget. *Public Administration Review*, 20(2), 74-78.
- Robinson, M. & Brumby, J. (2005). *Does performance budgeting work? An analytical review of the empirical literature*. International Monetary Fund Working Paper.
- Robinson, Jr., R. B. & Pearce II, J. A. (1983). The impact of formalized strategic planning on financial performance in small organizations. *Strategic Management Journal*, 4 (3), 197-207.
- Robinson, Jr., R. B. & Pearce II, J. A. (1988). Planned patterns of strategic behavior and their relationship to business-unit performance. *Strategic Management Journal*, 9 (1), 43-60.
- Romo, F. P. & Schwartz, M.. (1995). Structural embeddedness of business decisions: A sociological assessment of the migration behavior of plants in New York state between 1960 and 1985. *American Sociological Review*, 60(6), 874-907.
- Rubin, D. B. (1974). Estimating causal effects of treatments in randomized and nonrandomized studies. *Journal of Educational Psychology*, 66, 688-701.
- Rubin, D. B. (1977). Assignment to treatment group on the basis of a covariate, *Journal of Educational Statistics*. 2, 1-26.
- Rubin, D. B. (1987). *Multiple imputation for nonresponse in surveys*. New York, NY: J. Wiley & Sons.
- Rubin, I. S. (1988). Introduction. In Rubin, I. S. (ed.), *New directions in budget theory* (1-18). Albany, NY: SUNY Press.
- Rubin, I. S. (1990). Budget theory and budget practice: How good the fit?. *Public Administration Review*, 50(2), 179-189.
- Rubin, I. S. (1992a). Budget reform and political reform: Conclusions from six cities. *Public Administration Review*, 52(5), 454-466.
- Rubin, I. S. (1992b). Budgeting: Theories, concepts, methods, and issues. In Rabin, J. (Ed.), *Handbook of public budgeting*. New York, NY: Marcel-Dekker, Inc.
- Rubin, I. S. (1993). Who invented Budgeting in the United States? *Public Administration Review*, 53(5), 438-444.
- Rubin, I. S. (1996). Budgeting for accountability: Municipal budgeting for the 1990s, *Public Budgeting and Finance*, 16(2), 112-132.

- Rubin, I. S. (1997a). *The politics of budgeting: Getting, spending, borrowing, spending, and balancing*. Chatham, NJ: Chatham House.
- Rubin, I. S. (1997b). Budgeting: theory and concepts. In Golembiewski, R. T. & Rabin, J. (Eds.), *Public budgeting and finance*, 4<sup>th</sup> Ed. New York, NY: Marcel Dekker, Inc.
- Rubin, I. S. (1998). *Class, tax and power*. Chatham, NJ: Chatham House Publishers.
- Rubin, I. S. (2000). *The politics of public budgeting*. 4<sup>th</sup> ed. Chatham House Publishers.
- Rubin, I. S. (2005). The state of state budget research. *Public Budgeting & Finance*, 25(4s), 46-67.
- Rubin, I. S. (2006). *The politics of budgeting: Getting, spending, borrowing, and balancing*. Washington D.C. CQ Press.
- Sabatier, P. A. (1986). Top-down and bottom-up approaches to implementation research: A critical analysis and suggested synthesis. *Journal of Public Policy*, 6(1), 21-48.
- Sabatier, P. A. & Mazmanian, D. A. (1979). The conditions of effective implementation. *Policy Analysis*, 5(4), 481-504.
- Sabatier, P. A. & Mazmanian, D. A. (1980). A Framework Analysis. *Policy Studies Journal*, 8(4), 538-560.
- Salancik, G. R. (1975). *Notes on loose coupling: Linking intentions to actions*. Unpublished Manuscript, University of Illinois, Urbana-Champaign.
- Salz, M. (2001). Using program attributes to measure and evaluate state economic development strategies. *Economic Development Quarterly* 15(1), 45-57.
- Samuelson, P. A. (1947). *Foundations of economic analysis*. Cambridge, MA: Harvard University Press.
- Samuelson, P. A. (1983). *Foundations of economic analysis*, Cambridge, MA: Harvard University Press.
- Sands, H. R. & Lindars, F. W. (1912). Efficiency in budget making. *Annals of the American Academy of Political and Social Science*, XLI, May, 138-150.
- Saxenian, A. (1994). *Regional advantage: Culture and competition in silicon valley and route 128*. Cambridge, MA: Harvard University Press.
- Sayre, W. (1948). The triumph of techniques over purpose. *Public Administration Review*, 8(2), 134-137.

- Schafer, J. L. (1997). *Analysis of incomplete multivariate data*, London: Chapman & Hall London.
- Schäffer, U. (2008). *Management accounting and control scales*. Wiesbaden: Deutscher Universitäts-Verlag.
- Schick, A. (1964). Control patterns in state budget execution. *Public Administration Review*, 24(2), 97-106.
- Schick, A. (1966). The road to PBB: The stages of budget reform. *Public Administration Review*, 26 (4), 243-58.
- Schick, A. (1971). *Budget innovation in the states*. Washington, D.C.: Brookings Institution.
- Schick, A. (1973). A death in the bureaucracy: The demise of federal PPB. *Public Administration Review*, 33(2), 146-156.
- Schick, A. (1978). Contemporary problems in financial control. *Public Administration Review*, 38(6), 513-519.
- Schick, A. (1988). An inquiry into the possibility of a budgetary theory. In Rubin, I. S. (Ed.), *New directions in budget theory* (59-69). Albany, NY: SUNY Press.
- Schick, A. (1990). *The capacity to budget*. Washington, D.C.: The Urban Institute Press.
- Schick, A. (2001). Getting performance measures to measure up. In Forsythe, D. W. (Ed.), *Quicker, better, cheaper? Managing performance in American government*. Albany, NY: SUNY Press.
- Schick, A. (2002). Does budgeting have a future. *OECD Journal On Budgeting*, 2(2), 7-48.
- Schick, A. (2003). The performing state: reflection on an idea whose time has come but whose implementation has not. *OECD Journal on Budgeting*, 3(2), 71-103.
- Schumpeter, J. (1934). *The theory of economic development; an inquiry into profits, capital, credit, interest, and the business cycle*. Translated by Opie, R. Cambridge, MA: Harvard University Press.
- Schumpeter, J. (1942). *Capitalism, socialism and democracy*. New York, NY: Harper and Brothers.
- Schumpeter, J. 1951. *Essays on Economic Topics*. Port Washington: Kennikat Press.
- Schumpeter, J. (1954a). The crisis of the tax state. *International Economic Papers, No. 4*.

- Schumpeter, J. (1954b). *History of Economic Analysis*. Edited from a manuscript by Boody, E. E. New York: Oxford University Press.
- Schumpeter, J. (1956). *Ten great economists, from Marx to Keynes*. London, Allen and Unwin.
- Schumpeter, J. ([1919] 1962). Fiscal crisis and the tax state. Reprinted in Musgrave, R. A. & Peacock, A. T. (Eds.), *Classics in the theory of public finance*, London: MacMillan.
- Schumpeter, J. (1991). *The economics and sociology of capitalism*. Swedberg, R. (Ed.). Princeton, NJ: Princeton University Press.
- Scott, J. (1976). *The moral economy of the peasant*. New Haven, CT: Yale University Press.
- Scott, J. (2000). Rational choice theory. In Browning, G., Halcli, A., & Webster, F. (Eds.), *Understanding contemporary society: Theories of The present* (126-138). Thousand Oaks, CA: Sage Publications, Inc.
- Scott, W. R. (1995). *Institutions and organizations*. Thousand Oaks, CA: Sage Publications.
- Scott, W. R. (2004). Competing logics in health care: Professional, state, and managerial. In Dobbin, F. (Ed.), *The sociology of the economy* (267-287). New York, NY: Russell Sage Foundation.
- Searfoss, D. G. & Monczka, R. M. (1973). Perceived participation in the budget process and motivation to achieve the budget. *Academy of Management Journal*, 16(4), 541-554.
- Seckler-Hudson, C. (1953). Performance budgeting in government. *Advanced Management*, 5-9, 30-32. In Hyde, A. C. & Shafritz J. M. (Eds.), (1978). *Government budgeting: Theory, process and politics* (80-93). Oak Park, IL: Moore Publishing Company, Inc. Also in Hyde, C. (Ed.), (1992). *Government budgeting: theory, process and politics*, 2<sup>nd</sup> ed. (331-341). Belmont, CA: Wadsworth, Inc.
- Selznick, P. (1996). Institutionalism, old and new. *Administrative Quarterly*, 41(2), 270-277.
- Selznick, P. ([1949] 1997). The cooptative mechanism. In Shafritz, J. M. & Hyde, A. C. (Eds.), *The classics of public administration*, 4<sup>th</sup> ed. (147-153). Fort Worth, TX: Harcourt Brace College Publishers. From Selznick, P. (1949). *TVA and the grass roots*. Berkeley, CA: University of California Press.
- Shah, A. & Shen, C. (2007). A primer on performance budgeting. In Shah, A. (Ed.), *Budgeting and budgetary institutions*. New York, NY: World Bank Publications.
- Sharp, E. B. (1986). *Citizen demand-making in the urban context*. Tuscaloosa, AL: University of Alabama Press.

- Sheeran, P. & Abraham, C. (2003). Mediator of moderators: temporal stability on the intention and the intention-behavior relation, *Personality and Social Psychology Bulletin*, 29(2), 205-215.
- Sherwood, F. P. (1955). Decentralizing the budget process. *Public Management*, 37,122.
- Shields, M. D. & Young, M. S. (1993). Antecedents and consequences of participative budgeting: Evidence on the effects of asymmetrical information. *Journal of Management Accounting Research*, 5, 265-80.
- Shields, J. F. & Shields, M. D. (1998). Antecedents of participative budgeting. *Accounting, Organizations and Society*, 23(1), 49-76.
- Shiller, R. J. (2003). From efficient markets theory to behavioral finance. *The Journal of Economic Perspectives*, 17(1), 83-104.
- Simmel, G. ([1907] 1978). *The philosophy of money*, Translated by Bottomore, T. & Frisby, D. London: Routledge and Keegan Paul.
- Simmel, G. ([1908] 1950). *The sociology of Georg Simmel; translated, edited, and with an introduction by Kurt H. Wolff*. Glencoe, IL: Free Press.
- Simmel, G. ([1908] 1971). *The problem of sociology*, Donald Levine (Ed.), Chicago, IL: University of Chicago Press.
- Simmel, G. ([1908] 1955). *Conflict, translated by Kurt H. Wolff. The web of group-affiliations, Translated by Reinhard Bendix. With a Foreword by Everett C. Hughes*, Glencoe, IL: Free Press.
- Simmel, G. ([1907] 1990). *The philosophy of money*, 2<sup>nd</sup> ed. Frisby, D. (Ed.). Translated by Bottomore, T. & Frisby D. from a first draft by Mengelberg, K. London: Routledge.
- Simon, H. A. (1946). The proverbs of administration. *Public Administration Review*, 4, 53-67.
- Simon, H. A. (1954). Spurious correlation: A causal interpretation. *Journal of the American Statistical Association*, 49, 467-479. From Blalock, Jr., H. M. (Ed.), *Causal models in the social sciences*, 2<sup>nd</sup> ed. Hawthorne, NY: Aldine de Gruyter.
- Simon, H. A. (1982). *Models of bounded rationality: Behavioral economics and business organization*. Cambridge, MA: MIT Press.
- Simon, H. A. (1997). *Administrative behavior: A study of decision-making processes in administrative organization* 4<sup>th</sup> ed., New York, NY: Macmillan.

- Simon, H. A., Guetzkow, H., Kozmetsky, G. & Tyndall, G. (1954). *Centralization vs. Decentralization in Organizing the Controller's Department*. New York, NY: The Controllershship Foundation.
- Simon, H. A. Smithburg, D. W., & Thompson, V. A. (1950). *Public Administration*. New York, NY: Knopf.
- Simons, R. 1995. *Levers of control*. Boston, MA: Harvard Business School Press.
- Smelser, N. (1963). *The sociology of economic life*. Englewood Cliffs, NJ: Prentice-Hall.
- Smelser, N. (1976). *The sociology of economic Life*, 2<sup>nd</sup> ed. Englewood Cliffs, NJ: Prentice-Hall.
- Smelser, N. (2005). Introducing economic sociology. In Smelser, N. J. & Swedberg, R. (Eds.), *The handbook of economic sociology* 2d ed. Princeton NJ: Princeton University Press.
- Smelser, N. (2005). Parson's economic sociology and its extension to the global economy. *Journal of Classical Sociology*, 5(3), 245-266.
- Smelser, N. J. & Swedberg, R. (1994). The sociological perspective on the economy. In Smelser, N. J. & Swedberg, R. (Eds.), *The handbook of economic sociology*. Princeton: Princeton University Press.
- Smith, A. ([1776] 1979). *The Wealth of Nations*, Skinner, A. (Ed.). Baltimore, MD: Penguin.
- Smith, H. D. (1945). *The management of your government*. New York, NY: McGraw-Hill Book Company.
- Smith, K. A. (2004). Voluntarily reporting performance measures to the public: A test of accounting reports from U.S. cities. *International Public Management Journal*, 7(1), 19-48.
- Smith, K. A. & Schiffel, L. (2006). The intersection of accounting and local government performance (579-615). In Howard, F.A. (Ed.), *Public financial management*. Boca Raton, FL: CRC Press.
- Snell, R. K. (2000). *Lessons learned: What experience teaches about performance-based budgeting and reporting*. National Conference of State Legislatures. Available from <http://www.ncsl.org/programs/fiscal/perfbudg/pbblessons.htm>, accessed November 8, 2008.
- Sobel, M.E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models, *Sociological Methodology*, 13, 290-312.

- Spector, P. E. (1987). Method variance as an artifact in self reported affect and perceptions at work: Myth or significant problem? *Journal of Applied Psychology*, 72, 438-443.
- Spector, P. E. and Brannick, M. T. (1995). The nature and effects of method variance in organizational research. In Cooper, C. L. & Robertson, I. T. (Eds.), *International review of industrial and organizational psychology* (249-274). West Sussex, England: John Wiley.
- Sterns, L. B. & Mizruchi, M. (1993). Corporate financing: Social and economic determinants. In Swedberg, R. (Ed.), *Explorations in economic sociology* (279-308). New York, NY: Russell Sage.
- Sterck, M. & Scheers, B. (2006). Trends in performance budgeting in seven OECD countries. *Public Performance and Management Review*, 30(1), 47-72.
- Stedry, A. C. (1960). *Budget control and cost behavior*. Englewood Cliffs, NJ: Prentice-Hall
- Stinchcombe, A. (1986). *Stratification and organization: Selected papers*. Cambridge: Cambridge University Press.
- Stivers, C. (2000). *Bureau men, settlement women: constructing public administration in the progressive era*. Lawrence, KS: University Press of Kansas.
- Stone, A. A. (1992). Selected methodological concepts: Mediation and moderation, individual differences, aggregation strategies, and variability replicates. In Schneiderman, N., McCabe, P., & Baum, A. (Eds.), *Perspectives in behavioral medicine: Stress and disease processes* (55-71). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Streis, A. W. (1972). *Public budgeting and management*. Lexington, MA: Lexington Books, D.C. Heath and Company.
- Stribney, W. (2005). Why should I not do a likelihood-ratio test after an ML estimation (e.g., logit, probit) with clustering or pweights? Stata Corporation, <http://www.stata.com/support/faqs/stat/lrtest.html>, accessed June 21, 2009.
- Swedberg, R. (1987). Economic sociology: Past and present. *Current Sociology* 35(1), 1-221.
- Swedberg, R. (1990). *Economics and sociology: Redefining their boundaries...conversations with economists and sociologists*. Princeton, NJ: Princeton University Press.
- Swedberg, R. (1991). *Schumpeter – A biography*, Princeton, NJ: Princeton University Press.
- Swedberg, R. (1993). On the relationship of economic theory and economic sociology in the work of Joseph Schumpeter, In Swedberg, R. (Ed.), *Explorations in economic sociology* (42-62). New York, NY: Russell Sage Foundation

- Swedberg, R. (1997). New economic sociology: What has been accomplished, what is ahead? *Acta Sociologica*, 40(2), 161-182.
- Swedberg, R. (1999). Max Weber as an economist and sociologist: Towards a fuller understanding of Weber's view of economics. *American Journal of Economics and Sociology*, 58(4), 561-582.
- Swedberg, R. (2000). *Max Weber and the idea of economic sociology*. Princeton, NJ: Princeton University Press.
- Swedberg, R. (2001). Max Weber's version of economic sociology. In Granovetter, M. & Swedberg, R. (Eds.), *The sociology of economic Life*, 2<sup>nd</sup> ed. (77-95). Boulder CO: Westview Press.
- Swedberg, R. (2003). *Principles of economic sociology*. Princeton, NJ: Princeton University Press.
- Swedberg, R. (2007). The tool kit of economic sociology. In Weingast, B. R. & Wittman, D. (Eds.), *The oxford handbook of political economy (937-950)*. Oxford: Oxford University Press.
- Swedberg, R. & Granovetter, M. (1992). Introduction. In Granovetter, M. & Swedberg, R. (Eds.), *The sociology of economic life* (1-16). Boulder, CO: Westview Press.
- Swedberg, R. & Granovetter, M. (2001). Introduction to the second edition. In Granovetter, M. & Swedberg, R. (Eds.), *The sociology of economic life*, 2<sup>nd</sup> ed. (1-28). Boulder CO: Westview Press.
- Swedlow, B. (2001). Postscript: Aaron Wildavsky, cultural theory, and budgeting. In Swedlow, B. (Ed.), *Aaron Wildavsky, budgeting and governing*, Introduction by White, J. New Brunswick, CT: Transaction Publishers.
- Swidler, A. (1986). Culture in action: symbols and strategies. *American Sociological Review*, 51(2), 273-286.
- Tarrow, S. (1996). Making social science work across space and time: A critical reflection on Robert Putnam's *Making democracy work*. *American Political Science Review*, 90(2), 389-397.
- Tax Foundation, Inc. (1965). *State expenditure controls: An evaluation*. Washington, D.C.: Tax Foundation.
- Taylor, F. W. (1911). *The principles of scientific management*. New York, NY: Harper.
- Terry, L. (1998). Administrative leadership, neo-managerialism, and the new public management movement. *Public Administration Review*, 58(3), 194-201.



- Thayer, F. C. (1972). Productivity: Taylorism revisited (round three). *Public Administration Review*, 32(6), 883-839.
- Thomas, J. C. & Streib, G. (2003). The new face of government: Citizen initiated contacts in the era of e-government. *Journal of Public Administration, Research, and Theory*, 13(1), 83-102.
- Thompson, E. P. (1971). The moral economy of the English crowd in the eighteenth century. *Past and Present*, 50: 76-136.
- Thompson, J. D. (1967). *Organizations in action*. New York, NY: McGraw-Hill.
- Thurmaier, K. (1995a). Decisive decision making in the executive budget process: analyzing the political and economic propensities of central budget bureau analysts. *Public Administration Review*, 55(5), 448-460.
- Thurmaier, Kurt. (1995b). Execution phase budgeting in local governments: It's not just for control anymore! *State and Local Government Review*, 27(2), 102-117.
- Thurmaier, K. & Willoughby, K. G. (2001). *Policy and politics in state budgeting*. Armonk, NY: ME Sharpe.
- Tiebout, C. M. (1956). A pure theory of local expenditures. *The Journal of Political Economy*, 64(5), 416-424.
- Tocqueville, A. (1835-1849). *Democracy in America*. Translated by Reeve, H. London: Saunders and Otley
- Tonkiss, F. (2006). *Contemporary economic sociology: Globalization, production, inequality*. New York, NY: Routledge.
- Tool, M. R. (1979). *The discretionary economy*. Santa Monica, CA: Goodyear Publishing Company.
- Treleven, J. E. (1912). The Milwaukee bureau of economy and efficiency. *Annals of the American Academy of Political and Social Science*, XLI (May), 270-79.
- Tullock, G. (1965). *The politics of bureaucracy*. Washington D.C.: Public Affairs Press.
- Tyer, C. & Willand, J. (1997). Public budgeting in America: A twentieth century retrospective. *Journal of Public Budgeting Accounting and Financial Management*, 9(2), 189-219.
- Yukl, G. A.; & Latham, G. P. (1978). Interrelationships among employer participation, individual differences, goal difficulty, goal acceptance, goal instrumentality, and performance. *Personnel Psychology*, 31(2), 305-323.

- Urban Institute and International City Management Association (1972). *Improving productivity measurement and evaluation for local governments*. Washington D.C: National Commission on Productivity.
- Uzzi, B. (1996). The sources and consequences of embeddedness for the economic performance of organizations: The network effect. *American Sociological Review*, 61(4), 674-698.
- Uzzi, B. (1997). Social structure and competition in interfirm networks: The paradox of embeddedness. *Administrative Quarterly*, 42(1), 35-67.
- Uzzi, B. (1999). Embeddedness in the making of financial capital: How Social Relations and networks benefit firms seeking financing. *American Sociological Review*, 64(4), 481-505.
- Uzzi, B. & Gillespie, J. J. (2002). Knowledge spillover in corporate financing networks: Embeddedness and the firm's debt performance. *Strategic Management Journal*, 23, 595-618.
- Veall, M. R. and K. F. Zimmerman. (1996). Pseudo-R<sup>2</sup> measures for some common limited dependent variable models, *Journal of Economic Surveys*, 10(3), 241-259.
- Waldo, D. (1984). *The administrative state: A study of the political theory of American public administration*, 2<sup>nd</sup> ed. New York, NY: Holmes & Meier Publishers.
- Walker, D. M. (2007). United States Government Accountability Office, statement by David M. Walker, Comptroller General of the United States, testimony before the Committee on Budget, House of Representatives, 2007. *21<sup>st</sup> century challenges: how performance budgeting can help*. U.S. Government Printing Office: Washington D.C.
- Walker, R. M. & Boyne, G. A. (2006). Public management reform and organizational performance: An empirical assessment of the U.K. labour government's public service improvement strategy. *Journal of Policy Analysis and Management*, 25(2), 371-393.
- Walker, R. M. and Enticott, G. (2004). Using multiple informants in public administration: Revisiting the managerial values and actions debate. *Journal of Public Administration Research and Theory*, 14(3), 417-434.
- Wall, T. D., Michie, J., Patterson, M., Wood, S. J., Sheehan, M., Clegg, C.W., & West, M. (2004). On the validity of subjective measures of company performance. *Personnel Psychology*, 57(1), 95-118.
- Waller, J. D., Kemp, D. M., Scanlon, J. W., Tolson, F., & Wholey, J. S. (1976). *Monitoring for government agencies*. Washington, DC: The Urban Institute.
- Wamsley, G. L. & Zald, M. N. (1973). The political economy of public organizations. *Public Administration Review*, 33(1), 62-73.

- Wanat, J. (1974). Bases of budgetary incrementalism. *The American Political Science Review*, 68(3), 1221-1228.
- Wang, X. (2000). Performance measurement in budgeting: A study of county governments. *Public Budgeting and Finance*, 20(3), 102-118.
- Wang, X. (2002). Assessing performance measurement impact: A study of U.S. local governments. *Public Performance & Management Review*, 26(1), 26-43.
- Wang, X. & Berman, E. (2001). Hypotheses about performance measurement in counties: findings from a survey. *Journal of Public Administration Research and Theory*, 11(3), 403-427.
- Wanous, J. P. & Hudy, M. J. (2001). Single item reliability: A replication and extension. *Organizational Research Methods*, 4(4), 361-375.
- Wanous, J. P., Reichers, A. E., & Hudy, M. J. (1982). Overall job satisfaction: How good are single indicators? *Journal of Applied Psychology*, 82(2), 247-252.
- Warner, M. E., (2003). Competition, cooperation and local governance. In Brown, D. & Swanson, L. (Eds.), *Challenges for rural America in the twenty first century* (252-262). University Park, PA: Penn State University Press.
- Waters, W. R. (1991/1992). Schumpeter the sociologist--A review article. *Forum for Social Economics*, 21(1), 51-58.
- Weber, M. ([1922] 1968). *Economy and society: An outline of interpretive sociology*. Guenther R. & Wittich, C. (Eds.), New York, NY: Bedminster Press.
- Weber, M. ([1922] 1978). *Economy and society: An outline of interpretive sociology*. Guenther R. & Wittich, C. (Eds.), Berkeley, CA: University of California Press.
- Weick, K. E. (1976). Educational organizations as loosely coupled systems. *Administrative Science Quarterly*, 21(1), 1-19.
- Weick, K. E. (2000). Emergent change as a universal in organizations. In Beer, M. & Nohria, N. (Eds.), *Breaking the code of change*. Cambridge, MA: Harvard Business School Press.
- Weick, K. E. (2001). *Making sense of the organization*. Malden, MA: Blackwell Publishing.
- Welton, B. F. (1912). The problem of securing efficiency in municipal labor. *Annals of the American of Political and Social Science*, XLI (May), 103-114.
- Wentzel, K. (2002). The influence of fairness perceptions and goal commitment on managers' performance in a budget setting. *Behavioral Research in Accounting*, 14, 247-272.

- Whicker, M. L. (1992). An academician's response towards a grander budget theory. *Public Administration Review*, 25(6), 601-603.
- White, H. C. (1980). A heteroskedasticity-consistent covariance matrix estimator and a direct test for heteroskedasticity. *Econometrica* 48, 817-830.
- White, H. C. (1966). *Notes on coupling-decoupling*. Cambridge, MA: Harvard University, Social Relations Department.
- White, H. C. (1981). Where do markets come from? *American Journal of Sociology*, 87(3), 517-547.
- White, H. C. (1992). *Identity and control, a structural theory of social action*. Princeton, NJ: Princeton University Press.
- White, H. C. (2008). *Identity and control, how social formations emerge*. Princeton, NJ: Princeton University Press.
- White, J. (2001). In Swedlow, B. (Ed.), *Aaron Wildavsky, budgeting and governing*, Introduction by White, J. New Brunswick, CT: Transaction Publishers.
- White, L. D. (1933). *Trends in public administration*. New York, NY: McGraw-Hill Book Company.
- Wildavsky, A. B. (1961). Political implications of budgetary reform. *Public Administration Review*, 21(3), 183-190.
- Wildavsky, A. B. (1964). *Politics of the budgetary process*. Boston, MA: Little, Brown, and Company.
- Wildavsky, A. B. (1966). The political economy of efficiency: Cost-benefit analysis, systems analysis, and program budgeting. *Public Administration Review*, 26(4), 292-310.
- Wildavsky, A. B. (1978). A budget for all seasons? Why the traditional budget lasts. *Public Administration Review*, 38(6), 501-509.
- Wildavsky, A. B. (1979). *The politics of the budgetary process*. Boston, M.A.: Little, Brown.
- Wildavsky, A. B. (1986). *Budgeting: A comparative theory of budgetary processes*. New Brunswick, NJ: Transaction Books.
- Wildavsky, A. B. (1988). A cultural theory of budgeting. *International Journal of Public Administration*, 11(6), 651-677.
- Wildavsky, A. B. (1989a). The political economy of efficiency has not changed, but the world has and so have I. *Public Budgeting and Financial Management*, 1(1), 43-53.

- Wildavsky, A. B. (1989b). *Craftways: On the organization of scholarly work*. New Brunswick, NJ: Transaction Publishers.
- Wildavsky, A. B. (2001). In Swedlow, B. (Ed.), *Aaron Wildavsky, budgeting and governing*, Introduction by White, J. New Brunswick, CT: Transaction Publishers
- Wildavsky, A. B. & Caiden, N. (1997). *The new politics of the budgetary process*, 3<sup>rd</sup> ed. New York, NY: Longman.
- Wildavsky, A. B. & Caiden, N. (2004). *The new politics of the budgetary process*, 5<sup>th</sup> ed. New York, NY: Pearson/Longman.
- Williams, D. (2003). Measuring government in the early twentieth century. *Public Administration Review*, 63(6), 643- 659.
- Williams, J. J., Macintosh, N. B., & Moore, J. C. (1990). Budget-related behavior in public sector organizations: Some empirical evidence. *Accounting, Organizations and Society*, 15(3), 221-46.
- Williams, L. J., Cote, J. A. and Buckley, M. R. (1989). Lack of method variance in self reported affect and perceptions at work: Reality or artifact? *Journal of Applied Psychology*, 74, 462-468.
- Williams, R. (1976). *Keywords: A vocabulary of culture and society (revised edition)*. New York, NY: Oxford University Press.
- Williams, R. L. (2000). A note on robust variance estimation for cluster-correlated data. *Biometrics* 56, 645–646.
- Williamson, O. E. (1975). *Markets and hierarchies: Analysis and anti-trust implications*. New York, NY: Free Press.
- Williamson, O. E. (1979). Transaction costs economics: The governance of contractual relations. *Journal of Law and Economics*, 22(2), 233-261.
- Williamson, O. E. (1981). The economics of organization. *American Journal of Sociology*, 87(3), 548-77.
- Williamson, O. E. (1985). *The economic institutions of capitalism*. New York, NY: Free Press.
- Williamson, O. & Ouchi, W. (1981). The markets and hierarchies and visible hand perspectives  
In Van de Van, A. & Joyce, W. (Eds.), *Perspectives on organizational design and behavior* (347-370). New York, NY: Wiley.
- Willoughby, W. F. (1918). *The movement for budgetary reform in the states*. New York, NY: D. Appleton and Company.

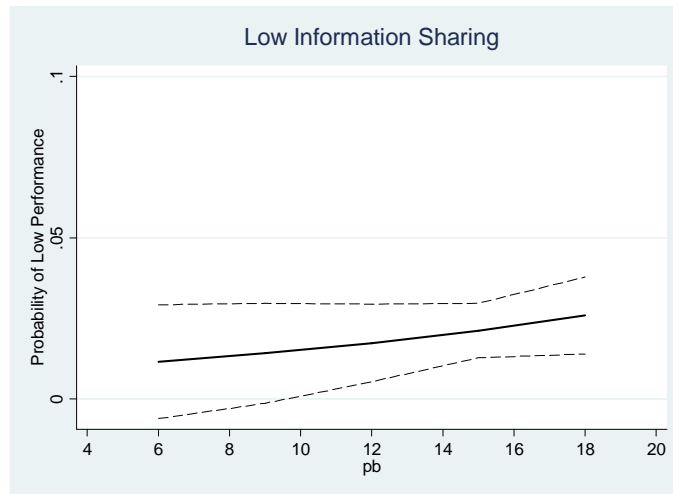
- Willoughby, K.G. (2004). Performance measurement and budget balancing: State government perspective. *Public Budgeting and Finance*, 24 (2), 21-39.
- Willoughby, K. G., & Melkers, J. E. (2000). Implementing PBB: Conflicting views of success. *Public Budgeting and Finance*, 20(1), 105-20.
- Willoughby, K. G., & Melkers, J. E. (2001). Assessing the impact of performance budgeting: A survey of American states. *Government Finance Review*, 17(2), 25-30.
- Wilson, J. Q. (1989). *Bureaucracy: What government Agencies do and why they do it*. New York, NY: Basic Books, Inc.
- Wilson, W. ([1887], 1941). The study of administration, *Political Science Quarterly*, 2, 197-222, 55: 481-506.
- Winnie, R. E. & Hatry, H. P. (1972). *Managing the effectiveness of local government services: Local transportation*. Washington D.C.: Urban Institute.
- Wofford, J. C., Goodwin, V. L., & Premack, S. (1982). Meta-analysis of the antecedents of personal goal level and of the antecedents and consequences of goal commitment. *Journal of Management*, 18(3), 595-615.
- Wolinsky, A. (1996). A strategic model of social and economic networks. *Journal of Economic Theory*, 71(1), 44-74.
- Wood, B. D. & Waterman, R. W. (1991). The dynamics of political control of the bureaucracy. *American Political Science Review*, 85, 801-828.
- Wood, B. D. & Waterman, R. W. (1993). The dynamics of political-bureaucratic adaptation. *American Journal of Political Science*, 37, 497-528.
- Wood, B. D. & Waterman, R. W. (1994). *Bureaucratic dynamics: The role of a bureaucracy in a democracy*. Boulder, CO: Westview Press.
- Woolcock, M. (1998). Social capital and economic development: Toward a theoretical synthesis and policy framework. *Theory and Society*, 27(2), 151-208.
- Woolridge, J.M. (2006). *Introductory economics*, 3<sup>rd</sup> ed. Mason, OH: Thomson South-Western.
- Wright, B. E. (2007). Public service motivation: Does mission matter? *Public Administration Review*, 67(1), 54-64.
- Wright, B. E. & Pandey, S. K. (2008). Public service motivation and the assumption of person organization fit: Testing the mediating effect of value congruence. *Administration and Society*, 40(2), 502-521.

- Wrong, D. (1961). The oversocialized conception of man in modern sociology. *American Sociological Review*, 26(2), 183-193.
- Yang, K. (2009). Examining perceived honest performance reporting by public organizations: Bureaucratic politics and organizational practice. *Journal of Public Administration Research and Theory*, 29(2), 191-216.
- Yang, K. & Holzer, M. (2006). The performance-trust link: Implications for performance measurement. *Public Administration Review*, 66(1), 114–126.
- Yang, K. & Pandey, S. K. (2009). How do perceived political environment and administrative reform affect employee commitment? *Journal of Public Administration Research and Theory*, 19(2), 335-360.
- Youndt, M. A., Snell, S. A., Dean, J. W., & Lepak, D. P. (1996). Human resource management, manufacturing strategy, and firm performance. *Academy of Management Journal*, 39 (4), 836–66.
- Zammuto, R. F. & Krakower, J. Y. (1991) Qualitative and quantitative studies of organizational culture. *Research in Organizational Change and Development*, 5, 83-114.
- Zafirovsky, M. (1999). Economic sociology in retrospect and prospect: In search of its identity within economics and sociology. *American Journal of Economic Sociology*, 58(4), 583-627.
- Zafirovsky, M. (2001). *Exchange, action, and social structure: Elements of economic sociology*. Westport CT: Greenwood Press.
- Zafirovsky, M. (2003). *Markets and society: two theoretical frameworks*. Westport, CT: Praeger.
- Zafirovski, M. & Levine, B. (1997). The agenda of economic sociology reformulated: The interface between economics and sociology. *The American Journal of Economics and Sociology* 56 (3), 265-285.
- Zelizer, V. A. (1988). Beyond the polemics of the market: Establishing a theoretical and empirical agenda. *Sociological Forum*, 3(4), 614-634.
- Zucker, L. G. (1986). Production of trust: Institutional sources of economic structure: 1840-1920, In Cummings, L. L., & Staw, B. (Eds.), *Research in organizational behavior* (55-111), vol. 8. Greenwich, CT: JAI.
- Zucker, L. G. (1987). Institutional theories of organization, *Annual Review of Sociology*, 13, 443-464.

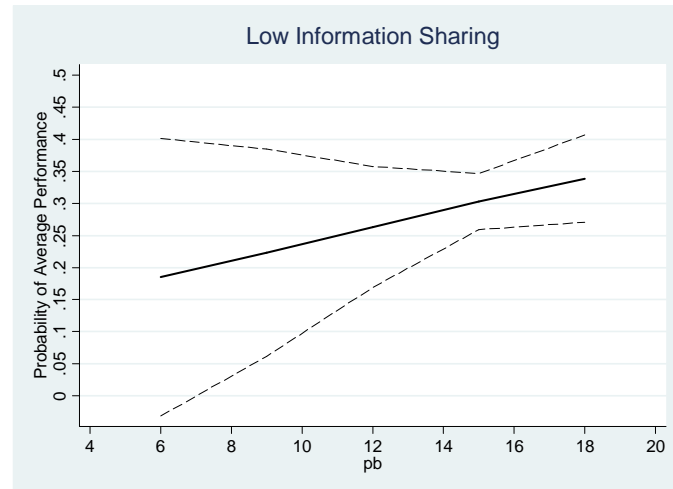
Zukin, S., & DiMaggio P. (1990). Introduction. In Zukin, S. & DiMaggio, P. (Eds.), *Structures of capital: The social organization of the economy* (1-36). New York, NY: Cambridge University Press.



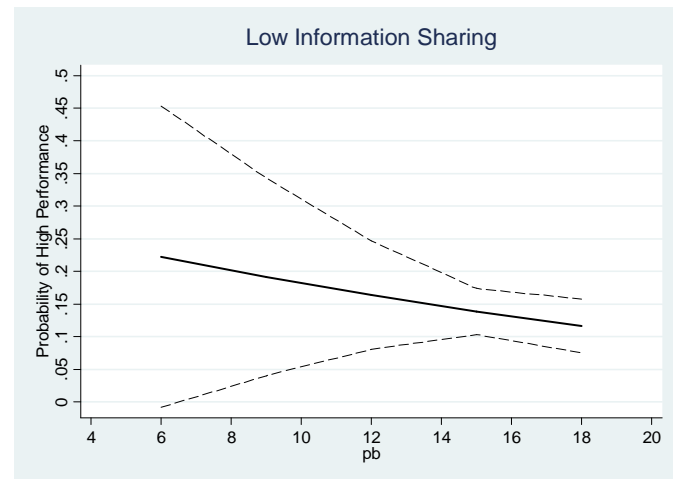
Appendix A – Graphic Representations of Table 5.6, Predicted Probabilities  
 Figure A.1. Performance Probabilities for Low Information Sharing



Low Performance Budgeting

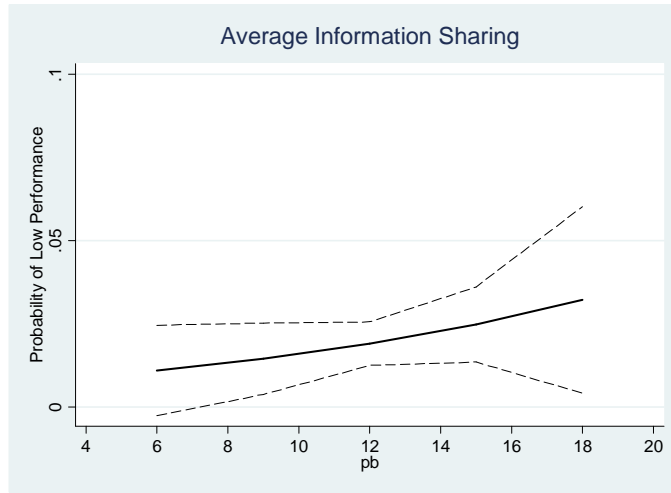


Average Performance Budgeting

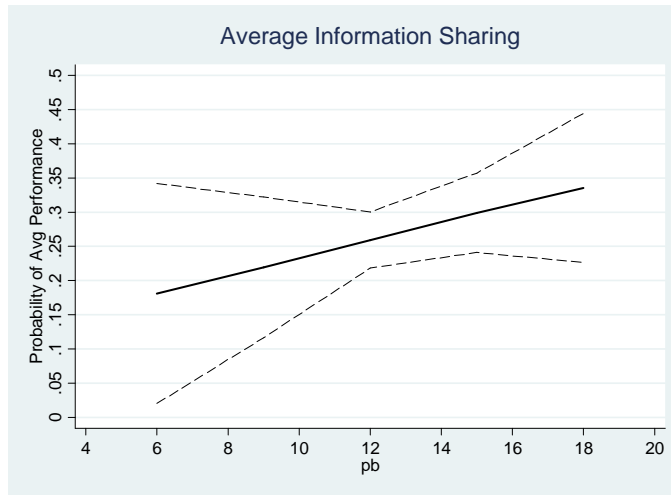


High Performance Budgeting

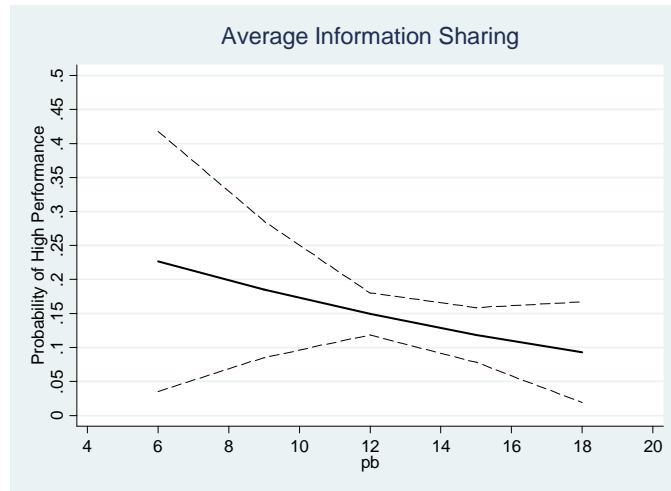
Figure A.2. Performance Probabilities for Average Information Sharing



Low Performance Budgeting

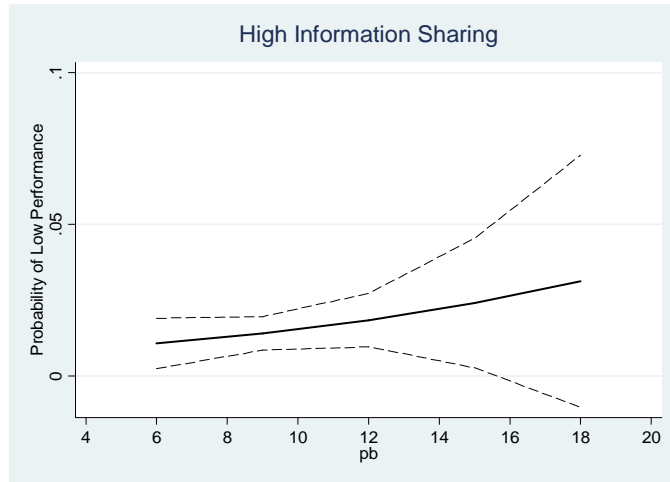


Average Performance Budgeting

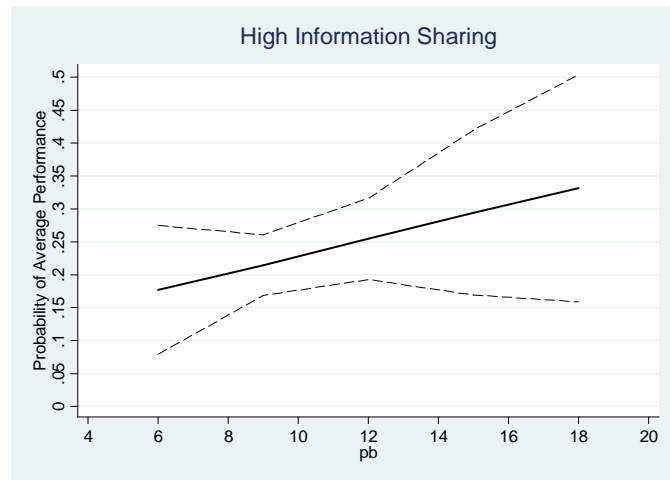


High Performance Budgeting

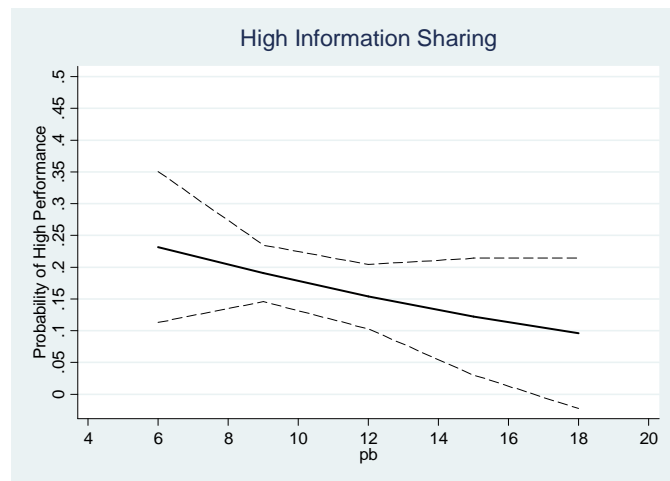
Figure A.3. Performance Probabilities for High Information Sharing



Low Performance Budgeting

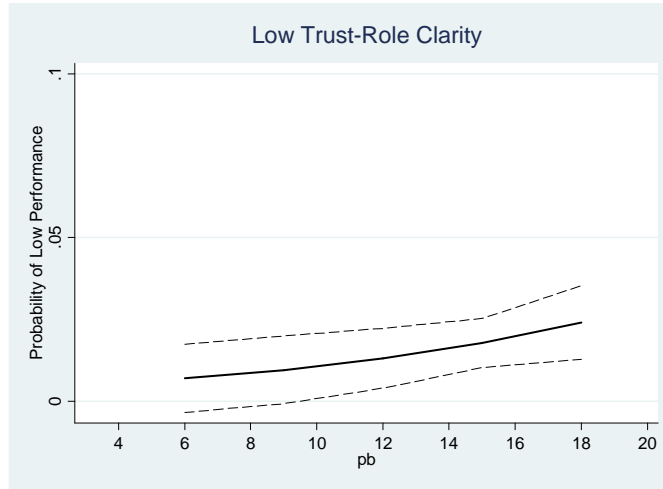


Average Performance Budgeting



High Performance Budgeting

Figure A.4. Performance Probabilities for Low Trust – Role Clarity



Low Performance Budgeting

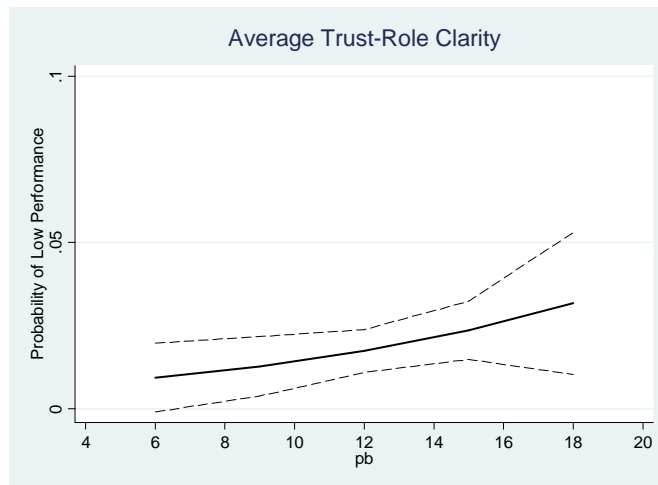


Average Performance Budgeting

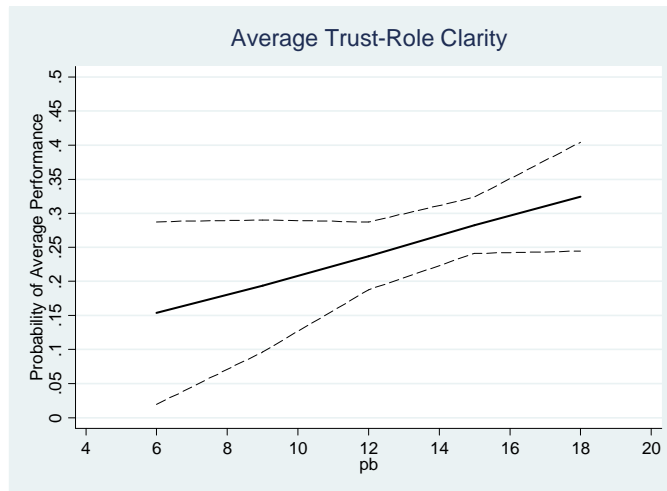


High Performance Budgeting

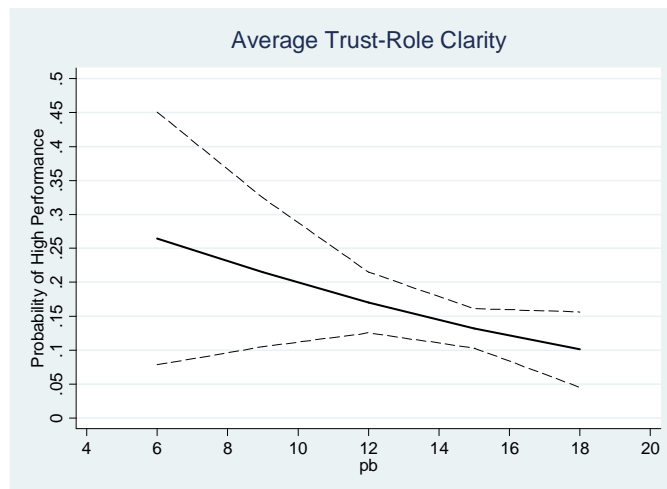
Figure A.5. Performance Probabilities for Average Trust – Role Clarity



Low Performance Budgeting

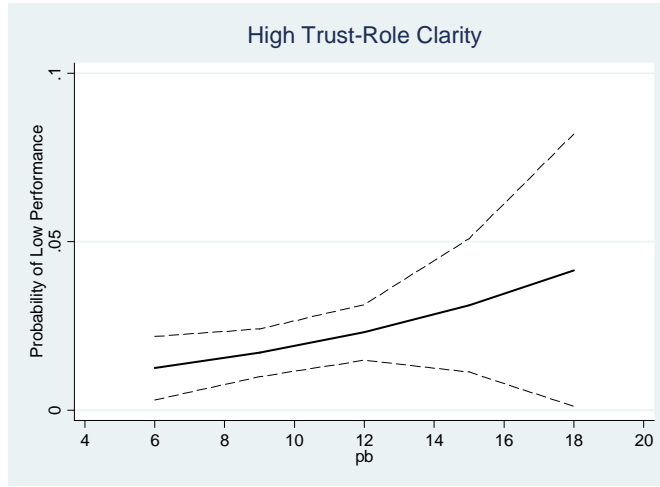


Average Performance Budgeting

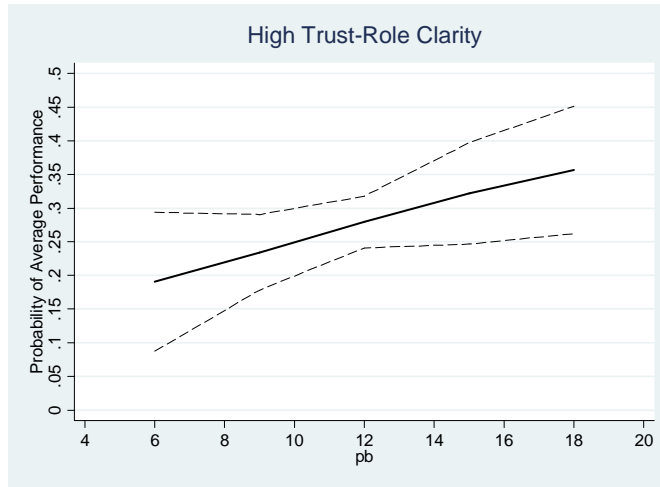


High Performance Budgeting

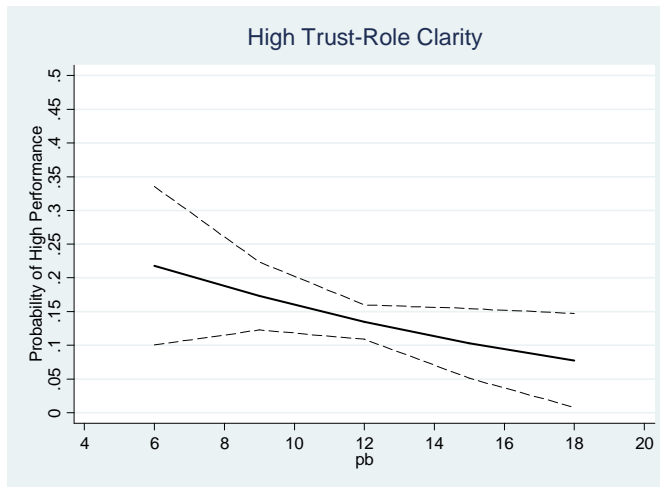
Figure A.6. Performance Probabilities for High Trust – Role Clarity



Low Performance Budgeting

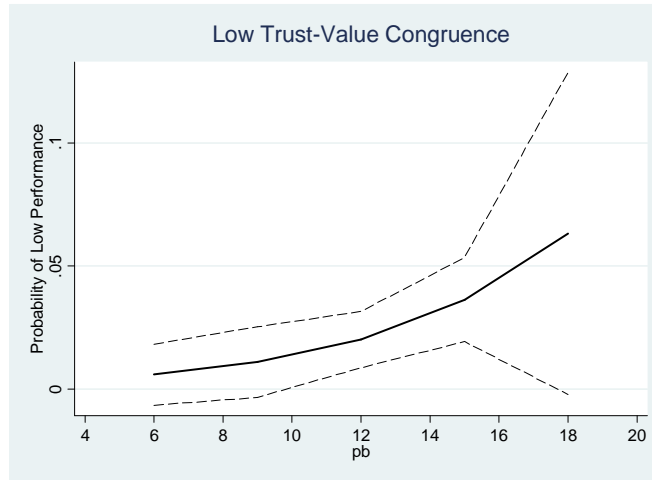


Average Performance Budgeting

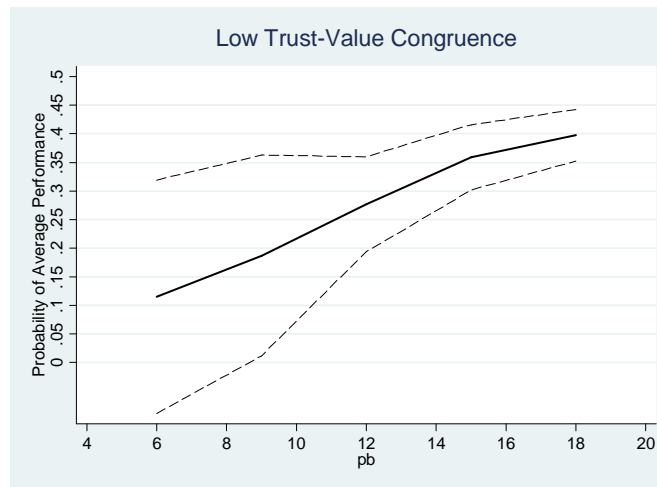


High Performance Budgeting

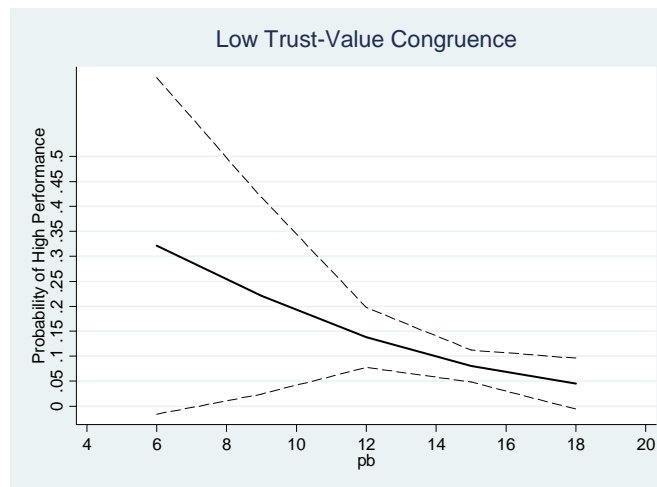
Figure A.7. Performance Probabilities for Low Trust – Value Congruence



Low Performance Budgeting

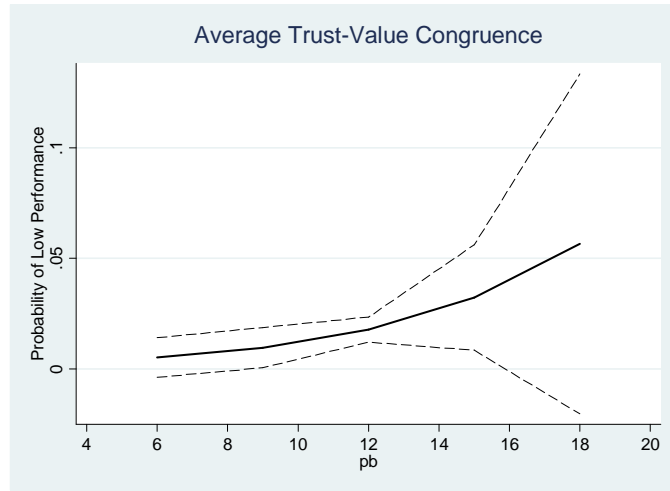


Average Performance Budgeting

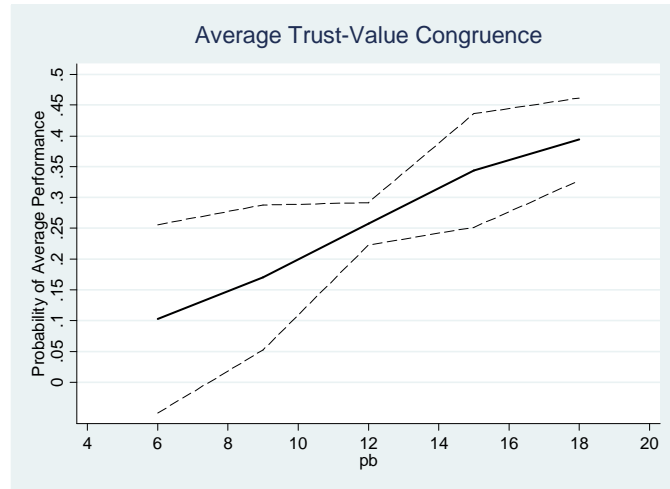


High Performance Budgeting

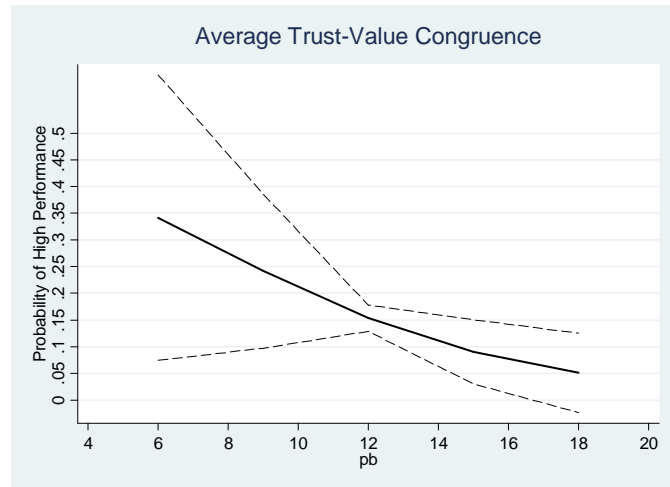
Figure A.8. Performance Probabilities for Average Trust – Value Congruence



Low Performance Budgeting



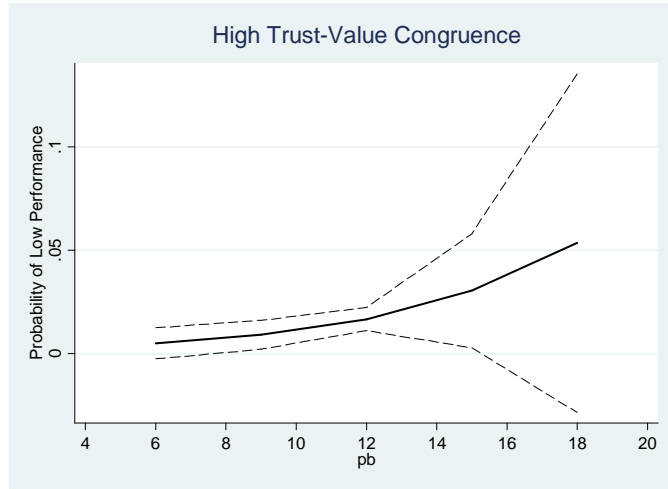
Average Performance Budgeting



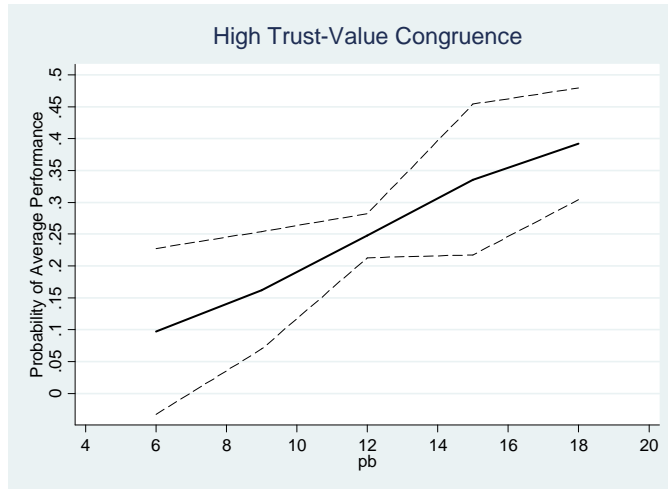
High Performance Budgeting



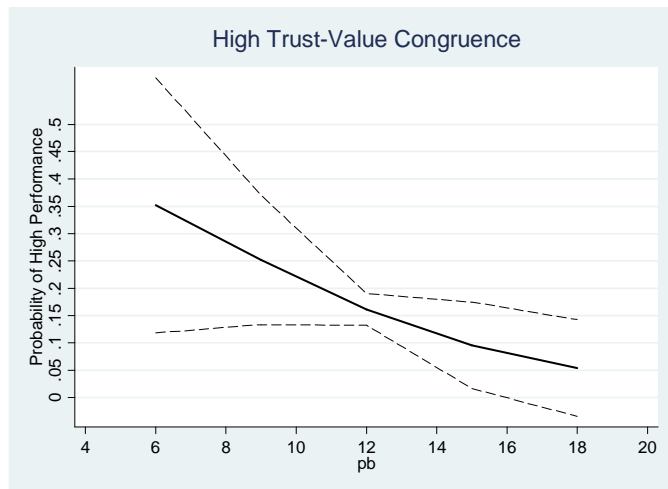
Figure A.9. Performance Probabilities for Average Trust – Value Congruence



Low Performance Budgeting



Average Performance Budgeting



High Performance Budgeting

Appendix B – Detailed Multi-step Mediated and Moderated Logit Regressions

**Information Sharing**

Step 1 for Mediated Information Sharing

<b>Organizational Effectiveness</b>	<b>Odds Ratio</b>	<b>z-Score</b>	<b>P &gt;  z </b>	<b>Wald Chi Squared (12)</b>	<b>McKelvey &amp; Zavoina's R<sup>2</sup>/ Count R<sup>2</sup></b>	<b>[95% Conf. Interval]</b>
<b>Performance Budgeting</b>	<b>1.096</b>	<b>5.19</b>	<b>0.00</b>	<b>428.65</b>	<b>0.449 / 0.393</b>	<b>1.05895 1.13526</b>

Step 2 for Mediated Information Sharing

<b>Performance Budgeting</b>	<b>Odds Ratio</b>	<b>z-Score</b>	<b>P &gt;  z </b>	<b>Wald Chi Squared (12)</b>	<b>McKelvey &amp; Zavoina's R<sup>2</sup>/ Count R<sup>2</sup></b>	<b>[95% Conf. Interval]</b>
<b>Information Sharing</b>	<b>1.065</b>	<b>4.09</b>	<b>0.00</b>	<b>249.69</b>	<b>0.209 / 0.140</b>	<b>1.03387 1.09911</b>

Step 3 for Mediated Information Sharing

<b>Organizational Effectiveness</b>	<b>Odds Ratio</b>	<b>z-Score</b>	<b>P &gt;  z </b>	<b>Wald Chi Squared (13)</b>	<b>McKelvey &amp; Zavoina's R<sup>2</sup>/ Count R<sup>2</sup></b>	<b>[95% Conf. Interval]</b>
<b>Performance Budgeting</b>	<b>1.081</b>	<b>4.39</b>	<b>0.00</b>	<b>493.02</b>	<b>0.474 / 0.405</b>	<b>1.04442 1.12043</b>
<b>Information Sharing</b>	<b>1.115</b>	<b>6.56</b>	<b>0.00</b>			<b>1.07956 1.15232</b>

Step 1 for Moderated Information Sharing

<b>Organizational Effectiveness</b>	<b>Odds Ratio</b>	<b>z-Score</b>	<b>P &gt;  z </b>	<b>Wald Chi Squared (12)</b>	<b>McKelvey &amp; Zavoina's R<sup>2</sup>/ Count R<sup>2</sup></b>	<b>[95% Conf. Interval]</b>
<b>Performance Budgeting</b>	<b>1.096</b>	<b>5.19</b>	<b>0.00</b>	<b>428.65</b>	<b>0.449 / 0.393</b>	<b>1.05895 1.13526</b>

Step 2 for Moderated Information Sharing

<b>Organizational Effectiveness</b>	<b>Odds Ratio</b>	<b>z-Score</b>	<b>P &gt;  z </b>	<b>Wald Chi Squared (14)</b>	<b>McKelvey &amp; Zavoina's R<sup>2</sup>/ Count R<sup>2</sup></b>	<b>[95% Conf. Interval]</b>
<b>Performance Budgeting</b>	<b>0.910</b>	<b>-1.04</b>	<b>0.30</b>	<b>513.15</b>	<b>0.475 / 0.411</b>	<b>.762503 1.08612</b>
<b>Information Sharing</b>	<b>1.001</b>	<b>0.12</b>	<b>0.905</b>			<b>.901478 1.12428</b>
<b>Interaction Variable</b>	<b>1.001</b>	<b>1.96</b>	<b>0.050</b>			<b>1.00001 1.01661</b>

## Vertical Information Sharing

### Step 1 for Mediated Vertical Information Sharing

Organizational Effectiveness	Odds Ratio	z-Score	P >  z	Wald Chi Squared (12)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Performance Budgeting	1.096	5.19	0.00	428.65	0.449 / 0.393	1.05895 1.13526

### Step 2 for Mediated Vertical Information Sharing

Performance Budgeting	Odds Ratio	z-Score	P >  z	Wald Chi Squared (12)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Vertical Information Sharing	1.12	4.08	0.00	255.92	0.211 / 0.145	1.06036 1.18193

### Step 3 for Mediated Vertical Information Sharing

Organizational Effectiveness	Odds Ratio	z-Score	P >  z	Wald Chi Squared (13)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Performance Budgeting	1.083	4.49	0.00	458.69	0.466 / 0.404	1.04618 1.12199
Vertical Information Sharing	1.157	5.46	0.00			1.09825 1.21966

### Step 1 for Moderated Vertical Information Sharing

Organizational Effectiveness	Odds Ratio	z-Score	P >  z	Wald Chi Squared (12)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Performance Budgeting	1.096	5.19	0.00	428.65	0.449 / 0.393	1.05895 1.13526

### Step 2 for Moderated Vertical Information Sharing

Organizational Effectiveness	Odds Ratio	z-Score	P >  z	Wald Chi Squared (14)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Performance Budgeting	0.972	-0.42	0.675	472.75	0.466 / 0.411	.851605 1.10955
Vertical Information Sharing	1.013	0.16	0.870			.901478 1.12428
Interaction Variable	1.011	1.69	0.092			.998261 1.02346

## Horizontal Information Sharing

### Step 1 for Mediated Horizontal Information Sharing

Organizational Effectiveness	Odds Ratio	z-Score	P >  z	Wald Chi Squared (12)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Performance Budgeting	1.096	5.19	0.00	428.65	0.449 / 0.393	1.05896 1.13526

### Step 2 for Mediated Horizontal Information Sharing

Performance Budgeting	Odds Ratio	z-Score	P >  z	Wald Chi Squared (12)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Horizontal Information Sharing	1.064	2.49	0.013	232.38	0.200 / 0.137	1.01323 1.11626

### Step 3 for Mediated Horizontal Information Sharing

Organizational Effectiveness	Odds Ratio	z-Score	P >  z	Wald Chi Squared (13)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Performance Budgeting	1.089	4.79	0.00	495.03	0.465 / 0.404	1.05211 1.12895
Horizontal Information Sharing	1.151	5.30	0.00			1.09263 1.21234

### Step 1 for Moderated Horizontal Information Sharing

Organizational Effectiveness	Odds Ratio	z-Score	P >  z	Wald Chi Squared (12)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Performance Budgeting	1.096	5.19	0.00	428.65	0.449 / 0.393	1.05895 1.13526

### Step 2 for Moderated Horizontal Information Sharing

Organizational Effectiveness	Odds Ratio	z-Score	P >  z	Wald Chi Squared (14)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Performance Budgeting	0.932	-0.91	0.362	518.44	0.467 / 0.401	.800769 1.08442
Horizontal Information Sharing	0.963	-0.40	0.687			.803255 1.15522
Interaction Variable	1.015	2.07	0.038			1.00077 1.02853

## Trust (Role Clarity)

### Step 1 for Mediated Trust (Role Clarity)

Organizational Effectiveness	Odds Ratio	z-Score	P >  z	Wald Chi Squared (12)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Performance Budgeting	1.096	5.19	0.00	428.65	0.449 / 0.393	1.05895 1.13526

### Step 2 for Mediated Trust (Role Clarity)

Performance Budgeting	Odds Ratio	z-Score	P >  z	Wald Chi Squared (12)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Trust (Role Clarity)	1.132	4.66	0.000	258.98	0.214 / 0.147	1.07425 1.19220

### Step 3 for Mediated Trust (Role Clarity)

Organizational Effectiveness	Odds Ratio	z-Score	P >  z	Wald Chi Squared (13)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Performance Budgeting	1.090	4.98	0.00	426.30	0.455 / 0.410	1.05366 1.12752
Trust (Role Clarity)	1.086	2.83	0.01			1.09263 1.21234

### Step 1 for Moderated Trust (Role Clarity)

Organizational Effectiveness	Odds Ratio	z-Score	P >  z	Wald Chi Squared (12)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Performance Budgeting	1.096	5.19	0.00	428.65	0.449 / 0.393	1.05895 1.13526

### Step 2 for Moderated Trust (Role Clarity)

Organizational Effectiveness	Odds Ratio	z-Score	P >  z	Wald Chi Squared (14)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Performance Budgeting	0.898	-1.44	0.149	493.82	0.457 / 0.409	.776684 1.03898
Trust (Role Clarity)	0.905	-1.37	0.170			.784073 1.04393
Interaction Variable	1.016	2.71	0.001			1.00443 1.02804

## Trust (Values)

### Step 1 for Mediated Trust (Values)

Organizational Effectiveness	Odds Ratio	z-Score	P >  z	Wald Chi Squared (12)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Performance Budgeting	1.096	5.19	0.00	428.65	0.449 / 0.393	1.05895 1.13526

### Step 2 for Mediated Trust (Values)

Performance Budgeting	Odds Ratio	z-Score	P >  z	Wald Chi Squared (12)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Trust (Values)	1.096	2.02	0.044	232.49	0.199 / 0.146	1.00256 1.19794

### Step 3 for Mediated Trust (Values)

Organizational Effectiveness	Odds Ratio	z-Score	P >  z	Wald Chi Squared (13)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Performance Budgeting	1.090	4.93	0.00	473.66	0.476 / 0.405	1.05313 1.12750
Trust (Values)	1.356	6.28	0.00			1.23393 1.49356

### Step 1 for Moderated Trust (Values)

Organizational Effectiveness	Odds Ratio	z-Score	P >  z	Wald Chi Squared (12)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Performance Budgeting	1.096	5.19	0.00	428.65	0.449 / 0.393	1.05895 1.13526

### Step 2 for Moderated Trust (Values)

Organizational Effectiveness	Odds Ratio	z-Score	P >  z	Wald Chi Squared (14)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Performance Budgeting	0.809	-1.51	0.131	487.49	0.479 / 0.412	.614893 1.06498
Trust (Values)	1.070	0.62	0.538			.863181 1.32581
Interaction Variable	1.016	2.13	0.033			1.00169 1.04214

## Trust (Political Support)

Step 1 for Mediated Trust (Political Support)

Organizational Effectiveness	Odds Ratio	z-Score	P >  z	Wald Chi Squared (12)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Performance Budgeting	1.096	5.19	0.00	428.65	0.449 / 0.393	1.05895 1.13524

Step 2 for Mediated Trust (Political Support)

Performance Budgeting	Odds Ratio	z-Score	P >  z	Wald Chi Squared (12)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Trust (Political Support)	1.019	0.93	0.355	230.42	0.197 /	.978686 1.06194

Step 3 for Mediated Trust (Political Support)

Not required, Trust (Political Support) was not significant in Step 2

Step 1 for Moderated Trust (Political Support)

Organizational Effectiveness	Odds Ratio	z-Score	P >  z	Wald Chi Squared (12)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Performance Budgeting	1.096	5.19	0.00	428.65	0.449 / 0.393	1.05895 1.13526

Step 2 for Moderated Trust (Political Support)

Organizational Effectiveness	Odds Ratio	z-Score	P >  z	Wald Chi Squared (14)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Performance Budgeting	1.005	0.11	0.913	469.96	0.463 / 0.404	.908455 1.11332
Trust (Political Support)	0.999	-0.01	0.996			.883907 1.13059
Interaction Variable	1.009	1.77	0.078			.999061 1.01810

## Budget Decentralization

### Step 1 for Mediated Budget Decentralization

Organizational Effectiveness	Odds Ratio	z-Score	P >  z	Wald Chi Squared (12)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Performance Budgeting	1.096	5.19	0.000	428.65	0.449 / 0.393	1.05895 1.13526

### Step 2 for Mediated Budget Decentralization

Performance Budgeting	Odds Ratio	z-Score	P >  z	Wald Chi Squared (12)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Budget Decentralization	1.150	4.82	0.000	238.63	0.215 / 0.149	1.08540 1.21421

### Step 3 for Mediated Budget Decentralization

Organizational Effectiveness	Odds Ratio	z-Score	P >  z	Wald Chi Squared (13)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Performance Budgeting	1.089	4.90	0.000	442.25	0.458 / 0.410	1.05246 1.12669
Budget Decentralization	1.123	3.46	0.001			1.05146 1.19914

### Step 1 for Moderated Budget Decentralization

Organizational Effectiveness	Odds Ratio	z-Score	P >  z	Wald Chi Squared (12)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Performance Budgeting	1.096	5.19	0.00	428.65	0.449 / 0.393	1.05895 1.13526

### Step 2 for Moderated Budget Decentralization

Organizational Effectiveness	Odds Ratio	z-Score	P >  z	Wald Chi Squared (14)	McKelvey & Zavoina's R <sup>2</sup> / Count R <sup>2</sup>	[95% Conf. Interval]
Performance Budgeting	0.809	0.27	0.787	447.01	0.458 / 0.410	.889305 1.16758
Budget Decentralization	1.030	0.30	0.764			.850061 1.24744
Interaction Variable	1.007	0.96	0.336			.992516 1.02226