PERFORMANCE-BASED BUDGETING: REALITY OR RHETORIC?

By Dong-Young Rhee

A dissertation submitted to the

Graduate School-Newark

Rutgers, The State University of New Jersey

In partial fulfillment of requirements

For the degree of

Doctor of Philosophy

School of Public Affairs and Administration

Written under the direction of

Professor Kathe Callahan

and approved by

_____

_____

_____

_____

Newark, New Jersey

May, 2009

ABSTRACT OF THE DISSERTATION

Performance-Based Budgeting: Reality or Rhetoric?

By Dong-Young Rhee

Dissertation Director:

Professor Kathe Callahan

A recurring theme in the field of public budgeting is the conflict between descriptive and normative theory. The literature related to descriptive theory suggests that factors, such as politics, the bureaucracy and economic conditions may dominate the public budget process. However, the current performance-based budgeting strategies are based on normative theory, which assumes performance information will have a direct impact on public sector resource allocations. This study examines this theme in the context of the latest performance-based budgeting effort implemented at the federal level of government: the Program Assessment Rating Tool (PART).

To inspect whether performance information has any impact on budget decisions in Congress, an analytical model that combines various factors based on the both normative and descriptive theories was developed. The model includes political, fiscal, and bureaucratic factors cited in the descriptive literatures, and performance data provided by PART. Specifically, the research question is: Does the performance information contained in PART ratings have an impact on congressional budget appropriations? Through a series of regression analyses utilizing PART data across 688 programs in 24 federal agencies for a 4 year period, this study reveals that performance information influences congressional

appropriations in significant but limited ways. The impact of performance information depends on the magnitude of the descriptive theory factors.

Data analysis shows that PART not only provides evidence that performance-based budgeting can work in certain situations, but also implies it being rhetoric where the influence of performance information differs depending on the specific circumstances whether political, fiscal, or bureaucratic. The findings from this research include: 1) Performance information is vulnerable to political preferences, such as partisan goals, stakeholder pressure, and constituent needs. 2) The influence of PART is constrained by federal fiscal conditions. 3) Bureaucratic manager type dictates the patterns of performance and budget integration.

Identifying and understanding the specific conditions under which performance information is the basis for resource allocations, in particular budget decisions in Congress, has implications for improving performance-based budgeting systems. When such conditions become clear, the normative theory of basing resource allocation on measurable indicators will be more realistic and powerful.

ACKNOWLEGEMENTS

The completion of this dissertation would not have been possible without the tremendous support and encouragement of professors, colleagues and family. First, I am indebted to my committee members - Professor Kathe Callahan, Professor Hindy Schachter, Professor Norma Riccucci, and Professor Peter Loeb who have been very helpful throughout the dissertation process. In particular, I am lucky to have been advised by Professor Callahan. She has constantly provided insightful and thorough direction of my work, and repeatedly challenged my thinking and writing skills, thus, a heartfelt thank goes out to my advisor.

I would also like to acknowledge Dean Marc Holzer, who has financially supported me throughout the doctoral program; and Professor Elizabeth Hull and Professor Gerald Miller, who are generous and wonderful scholars. Many thanks to SPAA staff - Gail Daniels, Melissa Rivera, and Madelene Perez: their assistance and kindness made all of this possible. I would also like to thank my numerable intelligent colleagues. In particular, Sock-Hwan provided a critical eye on statistics, Dong-Chul encouraged me to research this topic, and Weerasak and Jonathan gave valuable comments. We shared student life together.

I am most grateful for my family - grandfather, parents, Ka-Young, Ji-Young, Yoon-Young, and Sang-Jun. Without their endless love and support, I could not have completed this work. Lastly, I would like to thank my friends at Church and their numerous sincere prayers. Thank you, God.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ACRONYMS

EPA	Environmental Protection Agency
GAO	Government Accountability Office
GPRA	Government Performance and Results Act
MBO	Management by Objectives
NASA	National Aeronautics and Space Administration
OMB	Office of Management and Budget
PART	Program Assessment Rating Tool
PMA	President's Management Agenda
PPBS	Planning-Programming-Budgeting-System
R&D	Research and Development
NASA	National Aeronautics and Space Administration
ZBB	Zero-Base Budgeting

Chapter One

Introduction

1.1 Background

Performance-based budgeting depends on performance information concerning the achievement of intended organizational or program results. Ideally, decision makers will utilize performance information as one criterion in resource allocation in order to give incentives or punishments so that better results may be achieved. The experience of the federal government in using performance information in resource allocation has been encouraging but unsuccessful during past decades, surpassing performance budgeting initiated by the first Hoover Commission, Planning-Programming-Budgeting-System (PPBS), Zero-Base Budgeting (ZBB), and Management by Objectives (MBO). Envisioned by the Government Performance and Results Act (GPRA), the George W. Bush Administration launched the Program Assessment Rating Tool (PART), which is the most recent iteration of federal performance-based budgeting as one of five government-wide management priorities under the President's Management Agenda (PMA). It is a diagnostic tool to assess the federal program performance, which is a basis of program funding decisions, aiming for more transparent, robust and systematic links between performance and resource allocations (Mullen 2006). However, the political reality of the budgetary process challenges the rational assumption of performance-based budgeting.

The reality of budgetary reform is far from the neat model of continuous use of performance information in actual budget allocations. It is difficult to find systematic

evidence that these various reforms have had a major impact on budget decisions. There are challenges in this area. For resource allocations in the public sector, there are multiple and conflicting objectives, conflicting stakeholders' interests (Stewart & Ranson 1988), and complex, multifaceted, fragmented, and evolving nature of government programs (Kravchuk & Schack 1996). In implementing PART, the challenges may be difficulty in achieving stakeholder consensus on meaningful performance information and resource allocation in a complex political and economic environment.

The purpose of this study is to examine the utilization of the performance information provided by PART in budget allocations. By using data from the U.S. Office of Management and Budget (U.S. OMB) on performance oriented budgetary practice in federal agencies, this study will attempt to answer the following question: Does the performance information contained in PART ratings have an impact on congressional budget appropriations? To inspect the principle of results-based budgeting in PART implementation, this study suggests another research question: Does the program results section of PART have a greater impact on congressional appropriations than the process-related performance information? If so, under what conditions does results-based performance information have the greatest impact on congressional appropriations? Specifically, this dissertation will examine PART ratings and a group of control variables such as political, bureaucratic, and fiscal variables that may affect the magnitude of budget allocation directly and indirectly. The impact of these variables will be examined in actual appropriations approved by Congress.

1.2 Importance

In a concept of performance-based budgeting[1], the budget is the tool that rewards or punishes agencies and programs based on their performance achievements. One important reason for adopting performance-based budgeting is the promise that the practice holds for determining whether programs work and thus deserve budget increases. "In reality, however, we know very little about the actual effects of these reforms." (Melkers & Willoughby 2001, p.59) In this context, this study examines the actual effects of PART, which is the latest performance-based budgeting in federal budgeting and resource allocation. Previous research has mainly focused on a proposed budget, whereby the actual allocations are carried out in Congressional appropriations. The U.S. OMB (2003a) argues that PART is used as a framework for agency program assessment and informs its budget decisions. Gilmour and Lewis (2006a, 2006b) found PART ratings are correlated with proposed budget increases for fiscal years 2004 and 2005. However, the unresolved question still remains as to whether and how PART ratings influence Congressional appropriations.

According to GAO (2005a), most Congressional staff did not use PART information because of the lack of detail on how to arrive at ratings of a program's performance as well as the design of PART which is OMB's tool of choice for serving the administration's needs. While Congressional staffers say PART ratings provide insufficient information and therefore do not rely on them, the actual reason may be political. If PART influences OMB's proposals but is not used in appropriations, what does that imply? History has shown that Congress is in large part implicated in the failure

[1] In this study, the term "performance-based budgeting" refers to the latest budget reform effort involving the PART since the GPRA of 1993.

of budgetary reforms (Wildavsky 1961; Bourdeaux 2006). Previous studies found that resistance from Congress was a key reason for failure of planning programming budgeting (PPB). PPB was not included in Congressional decision making, and thus had no influence on actual budgetary decisions (Botner 1970; Gross 1969; Schick 1973). ZBB also encountered similar problems with PPB because ZBB was implemented without significant legislative engagement. Although both PPB and ZBB improved agency internal decision making and transparency (Capron 1969), past budgetary reforms faltered due to unsuccessful Congress engagement.

To date, few empirical studies have addressed PART utilization in Congressional appropriations despite its importance, which is due to the lack of data (Gilmour & Lewis 2006a, 2006b). Additionally, empirical studies on proposed budgets have focused only on data from the first two year. As of 2008, which is the last year of the G.W. Bush Administration, the PART system has been in operation for six years. Of utmost importance, researchers now have an opportunity to comprehensively inspect how effective the performance-based budgeting initiative has been since its inception. Thus, this dissertation is an effort to examine the use of PART ratings in Congressional appropriations with panel data from FY 2004 to FY 2008. Through identification of the important political, bureaucratic, and economic factors and their magnitude of impact on performance-based budgeting, this study will provide relevant information when people consider a tool to enhance performance information utilization in the budget process.

1.3 Structure of the Dissertation

This dissertation is comprised of six chapters. Chapter two provides an overview of the literature on public budget theory and federal budget reforms. First, it reviews the theory in public budgeting within the context of public administration. This review is followed by a discussion of rational budget reforms during past decades in the federal government in general and through the current effort of PART in particular. The last part of the literature review introduces recent empirical studies on the PART and performance-based budgeting to identify the efficacy in public budgeting. Chapter three begins with a discussion of multiple dimensions of performance-based budgeting. This is followed by hypotheses that inspect the impact of PART in budget decisions. Chapter four describes the empirical data used in this study, the operationalization of variables used in the analysis, and the panel analysis method utilized in analyzing the data. Regression models are presented in this chapter to specify the causal relations between the variables and resource allocation.

Chapter five summarizes the specific findings of the statistical analysis from the empirical data. The magnitudes of PART effects, and the political, bureaucratic, fiscal and program factors are discussed explicitly. The impact of performance information on budget decisions is thoroughly inspected in the interaction with other variables. The last chapter consists of the conclusions for this research. It discusses the theoretical and practical implications of the findings from the empirical analysis. It concludes by examining the limitations of this study and provides future research perspectives in the area of performance-based budgeting.

Chapter Two

Literature Review

2.1 Theory in Public Budget

As much in pubic administration, public budgeting also can be approached through a lens of two theoretical perspectives that are descriptive and normative (Rubin 1990). In general, the descriptive theory aims to explain trends of events and uniformities across cases in the public sector based on observation, while the normative theory attempts to suggest solutions based on values rather than describing observations. The normative theory in public budgeting began at least from the early 20th century when reformers were attacking the spoils system that involved the budgeting system dominated by legislatures associated with corruption and inefficiency (Burkhead 1956; Abney & Lauth 1998; Wildavsky & Caiden 2003). It was necessary to develop a science of administration out of the politics to make government management more businesslike (Wilson 1887; White 1926). This orthodoxy deriving from the politics-administration dichotomy emphasized efficiency in the public sectors (Taylor 1911; Fayol 1949). Furthermore, reformers sought to find ways to ensure coordination of the political and administrative function, holding administrators accountable to political authorities without undermining the separation of politics from administration (Goodnow 1900).

During this era, one of goals of budget reformers included the expansion of the power of the executive branch for policy formulation. In budget processes they aimed for a stronger role of the executive but a small role of the legislative despite a debate on these roles in a democracy. Later, the executive budget was created by Budget and Accounting

Act of 1921, which gave the Presidential power to submit a government budget to Congress; and contributed to several federal budget reforms. Enhancing public accountability was another important theme for budget reformers during this time. Reformers believed that the public accountability in budget could be enhanced by improvement of the quality of budget information that would be provided to the public as well as the legislature because it could help their understanding of what the government was working for, and how much government was spending to achieve its goals. To provide the improved quality of budget information, new budget formats were invented. The role of planning was emphasized in the budget to accomplish specific goals. To cut back expenditures, cost accounting and management were advocated by reformers while economists were more concerned with choices between options based on rational choices. Both of them were to achieve better efficiency that gets the most from each dollar, ultimately to promote accountability in public budget.

This early reform movement had been followed by a series of rational budget reforms that sought to rationalize[2] resource allocation through analytical techniques or administrative practices. These government-wide reform initiatives have the same purposes as those of the reformers of the early 1900s (Schick 1990) since they were characterized as a historical development where new efforts were consecutively added to existing ones. For example, the first Hoover Commission expresses the efficiency goal of the early reformers. The linking of planning to budgets in the PPBS was a part of the early reformers' endeavors. The MBO also reflects the early reformers' attempts to link the specific annual goals to work loads. From a contemporary perspective, the vestiges have

[2] The term ‘‘rationalize’’ here is defined by the application of analysis within standardized systems of impersonal rules (Dull 2006; Brint 1994).

been still lingering in the recent rational budgetary reform that is PART because the accountability goal of current performance-based budgeting was also a part of the early reformers' concerns.

These rational budgetary reforms have been an effort to take politics out of budgeting, or at least reduce the political forces on the budget process (Pitsdava & Draper 1984), and an effort to provide more objective criteria for budget decisions, which originated in a science of management outlined by Gulick (1937) building on Taylor's scientific management (1911), Fayol (1949), and Weber's bureaucratic model (1947). Each of budget reforms has been sought not only through the introduction of new techniques but also through the imposition of the private sector value such as businesslike government. For example, the performance budgeting in 1950s was advocated by private accounting methods. The MBO was a popular management technique that was used in the private sector, loosely based on the book by Peter Drucker (1954), "The Practice of Management". ZBB was originated from a business technique. The current performance-based budgeting movement was envisioned by the GPRA of 1993 that was embraced by the Reinventing Government Movement, partly attributed to Osborne and Gaebler's book (1993) and its cousin, the New Public Management (Jones & McCaffery 2004).

In this regard, some are skeptical to the adaptation since it seems to challenge the vision of the founders in terms of Democratic and constitutional values (Ostrom 1973). Moe (1987) argues that myopic focus on the market ignores essential elements of politics and values that are essential to public administration, because public administration cannot be a value-neutral doctrine (Waldo 1948). This view is most forcefully articulated by

Appleby (1949) who asserts that administration is one among several kinds of political, policy-making activities. In this context, V.O. Key (1940) argues that budget allocation to a certain program is based on value preferences and priorities because resource allocation lacks an overall budgetary theory. According to Bailey (1968), the normative budget theory should seek to prescribe future states by indentifying valued issues while it is intended to avoid important values by focusing on techniques rather than on the demands of the environments.

Simon (1976) suggests a rational model of decision making that outlines five scientific steps of a decision as follows: defining the problem, gathering all the facts, constructing alternative solutions, scientifically analyzing the alternatives, and selecting the best alternative. According to this model, rationality exists when a decision maximizes the welfare of the decision makers; however, he asserts that it is impossible to achieve pure rationality due to the bounded rationality of humans. In a sense, this condition leads to descriptive theories where a decision maker's goals should be satisfied given the constraints exist. The descriptive theory in budget begins at least when V.O. Key (1940) indicates that budget allocation to a certain program is based on value preferences and priorities due to the lack of an overall budgetary theory that can allocate dollars to activities in any rational and predictable way. Politics is likely to be part of any descriptive theory in budgeting so long as it is believed that political system should reflect the public preferences for government services. Reacting Key's arguments, Verne Lewis (1952) points out that the problem in government arises out of lack of facts such as firm numbers, rather than the lack of theory or method, asserting that our decisions about who gets that would be better if we based them on fact and analysis.

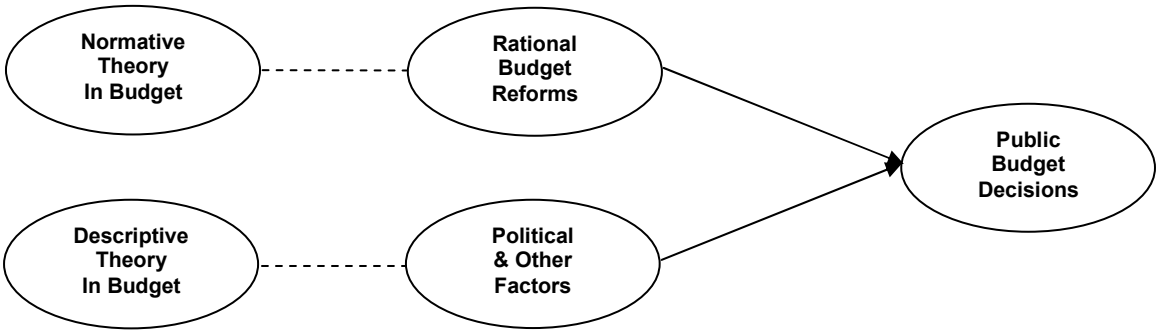
Criticizing that both arguments on seeking a theory and better facts are not descriptive but rather prescriptive, Charles Lindblom, in his essay on "The science of muddling through" (1959) emphasizes that we need to focus on what we actually do and try to improve, rather than seek a theory or more facts. Lindblom argues that policy tends to be made based on rationality and optimal decisions at the margins in a system with successive limited comparisons among alternatives. He asserts that organizations are conservative decision makers so that they generally muddle through a problem building on previous ones, rather than reassess it from the ground up anew to adopt a purely rational solution. Based on this decision-making theory, Wildavsky (1964) argues that incrementalism is descriptive as well as prescriptive in budgeting theory, where agencies are provided incrementally increased budget based on negotiation and bargaining among budget actors to promote stability and cooperative relations in the political system. He asserts that it is more close to democracy than the application of science to budgeting. He says that there are two constants in budget reform, which are incrementalism and the traditional line-item budget format. An incremental process is supported by the traditional line-item format. The latest budget reform would be a form of decoration based on the both because, over times, it is a yardstick for any budgetary reform.

Above opposite position to the normative theory seems more realistic because budgeting, as much in public administration, functions politically in the policy process. On the other hand, combining or intermingling reform efforts with politics can weaken the analytic power of rational budgetary reforms as a social science. Even though we admit the political characteristics of public budgeting, there still exist the attributes as a managerial science which can contribute to the development of efficiency and quality of public

services. In this regard, Etzioni (1967) suggested mixed scanning decision model that is a hybrid of rational choice and incrementalism. In this model, decision makings should be made based on rational analysis for major or fundamental decisions with a full consideration of alternatives and results in significant policy decisions. Smaller decisions tend to be made through this incremental analysis.

The history of normative theory indicates that the federal rational budget reforms have brought about smaller scale of changes than initially promised. Each of these reforms appears much less radical than the initial ambition of reformers. These reforms have tended to be unsuccessful of meeting their initial intents, in part because the federal political system is likely to militate against any kind of radical changes (Joyce 1993a, 1993b). This record in which fundamental changes did not occur in the way of allocating resources gives us an implication that the chances are not good for the future either so long as the political institution characterized as separation of powers is not changed. In a sense, however, if a promise of these reform efforts is a provision of information or methods that allows budgeters to allocate resources in a better way, it is likely to be a continuous desire (Radin 2006) since the continuous enthusiasms for the normative budget reforms are in part rooted in the lack of budgetary theory that is what Key (1940) sought and the lack of facts that is what Lewis (1952) tried to find (Willoughby & Melkers 1998). The next section introduces the rational budget reform efforts that centers conceptual model outlined below.

[Figure 1.1] Conceptual Model for this Study



2.2 Rational Budget Reforms in the Past

There have been continuous efforts to reform budgeting in a rational way since mid-20th century through the first Hoover Commission, PPBS, MBO and ZBB. These movements attempted to make public budgeting a more rational and efficient tool for better liking ends to means. Each of these is the culmination of years of innovation and hybridization that have evolved internally through trial and error and hard work (Rubin 1993b). Current budgetary reform to better align spending decisions with performance is likely to occur in the context of these past efforts that have been consecutively attempted for last decades. The following review is to trace that evolution in order to demonstrate how such efforts have been advanced and improved the current performance-based budgeting.

2.2.1 The First Hoover Commission

The concept of performance budgeting was originated from the first Hoover Commission in 1949 and expanded to federal agencies by the Budget and Accounting Procedures Act of 1950. Against traditional line-item approach, it required to adopt

budgeting based upon functions, activities, and projects. This form of budgetary reform intended to shift both Congressional and executive attention from input items of government expenditure such as purchases or employee salaries, to functions or activities being performed. The Presidential budget began to include workload and unit cost information associated with obligations by activities' presentations despite the inadequacy of the cost information. During this period, the concept of performance was primarily involved in the direct provision of specific goods and services.

One of criticisms was on the applicability of recommendations of the Commission and Budget and Accounting Procedures Act that advocated accounting methods of the private sector because many federal agencies did not have enough capacity to undertake it such as collecting adequate cost information. As a result, no major change was implemented with the recommendations by the Hoover Commission and the act at the federal level (Moe, R. 1982). At the state level during this period, it was found that budget reforms including performance budgeting were superficial because most data was related to workload not costs or performance (Schick 1971). At the city level, many cities, such as New York and Los Angeles, supported use of performance budgeting over several years during 1950s in an agreement that performance budget would not need to be based on the accounting system. Indeed, it was found that the implementation of a performance budgeting tends to strengthen the executive while in part isolating the legislative in the budget process (Eghtedari & Sherwood 1960).

2.2.2 Planning-Programming-Budgeting-System (PPBS)

Task Force on Government Reorganization of Johnson administration recommended a scientific approach to policy analysis that links inputs to outputs. PPBS was initially implemented in 1961 by the Department of Defense, and mandated for all agencies in 1965. It was supposed that improvements in government operations would be achieved through (i) establishing long term planning objectives, (ii) comparing alternative expenditures to decide which best contributes to the objectives, and (iii) translating programs into budgets and long-term projections (U.S. GAO 1997b). It suggested a way to integrate planning and budgeting by using systems theory and cost-benefit analysis, which evaluated competing expenditure alternatives for their marginal benefit to federal programs. It was claimed as a superior system to the Hoover commission's performance budgeting in terms of measurement since PPBS evaluated alternatives for their contribution to the program objective while the Hoover commission measured them through a simple process converting inputs into outputs. BBPS contributed on giving budgeting a position as a policy tool for program planning and for judging program performance, departing from dependence on the economic theories for decades.

Difficulties in PPBS implementation involved goal ambiguities, insufficient technical expertise, and analytical burdens with enormous information that the process created. Indeed, it was impossible to compare the desirability of programs compared to all others (Premfors 1981). From adoption to implementation, PPBS depended on political supports such as the interest of Congressional oversight committee, top officials' supports, and the interest of Bureau of Budget oversight groups. These facts imply that politics could not be kept out of budgeting, regardless of the rational characteristics of any reform tools.

It had been argued that the proper role of the bureaucracy was to embody values, not reject them in favor of scientific tools. In part, this argument was a response to the failure of other political agencies, such as the executive and the legislature, to address in any satisfactory fashion: poverty, racism, and other social equity issues (Frederickson 1980) when PPBS was formally discontinued in 1971. The politics and administration dichotomy was in the process of elimination by the New Public Administration.

2.2.3 Management by Objectives (MBO)

Reacting management problems in implementing the new Great Society programs, the Nixon administration reorganized the Bureau of the Budget into the Office of Management and Budget in order to gain more executive control over unwieldy bureaucracy as well as spending. In 1973 MBO was initiated to link objectives of agencies to their budget requests by holding managers responsible for it, which resulted in government-wide adoption of management techniques. MBO required that supervisors set explicit goals with their subordinates to focus on performance and expectations. It was intended to offer the administration a way to align activities with objectives through setting program objectives, establishing annual operating plans, and tracking progress toward the objectives. Performance was largely defined as processes and outputs of agencies, efforts were also made to define performance as the results that would be called outcomes today.

The Nixon administration seemed to be more interested in the extent to which budgets reflected the policy priorities, rather than budgeting techniques. Some local governments were interested in MBO and followed the federal government. For example, it was found that four of 15 cities had adopted MBO presentation in budgets from 1977 to

1987 (Rubin 1990). At federal level, however, MBO failed on implementation not only because the measurement was impossible in many important objectives but also priorities of the President might not be important to the Congress (Kelly & Rivenpark 2003).

2.2.4 Zero-Base Budgeting (ZBB)

The great deficit of the federal government was a debated issue in the mid 1970s. It was a general sense that the annual spending was out of control due to increased permanent entitlements and multiyear budget authority. Responding to this situation, the Congress held a hearing on a proposed legislation that required Congressional authorizing committees periodically to review all federal programs by zero-base. In 1977, President Carter mandated that the executive branch would use ZBB that was used during his tenure as the governor of Georgia. The ZBB required agencies not to automatically fund existing programs and activities, but rather, set spending priorities by developing decision packages that represented different levels of funding for programs on zero-base, being away from the traditional incremental nature of the public budgeting process (Rosenbloom 1993).

In developing budget proposals under ZBB, agencies was expected to set priorities based on the program results with alternative funding levels that were to be ranked against each other. One of alternative funding levels included a minimum funding level that was arbitrarily but generally between 75 and 90 percent of current funding. Agencies were required to set objectives and identify the key indicators to be used in measuring performance and results. Indeed, it was urged that agencies would use the performance results in analyzing alternative methods of accomplishing objectives and anticipated accomplishments. In practice, lower-level program managers played a stronger role than

in a traditional budget process since it was their role to consider and rank alternatives of a set of policy objectives that top managers sent.

At least in concept the ZBB was appealing to many since it was to seek the more rational link between program results and resources through annual justification. However, the ZBB was exercised in arbitrary decisions of alternative funding levels, rather than in an analysis based on program knowledge and performance information (U.S. GAO 1997b). In practice, such a genuine zero-based budget assuming a level of rationality was considered unsuitable for public budgeting that is in the political environment. Indeed, it encountered a difficulty in creating quantifiable, measurable goals in the budget process and failure to justify all program expenditures each year. Because only small portion of the budgets could be examined each year under ZBB, it was likely that incrementalism returned to budgeting (Wildavsky 1978).

2.2.5 The Legacy of Previous Rational Budget Reforms

The past reform efforts contributed to the development of analytical techniques on accounting and managerial aspects of budgeting that involved their major management concepts of each era (Dull 2006). Some concepts introduced by these initiatives have been absorbed and continuously remained in the existing federal budgets (U.S. GAO 1997b). For example, the efforts by the first Hoover Commission brought about permanent changes in the President's budget to include performance information in the summaries associated with each budget account. PPBS and MBO promoted the inherent issues in rational budget models such as a difficulty of figuring out relationship between agency activity and output, measuring performance, and limitations in political environment. ZBB brought the

practice of multiple budgets that presents alternative funding levels and emphasized the role of managers in the budget process.

However, there is little evidence that any of the past budget reform initiatives have accomplished their stated goals while indicating such an extreme vulnerability of federal reforms with the shift in political parties (Light 1997). The PPBS of Democrat President Johnson was replaced as MBO when Republican President Nixon occupied the White house. The MBO was replaced with ZBB by Democrat President Carter. The ZBB was replaced with Total Quality Management by Republican President Reagan. The Total Quality Management was replaced with National Performance Review during Democrat Clinton Administration. The existing Republican Bush administration initiated PART, which is introduced in the following section.

2.3 Program Assessment Rating Tool

Federal efforts in rationalizing budget decisions for the last decades resulted in the PART under the President's Management Agenda (PMA)'s budget and performance integration initiative (Kettl 2000; U.S. GAO 2003). PART is intended to provide a consistent system to evaluate federal programs as a part of the Presidential budget decision process (U.S. OMB 2003b). The PART was envisioned by the Government Performance and Results Act (GPRA) of 1993, which requires federal agencies to develop strategic and annual plans aimed at measuring performance and to link them to resource allocations. Even though the GPRA has been constructed with linkage to the budget process, it was unsuccessful to implement what was originally intended (U.S. GAO 1999). PART seeks to

overcome issues in the GPRA implementation such as insufficient use of performance information in budget decisions (Dull 2006).

PART is composed of a series of diagnostic questions in order to rate each federal program based on a consistent approach with objective data. The questions consist of four sections across a range of issues related to performance, which are program purpose and design, strategic planning, program management, and program results. The program purpose and design section assesses whether the program's purpose is clear and it is well designed to achieve its objectives. The strategic planning section assesses whether the programs has valid annual as well as long-term measures and targets. The program management section rates the program is managed well through financial oversight and program improvement efforts. The program results section assesses whether the program achieved its performance-based on measures and targets in the strategic planning section and other evaluations (U.S. GAO 2004b). The four sections include 25 basic questions for all programs and some additional questions tailored to program type3.

The OMB budget examiner reviews performance and funding level of each program, in collaboration with program, planning and budget offices in departments and agencies who substantiate the questions with evidence. The former three sections involving program purpose and design, strategic planning, and program management are scored in a Yes or No format. The program results section is scored in a four-level scale such as Yes, Large Extent, Small Extent, and No. Not Applicable may be an appropriate answer. Theses responses should be explained with relevant supporting evidence. Once the assessment is completed, the answers to the questions result in a numerical score of the four sections that ranges from 0 to 100. These scores are weighted to given

[3] For more information on the questions of the PART, see Appendix1.1 and 1.2.

percentage for each section. The program purpose and design section is weighted to 20%, the strategic planning section is weighted to 10%, the program management is weighted to 20%, and the program results section is weighted to 50%. The scores weighted to the given percentage are added together to produce aggregate score that ranges from 0 to 100. This aggregate score is indicated in a qualitative rating as follows: Effective (85–100), Moderately Effective (70–84), Adequate (50–69), and Ineffective (0–49). The qualitative rating is linked to each program's funding level. Federal programs are categorized into seven program types, such as competitive grant, block/formula grant, Regulatory-based, capital assets and service acquisition, credit, directed federal, and R&D programs. The seven program types are described as follows (U.S. GAO 2004b).

- Directed federal programs services are provided primarily by employees of the federal government, such as the national weather service and the visa and consular services.
- Competitive grant programs provide funds to state, local and tribal governments, organizations, individuals and other entities through a competitive process, such as health centers.
- Block/formula grant programs provide funds to state, local and tribal governments and other entities by formula or block grant, such as weatherization assistance and the Ryan white program.
- Regulatory-based based programs accomplish their mission through rulemaking that implements, interprets or prescribes law or policy, or describes procedure or practice requirements, such as the food safety and inspection service.
- Capital assets and service acquisition programs achieve their goals through development and acquisition of capital assets (such as land, structures, equipment, and

intellectual property) or the purchase of services (such as maintenance, and information technology), for example, defense shipbuilding and the bonneville power administration.

- Credit programs that provide support through loans, loan guarantees and direct credit, such as export-import bank/long term guarantees.
- R&D programs focus on knowledge creation or its application to the creation of systems, methods, materials, or technologies, such as the department of energy/solar energy and NASA exploration programs.

[Table 1.1] Example of PART Worksheet

Agency	Program	Program Purpose	Strategic Planning	Program Management	Program Result	Rating	FY2007 Actual	FY2009 Request	Type
Agriculture Department	Animal Welfare	100	78	100	45	Moderately Effective	18	22	RG

Table 1.1 shows an example of PART that is for animal welfare program in department of agriculture for fiscal year 2009. According to the information given in table 1, the program purpose and design section is rated at 100, the strategic planning section is rated at 78, the program management section is rated at 100, and the program results section is rated at 45. The qualitative rating, "moderately effective" is based on aggregate score of 70.3 that is calculated by a sum of weighted four scores: (100*20%) + (78*10%) + (100*20%) + (45*50%). In fiscal year 2007, this program was funded with $18 million for its actual appropriation. For fiscal year 2009, the President budget of this program is requesting $22 million. This program is classified as Regulatory-based type.

PART began with analysis on 67 federal programs as a part of the FY 2003 Presidential budget, promising to assess all federal programs in five years. Following that, it has expanded the programs to be accessed around 20% each year. By early 2008, 1004

federal programs had been assessed for FY 2009 Presidential budget through 231 programs for FY 2004, 399 programs for FY 2005, 607 programs for FY 2006, 795 programs for FY 2007, and 977 programs for FY 2008. Once a program is assessed, it would be reassessed in following years as well. The completed PART is made available on OMB's website at www.omb.gov/part/, for public scrutiny and review.

2.4 Studies on the Effect of PART in Budget Decisions

This section introduces studies that empirically examined the use of the PART in budget decisions. GAO (2004a, 2004b) finds a statistically significant relationship between the PART ratings and the President's proposed budgetary increases for FY 2004, despite explaining only a small portion of the variation. According to this study (U.S. GAO 2004a), aggregate PART ratings of 234 programs are partly related to increases of the President's budgetary proposal for FY 2004. Their regression results show that the PART ratings have no relationship with 27 mandatory programs, however, a positive and statistically significant effect on funding levels for 196 discretionary programs, suggesting that federal discretionary programs with better scores are more likely to receive higher level of proposed budget. When they examine the effect of program size divided into three groups, such as small, medium, and large, it is reported that only the small programs have the statistically significant effect of overall scores on budget outcomes at the 5 percent level. Among the four sections of PART, the effects of program purpose and results are positive and significant at the 10 percent level when all discretionary programs are included. When only the small discretionary programs are included, the effects of management and results are positive and significant at the 10 percent level. They find that

PART ratings do not automatically determine proposed funding but explain at most about 15 percent of the proposed budget changes. The other portion of the variability in proposed budget changes is due to institutional factors, program specifics, and other factors.

Gilmour and Lewis (2006a, 2006b) present more developed regression models that control other possible explanatory factors such as political factors and characteristics of programs, in order to statistically examine any positive relationship between PART ratings and the President proposed budgetary increases for both FY 2004 and FY 2005. For FY 2004 budget, Gilmour and Lewis (2006b) evaluate performance budgeting in the federal agency with PART ratings of 234 programs. The PART ratings are found to be positively correlated with Presidential budgets for programs housed in "traditionally Democratic departments"[4]. On average, the President's budget proposal for FY 2004 rewarded programs "effective" with a 6 percent funding increase, and held those "not showing results" to less than a 1 percent increase (Gruber 2003a). In the study for FY 2005 budget (Gilmour & Lewis 2006a), they found that the PART ratings have a statistically significant impact on Presidential budgets, which shows a larger impact on small (less than $75 million) and medium sized programs (more than $75 million and less than $500 million) rather than on large sized programs (more than $500 million). Interestingly, ''performance results'' section of PART ratings has a smaller impact on budget decisions than the ''program purpose and design'' section. Because good outcome measures of results sections have not developed for most programs, results scores are rarely used by OMB for

[4] Gilmour and Lewis (2006a, 2006b) refers to the departments that work closely to the agenda of the Democratic Party as "traditionally Democratic departments", which include Departments of Housing and Urban Development, Labor, Health and Human Services, and Environmental Protection Agency. Also programs in Departments of Commerce, Education, and Energy are included for Democratic Party because Republican administrations have targeted them for termination.

budget recommendations. This finding contradicts the goal of performance-based budgeting, which aims to reallocate resources to programs with better results.

Moynihan (2006) criticizes the findings of the GAO (2004a) and Gilmour and Lewis (2006a, 2006b) because they fail to explain the espoused theory of performance-based budgeting in which the performance is rewarded or punished. Even though the GAO (2004a) and Gilmour and Lewis findings (2006a, 2006b) provide quantitative evidences that PART ratings have a statistically significant relationship with proposed budget increases, Moynihan (2006) points out that their findings have limitations with the nature of the available data. Because the dependent variable used in their studies is the rates of change between estimated appropriation in the previous year and the President's proposed budget for the current year, it does not reflect the actual appropriations approved by the legislative branch. Indeed, its impact on even the President's proposed budget is not great, largely driven by the program purpose and design section, not by the program results section. Another limitation is that they failed to consider the funding constraints such as increase of mandatory spending and discretionary spending included in large appropriations packages.

Moynihan (2006) rejects the objectivity of performance information that should be understood in the same way to lead to similar responses among different persons. Rather, he asserts that different persons can interpret and evaluate information of the same federal program in subjective ways based on their values and cognitive characteristics. As a result, they come to different conclusions regarding performance and related resource allocations. Such a different interpretation can be furthered by particular roles in the budget process that are related to incentives and ideology. This result implies that performance

information would not be used in the same way in the federal decision processes due to the inherent ambiguity of performance information and different actors' roles. Even though the PART rating partly influenced the proposed budgets, it would not be replicated for the Congressional appropriations when considering how Congressional actors would view the information involved in the PART.

Because PART is a Presidential initiative that focuses on the budget process in the executive branch, there has been little report that appropriations staff members used it in their decision-making process. According to a House Appropriations Committee aide, some members in the appropriations committees believe that PART impinges Congressional authority (Gruber 2003a, 2003b, 2004) so that most lawmakers depend on the traditional budget justification documents for resource allocations, and pay little attention to the PART ratings. A senior staff member in the House Appropriations Committee also said not only that he never used the PART evaluations, but also rarely heard others discussed the PART in the appropriation process (Gruber 2003b). In fact, while fiscal year 2005 President's budget proposed the elimination of 65 federal programs involving 13 programs targeted by the PART, Congress eliminated only five programs, including one program targeted by PART.

2.5 Studies on the Use of Performance Information in Budget Decisions

This section introduces the existing literature that utilized survey methods to provide evidences on the use of performance information in government budget decisions at the three levels of the U.S. government. At the local level, when Poister and Streib (1999) surveyed 695 city managers or assistant managers, 60 % of the respondents who

worked in cities with centralized performance measurement systems reported that performance indicators had moderate or substantial impact in budget allocations. Two-thirds of those believed that performance measures were an important tool for budgeting purposes. When Melkers et al. (2002) surveyed budget officers and department heads of 253 city and county governments, their findings showed that 16.9 % of city and county officers asserted that performance measures were effective in changing budget appropriations. Interestingly, 38.7 % of city or county budget offices affirmed that output or outcome measures were effectively utilized in deciding agency budget appropriations.

At the state level, when Jordan and Hackbart (1999) surveyed executive budget officers in 46 states, they found that 29 states agreed that achievement of performance standards affected budget recommendations for the Governor's Executive Budget while 23 states answered that performance indicators were an important tool for making budget allocation decisions. In a Melkers and Willoughby (2001)'s study in 1997 that surveyed executive and legislative budget officials from 49 states with 104 responses, 39.1 % of respondents strongly agreed or agreed with a question that asked whether changes in appropriations were directly attributable to outcomes from the implementation of performance-based budgeting. This figure was significantly higher for executive branch respondents than for those from the legislative branch. When they were asked to rate the effectiveness of performance-based budgeting, which was defined as strategic planning plus performance measures, in changing appropriation levels on a four point scale from 1 to 4, the average rating was at the low scale of 1.54.

When Melkers et al. (2002) surveyed executive and legislative budget officials in 36 states and state agency officials with budgeting or performance measurement

responsibilities in 48 states, their findings indicated that 24.2% of state agencies asserted that performance measures were very effective or effective in changing budget appropriations. In addition, 26.3 % of state budget offices affirmed that output or outcome measures were used effectively utilized in deciding agency budget appropriations. GAO's study (2005b) of five selected states5 (Arizona, Maryland, Texas, Virginia, and Washington) found that performance information had influenced budget deliberations in the legislative branch. The states used outcome measures in budget deliberations to determine the impact of proposed policies, reduce costs, and improve program effectiveness. However, it found that legislators rarely used outcome measures, usually relying on output indicators, such as workload, when deciding funding levels.

At the federal level, when GAO surveyed 1,300 managers and supervisors in 24 federal agencies (72 % response rate), it found that 21 % of respondents used performance measures to a great extent in developing their agency budgets and 20 % used the data as the basis for funding decisions (U.S. GAO 1997a). Four years later, in 2001, GAO found 43 % of respondents used performance measures to a great extent in allocating resources and 45 % of the respondents reported the performance measures for priority setting (U.S. GAO 2001).

Performance information has been reported as a part of budget documents for many years and at all levels of government (Joyce 2003). Indeed, a steady increase is demonstrated in the number of budgeters who report the use of performance information in budget decisions during the decade (Lee & Burns 2000). However, "a direct link between specific budget reforms and dramatically changed appropriations has not been proven"

[5] The five states are not a representative sample so that finding of this study is not generalizable to the experiences of other states. The states are selected because they have executive or legislative requirements of performance budgeting, demonstrating legislative use in performance budgeting (U.S. GAO 2005b, 27).

(Willoughby & Melkers 2000). Performance information is likely to be used more in the executive branch during budget development, rather than budget adoption in the legislative branch. Performance data has had little impact on actual appropriations levels because the legislative branch finds these data much less useful than the executive branch (Willoughby & Melkers 2001).

Chapter Three

The Effect of Performance-based Budgeting

3.1 Dimensions of Performance-based Budgeting

GAO (1999) defines performance-based budgeting as the concept of linking performance information with the budget. OECD (2005b) also refers to it as a form of budgeting that relates funds allocated to measurable results. McNab and Melese (2003) define it as any efforts to quantify outputs or outcomes in the public sector, which are incorporated into the budget decision process. Robinson and Brumby (2005, p.5) describes it in more detail that "performance budgeting refers to procedures or mechanisms intended to strengthen links between the funds provided to public sector entities and their outcomes and/or outputs through the use of formal performance information in resource allocation decision-making." Campbell defines performance budgeting as a rational and apolitical system focusing on results as follows: "budgeting system where performance measurement has been fully integrated into the budget process; which is designed to reduce or eliminate the micromanagement of inputs by elected officials, keeping them focused instead on getting the best results for the public's money" (Ngoyi 2001). Kelly and Rivenbark (2003) understand it as an extension of the traditional budget process as follows: "the integrating of the sections of performance management such as planning, performance measurement, benchmarking, and evaluation into the framework of government budgeting. It is not a stand-alone budget technique, but an extension of the traditional budget process that reconciles financial and operational accountability. The result is a comprehensive framework for informing budget allocation decisions based on program performance."

Since performance-based budgeting has evolved and seems to continue to do so in different environments (Posner & Fantone 2007), no single definition can encompass it (OECD 2007). Rather, multiple dimensions can reflect the differences in the various demands and roles in the performance-based budget process. This section explores three dimensions that examine performance-based budgeting as an analytical tool for this study as follows.

i) Impact: how is performance information linked to budget allocations, directly, loosely, or not at all?

ii) Focus: what kind of performance information is considered as the budgeting basis, performance results or other?

iii) Scope: who uses performance information for budgeting, only in the executive branch or both the executive and the legislative branch?

It should be noted that these three dimensions are not intended to be exhaustive, but merely to provide a lens through which to examine the effect of performance-based budgeting implemented by the PART system.

3.1.1 Impact

OECD (2007) suggests three types of performance-based budgeting that are classified by the degree in use of performance information in budget decisions. The three types include presentational, performance-informed budgeting, and direct or formula performance budgeting[6]. From the perspective of this classification, performance information is linked to budget decisions at three levels: not at all, loosely, or tightly.

[6] This classification is adopted from OECD report (2007, pp.41-47).

In the presentational type, performance-based budgeting is defined as a reporting of performance measures in public budget documentation (Jordan & Hackbart 1999) because performance information is presented in government documents as background information for the purpose of accountability and dialogue with stakeholders. This kind of approach can be found in some countries, such as Denmark and Sweden where there is no formal or systematic mechanism to integrate budget and performance information. These countries give individual ministries discretion to choose whether to present performance information. Performance information can be used for accountability purposes, however it is not used for budget negotiations. This stage is different from the concept of performance-based budgeting employed in this study because it is not expected to use performance information in resource allocations.

In performance-informed budgeting, performance information is used importantly along with other information such as political priorities and economic considerations to inform budget decisions. Performance information is loosely or indirectly linked to resource allocations so that the information does not necessarily determine the amount of the budget. For example, in the U.K., performance information is used in part when the Treasury and spending ministries negotiate spending, despite the unclear link between past performance and budget allocations. In the U.S., PART ratings partly influence requested budgets within OMB despite no automatic link between performance information and funding.

In a sense, performance-based budgeting has been recognized as resource allocations in formula or automatic process to take the politics out of the budget process (Posner & Fantone 2007). This type is the direct and formula performance budgeting that

provides a systematic formula for providing funds on the basis of productivity. The performance information is explicitly linked to the resource allocation so that appropriations are based on specific performance results or activity indicators (OECD 2005c). It is found in certain sectors such as higher education and health, mostly in Nordic countries including Denmark, Finland, Hungary, Iceland, Norway, and Sweden. For example, in educational funding, the number of students who graduated with a degree would increase funding for the school. In South Korea, where they seek the automatic link between performance information and resource allocation on a government wide scale (OECD 2007), if a program receives ratings at the ineffective level, the budget is automatically reduced by 10%. Because this stage requires explicitly clear outcome indicators as well as unit costs that are not readily available in the public sector, it is used in specific sectors in a few countries. Results of an OECD survey indicate that two-thirds of respondent OECD countries do not directly link performance results to appropriations (OECD 2005b). While the PART recommendations are loosely or indirectly linked to budget allocations, the PART ratings are less expected to result in an automatic or direct impact on funding decisions.

3.1.2 Focus

Performance-based budgeting is different from the past rational budget reforms in terms of its focus on results and outcomes rather than inputs or outputs (Melkers & Willoughby 2001; Lu 1998). With this regard, performance information used in performance-based budgeting might be categorized into two types (OECD 2005a). One type is procedures or process-oriented performance information in the traditional public

sector, which drives performance by ensuring compliance with rules and regulations and controlling inputs rather than considering results. In this system, public employees tend to become more focused on process and procedures and less on results because of little incentive or difficulty to achieve objectives (OECD 2005a). However, this process based type has a limitation which is not designed to achieve more effectiveness, efficiency, and equity persistently demanded by the public in a modern society.

For the last decades, reform efforts have attempted to shift their focus from compliance with rules toward the resource allocation based on programs results. That is the reason performance budgeting is sometimes referred to as budgeting for results (Schick 1990). The other type is result oriented performance information with its emphasis on program results rather than procedural requirements. For example, in South Korea, ministries are encouraged to use performance information for formulating budget requests, especially concentrating on performance results in the previous year that are important part during the budget negotiations. In fact, for fiscal year 2005, programs budgets rated ineffective were cut by 10%. However, in most countries, the use of performance results in budget decisions is limited; rather, other information is used along with performance results. For example, in the U.K., while performance results are discussed as part of the budget negotiations between the Treasury and ministries, there is no predetermined relationship between past performance results and resource allocation.

While the promise of performance-based budgeting is a provision of objective performance information about program results or outcomes, as opposed to input or process measures (Gilmour & Lewis 2006a), several rational budget reform initiatives since 1950 in the federal government failed to concentrate on program results instead of

concentrating its attention on others such as spending items because of their irrelevance to decision makers in the executive or legislative branch (U.S. GAO 1997a; Schick 2002). Ironically, the GPRA has an opposite impact of what was intended because it encourages public officials to focus on compliance with the procedural requirements, instead of focusing on results (Lynn 1998). It consumes staff time, yielding paper works that also are a vital part under PART. To answer the PART questions, agencies should go through the process that they have done under GPRA (Gilmour 2006). Agencies should work on these procedures even when they cannot produce their results, which may seem to place performance-based budgeting in the status of relying on procedural compliance rather than results. Because holding agencies accountable for their compliance with procedures supposedly brings about better results, the compliance with procedures is an alternative when it is impossible to hold agencies accountable for their results. However, it would be ‘‘goal displacement,’’ where the means replace the goal itself (Merton 1968) because this compliance with procedures can distract resources and energy from the implementation of programs to achieve program goals (OMB Watch 2007).

The three sections of PART, such as program purpose, strategic planning, and management do not directly reflect or relate to results, rather, these sections measure the quality of compliance with the procedural requirements (Gilmour 2006). These three sections are means for better goals assessed in the program results section. GPRA has failed to strongly link performance information to decision making because agencies rarely supply their results (U.S. OMB 2001). PMA of 2001 is designed to overcome this weakness of the GPRA implementation (OECD 2007). PMA encourages resources at federal government should be allocated to programs that deliver their results (U.S. OMB

2001); and PART offers program results and their related funding levels. It should be expected that the program results section in the PART ratings should be significantly and positively related to funding changes because it is the major rationale for performance-based budgetary reforms (Moynihan 2006).

3.1.3 Scope

The executive budget office and the legislature are major players in the budget process based on the separation of powers that is structurally characterized with the institutional conflict between the executive and legislative branch (Posner & Park 2007). Any effort to link performance and budgets must explicitly involve both branches that link the responsibility in the executive to the power of the purse in the legislative. Since the GPRA was introduced by the Republican House and the PART was launched by the Republican President, Democrats tend to perceive these reforms as Republican initiatives, which lead to a difficulty in the use of performance data and the PART implementation by the Congress (Radin 2006; Newcomer 2007). Indeed, the PART is a rational reform driven by the executive branch so that there is an implicit difference or conflict between the executive and legislative branch in the approach to the initiative.

Past budget reforms failed to significantly influence the budget decision process in part because the Congress rarely used the information in the Congressional authorization and appropriations processes (Blöndal et al. 2003). Since it is impossible to mandate they actually use the performance information (Joyce 1993b), the resistance from Congress can be a key reason of failing the PART as well. However, the constitutional role of the Congress that sets national priorities and allocates resources in order to achieve the

priorities has important for the successful implementation of performance-based budgeting (U.S. GAO 2004b, 2005a). To function as a rational budget tool that comprehensively involves the entire scope of federal spending, the PART recommendations should be considered by the Congressional appropriations committees (U.S. GAO 2007). Despite this importance, Congressional use of the PART has been given little attention (Frisco & Stalebrink 2008). It is not certain whether the Congress considered the PART evaluations in budget decisions since they have not detailed it (Norcross & McKenzie 2006).

[Figure 2.1] Dimensions of the Effect of Performance-based Budgeting

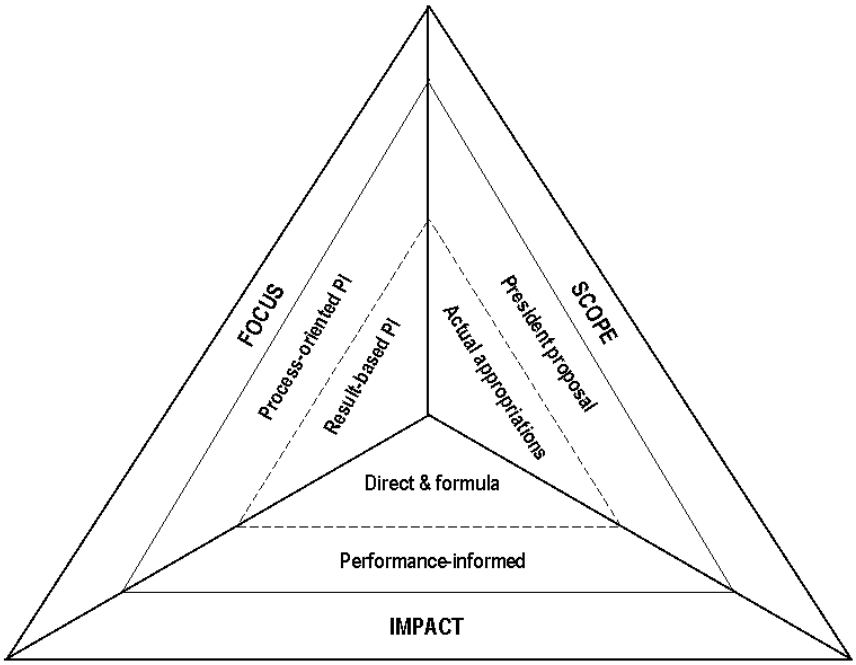


Figure 2.1 shows the three dimensions that will be highly emphasized for the effect of performance-based budgeting. It should be noted that this study will only examine the direct impact of performance information on actual appropriations since the purpose of this

study is to determine if PART ratings have statistically significant impact on budget decisions in Congress. Both result-based and process-oriented performance information are also examined in this study. However, performance-informed impact and presidential proposed budgets are not dealt with.

3.2 Components in the Regression Model

Components and their causal linkages to the hypothesized model are presented in this section. All variables in the model have their foundations either in the descriptive budgetary theory literature or in recent reports or studies on the performance-based budgeting practice in the federal government. The literature and recent reports and studies also provide theoretical reasoning for the establishment of the causal linkages in the model. The following are detailed discussions of each variable in the model.

3.2.1. PART ratings

As a rational reform tool, PART is intended to reflect apolitical and neutral professional competence of budget examiners in deciding program funding recommendations. A particular concern for this study is the examination of the impact of performance information on budget allocations. Previous literature provides evidence on the positive relationship between aggregated PART ratings and the proposed budgetary increases in FY 2004 and FY 2005 in a small portion of variations (U.S. GAO 2004a; Gilmour & Lewis 2006a, 2006b). Furthermore, it is necessary to inspect whether the legislative branch, as well as the executive branch, changed their

budgeting patterns in light of this rational model, or they dismissed it as they had done in the past budgetary reforms. Since PART data is required to be included in budget justification (there were some federal agency testimonies in Congress), the PART data is anticipated to influence appropriation outcomes. The level of impact this rational reform has on actual budget appropriations will be statistically assessed in this study that aims to find answers to the following research question: How have the PART ratings affected the Congressional appropriations? Based on the normative assumption that PART ratings will have a direct impact on budget decisions and appropriations, this question leads to the following hypothesis:

H1.1: PART ratings positively influence budget decisions in Congress. They have significant impact on actual appropriations, even after other factors that generally influence budget decisions are taken into account[7].

Another expectation of this study is to examine the impact of the results-based PART section on budget decisions. No matter how clearly program purposes are defined and strategic planning set up, and how regularly performance is measured, in the end, the worth of performance-based budgeting should be determined by the utility of performance result information in budget decision process for continuously improving program performance and saving taxes. According to previous studies (Gilmour & Lewis 2006a, 2006b), the performance results section was not a significant predictor of budget changes in fiscal year 2005. Indeed, it had less impact on fiscal year

[7] Although it is acknowledged that the Congressional appropriation process cannot escape overwhelming politics, it must be the main goal of the rational budget model. The reason to test the unrealistic assumption is based on a dictum accepted widely: "Theoretical models should be tested primarily by the accuracy of their predictions rather than by the reality of their assumptions" (Downs 1957, p.21).

2004 budgets compared to the program purpose and design section. They contradict the goal of performance-based budgeting which aims to allocate resources to programs based on outcomes and results. However, they do explain the proposed budgetary changes in the first two years when good measures for performance results were comparatively insufficient. As years pass and the availability of measures for performance results is increased (Gilmour & Lewis 2006a), it can be assumed that budgeters would rely more on performance information based on program results. This study attempts to find more generalized answers utilizing multi-years data.

H1.2: Result-based performance information has greater impact on budget decisions than process-oriented performance information.

Control Variable

Government budgets are not merely technical managerial documents. Public budgets are open to political and economic environments that no simple rational model can explain. Recognizing this complexity of public budgeting, Bozeman (1977) asserts that the appropriations process is influenced by political and economic factors that reflect partisan and economic changes. Despite assumptions associated with rational budget reform, Congressional budget decisions are strongly affected by other factors such as political, fiscal, and bureaucratic priorities (LeLoup et al. 1998). The process of appropriation decisions is jointly determined by interactions among the President, bureaucrats, legislators, and interest groups. Even when the PART is in the implementation stages, these factors can affect not only funding decisions but also the level of performance information used. The political and fiscal factors can limit the

impact of the PART on budget decisions (Moynihan 2008). In reality, many federal programs are supported by political actors including the President, the Congress, the bureaucracy, and interest groups, who foster procedural incrementalism on budget decisions.

Their institutional or individual preferences can influence resource allocations more than performance results, which may have an adverse impact on the rational approach of the PART. For example, in the case of the President, the use of performance information should not have a higher priority over important and urgent agendas. For Congressmen, the performance assessments cannot replace earmarks that are directed to their constituency. The gradual increase of mandatory spending and Homeland Security budgets cause the decrease of discretion on federal funding decision, which are related to the use of performance information on funding allocations. Under the PART system, while large portions of the federal budgets are influenced by fiscal constraints and allocated by bargains of various political actors, it is expected that performance information interact with the political and fiscal nature of public budgeting (Moynihan 2008). The following section highlights these political, fiscal, and bureaucratic variables that have an impact on PART as well as funding levels.

3.2.2 Political Factor

Budgeting is intrinsically and irreducibly a political process that involves a set of political decisions (Rubin 1993a). As described by Lindblom (1959), the public budget process may be an exercise in muddling through an incremental process, whereby decisions are based on political compromises that are made to ensure that

individual or politicians' own interests are protected. While the design of federal programs is the result of a struggle and compromise among the President, the Congress, bureaucracy, and related clientele groups (Moe 1989), budget reform has been criticized for its failure to consider the political nature of budgeting (Joyce 1993b). The underlying values and concerns of various political actors shape how one interprets, presents, and uses performance information for funding recommendations. To indentify to what extent the PART assessments and funding decisions are influenced by political actors, this study examines it in the perspective of the descriptive theory, an appropriate lens in explaining budget decisions made by various actors who have their own rational incentives.

Partisanship

Performance measurement in the public sector, such as program evaluation in the federal agency, is never far removed from politics (Radin 2000; Nathan 2005). Despite an intention to provide objective performance information, the very selection of indicators and the way in which they are interpreted are inherently political decisions complicated by various political factors (Ho 2007). Conflicts are fostered by the norms and incentives associated with political roles, which provides ways in which to interpret program performance and how to use PART assessments in resource allocations. One critical mission of the OMB is to accomplish policy goals of the President through the budget (Rubin 2006). Since the program assessments process necessarily includes subjective judgments of evaluators, it is possible for the OMB to politicize the PART

ratings, which ultimately assists the administration's efforts to cut or eliminate programs that are not included in their priority (Dull 2006; Gilmour & Lewis 2006b).

In this respect, some Democrats suspect that PART is a partisan tool intended to reflect the political preferences of the President and the Republican Party in the program assessments and funding recommendations, while PART is formally announced as a rational budgetary reform tool that is designed to reflect neutral and apolitical professional norms (Moynihan 2006; Newcomer 2007). Both Republican and Democratic Parties have their own political preference for federal programs or agencies. Several studies indicate the relationship between partisanship and budgets. For instance, Bozeman (1977) found that budget outcomes for 42 federal agencies were influenced by partisanship from 1950 to 1971. In general, the Democratic Party tends to prefer large budget allocations for domestic agencies (Kiewiet & McCubbins 1985), which include health, education, labor, and welfare programs (Auten, Bozeman, & Cline 1984). If PART is not used in an impartial manner, it is possible that programs favored by Democrats receive systematically lower assessments and funding levels when Republicans are in control. In fact, Gilmour and Lewis (2006b) found that program funding levels in departments traditionally favored by Democrats were systematically lower than other programs in fiscal year 2004. This finding implies that PART ratings may be more strictly applied for traditionally Democratic programs to justify budget cuts whereas other program budgets are comparatively protected from the influence of PART.

H 2.1: PART ratings more strictly correlate with funding levels for the federal programs traditionally supported by Democrats, rather than those supported by Republicans.

Divided Government[8]

In the decentralized U.S. political system, one of the key contests of budgetary power is between the executive and legislative branches of government. Partisan politics is noticeable in government budgeting, which is characterized by conflict between the President and Congress over budget preferences. Most contemporary budgeting processes in the U.S. have Presidential and Congressional conflict over preferences in budgeting (Shull & Shaw 1999). This conflict appears somewhat differently according to political situations in Congress (LeLoup 2005). In the case of a unified government, where a single party dominates the legislative branch as well as the executive branch, the conflict tends to be minimal since Congressional members of the ruling party tend to share the same political goals and policy preferences of the President who is obviously the key party leader (Foley & Owens 1996). The legislature controlled by the ruling party may support proposed budgets in many cases, that is, approve it without critical change so the appropriation outcomes more closely reflect Presidential preferences. On the other hand, a divided government leads to disagreement between the President and the Congress. Since Republicans and Democrats have consistently showed differences in ideology, policy, and related resource allocation issues, in a divided government the President and Congress are

[8] In the U.S context, divided government commonly describes the situation in which a single party does not control both of the executive and the legislative branch. While one party controls the executive, another party should control at least one chamber of Congress (Elgie 2001)

usually in conflict on these issues (Quirk & Nesmith 1998). In a divided government, Presidential preferences are less reflected in appropriations, while budgetary outcomes eventually reflect preferences of the majority that is the non-ruling party in Congress (Whicker 1992).

Both unified and divided government existed in the Bush administration when PART was in implementation. For example, the 108th and 109th Congress were unified governments but the 110th Congress was a divided one. It is obvious that the President's influence in Congress depends on the number of Congressional members of the ruling party. Thus, when the Presidents' party holds the majority in Congress, it also retains substantial political advantage in the appropriation process (Foley & Owens 1996). The proposed budget by a Republican President is more likely to clash with a Congress controlled by the Democratic Party. Such situations can be mostly observed in divided governments during the 108-109th Congress. In this respect, it is assumed that PART ratings that are provided as a budget justification may have little impact on appropriations during a divided government, while they are reflected in the appropriation outcomes in a unified government.

H 2.2: The impact of PART ratings on appropriations is likely to decline substantially or even disappear during divided government, while PART ratings positively correlate with program funding levels during a unified government.

Interest Groups

While the main concern of interest groups is policy goals, this is also distinguished as the driving force behind the federal budget increase. The most

probable situation that interest groups deal with in budget appropriations is when there is a fiscal crisis, such as a cut back or elimination of program budgets in high priority areas (Rubin 2006). If a program brings benefits to powerful interest groups, proposals to cut the program funding can encounter political resistance. For example, when the Reagan administration tried to cut agency budgets, interest groups' support were an important factor in defending major funding cuts (Rubin 1985). Thus, decreasing resources motivate interest groups to influence the budget decision process to defend program funding levels (Behn 1976; Levine et al. 1981; Rubin 1982). During the implementation of PART, the federal government encountered budget deficits, which led critics to believe that PART was a political tool used to justify administration's efforts to reduce or eliminate funding levels of programs the administration ideologically opposed (Dull 2006). This may have stimulated interest group participation in the budgeting process.

When interest groups encounter the threat of budget cuts, they can protect the funding levels through budget decision makers, such as elected officials and bureaucrats under their influence (Wildavsky 1988). When a program has the strong backing of interest groups, the flexibility of the program funding cuts is reduced. Budgets may not be reduced because of political pressures from elected officials and bureaucrats who are supported by interest groups (Behn 1976). However, not all programs have strong support from interest groups. If a program is supported by strong interest groups, the program budget is likely to be protected from budget cuts despite low PART rating. As a result, there is a high chance that PART influences program funding that is not supported by strong interest groups.

H 2.3: The impact of PART ratings on appropriations will decline substantially or even disappear when programs are backed by strong interest groups, while PART ratings still correlate positively with program funding levels that that are not supported by strong interest groups.

Earmarks

According to the OMB[9], earmarks are referred to as funds directed by members of Congress, which specify recipients or locations for programs or projects. The executive branch is prevented from exercising any discretionary powers on earmarks that avoid merit-based or competitive resource allocation processes. Members in Congress direct a portion of budgets for special projects in either the senators' home states or representative districts in constructing infrastructures and other grants and subsidies since they believe that such a funding enhances their chance of re-election through job creation and economic development in specific places (Figueiredo & Silverman 2004; Streeter 2004; Law 2006). These earmarks that are neither included in the President's budget nor a subject of hearings, are used for special interest of individual projects or locations (Ashby 2005). In this sense, earmarks are criticized by the executive branch since members of Congress compel the executive branch to implement their own preferences, which limits public officials' discretions in resource allocations for the broader public (Rubin 2006).

Earmarks are not considered in the President's budget, but are politically specified funds that undermine or inhibit the merit-based budget allocations driven by

9 Source from Analytical Perspectives, Budget of the United States Government, FY 2009, P.223.

the executive branch. For example, in 2002, the Bush administration suggested that Congress eliminate earmarked projects or programs in order to reduce resource allocations for individual interest in Congress and to ultimately enhance performance-based budgeting (Dalrymple 2002). However, members of Congress rarely cut earmarks lest their own interests be affected, so that earmarking remained a regular part of the appropriations process (Rubin 2006). According to Citizens Against Government Waste, earmarks have expanded from around 550 earmarks at a cost of $3 billion in 1991 to almost 14 thousand at a cost of $27 billion in 2005.

In reality, re-election is a priority for elected officials like Congressmen. In order to increase the chance of being re-elected, members of Congress try to use earmarks to win the support of interest groups and their constituency. If PART were designed to enhance their earmarks, they would fully support it. However, if the linkage of performance assessment and budget allocations threaten earmarks, budget reform cannot avoid the unfavorable influences by members of the Congress. Earmarks are always allocated through political negotiation, which is opposite to the apparent intent of performance-based budgeting that attempts to allocate resources based on merit. Therefore, PART may be incompatible with earmarks. For members of Congress, performance assessments cannot replace the important source of re-election. This reality leads to the following hypothesis:

H 2.4: The impact of PART on appropriations is likely to decline substantially or even disappear when a program is earmarked, while PART positively correlates with programs without earmarks.

Iron Triangle

The iron triangle refers to a cozy and powerful relationship among bureaucrats in agencies, members of Congress, and interest groups in support of particular budget requests. The iron triangle consists of three participants and it is hard to break when they are formed (McCool 1987; Starling 1988; Wildavsky 1988). Interest groups play a powerful role in the iron triangle whereby members of Congress, working on behalf of interest groups ask leaders of agencies to increase the expenditures of a particular program in the proposed budget (Lowi 1969). The leaders of agencies, when their program funding cuts are in jeopardy, sometimes appeal to interest groups to support their programs, and the interest groups lobby members of Congress for the programs to be funded continuously (Rubin 2006).

Chances that career bureau chiefs have strong ties with clientele and Congress are high because they have usually worked for a long time in the agency before securing a bureau chief position. The abundant opportunities to work with clientele and Congress make their relationship more secure. Their ties become even stronger when a bureau gets more supports from clienteles and legislators and the clienteles and legislators receive benefits from the bureau programs. This strong political tie is a priority for the three participants in the federal budget process. The goal of PART is to allocate resources based on program performances regardless of such political ties. However, performance assessments cannot replace strong ties for the three participants, thus PART is incompatible with the iron triangle. This leads to the following hypothesis:

H 2.5: The impact of PART scores on appropriations declines substantially or even disappears with the iron triangle, whereby career bureau chiefs, interest groups and members of Congress are strongly tied to each other.

3.2.3 Bureaucratic Factor

Bureau Chief

There are two classes of public managers, careerists and political appointees, which contribute to a hybrid administrative apparatus with different characteristics (Hecl 1977; Shafritz, Riccucci, Rosenbloom & Hyde 1992; Gilmour & Lewis 2006c). Careerists are involved in the bureaucracy, whereas political appointees are considered politicians (Meier 2000). In general, political appointees tend to devote themselves to the same political party without working across party lines, and thus more loyal to the political party leader and responsive to policy direction. In contrast, careerists tend to have central views because they usually serve under different political parties as technical experts throughout their careers. Careerists are identified with neutral competence and institutional expertise, whereas political appointees are responsive but inexpedient in the public sector (Lewis 2007).

In relation to performance-based budgeting, the different characteristics of the two classes are likely to lead to different patterns in linking performance information to program funding. Political appointees will support PART as one element of a shorter-term political goal of PMA driven by the administration, whereas careerists tend to adhere to the principles of performance based budgeting as one element of

managerial reform since the GPRA, the statute of Congress. As a result, political appointees will focus on assisting administration efforts to cut program budgets based on partisanship, whereas careerists will emphasize merit-based budget allocations in politically neutral ways.

The performance information of PART consists of results-based performance and process-oriented performance information. Developing, collecting, and using result-based performance information requires high level of managerial expertise and experiences. Careerists have such managerial expertise based on long-term experiences since the GPRA of 1993. Therefore, careerists will use more result-based performance information to programs merits, whereas political appointees will show under-reliance on the result-based performance information due to their inexpedience on performance measurement in the public sector, and thus high-reliance on process-oriented performance information as funding basis. In sum, the different characteristics of the two classes of managers lead to different patterns in linking performance information to program funding, which lead to the following hypotheses 3.1.1 and 3.1.2.

H 3.1.1: Careerists are more likely to link PART ratings to program funding levels based on political neutrality, whereas political appointees are more likely to link PART ratings to program funding levels based on partisanship.

H 3.1.2: Careerists are more likely to use result-based performance information for program funding increases, whereas political appointees are more likely to use process-oriented performance information for program funding cuts.

Staff Number

Bureaucrats often seek their own self-interests, which may not comply with the intentions or interests of elected officials (Downs 1967; Croswell 1975; Bordcherding 1977; Horn 1997). With regard to the size of staff, bureaucrats inherently tend to expand their staff regardless of any genuine need for more services (Parkinson 1957). They expand their subordinates not due to increasing workloads, but because of their desire for power and prestige that are often evaluated by staff numbers (Buchanan 1977; Niskanen 1971). In this respect, bureaucrats may be regarded as obstacles to administrative reform (Mohr 1969) since staff expansion is often in conflict with administrative reform that constitutes less government.

With respect to the intent of PART saving money, the number of employees may be affected by PART because the staff number directly influences the federal budget size through salary level. If the PART aims to reduce program funding levels, bureaucratic interest may compete with rational budget reform. Bureaucrats may resist administrative reforms such as PART if the reform increases the control of elected officials but decrease benefits to bureaucrats. Such bureaucratic resistance might decrease the influence of the reform. PART might have trouble when encountering bureaucratic interest such as staff level[10]. Bureaucrats tend to expand staff regardless of PART ratings. This results in the following hypothesis:

H 3.2: The impact of PART on appropriations is likely to decline substantially when staff size expands, while it positively correlates when staff does not increase.

[10] It should be noted that the staff number does not necessarily positively correlate with budget changes. In fact, the staff number could fall while budgets rise. For instance, although around 180,000 of governmental employees were reduced from 1969 to 1976, the budget nearly doubled during the same period (Porter 1980).

3.2.4 Fiscal Factor

Requested Budget

During the implementation of PART, the federal government encountered consecutive fiscal deficits. In the trend that defense budgets and entitlements grow, the executive branch intended to eliminate deficits gradually (Brook 2007), which generally requires a combination of decreasing expenditures as well as increasing revenues. In such fiscal circumstances, a particular intent of PART was to support the administration's efforts to save budgets through reducing or eliminating federal programs (Dull 2006). PART seems designed to justify cutbacks in federal program funding; while it is not clearly defined in which circumstance PART justifies the increase of the program budget. This leads to the following hypothesis:

H 4.1: PART ratings are likely to have significant impact on program funding levels when budgets decrease, while their impact declines substantially, or even disappears, when budgets increase.

Homeland Security Budget

Governments have no other mission that is more important than securing citizens in their own country. Thus, national security is a priority. Any other administrative reform cannot be advanced in lieu of the security issue. Since 2001, the federal government has concerted nationwide efforts to protect citizens from terrorism. The budget for Homeland Security has significantly increased, the outlays have risen 42 percent from $1,864 billion in FY 2001 to $2,650 billion in FY2006. In FY 2009

budgets, 32 agencies receive benefits for Homeland Security funding. Such efforts have been supported by Congress and shared with state and local government and the private sectors because it is a common goal. The OMB has also given priority to Homeland Security budgets in cutting program funding. For example, when the executive branch suggested the termination of 91 programs and reduction of 50 other programs for FY 2007 budgets based on PART ratings, most programs that were eliminated or scaled back were domestic discretionary spending programs, outside of Homeland Security budgets (OMB Watch 2006a, 2006b). PART does not seem hostile to Homeland Security budgets, compared with other programs that suffer from funding cuts, which suggests the following hypothesis.

H 4.2: PART ratings positively correlate with appropriation decisions when budgets for Homeland Security increase.

3.2.5 Program Factor

Program Type

OMB categorizes federal programs into seven types - competitive grant, block/formula grant, regulatory-based, capital assets and service acquisition, credit, directed federal, and R&D programs. Under the PART system, patterns of budgeting depend on the type of programs that are related to the adequacy of performance measures (Gilmour & Lewis 2006b; Radin 2003). For example, since competitive grant and block/formula grant programs distribute funds to state, local, and tribal governments, they may be evaluated systematically differently from other federal

programs due to the difficulty of collecting performance data (Radin 2005, 2006). Although federal agencies have limited authority to require performance data from state governments who implement the grant programs, the PART process does not reflect this problem. The grant programs show a pattern of low rating as "ineffective" or "results not demonstrated". In FY 2005, 43% of the block grant programs were rated as "ineffective" while only 5% of all the programs were rated as "ineffective". It was also found that no block grant programs were rated as "effective", while 11% of all programs were rated as "effective". These patterns clearly suggest that the PART ratings are biased against block grant programs (Radin 2005). In addition, the R&D programs often involve multiyear plans and grants, and the scientific results are always uncertain. The PART questions do not consider the nature of science that may cause many negative findings. R&D programs also have systematically different funding patterns.

H 5.1: Process-oriented performance information[11] *is more likely to influence funding level for programs in which results-based performance information cannot be collected directly, whereas results-based performance information correlates with funding levels of programs able to produce direct results.*

Program Size

In general, larger programs are more firmly established with a long history and are more widely supported than smaller programs that may be less entrenched, have less support and less funding. For such reasons, PART assessments may be more aggressively applied to programs with a small operating budget. In fact, previous

[11] Process-oriented performance = (program purpose score + planning score + management score) / 3.

studies (U.S. GAO 2004a; Gilmour & Lewis 2006b) point out that the impact of PART ratings differs according to program size. What these studies found is that programs relatively small in size tended to be more aggressively affected by PART ratings, rather than larger programs with greater funds. This can be explained in part by OMB's reluctance to recommend cuts in program funding for larger programs (Moynihan 2006), which leads to the following hypothesis.

H 5.2: PART ratings more strictly correlate with small or medium size programs in comparison to larger programs.

Chapter Four

Data and Methodology

4.1 Introduction

This chapter discusses the characteristics of the empirical data used in this study and the regression analysis technique that will be applied in analyzing the data. The first part describes the characteristics of the PART and other variables, and how each variable is collected and measured. Then the next section discusses regression analysis procedures and the statistical methodology utilized in analyzing the data. The last part of the chapter examines some general data analysis issues with PART.

4.2 Data Collection

PART ratings

The primary data source for this study is provided by OMB. The PART data involving program assessments and funding recommendations are provided via their website. The number of programs included in PART has been expanded by approximately 20 % each year since 2003. For FY 2004, the PART worksheet provides PART ratings of 234 programs. The worksheet for FY 2005 provides for 399 programs, FY 2006 for 607 programs, FY 2007 for 793 programs, and FY 2008 for 977 programs.

Despite the increase in program numbers, PART ratings for many programs have not been updated because not all programs were reevaluated annually (Gilmour and Lewis 2006b). Most programs were reevaluated only once because each program is supposed to be reevaluated once every five years. For instance, among 1004 programs involved in the fiscal year 2009 PART worksheet, 70 programs were assessed in 2002, 149 programs in

2003, 216 programs in 2004, 225 programs in 2005, 226 programs in 2006, and only 118 programs were assessed in 2007. If an agency wants to get reevaluated earlier than five years, they can request it from OMB. Between FY 2004 to FY 2008, a total of 186 programs have been reassessed based on the agencies' requests. Among them 9 programs have been rated 3 times and the missile defense program has been rated 4 times (Norcross & Adamson 2007). Table 4.1 reports the descriptive statistics of PART ratings during five fiscal years from FY 2004 to FY 2008.

[Table 4.1] Descriptive Statistics of PART ratings

FY	Observation	Mean	Std. Dev.	Min	Max
2004	234	59.86	16.6	15.4	93.4
2005	399	63.09	18.0	10.5	96.5
2006	607	63.95	18.5	10.5	96.5
2007	793	64.57	18.7	10.0	100
2008	977	65.64	18.7	10.0	100
Total	3010	63.42	18.1	11.2	97.2

Appropriations

Appropriations for each program are a dependent variable for this study. The data source for appropriations is also the PART worksheet. The FY 2006 PART worksheet provides the FY 2004 appropriations. The FY 2005 appropriations are included in the FY 2007 PART worksheet, the FY 2006 appropriations are included in the FY 2008 PART worksheet, and the FY 2009 PART worksheet involves both the FY 2007 and 2008 appropriations. Once programs and their appropriations are involved in a PART worksheet, they tend to be continuously offered by PART worksheets in the following fiscal years. However, there are some programs and appropriations that are not involved in the following PART worksheets anymore. Therefore, the number of appropriations

collected for this study is less than the number of total programs provided by PART worksheets.

For instance, the FY 2006 PART worksheet provides appropriations for only 223 programs among the 234 programs involved in the FY 2004 PART worksheet. The FY 2007 PART worksheet provides appropriations for 352 programs among the 399 programs involved in the FY 2005 PART worksheet. The FY 2008 PART worksheet provides appropriations for 534 programs among the 607 programs involved in the FY 2006 PART worksheet. The FY 2009 PART worksheet provides appropriations for only 758 programs among the 793 programs involved in the FY 2007 PART worksheet, and only 950 programs among the 977 programs involved in the FY 2008 PART worksheet.

[Table 4.2] Descriptive Statistics of Appropriations (million dollars)

FY	Observation	Mean	Std. Dev.	Min	Max
2004	223	2,420	7,837	0	78,162
2005	352	3,242	20,262	-231	338,421
2006	534	2,531	16,083	-917	324,879
2007	758	2,306	17,824	-199	439,786
2008	950	2,750	24,213	-177	505,062
Total	2,817	2,624	19,699	-917	505,062

Table 4.2 indicates the descriptive statistics of appropriations per program from the FY 2004 to the FY 2008. The mean of total 2,817 observations is $2,624 million. The minimum is -$917 million for Bonneville Power Administration program administered by Department of Energy in the FY 2006, while the maximum is $505,062 million for Social

Security Old-Age and Survivors Insurance Program managed by Social Security Administration in the FY 2008[12].

Divided Government

The U.S. Senate and House of Representatives provides information on the majority in Congress (U.S. Senate 2008a; U.S. House of Representatives 2008). As seen in Table 4.3, it was unified government during the 108th and 109th Congress, and the 110th Congress was a divided government.

[Table 4.3] Unified and Divided Government from 2003 to 2008

Congress	Government	President	Senate	House
108th Congress (2003 – 2004)	Unified Government	G.W. Bush	Majority: Republican (51) Minority: Democratic (48)	Majority: Republican (229) Minority: Democratic (204)
109th Congress (2005 – 2006)	Unified Government	G.W. Bush	Majority: Republican (55) Minority: Democratic (44)	Majority: Republican (232) Minority: Democratic (202)
110th Congress (2007 – 2008)	Divided Government	G.W. Bush	Majority: Democratic (49) Minority: Republican (49)	Majority: Democratic (233) Minority: Republican (202)

Earmarks

Since the lobbying and ethics reform bill of 2007 which was passed to promote transparency and disclosure of the earmarks, the OMB has provided the public with earmark information through their website. The information includes the number and cost of earmarks in the appropriations bills but only the 2005 and 2008 earmark data are available via the OMB's website (2008). In fiscal year 2005, there were 13,492 earmarks

[12] As Bonneville Power Administration program shows, it is possible for some programs to have negative budgets if the programs do not depend only on appropriations for their revenue sources, which is the case with government corporations. Another example is Overseas Private Investment Corporation's insurance program where it was allocated with -223 million appropriations in FY 2005, -143 million in FY 2006, -181 million in FY 2007, and 157 million in FY 2008.

totaling $18,944 million for appropriations accounts and in 2008, there were 11,524 earmarks totaling $16,502 million.

Lobbying Amounts

Lobbying amounts are a proxy variable to measure the influence of interest groups because activities by lobbyists for interest groups are likely to increase program budgets supported by those interest groups (Ryu 2005, 2007). Lobbyist activities are required to be disclosed for public inspection in accordance with the Lobbying Disclosure Act (LDA) of 1995, amended by the Honest Leadership and Open Government Act of 2007 (Petersen 2006). The LDA requires lobbyists to file their activity reports with the Clerk of the U.S. House of Representatives and the Secretary of the U.S. Senate. Therefore, data for lobbyist activity including lobbying amounts are available from the database of either the Senate Office of Public Records (2008b) or the Clerk of the U.S. House of Representatives (2008b). The data consists of information about government agencies that the lobbyists contacted, their reported lobbying amounts, and the filing date. Table 4.4 indicates the descriptive statistics of lobbying amounts per agency from fiscal year 2004 to 2008[13]. The mean for total of 2,958 observations is $333 million for 15 departments and 31 agencies[14].

[13] The lobbying amounts are calculated based on the agency unit but applied to each program managed by the agency.

[14] The 31 agencies include Army Corps of Engineers, Commodity Futures Trading commission, Consumer Product Safety commission, Corporation for National and Community Service, Corps of Engineers-Civil Works, Court Services and Offender Supervision Agency for the District, EPA, Equal Employment Opportunity commission, Export-Import Bank of the U.S., Federal Communications commission, Federal Election commission, Federal Housing Finance Board, Federal Trade commission, General Services Administration, Inter-American Foundation, NASA, National Archives and Records Administration, National Credit Union Administration, National Science Fund, Nuclear Regulatory commission, Office of National Drug Control Policy, Office of Personnel Management, Overseas Private Investment Corporation, Peace Corps, Small Business Administration, Securities and Exchange Commission, Smithsonian Institution, Social Security Administration, Trade and Development Agency, Tennessee Valley Authority, and U.S. Agency for International Development.

The minimum is $20,000 that is the total lobbying amount for Inter-American Foundation, Peace Corps, and Appalachian Regional Commission from February 1, 2006 to January 31, 2007, while the maximum is $1, 080 million for the Department of Defense's total lobbying amount from February 1, 2006 to January 31, 2007.

[Table 4.4] Descriptive Statistics of Lobbying Amounts (million dollars)

FY	Observation	Mean	Std. Dev.	Min	Max
2004	233	260,000	181,000	465	750,000
2005	394	269,000	196,000	120	850,000
2006	595	321,000	230,000	80	940,000
2007	777	302,000	202,000	140	881,000
2008	959	409,000	269,000	20	1,080,000
Total	2,958	333,000	236,000	20	1,080,000

Bureau Chiefs

The measurement of this variable includes two processes: (1) finding a bureau that handles the program and (2) finding a chief of that bureau. First, to find a bureau, the PART website is used as a source. For each evaluated program, OMB provides a PART worksheet that lists both the bureau and the department administering the program. However, one problem is that for many programs, the bureau names are replaced by the department names. For instance, the PART worksheet lists the bureau for the Agricultural Commodity Grading and Certification Program as the Department of Agriculture where the bureau name should be the Agricultural Marketing Service. To resolve this problem and to find the appropriate bureau for each program, the OMB website (2008b) is used as a reference as well. On the website, there is a link 'learn more about xxx program' at the last line of each program assessment. For example, on the Agricultural Commodity Grading

and Certification Program website[15], the last line shows the 'learn more about Agricultural Commodity Grading and Certification Programs' link which when clicked opens up the Agricultural Marketing Service website. In some cases, the link connects to a subordinate office administering the program. For example, the Hydrology Program is linked to the Office of Hydrologic Development that is under the National Weather Service of the National Oceanic and Atmospheric Administration. In these cases, the subordinate office is considered as the bureau since it is assumed that the OMB regards the subordinate office to be more relevant as the organizational unit that deals with the program.

Second, to find the bureau chiefs and their status (whether they are careerists or not), the Federal Yellow Book is used as the reference. The Federal Yellow Book is issued four times a year. The Spring issues from each year are referenced since the Presidential budget is transferred to Congress early February, and bureau chiefs are more likely to influence appropriations through the Presidential budgets, rather than influence appropriations directly. The book provides information on the appointment categories of the federal officials - career servant, non-career servant, Presidential appointee, Presidential appointee with senatorial confirmation, and schedule C. Bureau chiefs are also classified on their appointment categories, such as career servant, non-career servant, Presidential appointee with or without senatorial confirmation, and schedule C. Among these five categories, only the career servant category can be involved in the bureaucracy while the other types are close to politicians who are politically appointed (Meier 2000). Table 4.5 shows the number of programs managed by careerists and those administered by non-careerists for

[15] Available from http://www.whitehouse.gov/omb/expectmore/summary/10002006.2004.html, accessed as of December 1, 2008

each year. During the five years, total number of careerists was 552 and non-careerists was 2,458 that comprised 81.7% of total observations.

[Table 4.5] Number of Careerist and Political Appointees

	Careerist		Political Appointees	
Fiscal Year	Number	%	Number	%
2004	40	17.09	194	82.91
2005	68	17.04	331	82.96
2006	89	14.66	518	85.34
2007	157	19.8	636	80.2
2008	198	20.27	779	79.73
Total	552	18.34	2,458	81.66

Staff Number

This variable is measured for full-time civilian employees in the executive branch. This data is provided in the Federal Employment and Compensation of the Analytical Perspectives of the Budget of the U.S. Government. The budget documents provide information on the size of employment for 15 cabinet agencies and 20 other agencies (4 agencies are not included in the PART assessments)[16]. Table 4.6 below indicates the descriptive statistics of staff number per agency from fiscal year 2004 to 2008[17]. The mean staff number for each agency is 79,300 who manage the 2,845 observations. The minimum size is 1,300 for Peace Corps in FY 2007 and 2008, while the maximum size is 671,300 for Department of Defense in FY 2008.

[16] The 16 agencies are Agency for International Development, Corps of Engineers, Environmental Protection Agency, Equal Employment Opportunity Commission, General Services Administration, NASA, National Archives and Records Administration, National Science Foundation, Nuclear Regulatory Commission, Office of Personnel Management, Peace Corps, SEC, Small Business Administration, Smithsonian Institution, Social Security Administration, and Tennessee Valley Authority.

[17] The staff number is calculated based on agency unit but applied to each program managed by the agency.

[Table 4.6] Descriptive Statistics of Staff Number (thousand dollars)

Fiscal Year	Observation	Mean	Std. Dev.	Min	Max
2004	224	78.2	142.5	1.3	650.4
2005	375	72.3	126.5	1.3	653.0
2006	574	74.1	128.3	1.3	661.8
2007	750	76.2	131.2	1.1	658.8
2008	922	88.2	149.5	1.1	671.3
Total	2,845	79.3	137.2	1.1	671.3

Homeland Security Budgets

The data for Homeland Security funding by agency is taken from the U.S. government budget. The budget documents provide information on the budgets for 15 cabinet agencies and 9 other agencies[18], and are included in the PART assessments. Actual budgets are given for the fiscal years 2004, 2006, and 2007, while enacted budgets are used for fiscal year 2005 and 2008 due to data availability.

[Table 4.7] Descriptive Statistics of Homeland Security Budgets (million dollars)

FY	Observation	Mean	Std. Dev.	Min	Max
2004	218	2,292.6	4,676.2	1.7	22,834.0
2005	365	2,498.6	5,484.4	1.9	24,871.0
2006	607	2,885.2	6,253.7	1.9	25,154.9
2007	793	3,123.0	6,717.9	1.9	26,856.0
2008	903	4,179.6	8,252.7	1.9	30,093.0
Total	2,886	3,261.9	6,912.4	1.7	30,093.0

Table 4.7 indicates the descriptive statistics of the Homeland Security budgets from fiscal year 2004 to 2008[19]. The mean for the total of 2,886 observations is $3,262 million. The minimum of the Homeland Security budget is $1.7 million for the Department of HUD

[18] The nine agencies are Corps of Engineers, Environmental Protection Agency, General Services Administration, NASA, National Science Foundation, Nuclear Regulatory Commission, Office of Personnel Management, Smithsonian Institution, and Social Security Administration.

[19] The Homeland Security budgets are calculated based on agency unit but applied to each program managed by the agency.

in FY 2004, while the maximum is $30.1 billion for the Department of Homeland Security in FY 2008.

Requested Budgets

The data for requested budgets is provided by the PART worksheet, along with the PART ratings for each fiscal year. Table 4.8 indicates the descriptive statistics of requested budgets per program from fiscal year 2004 to 2008. The mean for the total of 3,004 observations is $2,349 million. The minimum is -$1,867 million for FHA Single-Family Mortgage Insurance program administered by the Department of Housing and Urban Development in FY 2006, while the maximum is $501,966 million for Social Security Old-Age and Survivors Insurance Program managed by Social Security Administration in FY 2008.

[Table 4.8] Descriptive Statistics of Requested Budgets (million dollars)

Fiscal Year	Observation	Mean	Std. Dev.	Min	Max
2004	232	2,130	7,302	-198	79,801
2005	399	2,715	18,127	-492	326,716
2006	607	2,301	17,626	-1,867	396,347
2007	791	2,041	17,470	-209	453,890
2008	975	2,531	22,215	-178	501,966
Total	3,004	2,349	18,728	-1,867	501,966

Program Size

According to Gilmour and Lewis (2006b), the size of federal programs can be classified into three levels: small size with $75 million and below, medium size with $75 million to $500 million, and large size with more than $500 million in funds. For this

study, the three levels are categorized into two groups: small and medium size ($500 and below), and large size (more than $500). Table 4.9 indicates the descriptive statistics of appropriations according to the program size from fiscal year 2004 to 2008. The mean of small and medium size programs is $122 million, while the mean of the large size programs is $ 8,025 million.

[Table 4.9] Descriptive Statistics of Appropriations by Program Size (million dollars)

Size	Observation	Mean	Std. Dev.	Min	Max
Small & Medium	1,925	122	126	-917	499
Large	892	8,025	34,404	501	505,062

For regression analysis, this variable is included in the model as a dummy variable. The small and medium size program is coded as 1 and the large size program is coded as 0.

Program Type

OMB categorizes the federal programs into eight types - competitive grant, block/formula grant, regulatory-based, capital assets and service acquisition, credit, directed federal, R&D, and mixed programs. According to previous researches (U.S. GAO 2004a; Gilmour & Lewis 2006b; Radin 2006), different types of programs show different patterns of PART ratings and funding level.

[Table 4.10] Descriptive Statistics of Appropriations by Program Type (million dollars)

	N	Mean	Std. Dev.	Min	Max
Block/formula grant	469	2,294	10,806	0	203,788
Capital assets & service acquisition	275	2,254	3,910	-917	24,389
Competitive grant	490	459	1,723	0	15,881
Credit	96	1,695	3,875	-231	28,068
Directed federal	871	5,734	34,168	0	505,062
R&D	205	696	2,694	0	22,044
Regulatory-based-based	173	235	357	7	2,292
Mixed program	238	559	961	0	7,430
Total	2,817	2,624	19,699	-917	505,062

To control the variance among the program types, each type of program is included as a control variable in the estimation equation, except for the mixed program that is the base for the other seven dummy variables. Table 4.11 shows the descriptive statistics for variables applied in this study from FY 2005 to FY 2008.

[Table 4.11] Descriptive Statistics for Variables from FY 2005 to FY 2008

Variable		Unit	N	Mean	Std. Dev.	Min	Max
Appropriations	Program	Million dollars	2,817	2,624.8	19,699.2	-917.0	505,062
PART rating	Program	Score	3,010	64.2	18.5	10.0	100
Lobbying Amount	Agency	Million dollars	3,010	327.0	238.0	0.0	1,080
Homeland Security	Agency	Million dollars	2,886	3,261.8	6,912.3	1.7	30,093
Requested Budget	Agency	Million dollars	3,004	2,348.8	18,728.2	-1,867.0	501,966
Staff Number	Agency	Thousand dollars	2,845	79.2	137.2	1.1	671
Earmark[20]	Bureau	Thousand dollars	709	241.4	618.3	0.2	5,163

4.3 Operational Definition of Variables and Measurement

PART ratings

PART ratings consist of four components, program purpose and design, strategic planning, program management, and program results. Each component ranges from 0 to 100 and is weighted at a given percentage. The program purpose and design component is weighted at 20%, the strategic planning at 10%, the program management at 20%, and the program results at 50%. The scores weighted at the given percentages are added together to produce an aggregate PART rating that ranges from 0 to 100. This can be interpreted into the following formula:

[20] The Earmarks variable shows data for only fiscal year 2005 and 2008.

*PART ratings = (scores for program purpose and design) * 0.2 + (scores for strategic planning) * 0.1 + (scores for program management) * 0.2 + (scores for program results) * 0.5*

The score of the program result is used for measuring result-based performance information. For measuring process-oriented performance information, the mean score of three components is used, defined as the following formula:

Process-oriented performance information = (scores for program purpose and design + scores for strategic planning + scores for program management) / 3

Appropriations

For regression analysis purposes, the appropriations variable is adjusted into a percentage change in appropriations for each federal program. The percentage change is gathered in two steps. First, the appropriation for each program is deflated by the consumer price index (CPI) for each fiscal year. The base is the CPI for 2004. Table 4.12 shows the CPI for each year.

[Table 4.12] CPI and Deflated Appropriations from 2004 to 2008

Year	2004	2005	2006	2007	2008
CPI	1.000	1.034	1.067	1.098	1.127
Mean of Appropriations (million dollar)	2420	3242	2531	2306	2750
Mean of Deflated Appropriations	2420	3135	2372	2100	2440

This procedure reduces the mean of appropriations from 2,750 million dollars to 2,440 million dollars in FY 2008. Second, the percentage change in appropriations is calculated with the deflated appropriations, which is calculated using the following formula:

*Change in appropriations = {(deflated appropriations in the current year – deflated appropriations in the previous year) / (deflated appropriations in the previous year)}*100*

Partisanship

It is difficult to measure partisanship at the program level. According to Meier (2000), it is limited that the President supports any specific program since the President gives diffuse support at the agency level rather than program level, which focuses on the agency's function based on general priorities. Thus, in this study, partisanship is to be measured at the agency level. Gilmour and Lewis (2006a, 2006a) suggest a crude but simple way to measure it at the agency level. Since cabinet agency may be used as a proxy to measure the partisanship, they divide federal cabinet agencies into two groups: agency that works closely to the agenda of the Democrats and other agencies. The agencies that work closely to the agenda of the Democratic Party include the Departments of Housing and Urban Development, Labor, Health and Human Services, and the Environmental Protection Agency (EPA). Also programs in the Departments of Commerce, Education, and Energy are included in the Democratic Party since Republican administrations have targeted them for termination. Partisanship is measured by a dummy variable. For the regression analysis, the programs in agencies that are close to the Democratic Party are coded as 1 and the programs in other agencies are coded as 0.

Earmarks

According to OMB[21], the data for earmarks that are provided on its website are not accurate due to limitations on data access and timeline. If this is the case, measuring earmarks' cost or number is meaningless. Hence, this study handles earmarks as a dummy variable that only distinguishes whether a bureau has earmarks or not. If a bureau has

[21] http://earmarks.omb.gov/download.html, available as of December 1, 2008

earmarks, programs in the bureau are coded as 1, if not, they are coded as 0. Since the OMB provided the public with only two years of earmark information for FY 2005 and 2008 (as of December 2008), this study adopts somewhat of an arbitrary way to include all years in the analysis. If a bureau had earmarks in both 2005 and 2008, it is assumed that the earmarks continuously existed in the bureau in both 2006 and 2007 since earmarks tended to increase during the four years. Therefore, in cases where earmarks are reported in both 2005 and 2008, 2006 and 2007 are also coded as 1. This coarse measurement may be biased to assess earmarks as less than what they really were. However, it should be noted that more of the current estimates on earmarks have much variance between researchers. There are other organizations that have been tracking earmarks, such as the Congressional Research Service (CRS) and Citizens Against Government Waste (CAGW). When comparing earmarks information from OMB, CRS, and CAGW, it is found their estimations are very different from one another. For example, for 2005, the CAGW estimates 14 thousand at a cost of $27 billion, the CRS estimates there were around 16 thousand at a cost of $52 billion, and the OMB estimates around 13 thousand at a cost of $19 billion. Such limitations reside in any research regarding the current earmarks estimates.

Lobbying Amounts

Lobbying amounts are collected for measurement from February 1 to January 31 by various agency units that include 15 departments and 37 independent agencies. Due to the current trend of Presidential budget dominance, lobbyists may target the proposed budgets to achieve their interests. The Presidential budgets are submitted during the first week of

February so many lobbying activities are likely to focus on that deadline. For instance, the lobbying amounts from February 1, 2006 to January 31, 2007 are assumed to target the FY 2008 budget. The lobbying amounts from February 1, 2006 to January 31, 2007 are aggregated by agency unit for the FY 2008 budget. For regression analysis purposes, the lobbying amounts variable is modified as a percentage change in lobbying amounts for each agency, which is produced based on the next two steps.

First, the lobbying amount for each agency is deflated by the consumer price index (CPI) for each fiscal year. The base is the CPI for 2004. Second, the percentage change in lobbying amounts is calculated with the deflated lobbying amounts. The following formula indicates the calculation:

*Change in lobbying amounts = {(deflated lobbying amounts in the current year - deflated lobbying amounts in the previous year) / (deflated lobbying amounts in the previous year)}*100*

Bureau Chiefs

This is a dummy variable. For the regression analysis, the programs in bureaus managed by careerists are coded as 1 and the programs in bureaus administered by political appointees are coded as 0.

Staff Number

Staff number is operationally defined as the number of full-time civilian employees in each agency. Actual employment numbers are used from FY 2005 to FY2007 while estimated numbers are used for FY 2008 due to data availability (as of 2008 when this research was conducted). For regression analysis purposes, the staff number is modified as

the percentage change in staff number for each agency, which is calculated based on the following formula:

*Change in staff number = {(staff number in the current year - staff number in the previous year) / (staff number in the previous year)}*100*

Homeland Security Budgets

For regression analysis purposes, the Homeland Security budgets variable is modified as the percentage change in Homeland Security budgets for each agency. It is calculated using the next two steps. First, the Homeland Security budget for each agency is deflated by the consumer price index (CPI) for each fiscal year. The base is the CPI for 2004. Second, the percentage change in Homeland Security budgets is calculated using the deflated Homeland Security budgets based on the following formula:

*Change in Homeland Security budgets= {(deflated Homeland Security budgets in the current year - deflated Homeland Security budgets in the previous year) / (deflated Homeland Security budgets in the previous year)}*100*

Requested Budgets

For regression analysis purposes, the requested budgets variable is calculated as the percentage change in requested budgets for each program, which is produced based on the next two steps. First, the requested budget for each program is deflated by the consumer price index (CPI) for each fiscal year. The base is the CPI for 2004. Second, the percentage change in requested budgets is calculated using the deflated requested budgets based on the following formula:

*Change requested budgets = {(deflated requested budgets in the current year - deflated requested budgets in the previous year) / (deflated requested budgets in the previous year)}*100*

Program Size

According to Gilmour and Lewis (2006b), the size of federal programs can be classified into three levels: small size with $75 million and below, medium size with $75 million to $500 million, and large size with more than $500 million funds. For this study, the three levels are categorized into two groups: small and medium size ($500 and below), and large size (more than $500). For regression analysis purposes, the program size variable is included in the model as a dummy variable; a small and medium size program is coded as 1 and large size program is coded as 0.

Program Type

OMB categorizes the federal programs into eight types - competitive grant, block/formula grant, Regulatory-based-based, capital assets and service acquisition, credit, directed federal, R&D, and mixed programs. To control the variance among the program types, each type of program is included as a control variable in the estimation equation, except for the mixed program that serves as the base for the other seven dummy variables.

Table 4.13 summarizes the operational definition and measurement of the variables used in this study.

[Table 4.13] Operational Definitions and Measurement for Variables

Variables	Symbol[22] (Unit)	Operational Definitions and Measurement	
PART ratings	PART (Program)	Aggregated PART ratings	
Change in Appropriation	CA (Program)	Percentage change in appropriations from previous year	
Change in Lobbying Amount	LA (Agency)	Percentage change in lobbying amounts from previous year	
Change in Staff Number	SN (Agency)	Percentage change in staff numbers from previous year	
Change in Homeland Security Budget	HL (Agency)	Percentage change in Homeland Security budgets from previous year	
Change in Requested Budget	RB (Program)	Percentage change in requested budgets from previous year	
Divided Government	DG (Period)	Unified Government (2004 –2007)	Divided Government (2008)
Partisanship (1,0)	PA (Agency)	Programs in Democratic agency (1)	Programs in Republican agency (0)
Earmarks (1,0)	ER (Bureau)	Programs in bureaus with earmarks (1)	Programs in bureaus without earmarks (0)
Bureau Chief (1,0)	CB (Bureau)	Careerists (1)	Political Appointees (0)
Program Size (1,0)	PS (Program)	Small and Medium Size (1)	Large Size (0)
Program Type (1,0)	PT (Program)	Each type is included in model	Base is Mixed type

4.4 Research Method

The primary goal of this study is to inspect whether PART ratings influence budget allocations and if they do, how they influence the budget allocations. Although earlier empirical studies (U.S. GAO 2004a; Gilmour & Lewis 2006a, 2006b) use regression models to examine the relationship between the PART ratings and proposed budget allocations, their findings have limitations with the nature of the dependent

[22] Symbol = abbreviation for variable in equations. Unit = unit of variable

variable because they do not measure the actual appropriations approved by Congress (Moynihan 2006). Another limitation is that they fail to consider various political, bureaucratic, and fiscal economic variables that may interact with the PART effects. Their research is also conducted on only a single year basis. As of 2008, the PART worksheet provided performance information for six years. This study attempts to analyze the impact of PART ratings on appropriations from FY 2004 to FY 2008 through a set of regression analyses using unbalanced panel dataset, and controlling for a variety of political, bureaucratic, fiscal and program factors.

4.4.1 Unit of Analysis

The unit of analysis for this study is the individual federal program, the assessment and funding unit of PART system. Even though there is no standard definition, the OMB refers to the purposes of PART as: "(i) clearly recognized as a program by the public, OMB, or Congress; (ii) having a discrete level of funding clearly associated with it; and (iii) corresponding to the level at which budget decisions are made" (U.S. GAO 2004b, p.2).

4.4.2 Estimation Method for Panel Analysis

The panel analysis is a combination of both a cross-sectional and a time series analysis. It can control factors that are not controlled in either analysis since it can overcome the problems by capturing variations across different units in space, as well as variations that emerge over time. In general, the random effect model and the fixed effect model are used for the panel data analysis (Baltagi 1995). The random effect model is selected for this study mainly due to the nature of variables of this study and due to a

critical limitation of the fixed effect model. The fixed effect model automatically excludes dummy variables that are constant each year. If the fixed effect model is applied to this study, two major independent variables, partisanship and program size, cannot be examined in the model. The PART worksheet provides a different and small portion of the programs each fiscal year. Therefore, the random model is more appropriate for this study.

4.4.3 Procedures of Regression Analysis

Basic Model based on Normative Theory

Among the series of regression analyses in this study, the first is a basic regression analysis that only focuses on testing the normative theory in isolation from the descriptive theory. This basic model solely examines the relationship between PART ratings and appropriations without political, bureaucratic, and fiscal factors. Particular reasons for conducting this basic regression analysis are (1) to inspect a relationship between performance information and appropriations in isolation from political, bureaucratic, and fiscal factors, and (2) to inspect the relationships with as many observations as possible since including other factors in the model leads some observations that are not controlled by the other factors to be dropped. The basic model is expressed as the following equation:

$$CA_{it} = \beta_0 + \beta_1 PART_{it} + \beta_2 PS_{it} + \beta_3 PT_{it} + \varepsilon_{it} \qquad (1)$$

where i denotes the program, t represents fiscal year, CA_{it}: Congressional appropriations, $PART_{it}$: aggregated PART rating, PS_{it}: program size, PT_{it}: program type, and ε_{it}: error term.

Comprehensive Model Combining Normative and Descriptive Theory

The study on the relationships between PART ratings and appropriations in isolation from descriptive theory does not explain a lot on how performance information works in the real congressional budgeting process. More realistic relationships can be found from studies combining normative and descriptive theory where politics, bureaucracy, and fiscal constraints interact with performance information in the budget decision process. The relationships between PART ratings and appropriations appear differently depending on the influences of the political, bureaucratic, and fiscal factors. To take these factors into consideration, this study extends the basic model to a combined model that includes the political, bureaucratic, and fiscal factors as well as the performance information, as shown in the following equation (2):

$$CA_{it} = \beta_0 + \beta_1 PART_{it} + \beta_2 PS_{it} + \beta_3 PT_{it} + \beta_4 CB_{it} + \beta_5 SN_{it} + \beta_6 HL_{it} + \beta_7 PB_{it} + \beta_8 PA_{it} + \beta_9 LA_{it} + \beta_{10} DG_{it} + \varepsilon_{it} \quad (2)$$

where i denotes the program, t represents fiscal year, CA_{it}: Congressional appropriations, $PART_{it}$: aggregated PART rating, PS_{it}: program size, PT_{it}: program type, CB_{it}: carrier bureau chief, SN_{it}: staff number, HL_{it}: Homeland Security budget, PB_{it}: requested budget, PA_{it}: partisanship, LA_{it}: lobbying amount, DG_{it}: divided government, and ε_{it}: error term.

Procedures of Regression Analysis

One key purpose of this study is to explore whether the influence of PART on appropriations varies by different conditions of political, bureaucratic, fiscal, or program factors. Therefore, this study estimates a set of regression analyses depending on the various conditions of these factors based on the hypotheses.

With regards to the political factor,

(1) To examine whether the impact of PART ratings on appropriations differ by partisanship, the sample is divided into two groups based on partisanship. One group includes programs that are traditionally supported by Democrats and the other group includes programs supported by Republicans.

(2) To investigate the difference in the effect of PART ratings on appropriations between divided government and unified government, the sample is divided into two groups based on the majority of Congress. One group includes cases during unified government and the other group includes cases during divided government.

(3) To explore the difference in the effect of PART ratings on appropriations between different influences from interest groups, the sample is divided into two groups: one group with agencies that have increased lobbying amounts compared to those of the previous year; and the other group with agencies that have decreased lobbying amounts compared to those of the previous year.

(4) To examine whether the impact of PART ratings on appropriations differs by influence of earmarks, the sample is divided into two groups depending on whether a bureau has earmarks or not. One group includes programs in bureaus with earmarks and the other group consists of programs in bureaus without earmarks.

With regards to the bureaucratic factor,

(1) To investigate whether the impact of PART ratings on appropriations differs by the change in staff number, the sample is divided into two groups. One group includes programs in agencies whose staff number has increased compared to those of the previous

year. The other group comprises programs in agencies whose staff number has decreased compared to those of the previous year.

(2) To explore the impact of PART ratings on appropriations in iron triangles, the sample is divided into two groups. One group includes programs in bureaus managed by career bureau chiefs and the other group includes programs in bureaus administered by politically appointed bureau chiefs. Then this study inspects (i) whether lobbying amounts from interest groups in programs managed by careerists affect appropriations more than those administered by political appointees and (ii) whether the change in requested budgets is more relevant to actual appropriations for programs managed by careerists, rather than for those administered by political appointees.

(3) To examine if careerists link PART ratings to appropriations in a politically neutral way but political appointees link them based on partisanship, the sample is divided into four groups. The first group includes programs supported by Republicans and managed by careerists when appropriations increase. The second group includes programs supported by Republicans and administered by political appointees when appropriations increase. The third group includes programs supported by Republicans and managed by careerists when appropriations decrease. The fourth group includes programs supported by Republicans and administered by political appointees when appropriations decrease.

(4) To explore if careerists prefer result and merit-based budgeting and political appointees prefer process and punishment-based budgeting, the sample is divided into four groups. The first group includes programs managed by careerists when appropriations increase. The second group includes programs administered by political appointees when appropriations increase. The third group includes programs managed by careerists when

appropriations decrease. The fourth group includes programs administered by political appointees when appropriations decrease. Therefore, the four sections of PART, purpose, planning, management, and results, are substituted in place of the aggregated PART ratings in the equation (3) as follows:

$$CA_{it} = \beta_0 + \beta_{1.1}PU_{it} + \beta_{1.2}SP_{it} + \beta_{1.3}PM_{it} + \beta_{1.4}PR_{it} + \beta_2 PS_{it} + \beta_3 PT_{it} + \beta_4 CB_{it} + \beta_5 SN_{it} + \beta_6 HL_{it} + \beta_7 PB_{it} + \beta_8 PA_{it} + \beta_9 LA_{it} + \varepsilon_{it} \quad (3)$$

where i denotes the program, t represents fiscal year, CA_{it}: Congressional appropriations, PU_{it}: program purpose, SP_{it}: Strategic Planning, PM_{it}: program management, PR_{it}: program results, PS_{it}: program size, PT_{it}: program type, CB_{it}: carrier bureau chief, SN_{it}: staff number, HL_{it}: Homeland Security budget, PB_{it}: requested budget, PA_{it}: partisanship, LA_{it}: lobbying amount, DG_{it}: divided government, and ε_{it}: error term.

With regards to the fiscal factor,

(1) To investigate whether the impact of PART ratings on appropriations differs by an increase or decrease in program funding level, the sample is divided into four groups. The first group consists of cases whose requested budgets increase, the second group with cases whose requested budgets decrease, the third group with cases whose appropriations increase, and the fourth group with cases whose appropriations decrease.

(2) To examine whether PART ratings differently influence appropriations by increase or decrease of homeland security budgets, the sample is divided into two groups. One group is comprised of cases whose homeland security budgets increase and the other group with cases whose homeland security budgets decrease.

With regards to the program factor,

(1) To explore the difference in the effect of PART ratings on appropriations between program size, the sample is divided into two groups. One group consists of small or medium sized programs and the other group of large size programs.

(2) To investigate whether the impact of PART ratings on appropriations differs by program type, the sample is divided into two groups. One group consists of programs that have a direct way of collecting data on program results and the other group with programs that don't have a direct way of collecting data on program results. The two types of performance information, result-based and process-oriented performance information, are substituted in place of the aggregated PART ratings in the equation (4) as follows:

$$CA_{it} = \beta_0 + \beta_{1.4}PR_{it} + \beta_{1.5}PP_{it} + \beta_2 PS_{it} + \beta_3 PT_{it} + \beta_4 CB_{it} + \beta_5 SN_{it} + \beta_6 HL_{it} + \beta_7 PB_{it} + \beta_8 PA_{it} + \beta_9 LA_{it} + \varepsilon_{it} \quad (4)$$

where i denotes the program, t represents fiscal year, CA_{it}: Congressional appropriations, PR_{it}: program results, PP_{it}: process-related components, PS_{it}: program size, PT_{it}: program type, CB_{it}: carrier bureau chief, SN_{it}: staff number, HL_{it}: Homeland Security budget, PB_{it}: requested budget, PA_{it}: partisanship, LA_{it}: lobbying amount, and ε_{it}: error term.

Furthermore, to examine whether the impact of two types of performance information differently influence appropriations over fiscal years, this study tests this equation according to each fiscal year: 2005, 2006, 2007, and 2008. Finally, to examine whether the impact of PART ratings on appropriations differs by the qualitative ratings, the sample is divided into three groups. The first group includes programs whose qualitative rating is one of "Effective", "Adequate", or "Moderately effective." The second group includes programs whose qualitative rating is "Ineffective." The third group includes programs whose qualitative rating is "Results not demonstrated".

It should be noted that, if a control variable is a dummy, the control variable is dropped when estimating any equation for the comprehensive model. On the other hand, when the control variable is not a dummy variable, the control variable is included in the estimation models. Table 4.14.1 shows the basic and comprehensive regression models. Table 4.14.2 summarizes a set of regression analyses based on the comprehensive model, in which sample is divided into 2, 3, or 4 groups based on the criteria that has been discussed in this section. Each regression result will be reported in each table numbered in parenthesis in chapter 5.

[Table 4.14.1] Basic and Comprehensive Model

Basic Model	Pure relationship between PART and appropriations (Table 5.3 of Chapter 5) - Controlled by program factor
Comprehensive Model	Impact of PART on appropriations (Table 5.5 of Chapter 5) - Controlled by political, bureaucratic, fiscal, and program factors

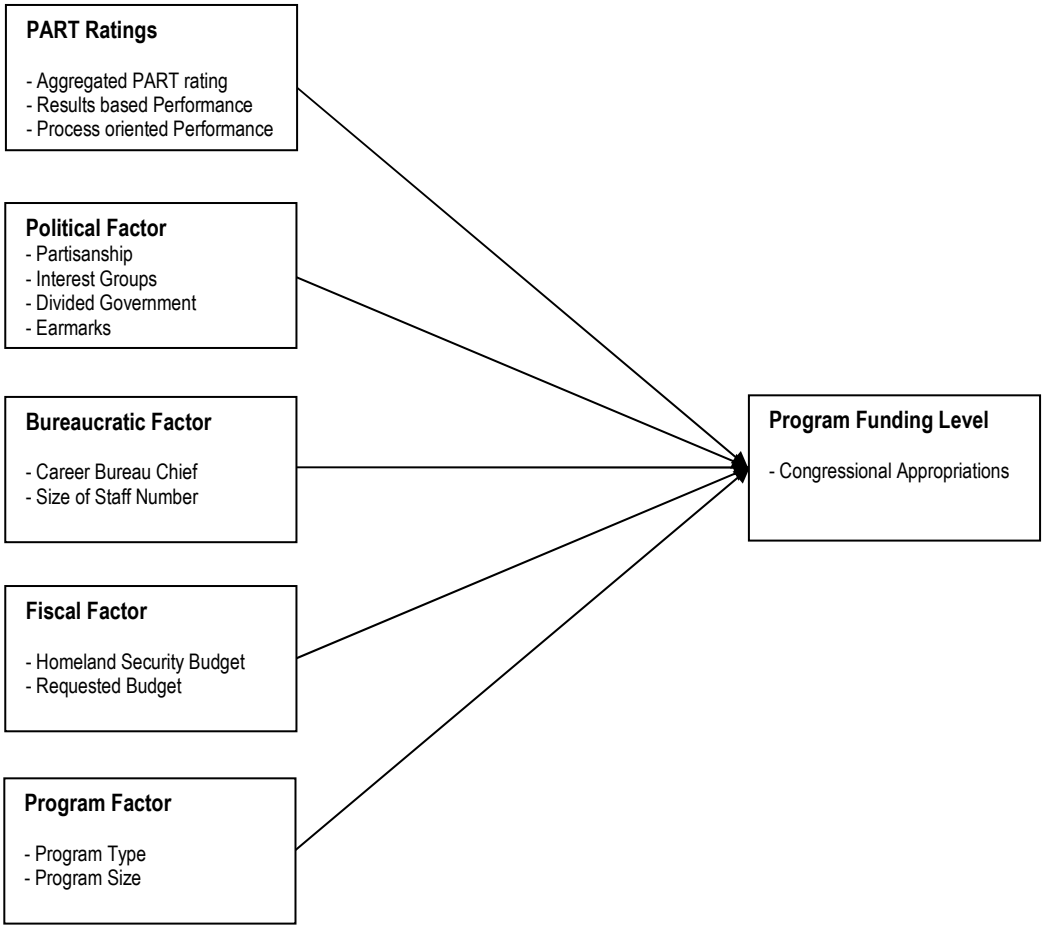
[Table 4.14.2] Regression Analyses based on Comprehensive Model

Political Factor	Partisanship (Table 5.7 of Chapter 5) - Group1: Programs in agencies supported by Democrats - Group2: Programs in agencies supported by Republicans Majority of Congress (Table 5.8 of Chapter 5) - Group1: Cases during Unified Government - Group2: Cases during Divided Government Interest Group (Table 5.10 of Chapter 5) - Group1: Programs in agencies where the influence of interest group increases - Group2: Programs in agencies where the influence of interest group decreases Earmarks (Table 5.11 of Chapter 5) - Group1: Programs in bureaus with earmarks - Group2: Programs in bureaus without earmarks
Bureaucratic Factor	Staff Number (Table 5.9 of Chapter 5) - Group1: Programs in agencies whose staff number decrease - Group2: Programs in agencies whose staff number increase

	Bureau Chiefs (Table 5.12 and 5.13 of Chapter 5) - Group1: Programs in bureaus managed by career bureau chiefs - Group2: Programs in bureaus administered by politically appointed bureau chiefs Bureau Chiefs: Neutrality vs. Partisanship (Table 5.14 of Chapter 5) - Group1: Republican programs managed by careerists when appropriations increase - Group2: Republican programs managed by political appointees when appropriations increase - Group3: Democratic programs managed by careerists when appropriations decrease - Group4: Democratic programs managed by political appointees when appropriations decrease Bureau Chiefs: Result and Merit vs. Process and Punishment (Table 5.15 of Chapter 5) - Group1: Programs managed by careerists when appropriations increase - Group2: Programs managed by political appointees when appropriations increase - Group3: Programs managed by careerists when appropriations decrease - Group4: Programs managed by political appointees when appropriations decrease
Fiscal Factor	Requested Budgets & Appropriations (Table 5.6 of Chapter 5) - Group1: Cases when requested budgets decrease - Group2: Cases when requested budgets increase - Group3: Cases when appropriations decrease - Group4: Cases when appropriations increase Homeland Security Budget (Table 5.16 of Chapter 5) - Group1: Cases when homeland security budget increase - Group2: Cases when homeland security budget decrease
Program Factor	Program Size (Table 5.17 of Chapter 5) - Group1: Programs in small and middle size - Group2: Programs in large size Program Type (Table 5.17 of Chapter 5) - Group1: Programs that have direct way of data collection on program results - Group2: Programs that have no direct way of data collection on program results
Overall	Qualitative Ratings (Table 5.20 of Chapter 5) - Group1: Effective, Adequate, Moderately effective - Group2: Ineffective - Group3: Results not demonstrated Fiscal Year (Table 5.18 of Chapter 5) - Group1: Cases in FY 2005 - Group2: Cases in FY 2006 - Group3: Cases in FY 2007 - Group4: Cases in FY 2008

Figure 4.1 shows the analytical model for this study.

[Figure 4.1] Analytical Model



4.4 PART Data Analysis

PART ratings by Four Sections

Most federal programs were evaluated at least once by PART between FY 2004 and FY 2008. Table 4.15 shows the mean of the PART ratings per each section. Generally, the scores tend to increase each fiscal year. The mean of the aggregated PART ratings is 64.23 for the five fiscal years. Program Purpose indicates the highest score with 85.95, the second highest is 80.63 for Program Management, and the third is Strategic Planning with 72.78. Program Result has the lowest mean score of 47.27, which may suggest the difficulty of measuring performance results in practice.

The federal programs are supposed to be reevaluated every five years. If an agency wants to get reassessed earlier than five years, it can put in a request to OMB. During FY 2004 to FY 2008, a total of 186 programs were reassessed upon the agencies' requests. Among them, 9 programs have been rated 3 times and the missile defense program has been rated 4 times (Norcross & Adamson 2007). Since OMB requires the programs to provide sufficient evidence before increasing their PART ratings, most programs generally receive increased PART ratings when they are reassessed. For example, among 127 programs which initially received "results not demonstrated", upon reassessment, 55 programs increased their PART rating to the "adequate" rating, 37 programs received the "moderately effective" rating, and 20 programs received the "effective rating". Only 15 programs were not included in those three rating categories.

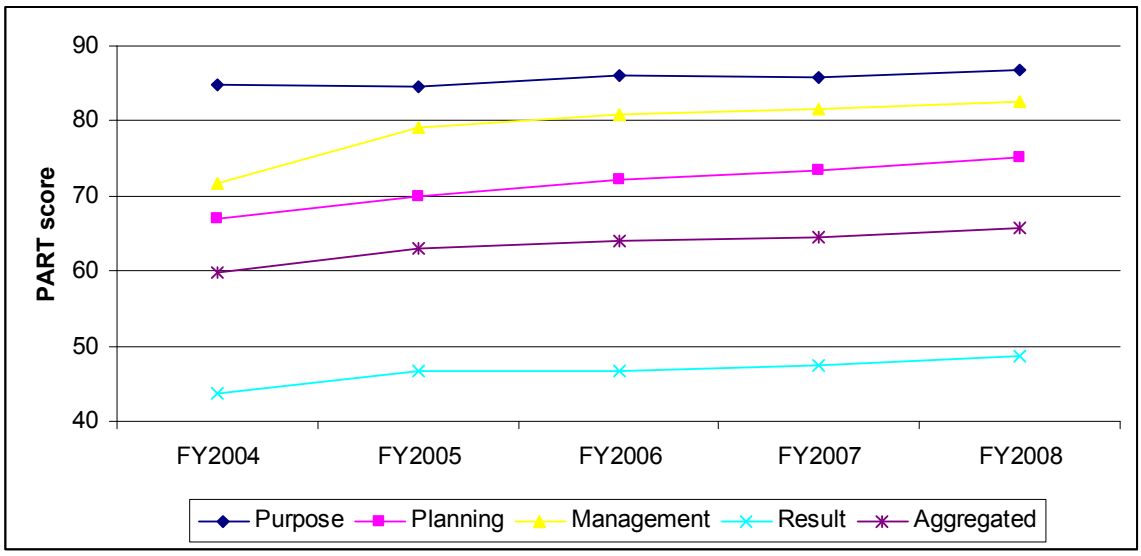
Table 4.15 indicates the mean of PART ratings per section and fiscal year.

[Table 4.15] Mean of PART ratings by Section and Fiscal Year

FY	N	Aggregated Ratings	Purpose	Planning	Management	Result
2004	234	59.86	84.79	67.09	71.70	43.70
2005	399	63.09	84.57	69.83	79.16	46.72
2006	607	63.95	86.11	72.27	80.73	46.71
2007	793	64.57	85.85	73.49	81.66	47.43
2008	977	65.64	86.77	75.08	82.47	48.56
Total	3,010	64.23	85.95	72.78	80.63	47.27

Figure 4.2 compares the difference between the four sections of PART rating over the fiscal years.

[Figure 4.2] Mean of PART ratings by Section and Fiscal Year



Four histograms of figure 4.3 examine the distribution of PART ratings of each section – program purpose, strategic planning, program management, and program result. PART ratings for program purpose, strategic planning and program management are densely distributed in high scores but rarely distributed in low scores, whereas for program result they are normally distributed. From 0 to 40 points, PART ratings for program purpose, strategic planning and program management are rarely distributed, whereas they are densely distributed for program result. This is based on the inherent difficulty to develop, collect and measure result-based performance information in the public sector. This issue is also applied in PART implementation.

[Figure 4.3] Histogram of PART ratings of Each Section

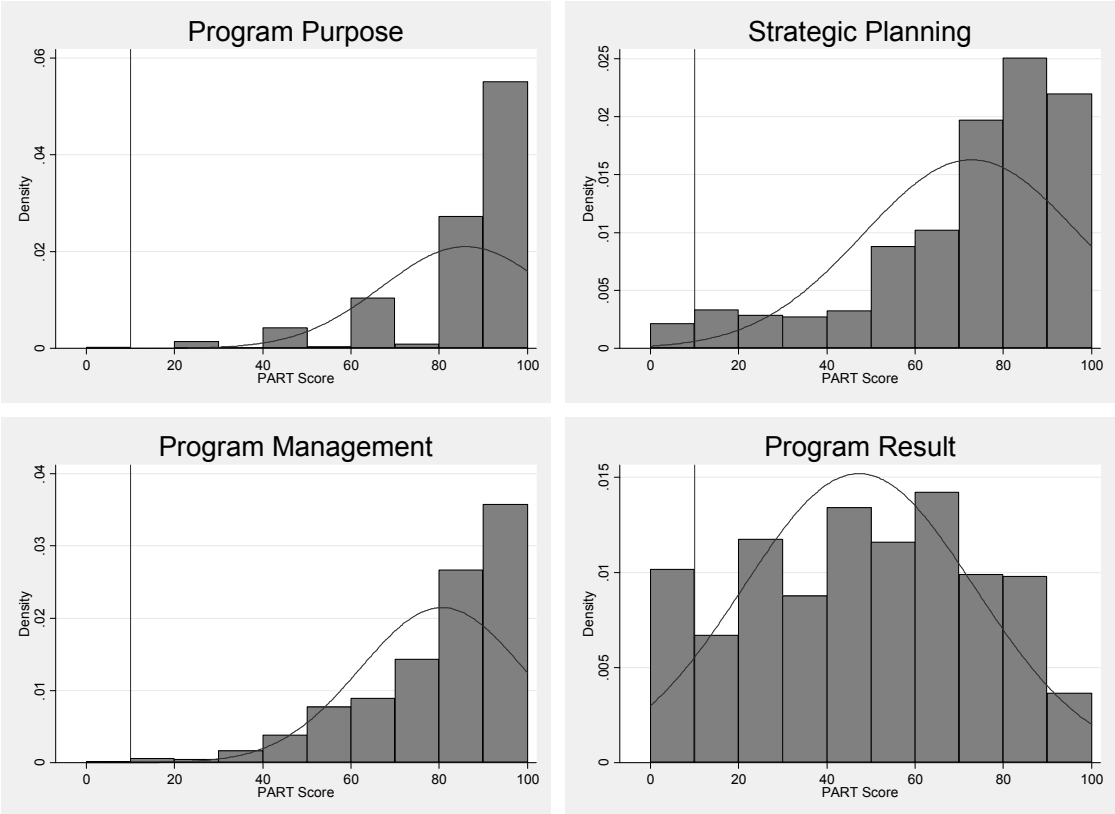
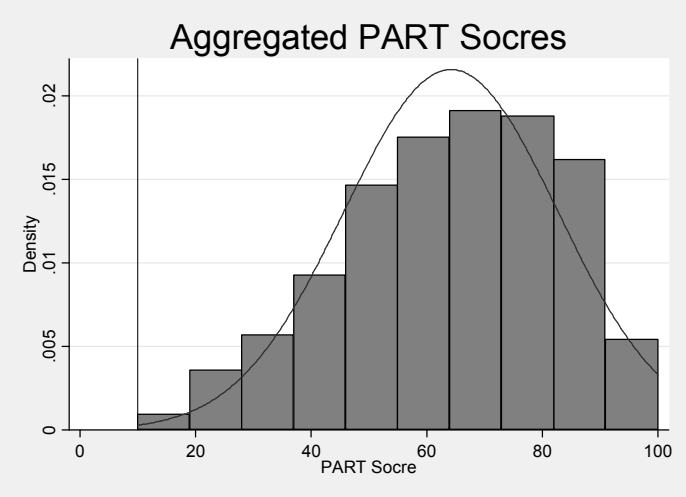


Figure 4.4 portrays a histogram showing the shape of distributions for the aggregated PART ratings from FY 2004 to FY 2008. The histogram shows that PART ratings are normally distributed. The minimum PART rating is 10 points for Health Care Facilities Construction and Other Miscellaneous programs, Department of Health and Human Services, evaluated in 2007. This is one of the congressional earmarks. The maximum PART rating is 100 points for Engineering and Technical Services for International Broadcasting, Broadcasting Board of Governors, evaluated in 2007.

[Figure 4.4] Histogram of Aggregated PART ratings



Qualitative Ratings by Fiscal Year

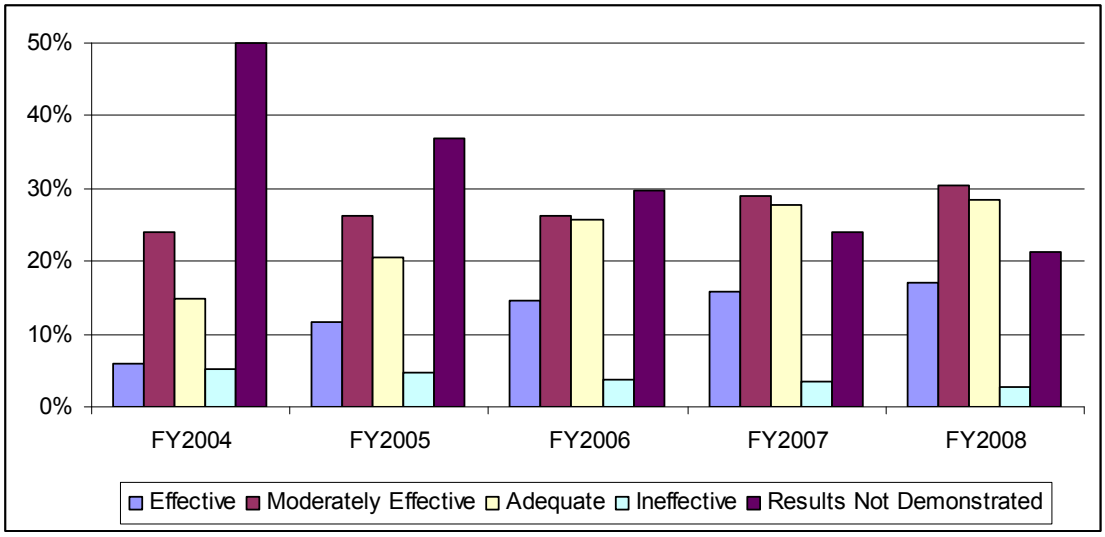
As indicated in Table 4.16 and Figure 4.5, federal programs tend to receive better ratings over time. For example, from FY 2004 to FY 2008, programs rated as "effective" from 6% to 17.1%, programs rated as "moderately effective" increased from 23.9% to 30.5%, and those rated as "adequate" increased from 15% to 28.4%. On the contrary,

programs rated as “ineffective” decreased from 5.1% to 2.8%, and those as “results not demonstrated” decreased from 50% to 21.3%.

[Table 4.16] Qualitative Ratings by Fiscal Year

	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008
Effective	14 (6.0 %)	46 (11.5 %)	89 (14.7 %)	125 (15.8 %)	167 (17.1 %)
Moderately Effective	56 (23.9 %)	105 (26.3 %)	159 (26.2 %)	229 (28.9 %)	298 (30.5 %)
Adequate	35 (15.0 %)	82 (20.6 %)	157 (25.9 %)	220 (27.7 %)	277 (28.4 %)
Ineffective	12 (5.1 %)	19 (4.8 %)	22 (3.6 %)	28 (3.5 %)	27 (2.8 %)
Results Not Demonstrated	117 (50.0 %)	147 (36.8 %)	180 (29.7 %)	191 (24.1 %)	208 (21.3 %)
Total	234	399	607	793	977

[Figure 4.5] Qualitative Ratings by Fiscal Year



PART ratings by Agency

Table 4.17 shows the mean PART ratings from FY 2004 to FY 2008 for each agency. The Department of State received the highest total score of 76.46, while the lowest score of 44.21 was given to the Department of Education. According to Gilmour (2006), one particular reason for the high achievement by the State Department may be based on the personnel management of former Secretary Colin Powell, who appointed capable mangers to handle the PART requirements from the initial stage. The low scores of the Education Department may be due to its poorly designed programs (Gilmour 2006).

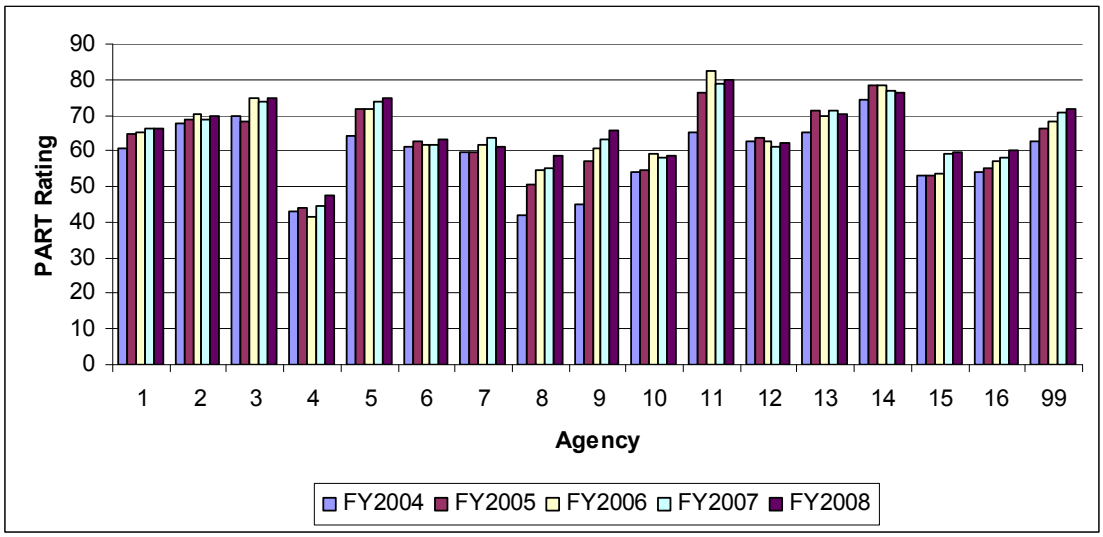
[Table 4.17] Mean of PART ratings by Agency[23]

	FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		Total	
Agency	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
1	13	60.7	31	64.5	56	65.3	70	66.1	84	66.0	254	64.5
2	10	67.8	19	68.8	23	70.1	28	68.7	30	69.8	110	69.0
3	12	69.6	15	68.2	23	74.9	32	73.9	51	74.7	133	72.2
4	18	43.1	33	44.0	56	41.7	74	44.5	88	47.7	269	44.2
5	31	64.3	36	71.8	43	71.9	50	73.9	56	74.8	216	71.3
6	30	61.2	43	62.7	65	61.7	90	61.6	113	63.0	341	62.0
7	9	59.5	18	59.5	33	61.8	45	63.5	65	61.3	170	61.1
8	6	42.2	12	50.8	20	54.6	25	55.02	30	58.6	93	52.2
9	9	45.1	15	56.9	18	60.7	27	63.06	35	65.5	104	58.2
10	9	53.9	14	54.4	21	59.4	28	58.1	33	58.5	105	56.8
11	9	65.4	17	76.1	28	82.3	39	78.6	47	79.8	140	76.4
12	15	62.7	29	63.9	43	62.5	63	61.0	73	62.1	223	62.4
13	10	65.1	15	71.4	23	69.6	30	71.5	36	70.1	114	69.5
14	4	74.4	10	78.3	19	78.6	25	76.7	32	76.4	90	76.9
15	3	52.9	5	53.3	7	53.6	9	59.3	10	59.8	34	55.7
16	11	53.9	20	55.2	32	56.9	43	58.1	51	60.3	157	56.9
99	35	62.6	67	66.3	97	68.4	115	71.0	143	71.6	457	67.9
Total	234	59.9	399	63.1	607	64.0	793	64.57	977	65.6	3,010	63.4

[23] 1=Department of Agriculture, 2=Department of Commerce, 3=Department of Defense, 4=Department of Education, 5=Department of Energy, 6=Department of Health and Human Services, 7=Department of Homeland Security, 8=Department of Housing and Urban Development, 9=Department of Justice, 10=Department of Labor, 11=Department of State, 12=Department of the Interior, 13=Department of the Treasury, 14=Department of Transportation, 15=Department of Veterans Affairs, 16=Environmental Protection Agency, 99=Other Agencies.

Figure 4.6 shows the mean of PART ratings from FY 2004 to FY 2008 per each agency.

[Figure 4.6] Mean of PART ratings by Agency



All the above descriptive statistics indicates that the PART ratings have generally increased over the five fiscal years since Fiscal Year 2004. Although this is true, one question about this trend still remains; does this really imply an actual improvement in the programs' performance? There may be two possible explanations on increase in PART ratings. One, agencies actually improved program performance through better program design and management in order to acquire larger budgets. Second, the quality of performance information has improved through enhanced techniques of measurement regardless of any actual improvement in performance. It is difficult to generalize a conclusion since each program has its own unique reasons for the improvement of their PART ratings. With regards to budget decision makers, the variety of perspectives on interpreting the same performance results due to the inherent subjectivity of the program evaluation process and its products can be a key issue (Moynihan 2006). The inherent

subjectivity of performance information might lead to an arbitrary use of the PART ratings for its own purposes and interests in the budget decision process.

Chapter Five

Impact of PART on the Program Funding Decisions

5.1 Introduction

The effects of PART ratings are examined in a set of regression models with a group of control variables that are known to influence federal budget decisions. The models show positive and statistically significant results in most cases. That is, they indicate that PART ratings, even when controlled by various political, bureaucratic, and fiscal variables, have a significant impact on budget decisions for federal programs. However, the magnitude of PART on budget decisions is even more strongly affected by the conditions of the control variables, not the scores themselves. In detail, with regard to political factors, impacts of PART decline for earmarked programs, decline for programs backed by greater interest groups, decline during divided government, and decline under the iron triangle in which bureaucracy has strong ties with interest groups and members of Congress. With respect to fiscal factors, PART is used to justify funding cuts rather than increase them, and used to justify increasing Homeland Security budgets.

With respect to program factors, results-based performance information demonstrates a significant influence in programs whose results can be measured in direct ways by the federal government, while process-based performance information has a greater impact on R&D and Grants programs. With respect to bureaucratic factors, career bureau chiefs (professional administrators) utilize the PART program result scores to increase funding allocations in a politically neutrally way, while political

appointees (who support the Presidential agenda) utilize program purpose scores to decrease funding levels based on partisanship. These preliminary findings reflect the variety of challenges of PART in the budgeting process. While the results confirm that performance information actually influences the budget decisions, they also indicate that the utilization of performance information has its limitations and that PART data can be used to justify political and fiscal purposes.

This chapter discusses three themes. The first theme explains a modified PART rating variable used in a set of regression analysis, the second theme introduces a simple model that excludes all control variables to study the pure impact of PART, and the remainder of the chapter presents a series of regression analyses that tests the specific conditions of variables posited in a comprehensive model. Detailed findings are presented in each section.

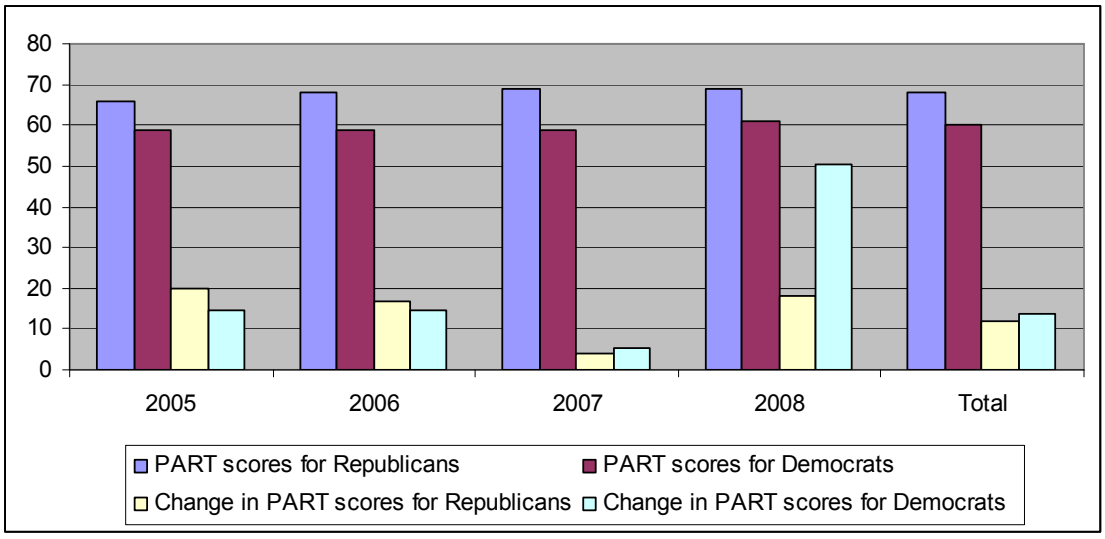
5.2 Change in PART ratings

Administrative budget reforms are designed to promote rational, apolitical and professional resource allocation decisions. PART is often criticized as being overly partisan; a rationally perceived performance assessment that is used to justify the executive branch's efforts to cut or eliminate programs (Dull 2006). Gilmour and Lewis (2006a, 2006b) point out that PART ratings themselves are influenced by the political content of programs, which makes it difficult to explain the impact of performance information on funding decisions. Thus, the PART ratings are suspect of politicization because the performance assessments process itself includes subjective judgments of evaluators who are the OMB budget examiners working in collaboration with program, planning and

budget staffs in various departments and agencies (Dull 2006; Gilmour & Lewis 2006b). If this is the case, examining the relationship between PART ratings and budgets may not be an appropriate way to inspect the use of performance information in budgeting, since program funding levels are more likely influenced by partisanship than by program performance.

To examine the apolitical effect of PART ratings, it is necessary to control the effect of the partisanship nature of the programs on budget allocations. In an attempt to remove the politics from the PART rating, Gilmour and Lewis (2006b) suggest using the "*Change in PART Ratings*", which is operationally defined as the percentage change in PART rating from the previous year's PART rating. For this reason, this study utilizes the *Change in PART Ratings* as an independent variable. However, one might suspect that the change in PART ratings is also influenced by the partisanship of programs. One way to resolve this concern is to compare the *Change in PART Ratings* between two groups of programs consisting of those closely identified with the Democratic Party and those closely identified with the Republican Party.

[Figure 5.1] The Mean of PART ratings and Change Rates by Partisanship



[Table 5.1] Descriptive Statistics of PART ratings and Change Rates by Partisanship

		Programs in Republican Agency				Programs in Democratic Agency			
FY	Variable	N	Mean	Min	Max	N	Mean	Min	Max
2005	PART rating	222	66	11	97	177	59	16	94
	Change in PART rating (%)	39	20	-42	123	47	14	-18	74
	Decrease in Change (%)	6	-12	-42	0	12	-9	-18	-1
	Increase in Change (%)	33	26	0	123	35	22	0	74
2006	PART rating	347	68	11	97	260	59	16	94
	Change in PART rating (%)	42	17	-21	72	17	14	-1	52
	Decrease in Change (%)	6	-10	-21	-3	1	-1	-1	-1
	Increase in Change (%)	36	22	1	72	16	15	1	52
2007	PART rating	455	69	11	100	338	59	10	97
	Change in PART rating (%)	88	4	-28	133	56	5	-89	115
	Decrease in Change (%)	30	-6	-28	0	24	-6	-89	0
	Increase in Change (%)	58	9	0	133	32	14	0	115
2008	PART rating	576	69	11	100	401	61	10	97
	Change in PART rating (%)	29	18	-41	83	12	50	1	145
	Decrease in Change (%)	4	-21	-41	-2	0	-	-	-
	Increase in Change (%)	25	24	0	83	12	50	1	145
Total	PART rating	1600	68	11	100	1176	60	10	97
	Change in PART rating (%)	198	12	-42	133	132	14	-89	145
	Decrease in Change (%)	46	-9	-42	0	37	-7	-89	0
	Increase in Change (%)	152	18	0	133	95	22	0	145

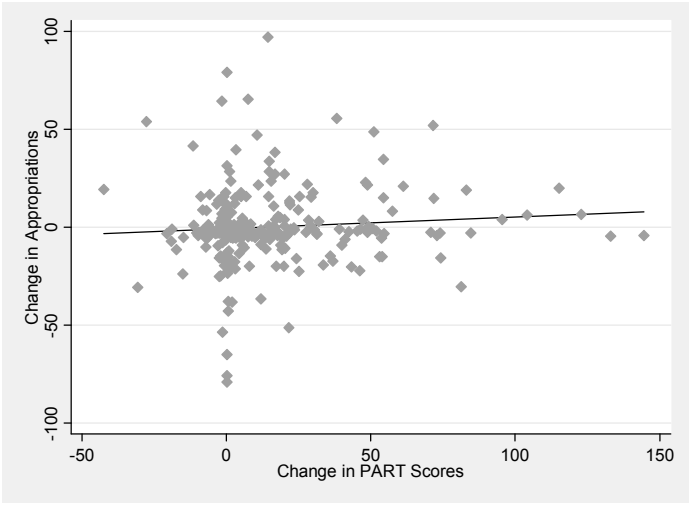
As shown in table 5.1 and figure 5.1, the average of *Change in PART Ratings* for programs traditionally aligned with Democratic values is higher (14 %) than those for programs traditionally associated with Republican values (12 %) during FY 2005 and FY 2008[24], whereas the average of PART ratings for programs closely identified with Republican values are consistently higher (68 point) than programs closely identified as reflecting Democratic values (60 point) in all four fiscal years.

For this reason, it can be argued that, when compared to the PART ratings themselves, the actual *Change in PART Ratings* is independent of the partisanship of

[24] If including programs that have not been re-assessed (change rate is 0%), the average of *Change in PART Rating* during FY 2005 and FY 2008 indicates the same change rate of 2 % for programs supported by the both party.

Republican administration. If political neutrality is one of the criteria for the performance-based budget, the change variable may be closer to the criteria rather than PART rating itself. The *Change in PART Ratings* is used as an independent variable to test whether performance data is used in a neutral and rational way to inform budget decisions[25]. Figure 5.2 shows a bivariate relationship between *Change in PART Ratings* and change in appropriations. The *Change in PART Ratings* appear to positively correlate with appropriation changes. This provides some initial evidence that increases in PART ratings can lead to increases in appropriation allocations.

[Figure 5.2] Change in PART ratings and Change in Appropriations[26]



[25] In general, it was found that the PART ratings were increased through the re-assessment. However, the small number of programs that were re-assessed may be a limitation of the PART rating changing variable since many programs were re-evaluated only once. Basically, each program is supposed to be re-evaluated once every five years. Only in the case that an agency wants to get re-assessment earlier than the five year, they can request it to OMB. During FY 2004 to FY 2008, total 186 programs have been re-assessed based on agencies' requests. Among them 9 programs have been rated 3 times and missile defense program has been rated 4 times (Norcross & Adamson 2007).

[26] Figure 5.2 only includes cases in which programs were re-assessed at least once, and whose appropriation changes are less than 100 percent.

5.3 Issues on Panel-Data Estimation

For this study, most regression models are estimated by random-effects estimation methods. Compared to cross-sectional data, using panel data has several advantages, such as containing increased number of observations and examining causal relationship with before-and after observations. However, panel-data sometimes exhibit correlation of regression disturbances over time or between subjects, which violates assumptions on no autocorrelation and homoskedasticity. Since ignorance of these issues lead to biased statistical inference, this study uses the Wooldridge test for checking serial autocorrelation and the Breuch-Pagan test for checking the presence of heteroskedasticity. Each table of regression results reports Wooldridge and Breuch-Pagan test statistics. When violations of serial correlation and/or heteroskedasticity are reported at 95% confidence levels by the Wooldridge and/or Breuch-Pagan tests, the standard error of estimates robust to autocorrelation and/or heteroskedasticity is used in order to obtain unbiased coefficients.

5.4 Basic Model and Excluding Outliers

The basic regression model is estimated by random-effects panel-data estimation methods using four different samples. This model is controlled by program factors only, without any political, bureaucratic, or fiscal variables. The Wooldridge test for autocorrelation in panel-data shows that autocorrelation exists in the residual of sample 1, 3, and 4. The Breuch-Pagan for heteroskedasticity indicates that the hypothesis of constant error variance is rejected for all four estimated models.

[Table 5.2] Basic Random-Effects Model

Dependent Variable Change in Appropriations	Sample 1	Sample 2	Sample 3	Sample 4
PART				
PART rating	1.86 (1.73)	0.16 (0.10) *	0.08 (0.03) ***	0.07 (0.03) ***
Change in PART rating	-1.62 (1.57)	-0.07 (0.14)	0.03 (0.05)	0.06 (0.04) *
Program				
Small & Medium Size(0,1)	-234.70 (212.00)	-24.15 (11.40) **	-4.43 (1.19) ***	-3.36 (1.06) ***
Directed federal (0,1)	235.30 (231.30)	4.47 (3.24)	3.30 (2.19)	4.89 (2.02) **
Competitive Grant (0,1)	73.75 (64.42)	11.87 (5.83) **	3.57 (2.19)	3.45 (2.09) *
Block/formula Grant (0,1)	6.44 (19.69)	2.95 (3.55)	1.23 (2.34)	1.04 (2.24)
Regulatory-based-based (0,1)	50.01 (43.85)	11.23 (3.85) ***	6.00 (2.12) ***	6.05 (2.05) ***
Capital Assets & Service(0,1)	-49.20 (50.70)	-4.76 (11.12)	4.54 (2.39) *	4.88 (2.30) **
Credit (0,1)	119.00 (132.30)	162.30 (130.10)	-5.43 (5.86)	-3.82 (5.37)
R&D (0,1)	30.76 (30.95)	8.02 (4.36) *	2.94 (3.03)	4.86 (2.57) *
Constant	30.45 (44.42)	3.08 (8.83)	-7.30 (3.06) **	-7.15 (2.85) **
Autocorrelation	802.54 (0.00)	0.00 (0.92)	62.72 (0.00)	61.79 (0.00)
Heteroskedasticity	3658.29 (0.00)	19506.87 (0.00)	46.36 (0.00)	22.11 (0.00)
Observations	1791	1790	1746	1736
Wald chi-square	3.20	19.06**	47.13***	48.93***
R-squared	0.00	0.02	0.02	0.02

Note: 1. *** p<0.01, ** p<0.05, * p<0.1. 2. Standard errors robust to autocorrelation and/or heteroskedasticity are in parenthesis. 3. Serial correlation is tested by Wooldridge test for panel data and p-values are in parenthesis. 4. Breusch-Pagan test for heteroskedasticity is based on pooled-OLS and p-values are in parenthesis.

In the first sample, with all 1,791 observations, the mean of *Change in Appropriations* is 81.4 %, the standard deviation is 3,111.5, the minimum appropriation change is -1,608.9, and the maximum appropriation change is 131,380. However, the model itself is not statistically significant at the 10 % level with 3.20 of Wald chi-square. For the second sample, with 1790 observations, (one observation was excluded[27]), the mean *Change in Appropriations* is 8.1 %, the standard deviation is 213.2, the minimum appropriation change is -1,608.9, and the maximum appropriation change is 8,536.8.

[27] The maximum change is occurred in the 'Emergency Management' program administered by Corps of Engineers, whose appropriations increased 131,380% from 4 million in FY 2006 to 5,412 million in FY 2007.

[Table 5.3] Descriptive Statistics of *Change in Appropriations* and Outliers

	Observation	Outliers	Mean	Std. Dev.	Min	Max
Sample 1	1,791	-	81.4	3,111.5	-1,608.9	131,380.1
Sample 2	1,790	1 (0.06%)	8.13	213.2	-1,608.9	8,536.8
Sample 3	1,746	45 (2.50%)	-1.8	22.5	-100	97.9
Sample 4	1,736	55 (3.10%)	-1.2	21.3	-96.9	97.9

The second sample, even after dropping only one extreme case, becomes significant with 19.06 of the Wald chi-square. This indicates significance at the .10 level in two-tailed tests because the models have non-directional hypotheses as concerns the impact of both *PART ratings* and other variables on budget changes. One key finding is that the *PART rating* variable has a positive coefficient and is statistically significant in this model. This suggests that the PART ratings are positively correlated with appropriations changes, even when including almost every federal program that were consecutively evaluated in PART worksheets for at least two years during FY 2004 and FY 2008.

As the substantial difference between the first and the second sample demonstrate, the estimate of regression analyses can be influenced by extreme cases that are called outliers[28]. Handling outliers is a very important issue for this study since budget changes include some extreme cases. The second sample still includes some extreme cases whose budget changes are more than 1,000 %[29]. Although there is no established rule to deal with outliers, one common way of solving this issue is to exclude outliers based on a decision to

[28] According to Wooldridge (2003), if dropping some observations from a regression analysis makes the estimates substantially change, the observations are outliers. If outliers substantially change the results, the regression results should be reported in both cases with and without outliers.

[29] There are cases whose budget changes are more than 1,000% as follows: Emergency Management by Corps of Engineers received increase of 131,380% in FY 2007; Single Family Housing Loan Guarantees by Department of Agriculture received increase of 8,536% in FY 2007; Workforce Investment Act-Native American Programs by Department of Labor received increase of 1,249 % in FY 2007. However, Bonneville Power Administration by Department of Energy was cut by -1,608% (from -52 million to -917 million) in FY 2006.

determine which cases are outliers or not[30]. Public budgeting is recognized for its incremental changes. Generally, the budget is assumed to change on a small scale from 5 to 20 % (Fenno 1966; Sharkansky 1968; Gist 1974; Bailey & O'Connor 1975; Wanat 1974; Kemp 1982). In this sense, it may be considered abnormal if the budget changes more than 50 or 100 %. However, this arbitrary point needs to be determined based on the purpose of the research. Since the purpose of this study is not to test incrementalism, but instead to find evidence of whether performance information influences budget appropriations, it may be more conductive to retain as many cases as possible in order to prevent biased results. For this reason, Gilmour and Lewis (2006a, 2006b) adopt the 100 % change of budget as the standard by which to determine outliers.

In order to decide whether to include the 100 % of budget changes or not, this study compares the third and fourth samples of table 5.3. In the third sample, with 1,746 observations, the mean of *Change in Appropriations* is -1.8 %, the standard deviation is 22.5, the minimum appropriation change is -100, and the maximum appropriation change is 97.9. The PART rating is significantly correlated with budget changes. In the fourth sample with 1,736 observations (excluding 10 cases with 100 % budget cuts[31]), the mean of *Change in Appropriations* is -1.2 %, the standard deviation is 21.3, the minimum appropriation change is -96.9, and the maximum appropriation change is 97.9. The fourth sample that excludes the 100 % budget cuts shows somewhat of a different finding from those reported in the third sample which includes the 100% budget cuts. In the fourth sample, after dropping cases whose budget cuts are 100 %, the *Change in PART Rating*

[30] To log the variable is another way to resolve this issue; however, logging variable is generally used when cases do not include negative numbers.

[31] There is no case with 100 percent budget increase for the sample. Therefore, all 100 percent budget change means is 100 budget cuts for this study.

becomes significantly correlated with budget changes. It can be concluded that the 100 % cut in funding is not decided based on the performance assessment.

[Table 5.4] Programs for 100 percent of Funding Cuts

Agency	Program	Fiscal Year	PART ratings	Budgets
Department of Agriculture	CCC Marketing Loan Payments	2007	74.3	158
		2008	74.3	0
	Dairy Payment Program	2007	54.9	158
		2008	62.7	0
	Dairy Price Support Program	2006	47.3	55
		2007	47.3	0
	Emergency Watershed Protection Program	2007	55.8	11
		2008	58.3	0
Department of Energy	Geothermal Technology	2007	71.1	5
		2008	71.1	0
	University Nuclear Education Programs	2007	28.5	17
		2008	28.5	0
Department of Interior	National Fish Hatchery System	2005	46.1	57
		2006	79.2	0
	Partners for Fish and Wildlife	2005	67.7	48
		2006	67.7	0
Department of Homeland Security	Threat and Vulnerability, Testing and Assessment	2006	51.6	43
		2007	51.6	0
Export-Import Bank of the U.S.	Export Import Bank - Long Term Guarantees	2007	82.1	125
		2008	82.1	0

As table 5.4 shows, *PART ratings* do not matter for the program funding cuts. None of the programs show a decrease in PART ratings and some programs even have an increase in PART ratings, yet the programs were terminated. If the 100 % budget cuts mean an end to a program, it could be concluded that making the determination to eliminate programs is beyond the program performance, and this may indicate a political decision. This study adopts the decision rule to exclude cases whose appropriation changes are equal or greater than 100 % since one particular concern of this research is examining the use of performance information in budgeting in the PART system as a rational

budgetary tool. This 100 % rule excludes 55 observations which represents 3.1 % of all 1791 observations during FY 2005 and FY 2008 budgets.

[Figure 5.3] Histogram of Change in Appropriations

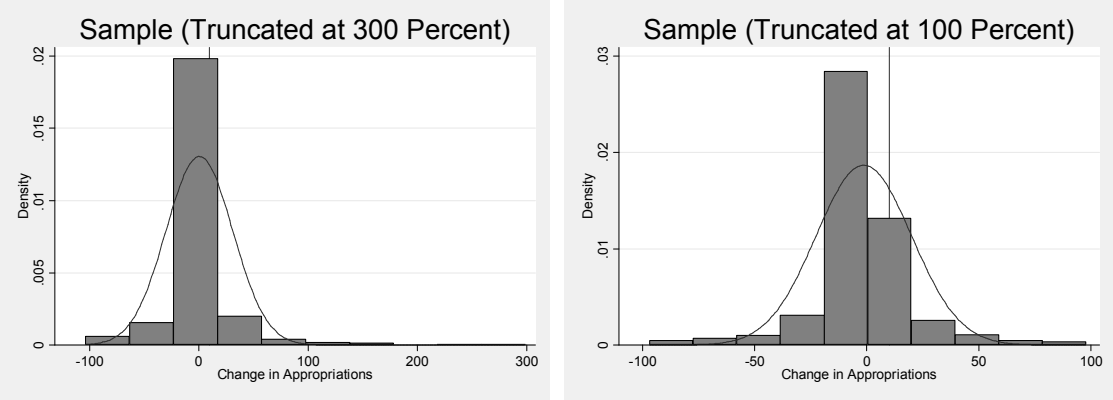


Figure 5.3 shows histograms of change in appropriations from FY 2004 to FY 2008. The figure on the left includes cases whose appropriation changes are less than 300 % while the figure on the right shows cases whose appropriation changes are less than 100 %. The histogram on the right looks more normal and less skewed, compared to the histogram on the left.

[Figure 5.4] PART ratings and Change in Appropriations

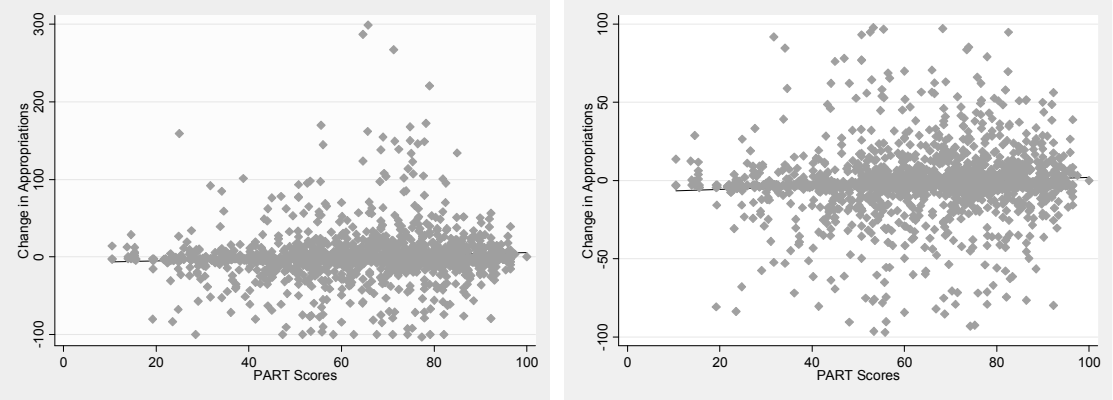


Figure 5.4 shows the bivariate relationship between PART ratings and change in appropriations. The graph on the left includes cases whose appropriation changes are less

than 300 %. The graph on the right shows cases whose appropriation changes are less than 100 %, in which PART ratings appear to positively correlate with appropriation changes.

5.5 Comprehensive Model

Table 5.5 shows the regression results of a comprehensive model that includes political, bureaucratic, fiscal, and program factors as well as PART ratings[32]. This model tests the magnitude of effects of all the variables that influence the *Change in Appropriations* for 1525 cases. This model specifies positive impacts from variables that are hypothesized to have causal links to the appropriations. The results confirm that such relationships and the variables are statistically significant in the model. The results indicate that both *PART rating* and *Change in PART rating* influence budget changes even when controlled by political, bureaucratic, fiscal and program factors. An increase in PART rating of 10 points is estimated to increase a program's budget by 0.8 percent. An increase in 10 percent of PART rating is estimated to increase a program's budget by 0.6 percent. The results confirm the hypothesis 1.1.

H 1.1: PART ratings positively influence budget decisions in Congress. This means that they have a significant impact on actual appropriations, even after other factors that generally influence budget decisions are taken into account.

[32] From this section, all regression models only include cases in which the one-year appropriation change is less than 100 percent. Descriptive statistics of all variables included in this regression model are shown in Appendix 2.

[Table 5.5] Comprehensive Regression Model

Dependent Variable Change in Appropriations	Total
PART	
PART rating	0.08 (0.03) **
Change in PART rating	0.06 (0.04) *
Political Factor	
Partisanship (0,1)	1.65 (1.32)
Change in Lobbying Amount	0.00 (0.00) *
Bureaucratic Factor	
Careerist (0,1)	2.03 (1.22) *
Change in Staff Number	0.34 (0.12) ***
Fiscal Factor	
Change in Homeland Security Budget	0.04 (0.03) *
Change in Requested Budget	-0.00 (0.00) ***
Program Factor	
Small & Medium Size(0,1)	-3.08 (1.15) ***
Directed federal (0,1)	5.96 (2.02) ***
Competitive Grant (0,1)	4.89 (2.11) **
Block/Formula Grant (0,1)	1.94 (2.07)
Regulatory-based-based (0,1)	5.57 (2.00) ***
Capital Assets and Service (0,1)	6.29 (2.53) **
Credit (0,1)	-1.98 (6.80)
R&D (0,1)	4.47 (2.60) *
Constant	-10.59 (3.52) ***
Autocorrelation	0.03 (0.85)
Heteroskedasticity	20.04 (0.00)
Observations	1525
Wald chi-square	65.10***
R-squared	0.03

Note: 1. *** p<0.01, ** p<0.05, * p<0.1. 2. Standard errors robust to heteroskedasticity are in parenthesis. 3. Serial correlation is tested by Wooldridge test for panel data and p-values are in parenthesis. 4. Breusch-Pagan test for heteroskedasticity is based on pooled-OLS and p-values are in parenthesis.

The second issue is that it cannot be verified whether members of Congress actually utilize the PART ratings in the appropriation process, although statistical discoveries prove that PART ratings have substantial impacts on appropriation decisions. There are three possible scenarios that emerge. First, PART ratings were actually used in the process. However, it seems difficult to find any evidence on the usage of performance information. Even Congressional hearing reports do not indicate any detailed bargaining

or discussion on its use in the Congressional budgeting process (Frisco & Stalebrink 2008; Moynihan 2008). Members of Congress are less likely to utilize the assessment when making decisions, while being supportive of the program performance assessment itself (Moynihan 2008).

The second possible scenario is that PART ratings influence appropriations mainly via the high agreement with the President's budgets[33]. The budgetary power has been shifted from the Congress to the President due to the belief that Congressional members are more vulnerable to demands from interest groups and their constituents (Rubin 2006). The Presidential budget has become more influential in the budget cycle with the flow of power from Congress to the President based on the executive budget, while the Congressional influence has become less powerful in budget decisions (Meier 2000). The third scenario is that the estimates of this research may have limitations due to the difficulties in controlling the political, bureaucratic, and fiscal factors of programs. While there is no absolute way of distinguishing between these possibilities, it is likely that PART ratings would matter in some circumstances, but not in others. Testing them all together, without taking into account the various circumstances, might hinder the true impact of PART ratings. The last scenario is analyzed in the following sections based on a series of hypotheses.

[33] The correlation test indicates 98.97% (observations=2,811) between the requested budgets and Congressional appropriations, which are included in the PART sheets from FY 2004 to FY 2008.

5.6 PART for the Program Funding Cuts

H 4.1: PART ratings are likely to have significant impact on program funding levels when budgets decrease, while their impact declines substantially, or even disappears, when budgets increase.

[Table 5.6] Impact of PART on Appropriations by Change in Budgets

	Requested Budgets		Appropriations	
	Decrease	Increase	Decrease	Increase
PART				
PART rating	0.08(0.04) **	0.05(0.05)	0.07(0.04) **	-0.04(0.05)
Change in PART rating	0.09(0.06) *	0.03(0.05)	0.03(0.03)	0.02(0.05)
Political Factor				
Partisanship (0,1)	1.03(1.73)	4.03(2.06) *	4.54(1.41) ***	0.49(1.90)
Change in Lobbying Amount	0.00(0.00)	0.00(0.00)	0.00(0.00) ***	0.00(0.00)
Bureaucratic Factor				
Careerist (0,1)	2.32(1.54)	2.58(2.05)	3.93(1.14) ***	-1.06(2.05)
Change in Staff Number	0.40(0.20) **	0.25(0.14) *	0.12(0.10)	-0.10(0.21)
Fiscal Factor				
Change in Homeland	0.04(0.03)	0.08(0.06)	0.01(0.01)	0.05(0.06)
Change in Requested Budget	0.01(0.02)	-0.00(0.00) ***	0.00(0.00)	-0.00(0.00) *
Program Factor				
Small & Medium Size (0,1)	-1.39(1.45)	-4.65(1.96) **	-2.29(1.33) *	2.11(1.72)
Directed federal (0,1)	5.66(2.70) **	4.78(2.57) *	0.62(2.57)	5.85(2.21) ***
Competitive Grant (0,1)	5.85(2.74) **	3.00(2.99)	4.36(2.25) *	4.83(3.47)
Block/formula Grant (0,1)	2.48(2.69)	2.73(2.95)	2.50(2.34)	3.17(3.26)
Regulatory-based (0,1)	6.15(2.52) **	3.16(2.63)	4.45(2.44) *	-0.87(2.21)
Capital Assets (0,1)	4.37(3.28)	9.52(3.46) ***	-0.17(2.79)	11.34(3.19) ***
Credit (0,1)	6.15(9.28)	-12.79(9.97)	-15.41(6.63) **	25.80(8.10) ***
R&D(0,1)	0.59(3.36)	10.31(3.45) ***	0.06(2.84)	6.18(3.71) *
Constant	-13.10(4.50) ***	-5.07(5.14)	-18.41(4.13) ***	11.16(4.68) **
Autocorrelation	0.01(0.98)	0.10(0.74)	12.41(0.00)	0.24(0.62)
Heteroskedasticity	9.46(0.00)***	12.84(0.00)***	251.79(0.00)***	41.70(0.00)***
Observations	963	562	951	574
Wald chi-square	29.84**	62.48***	71.67***	40.14***
R-squared	0.03	0.07	0.07	0.06

Note: 1. *** p<0.01, ** p<0.05, * p<0.1. 2. Standard errors robust to autocorrelation and/or heteroskedasticity are in parenthesis. 3. Serial correlation is tested by Wooldridge test for panel data and p-values are in parenthesis.
4. Breusch-Pagan test for heteroskedasticity is based on pooled-OLS and p-values are in parenthesis.

The federal government has been experiencing budget deficits for five consecutive years during the implementation of the PART system. During the fiscal crisis, when defense budgets and entitlements kept growing, the executive branch proposed to eliminate the deficit by 2012 (Brook 2007). Deficit reduction generally requires a decrease in expenditures and increase in revenues. An important intent of PART is to support OMB's efforts to save money through reducing or eliminating the federal programs (Dull 2006). PART can be used to justify cutbacks in the federal program funding; while it is not clear under which circumstance PART justifies the increase of program funding. This relationship is statistically examined through the four samples presented in table 5.6. The first and third columns, in which both requested budgets and congressional appropriations decrease, show that PART ratings significantly influence program funding levels. The second and fourth columns, in which both requested budgets and congressional appropriations increase, show PART ratings have insignificant impacts on funding levels.

5.7 Partisanship

H 2.1: PART ratings more strictly correlate with funding levels for the federal programs traditionally supported by Democrats, rather than those supported by Republicans.

[Table 5.7] Impact of PART on Appropriations by Partisanship

	Democratic Agency		Republican Agency	
PART				
PART rating	0.11	(0.04) ***	0.04	(0.05)
Change in PART rating	-0.03	(0.03)	0.16	(0.07) **
Political Factor				
Change in Lobbying Amount	-0.01	(0.03)	0.00	(0.00)
Bureaucratic Factor				
Careerist (0,1)	2.54	(1.88)	1.65	(2.06)
Change in Staff Number	0.62	(0.24) ***	0.32	(0.14) **
Fiscal Factor				
Change in Homeland Security	0.07	(0.03) ***	0.01	(0.04)
Change in Requested Budget	0.00	(0.00)	0.00	(0.00)
Program Factor				
Small & Medium Size(0,1)	-1.09	(1.56)	-4.47	(1.72) ***
Directed federal (0,1)	4.08	(2.82)	7.51	(3.05) **
Competitive Grant (0,1)	2.85	(2.76)	6.33	(4.00)
Block/Formula Grant (0,1)	0.20	(2.75)	4.66	(3.91)
Regulatory-based-based (0,1)	2.07	(3.51)	9.33	(4.28) **
Capital Assets and Service (0,1)	5.15	(3.48)	7.37	(3.58) **
Credit (0,1)	-48.47	(6.82) ***	10.70	(5.10) **
R&D (0,1)	1.66	(3.08)	6.21	(4.66)
Constant	-10.20	(4.06) **	-8.90	(4.77) *
Autocorrelation	0.18	(0.66)	0.17	(0.67)
Heteroskedasticity	1.06	(0.36)	3.14	(0.07)
Observations	722		803	
Wald chi-square / F	104.59***		30.46**	
R-squared	0.13		0.03	

Note: 1. *** p<0.01, ** p<0.05, * p<0.1. 2. Standard errors robust to autocorrelation and/or heteroskedasticity are in parenthesis. 3. Serial correlation is tested by Wooldridge test for panel data and p-values are in parenthesis. 4. Breusch-Pagan test for heteroskedasticity is based on pooled-OLS and p-values are in parenthesis.

In the previous section, it is found that the *PART ratings* correlate with budget decisions when program funding levels decrease, rather than increase. The first model in

table 5.7 shows that PART scores are significant for programs in a Democratic agency, which means that the PART scores are used for program funding cuts in Democratic agencies. This is not surprising since the intent of PART may be to aid OMB's efforts to save budgets through reducing or eliminating the programs that are unfavorable for them (Dull 2006). This finding confirms hypothesis 2.1. In addition, the second column reports that *Change in PART Ratings* is significant for programs in a Republican agency. As explained in section 5.2, the *Change in PART Ratings* consist of politically neutral scores compared to the PART ratings themselves. In sum, neutral scores, *Change in PART Ratings,* are utilized as basis of funding decisions for programs in Republican agencies, whereas politicized scores, *PART ratings*, are applied for programs in Democratic agencies.

5.8 Majority in Congress

H 2.2: The impact of PART ratings on appropriations is likely to decline substantially or even disappear during divided government, while PART ratings positively correlate with program funding levels during a unified government.

The first column in table 5.8 shows that *PART Rating* has significant impacts on budget decisions during a unified government when Republicans are the majority in the Congress. In contrast, as the second column indicates, *PART Rating* is not significant any more during a divided government when Democrats hold the majority in the Congress. These different impacts of PART on appropriations can be explained in relationships between the executive and legislative branches. The executive branch has an initial advantage by applying performance assessments based on their priority to the proposed

budgets. In the actual appropriations of Congress, however, checks and balances between the two branches function as constraints for the input of the performance assessments reflecting the executive's preference because the legislatures can evaluate the programs in different perspectives and cut the President budgets. The checks in Congress work more effectively in a divided government. Hypothesis 2.2 is confirmed based upon these findings.

[Table 5.8] Impact of PART on Appropriations by Majority in Congress

	Unified Government	Divided Government
PART		
PART rating	0.09 (0.04) **	0.07 (0.05)
Change in PART rating	0.08 (0.05)	0.04 (0.06)
Political Factor		
Partisanship (0,1)	2.03 (1.62)	1.32 (2.27)
Change in Lobbying Amount	0.00 (0.00)	0.00 (0.05)
Bureaucratic Factor		
Careerist (0,1)	1.34 (1.91)	2.36 (1.98)
Change in Staff Number	0.28 (0.17) *	0.09 (0.30)
Fiscal Factor		
Change in Homeland Security	0.04 (0.02)*	0.08 (0.08)
Change in Requested Budget	0.01 (0.00)	-0.00 (0.00) ***
Program Factor		
Small & Medium Size	-5.00 (1.56) ***	-0.41 (1.80)
Directed federal (0,1)	6.97 (3.00) **	4.91 (2.72) *
Competitive Grant (0,1)	3.91 (3.29)	6.82 (3.42) **
Block/Formula Grant (0,1)	0.82 (3.25)	3.70 (3.44)
Regulatory-based-based (0,1)	7.29 (3.98) *	3.82 (2.86)
Capital Assets & Service (0,1)	6.44 (3.48) *	5.96 (4.40)
Credit (0,1)	-2.80 (5.68)	-2.76 (10.30)
R&D (0,1)	4.13 (3.63)	6.28 (3.08) **
Constant	-10.88 (4.45) **	-9.77 (5.60) *
Autocorrelation	0.00 (0.95)	-
Heteroskedasticity	2.81 (0.09)	-
Observations	894	631
Wald chi-square / F	59.03***	2.56***
R-squared	0.05	0.02

Note: 1. *** p<0.01, ** p<0.05, * p<0.1. 2. Standard errors robust to autocorrelation and/or heteroskedasticity are in parenthesis. 3. Serial correlation is tested by Wooldridge test for panel data and p-values are in parenthesis. 4. Breusch-Pagan test for heteroskedasticity is based on pooled-OLS and p-values are in parenthesis.

5.9 Staff Number

H 3.2: The impact of PART on appropriations is likely to decline substantially when staff size expands, while it positively correlates when the staff does not increase.

[Table 5.9] Impact of PART on Appropriations by Change in Staff Number

	Increase of Staff Number	Decrease of Staff Number[34]
PART		
PART rating	0.07(0.04)	0.10(0.05) **
Change in PART rating	0.09(0.06)	0.03(0.05)
Political Factor		
Partisanship (0,1)	2.03(1.87)	1.24(2.03)
Change in Lobbying Amount	0.05(0.02) ***	0.00(0.00)
Bureaucratic Factor		
Careerist (0,1)	3.57(1.74) **	-0.24(1.74)
Change in Staff Number	0.10(0.21)	0.43(0.21) **
Fiscal Factor		
Change in Homeland Security	0.04(0.04)	0.05(0.03) *
Change in Requested Budget	-0.00(0.00) ***	0.01(0.00)
Program Factor		
Small & Medium Size(0,1)	-2.87(1.68) *	-2.93(1.54) *
Directed federal (0,1)	7.04(2.73) ***	4.60(3.13)
Competitive Grant (0,1)	6.71(3.28) **	3.34(2.71)
Block/Formula Grant (0,1)	2.57(3.17)	1.24(2.72)
Regulatory-based (0,1)	4.78(2.94)	7.62(2.60) ***
Capital Assets & Service (0,1)	5.51(3.86)	8.10(3.45) **
Credit (0,1)	-2.18(9.80)	-2.96(9.38)
R&D (0,1)	7.28(3.15) **	2.36(3.84)
Constant	-11.24(4.99) **	-10.85(5.10) **
Autocorrelation	0.02 (0.87)	1.33 (0.25)
Heteroskedasticity	14.28 (0.00)	8.35 (0.00)
Observations	821	704
Wald chi-square	69.35***	41.22***
R-squared	0.04	0.05

Note: 1. *** p<0.01, ** p<0.05, * p<0.1. 2. Standard errors robust to autocorrelation and/or heteroskedasticity are in parenthesis. 3. Serial correlation is tested by Wooldridge test for panel data and p-values are in parenthesis. 4. Breusch-Pagan test for heteroskedasticity is based on pooled-OLS and p-values are in parenthesis.

[34] It include cases whose change in staff number is 0%, it means, their staff number has not been changed from the previous year.

According to Parkinson (1957), bureaucrats inherently tend to expand the number of staff regardless of any actual need for more services because their prestige and power are often evaluated by the number of subordinates (Buchanan 1977; Niskanen 1971). In this sense, bureaucrats are often considered to obstacles to an administrative reform (Mohr 1969) since staff expansion is often in conflict with administrative reform that pursue a small government. With respect to the intent of OMB in saving money, the number of employees may be affected by PART because the staff number directly influences the federal budget size through salary level. If the PART aims to reduce program funding levels, bureaucratic interest may compete with rational budget reform. Bureaucrats may resist administrative reforms such as PART if reform increases the control of elected officials but decrease the benefits to bureaucrats. In the first sample in table 5.9, PART ratings have insignificantly influenced budget decisions for the programs in agencies whose staff numbers expand, while the second sample reports significant impact of PART for the programs in agencies whose staff number decrease. This result confirms the hypothesis 3.2.

5.10 Lobbying Amounts

H 2.3: Impact of PART ratings on appropriations will decline substantially, or even disappear, when the programs are backed by strong interest groups, while PART ratings still correlate positively with program funding levels that that are not supported by strong interest groups.

[Table 5.10] Impact of PART on Appropriations by Lobbying Amounts

	Increase of Lobbying Amounts	Decrease of Lobbying Amounts
PART		
PART ratings	0.06 (0.04)	0.11 (0.06) *
Change in PART ratings	0.07 (0.05)	0.07 (0.05)
Political Factor		
Partisanship (0,1)	2.32 (1.49)	0.34 (2.44)
Change in Lobbying Amount	0.00 (0.00)*	0.00 (0.07)
Bureaucratic Factor		
Careerist (0,1)	2.20 (1.68)	1.70 (1.98)
Change in Staff Number	0.31 (0.18) *	0.28 (0.16) *
Fiscal Factor		
Change in Homeland Security	0.04 (0.04)	0.06 (0.04)
Change in Requested Budget	0.00 (0.00)	0.01 (0.01) *
Program Factor		
Small & Medium Size (0,1)	-3.15 (1.43) **	-2.54 (2.03)
Directed federal (0,1)	4.82 (2.51) *	7.79 (4.03) *
Competitive Grant (0,1)	2.63 (2.85)	9.03 (3.92) **
Block/Formula Grant (0,1)	1.18 (2.81)	3.50 (3.71)
Regulatory-based (0,1)	5.18 (3.37)	5.41 (3.70)
Capital Assets and Service (0,1)	3.52 (3.05)	10.31 (4.41) **
Credit (0,1)	9.52 (4.86) **	-21.62 (8.97) **
R&D (0,1)	4.55 (3.37)	4.79 (5.23)
Constant	-8.34 (3.94) **	-14.14 (6.82) **
Autocorrelation	0.51 (0.47)	0.11 (0.74)
Heteroskedasticity	0.09 (0.75)	5.26 (0.02)
Observations	992	533
Wald chi-square	28.30**	41.90***
R-squared	0.03	0.09

*Not*e: 1. *** p<0.01, ** p<0.05, * p<0.1. 2. Standard errors robust to autocorrelation and/or heteroskedasticity are in parenthesis. 3. Serial correlation is tested by Wooldridge test for panel data and p-values are in parenthesis. 4. Breusch-Pagan test for heteroskedasticity is based on pooled-OLS and p-values are in parenthesis.

The first sample of table 5.10 shows the relationships between independent variables including PART rating and budget decisions when lobbying increase. The *Change in Lobbying Amount* variable positively correlates with appropriation changes. If programs have strong backing from interest groups, the chance of funding cuts is reduced. This explains why interest groups are defined as a driving force behind the federal budget

increase. However, PART ratings do not have a significant influence on budget decisions when lobbying increases. If programs have a strong backing from interest groups, the programs will be protected from program funding cuts regardless of their performance assessments. The political intent of OMB is to eliminate or reduce program funding, thus PART and strong interest groups are mutually incompatible in the process of budget decision. Not all programs have strong supports from interest groups and these programs are prone to funding cuts, as indicated in the significant coefficient of PART ratings in the second sample. The performance assessments have significant impact on budget decisions when the lobbying amounts decreases. Thus, hypothesis 2.3 is confirmed.

5.11 Earmarks

H 2.4: The impact of PART on appropriations is likely to decline substantially, or even disappear, when programs are earmarked, while PART still correlates positively with programs without earmarks.

The relationships between PART ratings and budget decisions among programs managed by bureaus with earmarks is shown in the first column of table 5.11. PART ratings do not have any statistical impact on appropriation changes in these programs whereas PART ratings still influence budget changes in other programs. The relationship between earmarks directed by members of Congress and performance-based budgeting driven by the executive branch should be considered. Re-election is a priority for elected officials, as for the members of Congress. Earmarks are a tool in increasing their chances in being re-elected. They can allocate earmarks for a specific recipient or a special project in either the senator's home state or the representative's district. Earmarks are always

allocated through political negotiation during the budget process by Congress. The nature of earmarks contradicts the apparent intent of PART that attempts to allocate resources based on program performances. The executive branch rarely exercises discretionary powers on earmarks. Thus, any merit-based resource allocation process is not relevant to earmarks. The political reality is that the PART is incompatible with earmarks. Thus, hypothesis 2.4 is confirmed in the first and second columns of table 5.11.

[Table 5.11] Impact of PART on Appropriations by Earmarks

	Earmarks	Non-Earmarks
PART		
PART ratings	0.02 (0.06)	0.11 (0.04) ***
Change in PART ratings	0.14 (0.09) *	0.05 (0.04)
Political Factor		
Partisanship (0,1)	1.67 (2.27)	2.03 (1.74)
Change in Lobbying Amount	0.03 (0.02)	0.00 (0.00) *
Bureaucratic Factor		
Careerist (0,1)	3.59 (2.14) *	1.00 (1.57)
Change in Staff Number	0.15 (0.36)	0.35 (0.14) ***
Fiscal Factor		
Change in Homeland Security	0.06 (0.04)	0.04 (0.03)
Change in Requested Budget	0.04 (0.04)	-0.00 (0.00) ***
Program Factor		
Small & Medium Size(0,1)	-0.83 (2.16)	-4.14 (1.47) ***
Directed federal (0,1)	9.41 (3.52) ***	4.78 (2.65) *
Competitive Grant (0,1)	4.38 (3.43)	5.64 (2.84) **
Block/Formula Grant (0,1)	4.25 (3.56)	1.38 (2.75)
Regulatory-based (0,1)	8.26 (3.13) ***	4.44 (2.74)
Capital Assets and Service (0,1)	11.36 (4.92) **	4.65 (3.09)
Credit (0,1)	9.05 (10.61)	-4.88 (8.28)
R&D (0,1)	7.80 (3.88) **	3.26 (3.48)
Constant	-10.18 (6.40)	-11.77 (4.67) **
Autocorrelation	0.83 (0.36)	0.35 (0.55)
Heteroskedasticity	7.16 (0.00)***	35.07 (0.00)***
Observations	444	1081
Wald chi-square	26.59**	56.17***
R-squared	0.06	0.04

Note: 1. *** p<0.01, ** p<0.05, * p<0.1. 2. Standard errors robust to autocorrelation and/or heteroskedasticity are in parenthesis. 3. Serial correlation is tested by Wooldridge test for panel data and p-values are in parenthesis. 4. Breusch-Pagan test for heteroskedasticity is based on pooled-OLS and p-values are in parenthesis.

5.12 Iron Triangle

[Table 5.12] Impact of PART on Appropriations under Iron Triangles : Careerists, Lobbying Amounts and Budgets

	Total	Careerists	Political Appointees
PART			
PART rating	0.08 (0.03) ***	0.11 (0.07)	0.08 (0.04) **
Change in PART rating	0.07 (0.04) *	-0.04 (0.09)	0.09 (0.05) *
Political Factor			
Partisanship (0,1)	1.67 (1.33)	2.30 (2.93)	1.50 (1.38)
Change in Lobbying Amount	0.00 (0.00) *	0.03 (0.02) *	0.00 (0.00)
Bureaucratic Factor			
Careerist (0,1)	1.28 (1.26)	-	-
Lobbying Amount * Careerist	0.03 (0.01) ***	-	-
Requested Budget * Careerist	0.00 (0.00) ***	-	-
Change in Staff Number	0.33 (0.12) ***	0.54 (0.25) **	0.25 (0.14) *
Fiscal Factor			
Change in Homeland Security	0.04 (0.03) *	0.09 (0.06) *	0.04 (0.02) *
Change in Requested Budget	-0.00 (0.00) ***	0.00 (0.01)	0.00 (0.00)
Program Factor			
Small & Medium Size (0,1)	-3.05 (1.15) ***	2.08 (2.70)	-3.78 (1.34) ***
Directed federal (0,1)	5.91 (2.03) ***	1.46 (4.11)	6.73 (2.44) ***
Competitive Grant (0,1)	4.98 (2.11) **	-0.71 (4.80)	6.24 (2.73) **
Block/Formula Grant (0,1)	2.02 (2.07)	1.72 (5.00)	2.30 (2.67)
Regulatory-based (0,1)	5.82 (2.00) ***	0.41 (4.67)	7.04 (3.60) *
Capital Assets & Service (0,1)	6.24 (2.54) **	5.71 (4.78)	6.75 (2.98) **
Credit (0,1)	-1.94 (6.79)	-33.29 (9.37) ***	1.74 (4.39)
R&D (0,1)	4.45 (2.61) *	1.48 (7.20)	5.26 (3.02) *
Constant	-10.74 (3.53) ***	-11.73 (6.91) *	-10.71 (3.73) ***
Autocorrelation	0.00 (0.99)	3.59 (0.06)	0.02 (0.87)
Heteroskedasticity	21.96 (0.00)	1.76 (0.18)	2.95 (0.08)
Observations	1525	292	1233
Wald chi-square	92.44***	38.59**	40.05***
R-squared	0.04	0.13	0.03

*Not*e: 1. *** p<0.01, ** p<0.05, * p<0.1. 2. Standard errors robust to autocorrelation and/or heteroskedasticity are in parenthesis. 3. Serial correlation is tested by Wooldridge test for panel data and p-values are in parenthesis. 4. Breusch-Pagan test for heteroskedasticity is based on pooled-OLS and p-values are in parenthesis.

The iron triangle refers to a cozy and powerful relationship among bureaucrats in agencies, members of Congress, and interest groups in support of particular budget

requests. Career bureau chiefs have very strong ties with clienteles and Congress because careerists usually work for a long time in the agency and this provides abundant opportunities in which they can work with clienteles and members of Congress. Their relationship is further developed when a bureau gets additional support from clienteles and legislators. The legislators' constituency also has benefits through bureau programs in that, their ties become much stronger. One particular purpose of this section is to examine whether PART ratings have an impact on appropriations under these strong ties, which is based on hypothesis 2.5:

H 2.5: The impact of PART scores on appropriations decline substantially or even disappears with the iron triangle, where career bureau chiefs, interest groups and members of Congress are strongly tied to each other.

In a pluralistic democracy, interest groups, which have a close bond with bureaucrats in the executive branch and members of Congress, influence government policy and the budgeting process (Ripley & Franklin 1976; Rourke 1984). Careerist bureau chiefs generally serve in one agency for a lengthy period of time, establishing a sound foundation for a powerful relationship with clientele. To study whether lobbying from interest groups in programs managed by careerists affect appropriations more than those managed by political appointees; this study employs an interaction term on *Change in Lobbying Amount* and *Careerist* (*Lobbying Amount * Careerist*). If lobbying further affects programs managed by careerists, the coefficients on the interaction terms should be positive and significant. In the first sample of table 5.12, the results show that a positive and significant coefficient of the interaction term (*Lobbying Amount * Careerist*) partly supports the influence of an iron triangle. Therefore, lobbying amounts are closely related

with appropriation decisions in programs managed by careerists, rather than those managed by political appointees. The second sample shows that lobbying amounts have a significant impact on program funding managed by careerists, while in the third sample, the variable is insignificant for programs administered by political appointees.

Supports from interest groups are related to a bureau's ability to obtain budgets in Congress (Fenno 1966). However, such ability depends on the bureau chiefs' relationship with members of Congress. Public officials with a longer career in an agency and with a robust relationship with committee members are more capable of keeping the absolute size and the percentage of its requested budget in its appropriations (Moreland 1975). The first sample in table 5.12 includes an interaction term between *Change in Requested Budget* and *Careerist* (*Requested Budget * Careerist*). This term examines whether the change in requested budgets is more relevant to actual appropriations for programs managed by careerists who served a long term in an agency. When requested budgets are greatly affected with programs in bureaus managed by careerists than political appointees, the coefficients of the interaction term should be positive and significant. The positive coefficient of the interaction term in the first sample supports that requested budgets are more relevant to appropriations with careerists-managed programs than political appointees-managed ones.

Table 5.11 of section 5.11 displays some interesting findings. There is a significant coefficient of the *Careerist* and the *Change in PART rating* in the first column (programs in bureaus with earmarks), which indicates a cooperative relationship between careerists and members of Congress. The samples in table 5.13 includes an interaction term between *Change in PART rating* and *Careerist* (*PART Change * Careerist*) to determine the

Change in PART rating influence on appropriations through careerists and other bureau chiefs. If the PART changing variable matters more for programs in bureaus managed by careerists than political appointees, the coefficients on the interaction terms should be positive and significant.

[Table 5.13] Impact of PART on Appropriations: Careerists and Earmarks

	Total Sample		15 Departments and EPA	
	Earmarks	Non-Earmarks	Earmarks	Non-Earmarks
PART				
PART rating	0.02(0.06)	0.11(0.04) ***	0.04(0.06)	0.12(0.04) ***
Change in PART rating	0.11(0.09)	0.09(0.05) **	0.09(0.10)	0.12(0.06) **
Political Factor				
Partisanship (0,1)	1.90(2.27)	2.16(1.74)	2.70(2.26)	1.87(1.83)
Change in Lobbying Amount	0.03(0.02)	0.00(0.00) *	0.04(0.02) *	0.04(0.03) *
Bureaucratic Factor				
Careerist (0,1)	3.08(2.15)	1.67(1.66)	3.07(2.06)	3.73(1.79) **
PART Change * Careerist	0.31(0.22)	-0.22(0.10) **	0.53(0.32) *	-0.34(0.12) ***
Change in Staff Number	0.15(0.36)	0.34(0.14) **	0.23(0.37)	0.32(0.26)
Fiscal Factor				
Change in Homeland Security	0.06(0.04)	0.04(0.03)	0.07(0.04)	0.02(0.04)
Change in Requested Budget	0.05(0.04)	-0.00(0.00) ***	0.04(0.04)	-0.00(0.00) ***
Program Factor				
Small & Medium (0,1)	-0.75(2.18)	-4.25(1.47) ***	-1.77(2.17)	-4.69(1.57) ***
Directed federal (0,1)	9.54(3.52) ***	4.64(2.66) *	9.39(3.73) **	4.07(3.10)
Competitive Grant (0,1)	4.21(3.40)	5.44(2.85) *	3.80(3.52)	5.64(3.13) *
Block/Formula Grant (0,1)	4.34(3.56)	1.17(2.75)	4.14(3.75)	1.28(3.02)
Regulatory-based (0,1)	7.57(3.17) **	4.05(2.76)	8.02(3.33) **	4.49(3.18)
Capital Assets (0,1)	11.47(4.93) **	4.51(3.09)	8.17(5.72)	5.66(3.61)
Credit (0,1)	9.10(10.61)	-5.16(8.29)	9.27(10.61)	-4.87(8.50)
R&D (0,1)	7.80(3.87) **	3.11(3.49)	7.42(4.01) *	4.16(3.68)
Constant	-10.37(6.41)	-11.66(4.68) **	-12.03(6.61) *	-12.18(5.05) **
Autocorrelation	1.95(1.16)	0.14(0.70)	0.75(0.38)	0.27(0.60)
Heteroskedasticity	4.96 (0.02)	36.42(0.00)	0.76(0.38)	23.45(0.00)
Observations	444	1081	410	985
Wald chi-square	26.11**	60.80***	32.11**	61.43***
R-squared	0.05	0.04	0.08	0.04

Note: 1. *** p<0.01, ** p<0.05, * p<0.1. 2. Standard errors robust to autocorrelation and/or heteroskedasticity are in parenthesis. 3. Serial correlation is tested by Wooldridge test for panel data and p-values are in parenthesis.
4. Breusch-Pagan test for heteroskedasticity is based on pooled-OLS and p-values are in parenthesis.

In table 5.13, however, the interaction term in the first sample is insignificant. A different method is used for the third and fourth sample in table 5.13. The sample is limited to programs in fifteen departments and EPA since the likelihood for their cooperative

activities between members of Congress and the bureaucracy are more likely to be found in large-sized agencies. When the sample in the third column of table 5.13 is limited to programs in 15 cabinet departments and EPA, the results are as expected. The third column indicates that the interaction term positively and significantly influences the programs in bureaus with earmarks, and the coefficient becomes negative in the fourth column for programs in bureaus without earmarks. These contrary results imply that when re-assessing programs, careerists tend to give higher PART ratings to earmarked programs in order to support their partners in Congress, while political appointees tend to give higher PART ratings to programs without earmarks, reflecting the Bush administration's directive to reduce the number of earmarks.

In sum, the positive and significant coefficients of three interaction terms, *Lobbying Amount*Careerist*, *Requested Budget*Careerist*, and *PART Change*Careerist*, imply the existence of strong ties among career bureau chiefs, interest groups, the members of Congress. Under the iron triangle, PART ratings obviously lose their impact on budget decisions because resource allocations based on the strong ties of these three actors are superior to the performance assessment. In contrast, the third sample of table 5.13 shows a significant impact of *PART ratings* on budget decisions when political appointees manage the programs. Political appointees tend to have greater political responsiveness to the President's policy directions than career servants and one element of PMA is the linkage between the PART ratings and the program funding level. If this is the case, then are careerists hindering budgetary reform either individually or in conjunction with interest groups and congress members? Are the careerists a barrier to performance-based

budgeting? With respect to this question, another aspect of careerists is introduced in the next section.

5.13 Bureau Chiefs – the Role of Professional Administrators

According to Meier (2000), there are two classes of public managers, careerists and political appointees. Careerists are involved in the bureaucracy and political appointees are regarded as politicians. Careerists have politically neutral views and they serve under different political parties as technical experts throughout their careers. Contrastingly, political appointees devote themselves to the same political party without working across party lines. They are more loyal to the political party leader and responsive to the policy direction. Neutral competence and institutional expertise are the main characteristics of the careerists, whereas political appointees are indentified with political responsiveness, yet inexperience in the public sector. The different characteristics of two classes of public managers lead to different patterns in linking performance information to program funding, which is examined in this section.

5.13.1 Neutrality vs. Partisanship

H 3.1.1: Careerists are more likely to link PART ratings to program funding levels based on political neutrality, whereas political appointees are more likely to link PART ratings to program funding levels based on partisanship.

Previously in section 5.7, it was indicated that PART ratings are used for program funding cuts in what are considered traditionally in Democratic agencies, while *Change in PART rating* is used for program funding decisions in what are considered traditionally Republican agencies. This finding will be discussed in detail according to the bureau chief

criteria of who manage the programs. If *PART rating*, or *Change in PART rating*, are linked to budget decisions for partisan purposes, they will positively correlate with funding increases for Republican programs and funding decreases for Democratic programs. The second column of table 5.14 indicates that *Change in PART rating* positively influence appropriation increases for political appointee-managed Republican programs, and the fourth column indicates that PART ratings positively influence appropriation decreases for political appointee-managed Democratic programs.

[Table 5.14] Impact of PART on Appropriations by Manager Type : Neutrality vs. Partisanship

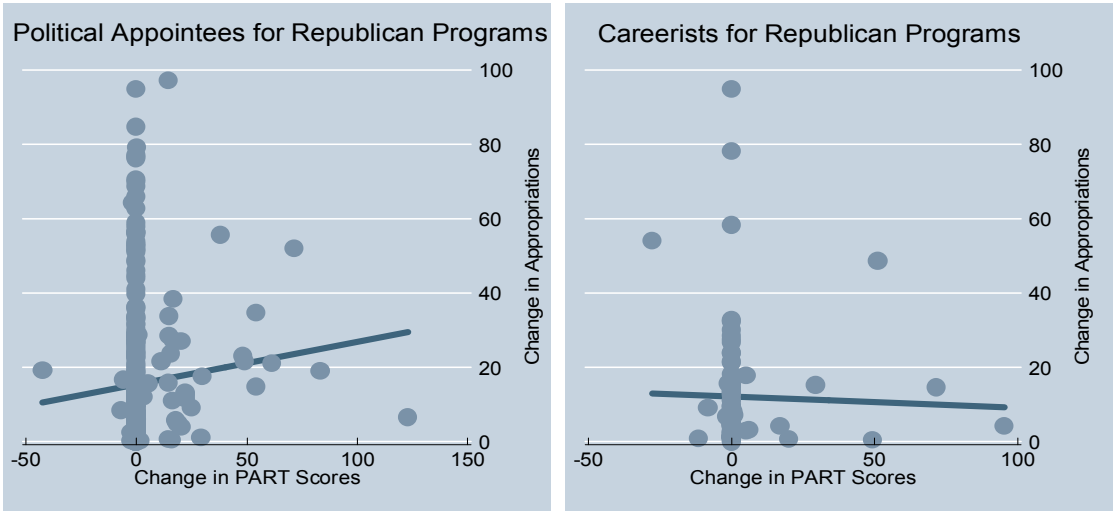
	Increase in Appropriations for Republican Programs		Decrease in Appropriations for Democratic Programs	
	Careerists	Political Appointees	Careerists	Political Appointees
PART				
PART rating	-0.10(0.15)	-0.09(0.07)	-0.07(0.04) **	0.05(0.03) *
Change in PART rating	-0.21(0.09) **	0.13(0.08) *	-0.08(0.05)	0.00(0.03)
Political Factor				
Change in Lobbying Amount	0.02(0.02)	0.00(0.00)	-0.01(0.03)	0.00(0.02)
Bureaucratic Factor				
Change in Staff Number	-0.30(0.36)	-0.18(0.32)	0.08(0.22)	-0.08(0.17)
Fiscal Factor				
Change in Homeland Security	0.01(0.05)	-0.04(0.06)	-0.05(0.06)	0.00(0.01)
Change in Requested Budget	-0.13(0.08) *	-0.00(0.00) **	0.02(0.02)	0.00(0.01)
Program Factor				
Small & Medium Size(0,1)	7.99(6.26)	-1.39(2.56)	-2.21(1.08) **	-2.05(1.30)
Directed federal (0,1)	10.90(4.61) **	4.08(3.03)	1.54(2.59)	0.00(2.25)
Competitive Grant (0,1)	37.15(17.07) **	7.40(5.27)	-1.20(2.47)	3.07(1.73) *
Block/Formula Grant (0,1)	40.07(32.86)	-0.28(4.34)	-1.28(2.12)	1.38(1.78)
Regulatory-based (0,1)	10.13(4.24) **	2.27(5.12)	-6.24(7.81)	3.15(1.79) *
Capital Assets & Service (0,1)	15.21(8.96) *	7.66(4.27) *	1.47(2.39)	-6.97(4.51)
Credit (0,1)	0.000.00	21.68(8.23) ***	-69.98(2.41) ***	-39.22(15.68) **
R&D (0,1)	-5.74(2.96) *	-2.40(5.51)	2.57(2.21)	-1.16(1.91)
Constant	4.40(9.46)	18.44(6.34) ***	2.98(3.15)	-9.34(2.96) ***
Autocorrelation	0.06(0.80)	1.36(0.25)	0.66(0.43)	19.37 (0.00)
Heteroskedasticity	87.13(0.00)	9.81(0.00)	2.14(0.14)	303.32 (0.00)
Observations	80	275	77	418
Wald chi-square	63.67***	23.47*	28897.24***	22.39*
R-squared	0.30	0.09	0.76	0.28

Note: 1. *** p<0.01, ** p<0.05, * p<0.1. 2. Standard errors robust to autocorrelation and/or heteroskedasticity are in parenthesis. 3. Serial correlation is tested by Wooldridge test for panel data and p-values are in parenthesis.
4. Breusch-Pagan test for heteroskedasticity is based on pooled-OLS and p-values are in parenthesis.

The results confirm that PART ratings, or *Change in PART rating,* reflect partisanship in allocating funds for political appointee-managed programs. For programs managed by careerists, *Change in PART rating* negatively influences appropriation increases for Republican programs, and PART ratings negatively influence appropriation decreases for Democratic programs, as shown in the first and third column of table 5.14. Careerists neither support the programs in Republican agencies nor oppose the programs in Democratic agencies, reflecting a neutral competent decision-making.

Figure 5.5 shows a bivariate relationship between the *Change in PART rating* and *Change in Appropriations* for Republican programs according to manager type. It illustrates that the change in PART ratings appear to positively correlate with change in appropriations for programs administered by political appointees whereas the relationship negatively correlates each other with programs administered by careerists. This confirms the hypothesis 3.1.1 in which careerists associate PART ratings to program funding levels based on political neutrality, whereas political appointees associate them based on partisanship.

[Figure 5.5] Impact of PART Changing Ratings on Budget Decisions by Manager Type



5.13.2 Merit and Result-based vs. Punishment and Process-oriented

This section inspects the different patterns in performance information usage by two bureau chief classes in order to find out whether hypothesis 3.1.2 is true or not.

H 3.1.2: Careerists are more likely to use result-based performance information for program funding increases, whereas political appointees are more likely to use process-oriented performance information for program funding cuts.

[Table 5.15] Impact of PART Sections on Appropriations by Manager Type : Merit and Result-based vs. Punishment and Process-oriented

	Increase in Appropriations		Decrease in Appropriations	
	Careerists	Political Appointees	Careerists	Political Appointees
PART				
Program Purpose	-0.09(0.07)	0.05(0.06)	-0.01(0.08)	0.12(0.04) ***
Strategic Planning	-0.03(0.06)	0.00(0.07)	0.07(0.06)	0.02(0.04)
Program Management	-0.04(0.09)	0.07(0.06)	-0.04(0.08)	0.02(0.04)
Program Result	0.07(0.04) *	-0.09(0.06)	-0.05(0.05)	-0.01(0.03)
Political Factor				
Partisanship (0,1)	7.05(3.32) **	0.45(2.06)	0.52(2.41)	4.51(1.63) ***
Change in Lobbying Amount	0.03(0.01) **	-0.00(0.00) *	-0.01(0.02)	0.00(0.00) ***
Bureaucratic Factor				
Change in Staff Number	-0.19(0.21)	-0.20(0.25)	0.64(0.26) **	0.03(0.10)
Fiscal Factor				
Change in Homeland Security	-0.03(0.04)	0.05(0.06)	0.05(0.04)	0.01(0.01)
Change in Requested Budget	0.00(0.00)	0.00(0.00)	0.20(0.09) **	0.00(0.00)
Program Factor				
Small & Medium Size (0,1)	3.17(1.94)	-0.23(1.96)	4.42(4.74)	-3.59(1.52) **
Directed federal (0,1)	2.54(4.23)	6.12(2.47) **	-1.97(2.72)	0.53(3.14)
Competitive Grant (0,1)	-7.78(5.50)	5.64(3.79)	0.17(3.42)	5.27(2.65) **
Block/Formula Grant (0,1)	-3.47(4.44)	1.17(2.61)	3.65(2.79)	2.67(2.81)
Regulatory-based (0,1)	-0.27(4.11)	-1.15(2.84)	-1.45(3.64)	5.85(3.06) *
Capital Assets & Service (0,1)	3.38(4.63)	10.92(3.31) ***	-2.61(4.73)	0.29(3.33)
Credit (0,1)	0.000.00	24.85(8.66) ***	-36.15(16.88) **	-12.08(6.91) *
R&D (0,1)	2.08(11.86)	6.78(3.75) *	4.29(2.48) *	0.80(3.13)
Constant	15.35(9.28) *	4.90(6.01)	-8.82(8.50)	-26.40(5.31) ***
Autocorrelation	0.00(0.98)	0.58(0.44)	17.81(0.00)	10.19(0.00)
Heteroskedasticity	56.46(0.00)	44.86(0.00)	207.33(0.00)	185.05(0.00)
Observations	108	460	178	773
Wald chi-square	30.61**	45.42***	26.90*	72.92***
R-squared	0.25	0.07	0.32	0.08

Note: 1. *** p<0.01, ** p<0.05, * p<0.1. 2. Standard errors robust to autocorrelation and/or heteroskedasticity are in parenthesis. 3. Serial correlation is tested by Wooldridge test for panel data and p-values are in parenthesis.
4. Breusch-Pagan test for heteroskedasticity is based on pooled-OLS and p-values are in parenthesis.

The first column in table 5.15 demonstrates that *Program Result* score is correlated with budget increases for programs managed by careerists and *Program Purpose* score is correlated with budget decreases for programs managed by political appointees. There are two possible explanations for this result. The first explanation is based on the level of experience in public administration for both the careerists and the political appointees. Careerists have vast amounts of institutional knowledge in that; they spend a majority of their careers in agencies as technical experts and they have more experience and expertise in their jobs than political appointees. On the other hand, political appointees are often criticized for their inexperience in public management. A weakness in PART implementation is the inadequacy of results-based performance information. If bureau chiefs are knowledgeable in developing and demonstrating results-based performance information, the Program Result will be given more consideration during the budget decision process. The GPRA of 1993 emphasized a shift in performance measures from process to result (Radin 1998; Breul 2007). Careerists have more experience than political appointees in the utilization of results-based performance measurement.

The second explanation is based on political differences between bureaucrats and politicians. Careerists are politically neutral bureaucrats who serve under different political parties. In contrast, political appointees are politicians who devote themselves to the political party, remain loyal to party leader, and are responsive to the party direction. The OMB's directive is to save money by reducing or eliminating federal programs that are considered wasteful or unnecessary by the Republicans. The *Program Purpose* is directly related to the identity of the program, that is, what the program is for and who the beneficiaries are. The negative correlation between *Program Purpose* and a

decrease in funds for programs traditionally recognized as Democratic by political appointees suggest that political appointees use PART ratings as a tool to advance the political ideology of their party.

Careerists and political appointees differ in how they link performance information and budget decisions. These results demonstrate that careerists adhere to the principles of performance-based budgeting with an emphasis on results and merit-based funding allocations in a politically neutral way, whereas political appointees are loyal to their party and base decisions on a program's purpose rather than its results. The under-reliance on results-based performance information and over-reliance on process-oriented performance information is rooted in the inherent political nature of appointees who focus on the punitive aspects of performance measurement with programs not traditionally aligned with their party. Neutrally competent career bureau chiefs who value results over process, and merits over partisanship, are more likely to appropriately utilize performance-based assessments.

5.14 Homeland Security Budgets

H 4.2: PART ratings positively correlate with appropriation decisions when budgets for Homeland Security increase.

In the previous section, it was found that *Program Purpose* is directly related to the identity of the program. In the first column of table 5.16 where Homeland Security budgets increase, the positive influence of *Program Purpose* suggests that the Homeland Security budget is a top priority for the administration. Members of Congress, through non-partisanship, defend security funding in order to gain support from voters. Homeland

Security is a national common goal that voters are strongly concerned. The *Partisanship* variable shows a positive and significant coefficient, conveying that programs in Democratic agencies receive more funding than those in Republican agencies with Homeland Security budget increases.

[Table 5.16] Impact of PART on Appropriations: Homeland Security Budget

	Increase of Homeland Security budget	Decrease of Homeland Security budget
PART		
Program Purpose	0.10 (0.05) **	0.02 (0.06)
Strategic Planning	-0.05 (0.06)	0.00 (0.05)
Program Management	0.08 (0.05) *	-0.01 (0.05)
Program Result	0.04 (0.04)	0.05 (0.04)
Political Factor		
Partisanship (0,1)	3.77 (1.81) **	0.05 (2.04)
Change in Lobbying Amount	0.04 (0.02) ***	0.00 (0.00)
Bureaucratic Factor		
Careerist (0,1)	3.43 (1.70) **	-0.53 (1.88)
Change in Staff Number	0.52 (0.28) *	0.26 (0.15) *
Fiscal Factor		
Change in Homeland Security Budget	0.05 (0.03)	0.05 (0.11)
Change in Requested Budget	-0.00 (0.00) ***	0.01 (0.00) **
Program Factor		
Small and Medium Size	-2.20 (1.76)	-4.45 (1.77) **
Directed federal (0,1)	10.80 (2.66) ***	0.59 (3.19)
Competitive Grant (0,1)	7.61 (2.91) ***	2.36 (3.23)
Block/Formula Grant (0,1)	5.44 (2.82) *	-1.27 (3.19)
Regulatory-based (0,1)	8.12 (3.10) ***	3.98 (2.94)
Capital Assets & Service (0,1)	8.76 (3.72) **	3.89 (3.69)
Credit (0,1)	4.39 (9.27)	-9.49 (9.73)
R&D (0,1)	7.82 (2.74) ***	0.14 (5.02)
Constant	-24.81 (6.29) ***	-3.17 (5.61)
Autocorrelation	0.06 (0.80)	0.47 (0.49)
Heteroskedasticity	0.16 (0.69)	45.80 (0.00)
Observations	799	726
Wald chi2	20.83**	20.80*
R-squared	0.04	0.06

Note: 1. *** p<0.01, ** p<0.05, * p<0.1. 2. Standard errors robust to autocorrelation and/or heteroskedasticity are in parenthesis. 3. Serial correlation is tested by Wooldridge test for panel data and p-values are in parenthesis. 4. Breusch-Pagan test for heteroskedasticity is based on pooled-OLS and p-values are in parenthesis.

The first column results in a significant and positive coefficient in two variables; *Change in Staff Number* and *Change in Lobbying Amount*. When the country is at risk, the bureaucracy expands since more bureaucrats are required to handle an increasing volume of public affairs issues (Meier 2000). Even the participation of interest groups increases in order to provide the necessary goods and services to government affairs.

5.15 Program Type and Size

H 5.1: Process-oriented performance information is more likely to influence funding level for programs in which results-based performance information cannot be collected directly, whereas results-based performance information correlates with funding levels of programs able to produce direct results.

H 5.2: PART ratings more strictly correlate with small or medium size programs as compared to larger programs.

The challenge to develop and collect data on program results leads to inadequate measures and ultimately hinders its impact on budget decisions. The program types with inadequate performance measures who have these challenges are Competitive Grants, Block/Formula Grants and R&D (as shown in the first sample). Measuring the effectiveness of Competitive Grant, Block/Formula Grant programs requires performance information from all the beneficiaries - state, local, and tribal governments. The R&D programs often require performance information on multiyear efforts and grants. In addition, the very nature of scientific research can produce uncertainty or inconclusive results (Radin 2005, 2006). The first column of table 5.17 shows that the Program Result

has no statistical influence on budget decisions for the Competitive Grant, Bock/Formula Grant, and R&D programs.

[Table 5.17] Impact of PART on Appropriations: Program Type and Size

	Competitive Grant; Block/Formula; R&D	Directed federal; Regulatory-based; Credit; Capital asset; Mixed	Small & Medium Size Program	Large Size Program
PART				
Process-oriented Performance	0.12 (0.06) **	0.01 (0.07)	-	-
Result-based Performance	-0.02 (0.04)	0.06 (0.04) *	-	-
PART rating	-	-	0.11 (0.04) ***	0.04 (0.07)
Change in PART rating	-	-	0.07 (0.05)	0.08 (0.06)
Political Factor				
Partisanship (0,1)	1.04 (2.31)	1.57 (1.76)	3.63 (1.66) **	-1.65 (2.68)
Change in Lobbying Amount	0.01 (0.05)	0.00 (0.00)	0.00 (0.00)	0.01 (0.00)
Bureaucratic Factor				
Career Bureau Chief (0,1)	2.52 (1.96)	1.97 (1.68)	3.63 (1.66) **	-1.65 (2.68)
Change in Staff Number	0.77 (0.31) **	0.21 (0.13) *	0.00 (0.00)	0.01 (0.00)
Fiscal Factor				
Change in Homeland Security	0.05 (0.03)	0.05 (0.05)	0.02 (0.02)	0.07 (0.05)
Change in Requested Budget	0.03 (0.02)	-0.00 (0.00) ***	-0.00 (0.00) ***	0.00 (0.01)
Program Factor				
Small & Medium Size(1,0)	-3.77 (1.95) *	-2.93 (1.59) *	-	-
Directed federal (0,1)	-	6.08 (2.10) ***	4.16 (2.39) *	9.67 (4.55) **
Competitive Grant (0,1)	0.25 (2.63)	-	3.13 (2.36)	9.94 (5.87) *
Block/Formula Grant (0,1)	-2.39 (2.74)	-	-0.72 (2.58)	8.473 (4.66) *
Regulatory-based (0,1)	-	5.43 (2.03) ***	3.21 (2.23)	11.77 (4.63) **
Capital Assets & Service (0,1)	-	6.12 (2.60) **	5.95 (3.74)	9.256 (4.94) *
Credit (0,1)	-	-2.41 (6.84)	-14.31 (11.63)	4.54 (9.41)
R&D (0,1)	-	-	3.98 (3.01)	1.73 (5.52)
Constant	-8.55 (5.90)	-8.77 (5.51)	-15.33 (4.13) ***	-10.45 (7.56)
Autocorrelation	0.24 (0.62)	0.29 (0.58)	0.25 (0.61)	0.69 (0.40)
Heteroskedasticity	0.50 (0.47)	26.83 (0.00)	8.36 (0.00)	0.00 (0.95)
Observations	613	912	955	570
Wald chi-square	26.17***	48.35***	49.80*	24.79*
R-squared	0.06	0.03	0.04	0.04

Note: 1. *** p<0.01, ** p<0.05, * p<0.1. 2. Standard errors robust to autocorrelation and/or heteroskedasticity are in parenthesis. 3. Serial correlation is tested by Wooldridge test for panel data and p-values are in parenthesis.
4. Breusch-Pagan test for heteroskedasticity is based on pooled-OLS and p-values are in parenthesis.

The second column displays programs with adequate performance information, Directed federal programs, Credit programs, Regulatory-based based programs, Capital

assets and service acquisition programs, and Mixed programs[35]. For these programs, the Program Result significantly influences budget decisions. These results emphasize an issue with PART in that result-based budgeting can play a key role for those programs with adequate measures, but not for others.

AS to the issue of program size criteria, small and medium-sized programs are more of a likely target of funding cuts based on PART ratings, rather than large-sized programs. OMB is reluctant to cut funds for large-sized programs that are generally well entrenched with a long history and wide support. The third column confirms that PART ratings significantly correlate with budget decisions for small and medium-sized programs, and the fourth column shows that PART ratings are not significant for large-sized programs.

5.16 Adequate Performance Measures by Fiscal Year

Table 5.18 shows the influence of process-oriented and result-based performance information by fiscal year. In fiscal year 2005, during the initial stage of PART implementation, both process-oriented and result-based performance information are not significant on appropriations. The unavailability of adequate performance measures was the key reason for the weak linkage between PART ratings and program funding. This problem is partly overcome in fiscal year 2006 when process-oriented performance information has a significant influence on budget decisions. By fiscal year 2007,

---

[35] In the first column, Competitive Grant and Block/Formula Grant types are included in the model as dummy variables in order to control the variance among program types. The base program type is Research and Development. The second column includes Directed federal programs, Credit programs, Regulatory based programs, Capital assets and service acquisition programs as dummy variables. The base is the Mixed type.

result-based performance information has a significant impact on budget decisions. However, in fiscal year 2008, when there was a divided government, there is little correlation between performance information and appropriation decisions.

[Table 5.18] Impact of Result Section on Appropriations by Fiscal Year

	FY 2005	FY 2006	FY 2007	FY 2008
PART				
Process-oriented Performance	0.07(0.14)	0.23(0.10) **	-0.06(0.07)	0.05(0.08)
Result-based Performance	0.01(0.08)	0.00(0.05)	0.09(0.05) *	0.02(0.04)
Political Factor				
Partisanship (0,1)	4.59(3.91)	2.83(3.32)	0.37(2.55)	1.29(2.28)
Change in Lobbying Amount	0.03(0.02) **	0.08(0.05) *	0.00(0.00)	0.00(0.05)
Bureaucratic Factor				
Careerist (0,1)	-0.39(3.44)	1.99(3.32)	1.87(2.09)	2.30(2.00)
Change in Staff number	-0.12(0.20)	0.06(0.41)	0.28(0.17) *	0.08(0.30)
Fiscal Factor				
Change in Homeland Security	0.06(0.04) *	0.01(0.05)	0.06(0.06)	0.08(0.08)
Change in Requested Budget	0.00(0.00)	-0.02(0.02)	0.01(0.01) **	-0.00(0.00) ***
Program Factor				
Small & Medium Size(0,1)	0.21(3.50)	-9.28(2.93) ***	-2.73(2.25)	-0.45(1.88)
Directed federal (0,1)	9.69(6.72)	1.50(4.64)	8.29(4.58) *	4.86(2.70) *
Competitive Grant (0,1)	-2.90(6.16)	-2.10(4.67)	7.53(4.08) *	6.78(3.32) **
Block/Formula Grant (0,1)	-2.01(5.46)	-8.10(4.35) *	5.77(4.19)	3.77(3.40)
Regulatory-based (0,1)	-0.44(4.90)	7.92(4.63) *	6.26(4.17)	3.85(2.88)
Capital Assets & Service (0,1)	10.31(6.89)	-5.65(5.66)	10.23(4.91) **	5.86(4.42)
Credit (0,1)	0.000.00	18.40(16.46)	-13.57(8.59)	-2.56(10.17)
R&D (0,1)	-3.24(6.34)	-1.86(4.63)	9.74(7.02)	6.25(3.07) **
Constant	-11.13(10.49)	-18.60(9.14) **	-7.88(7.52)	-10.51(6.86)
Observations	162	296	436	631
F	1.80**	2.33***	2.28***	2.51***
R-squared	0.11	0.13	0.07	0.02

Note: *** p<0.01, ** p<0.05, * p<0.1.

5.17 Re-assessments and Funding Level

[Table 5.19] Impact of Re-assessments on Appropriations

	Less than & equal to 0%	More than & equal to 0%
PART		
Change in PART rating	-0.18 (0.34)	0.09 (0.04) **
Political Factor		
Partisanship (0,1)	1.12 (1.39)	1.01 (1.31)
Change in Lobbying Amount	0.03 (0.02) **	0.00 (0.00) **
Bureaucratic Factor		
Careerist (0,1)	2.40 (1.34) *	1.79 (1.24)
Change in Staff Number	0.30 (0.13) **	0.40 (0.13) ***
Fiscal Factor		
Change in Homeland Security	0.04 (0.03)	0.05 (0.03) *
Change in Requested Budget	-0.00 (0.00) ***	-0.00 (0.00) ***
Program		
Small & Medium Size	-3.37 (1.24) ***	-3.48 (1.19) ***
Directed federal (0,1)	3.82 (2.08) *	5.79 (2.09) ***
Competitive Grant (0,1)	3.03 (2.19)	4.55 (2.15) **
Block/Formula Grant (0,1)	0.95 (2.13)	1.38 (2.13)
Regulatory-based (0,1)	4.98 (2.13) **	5.74 (2.12) ***
Capital Assets & Service (0,1)	4.83 (2.73) *	5.93 (2.63) **
Credit (0,1)	-6.58 (7.13)	-3.25 (6.91)
R&D (0,1)	4.09 (2.78)	5.08 (2.76) *
Constant	-3.95 (2.08) *	-4.55 (2.16) **
Autocorrelation	0.07 (0.78)	0.08 (0.77)
Heteroskedasticity	38.00 (0.00)	19.81 (0.00)
Observations	1336	1459
Wald chi-square / F	48.37***	59.29***
R-squared	0.03	0.04

Note: 1. *** p<0.01, ** p<0.05, * p<0.1. 2. Among 1336 cases of the first sample, only 66 cases are re-assessed. 3. Among 1459 cases of the second sample, only 189 cases are re-assessed.
4. Standard errors robust to autocorrelation and/or heteroskedasticity are in parenthesis. 5. Serial correlation is tested by Wooldridge test for panel data and p-values are in parenthesis.
6. Breusch-Pagan test for heteroskedasticity is based on pooled-OLS and p-values are in parenthesis.

In general, federal programs are supposed to be re-evaluated every five years. However, if an agency wants to be re-assessed earlier, they can request an early re-assessment. From FY 2004 to FY 2008, a total of 186 programs were re-assessed at request. With respect to this, the second sample in table 5.19 shows that a *Change in PART rating* positively influences appropriations only if PART ratings have improved. When

PART ratings decrease, however, there is no relationship between the *Changes in PART rating* and appropriation decisions. The OMB has documented that programs requesting a re-assessment improved performance and sought an increase in funding.

5.18 PART Impacts by Rating Categories

[Table 5.20] Impact of PART ratings on Appropriations by Rating Category

	Effective; Adequate; Moderately Effective		Ineffective		Results Not Demonstrated	
PART						
PART rating	0.08	(0.05)	-0.42	(0.25) *	0.14	(0.10)
Change in PART rating	0.08	(0.04) **	0.74	(0.31) **	-0.09	(0.21)
Political Factor						
Partisanship (0,1)	2.17	(1.49)	1.49	(5.13)	1.50	(3.37)
Change in Lobbying Amount	0.00	(0.00)	0.00	(0.11)	0.06	(0.03) **
Bureaucratic Factor						
Careerist (0,1)	2.61	(1.44) *	9.99	(9.93)	-3.71	(3.30)
Change in Staff Number	0.25	(0.13) **	0.80	(0.93)	0.38	(0.34)
Fiscal Factor						
Change in Homeland Security	0.04	(0.03)	-0.01	(0.03)	0.09	(0.05) **
Change in Requested Budget	-0.00	(0.00) ***	0.14	(0.08) *	0.00	(0.04)
Program Factor						
Small & Medium Size (0,1)	-2.03	(1.39)	-0.84	(3.36)	-5.95	(2.88) **
Directed federal (0,1)	4.71	(2.06) **	-2.95	(5.69)	12.05	(5.69) **
Competitive Grant (0,1)	2.55	(2.11)	-3.20	(12.43)	12.44	(5.83) **
Block/Formula Grant (0,1)	0.04	(2.27)	-1.37	(6.32)	9.00	(5.86)
Regulatory-based (0,1)	4.55	(2.03) **	0.00	(0.00)	7.55	(8.59)
Capital Assets & Service (0,1)	4.36	(2.82)	0.35	(7.39)	15.71	(6.43) **
Credit (0,1)	-2.35	(7.37)	0.00	(0.00)	-3.87	(11.49)
R&D (0,1)	5.65	(2.62) **	-25.99	(13.27) *	-3.56	(11.44)
Constant	-10.14	(5.01) **	15.22	(11.50)	-15.96	(7.18) **
Autocorrelation	1.64	(0.20)	0.46	(0.51)	1.27	(0.26)
Heteroskedasticity	12.23	(0.00)	42.04	(0.00)	0.12	(0.72)
Observations	1139		53		333	
Wald chi-square	0.15***		48.60***		34.42***	
R-squared	0.03		0.52		0.10	

Note: 1. *** p<0.01, ** p<0.05, * p<0.1. 2. Standard errors robust to autocorrelation and/or heteroskedasticity are in parenthesis. 3. Serial correlation is tested by Wooldridge test for panel data and p-values are in parenthesis.
4. Breusch-Pagan test for heteroskedasticity is based on pooled-OLS and p-values are in parenthesis.

Each program is given one of five qualitative categories according to the PART ratings, Effective (85 to 100), Moderately Effective (70 to 84), Adequate (50 to 69), Ineffective (0 to 49), and Results Not Demonstrated. Table 5.20 shows the PART effects on appropriations based on these categories. Three qualitative ratings of Effective, Moderately Effective, and Adequate are grouped together in the first column because all three ratings resulted in budgets remaining the same or receiving an increase. They show a significant coefficient of *Change in PART rating* suggesting that PART re-assessment is beneficial to the allocation of program funds and that performance information can be used in budget decisions in a rational way.

The Results Not Demonstrated rating is given when a program lacks sufficient outcome data. Because there is not enough evidence concerning performance information, the insignificant coefficient of *PART rating* and *Change in PART rating* confirms this statement in the third column. A noteworthy outcome in the third column is the significant influence of lobbying amounts. This finding may reflect the fact that interest groups are more likely to increase lobbying efforts during the budget decision process if any threats exist to the programs they support. The Result Not Demonstrated rating may stimulate interest groups to participate in the appropriation process.

In the Ineffective rating column of table 5.20, the negative PART rating in budget changes means programs with lower scores tend to receive higher levels of funding, which is contrary to the assumption of merit-based resource allocations. This reflects a particular difficulty in connecting performance information with budget allocations because deficient resources, including the budget itself, can lead to the poor performance of programs. If this

is the case, providing more funding rather than cutting funds may improve current poor performance: the second column illustrates this reality.

5.19 Summary of Findings

With PART implementation, as with other rational budget reforms, there is the expectation that performance information will influence the budget decision process. Underlying such an expectation is the normative theory that if performance information is part of the budget decision process, optimal tradeoffs will be made for rational resource allocation. Not surprisingly, however, this study recognizes the limit of rationality within the budget process, which is an inherently political process. In practice, the utilization of performance information as reported through the PART system is fragmented and incomplete.

According to Rubin (1990), for better application of budgetary theory to practice, a better understanding is needed of the public budgeting process. In reality, many federal programs are supported by political actors, including the President, the Congress, the bureaucracy, and interest groups; all of whom foster procedural incrementalism in budget decisions. As this study finds, despite assumptions associated with rational budget reform, appropriation decisions are jointly determined by interactions among the President, bureaucrats, members of Congress, and interest groups. Even when PART was in the early, implementation stages, these factors affected the language that was used, the performance targets that were set and influenced the decision on what data to collect.

The reality is, institutional, or individual preferences influence resource allocations more than the performance assessment, which limits the rational utility of PART scores. For example, in the case of the President, performance information is not as important as advancing his agenda. For members of Congress, their re-election is far more important than the rational use of performance data that might lead to the elimination of a program that is a priority for their constituency. What was found through this analysis is that performance information interacts with the political nature of public budgeting under the PART system. The following findings highlight the political nature of budgeting that have an impact on PART as well as funding levels.

- PART is a politicized tool which can be used to justify cuts in program funding traditionally supported by Democrats.
- PART scores have little or no impact on earmarked programs.
- The impact of PART declines for programs backed by powerful interest groups.
- The impact of PART declines during a divided government.

With respect to the bureaucratic factor, this study finds different patterns in linking performance information to budget decisions between political appointees and career bureaucrats.

- Careerists tend to adhere to the principles of performance-based budgeting in a politically neutral way.
- Political appointees have the tendency to link PART ratings to program funding based on partisanship, in order to support the political directives of the administration.

The last key finding of this study is that the over-reliance on process-based performance information and under-reliance on result-oriented performance information is partly based on the difficulty of developing and collecting data that captures program results. Competitive Grants, Block/Formula Grants, and R&D programs which lack sufficient outcome data by the very nature of the types of programs they are, have not been adversely affected, to date, by their inability to demonstrate results. As long as these issues remain, result-based performance information cannot play as prominent a role as rationalists might expect. These findings reflect the political reality of the budgetary process; the importance of the bureaucratic role in implementing performance-based budgeting; and issues surrounding a one-size fits all approach to program evaluation. The implications of these findings are discussed in the last chapter.

Chapter Six

Conclusion

6.1 Introduction

This chapter consists of four sections. The first section summarizes findings of this study according to various factors. It begins with a discussion as to whether performance-based budgeting is a reality or rhetoric at the federal level, and is followed by the contributions this study makes toward the development of the analytical model and measurement of political and bureaucratic variables. The third section describes the limitations of this study. The last section includes recommendations for future research on this topic and a discussion of practical recommendations for improving the utilization of performance-based budgeting systems.

6.2 Findings and Implications

The normative theory in public budgeting has its roots in the politics-administration dichotomy (Wilson 1887; White 1926), when reformers sought to find ways to ensure coordination of the political and administrative function, holding administrators accountable to political authorities without undermining the separation of politics from administration (Goodnow 1900). Such efforts to develop a science of administration, removed the politics, which emphasized efficiency in the public sector including a more objective criteria for budget decisions (Taylor 1911; Gulick 1937; Fayol 1949). The Program Assessment Rating Tool is intended to reflect objective and neutral program assessments in budget decisions, as a rational reform tool. In practice,

however, decision makers may have various perspectives on interpretation, even with the same performance information, because of the inherent subjectivity of the program evaluation process and its products (Moynihan 2006). Inherent subjectivity might lead to an arbitrary use of the performance information for own purposes and interest in the budget decision process. In this respect, this study finds evidence of subjectivity in PART, for example, programs traditionally supported by Democrats receive relatively low PART scores and appropriations in comparison to programs traditionally supported by Republicans.

Rational budget reforms have been sought not only through the introduction of new techniques, but also through the imposition of the private sector value such as businesslike government. With respect to PART, this study finds that one-size-fits-all approach based on the private sector value ignores the reality that different program types require different ways to measure performance. Certain types of programs have difficulties in collecting results-based performance information, which leads to different patterns in PART scores and funding recommendations. In addition, this study finds that the impact of PART is limited by political values. For example, PART has significant impact during a unified government, but it loses its significance during a divided government. Such a negligent impact during divided government can be explained within the Madisonian context, which emphasizes a system of checks and balances between the executive and legislative branches based on constitutional values. The executive branch, through the Presidential budget, maintains a distinct advantage over the use of performance information. However, the legislatures tend to evaluate the programs through different perspectives, and in the actual appropriation process,

checks by the legislatures function as constraints for the input of performance information based on the President's priority. No administrative-driven reform effort can be free from Hamiltonian and Madisonian conflict over the proper role for the executive branch in democracy.

Moe (1987) argues that a myopic focus on the market ignores essential elements of politics and values that are essential to public administration, because public administration cannot be a value-neutral doctrine (Waldo 1984). This view is most forcefully articulated by Appleby (1949) who asserts that administration is one among several kinds of political, policy-making activities. V.O. Key (1940) argues that budget allocation to a certain program is based on value preferences and priorities because resource allocation lacks an overall budgetary theory. Therefore, this study finds that impact of PART is limited by the value preferences and priorities of stakeholder pressure and constituent needs.

Lindblom (1959) argues that we need to focus on what we actually do and try to improve, rather than seek a theory or additional facts. He asserts that organizations generally muddle through problem building on previous ones, rather than reassess from the ground up in order to adopt a purely rational solution. Wildavsky (1964) argues incrementalism, whereby agencies are provided incrementally increased budgets based on negotiation and bargaining among budget actors to promote stability and cooperative relations in the political system. He asserts that this is more close to democracy than the application of science to budgeting. Findings of this study show that the aforementioned opposite positions to normative theory seem to be more realistic in public budgeting.

However, combining or intermingling reform efforts with politics can weaken the analytic power of rational budgetary reforms as a social science. Even though we admit the political characteristics of public budgeting, there still exist the attributes as a managerial science which can contribute to the development of efficiency and quality of public services. In this respect, one interesting finding of this study is that the bureaucratic manager type dictates the patterns of performance and budget integration. For example, careerists tend to adhere to the principles of performance-based budgeting, which emphasizes result and merit-based funding allocations in a neutral way, whereas political appointees follow the OMB's intent that aims to cut program funding based on partisanship.

The continuous support for normative budget reforms is rooted in part in the lack of budgetary theory (Key 1940) and in the lack of facts (Lewis 1952). If the promise of rational budgetary reform efforts is a provision of information or methods that allows budgeteers to allocate resources in a better way, it is likely to be a continuous desire (Radin 2006). In terms of public administration, managerial reforms are introduced based on the constant desire to improve the way government does business.

6.3 Contributions

Does performance-based budgeting work in the federal government? Despite the importance of this question, there has rarely been empirical studies explaining how performance information provided by PART influences congressional appropriations. This study is motivated by the important but deficient empirical evidence on this topic.

This study, through the utilization of four years of PART data, from FY 2005 to FY 2008, provides very well-timed and comprehensive results on the performance-based budgeting initiative implemented under the Bush administration. The findings from this study contribute to defining what reality is and what rhetoric is in terms of performance-based budgeting at the federal level. The methodology used in this study contributes to providing guidelines to the development of an analytical model to study the impact of performance-based budgeting.

Performance-based Budgeting: Reality or Rhetoric?

A recurring theme in the field of public budgeting is the tension between descriptive and normative theory. The literature related to descriptive theory suggests that a variety of factors, such as politics, bureaucracy and economic conditions actually dominate the public budget process. However, current performance-based budgeting strategies that are based on normative theory, have rational expectations that performance information will have a direct impact on public sector resource allocations. The main contribution on this theme is to have proven the positive and significant impact of PART on budget decisions in Congress. The basic principle stipulated in normative theory is being applied meaningfully in the federal budget decisions during PART implementation, enhancing the chance of performance-based budgeting being a reality. This is backed up by programs with distinct methods for data collection on program results, programs supported by Republican agency, and programs managed by careerists.

However, PART not only suggests the likelihood of performance-based budgeting being a reality, but also implies it as rhetoric where the influence of performance information differs depending on the specific circumstances whether political, fiscal, or bureaucratic. Performance information is vulnerable to political preferences, such as partisan goals, stakeholder pressure, and constituent needs. Influence is often constrained by the federal fiscal conditions and bureaucratic manager types dictate the patterns of performance and budget integration.

In the PART system, the nature of performance information in budget decisions does not resemble a rational one-best-way approach. Rather, it resembles a mixed scanning decision model (Etzioni 1967) that is a hybrid of rational choice and incrementalism. Federal budgets are decided based on performance information of PART for the proposed budgets, perhaps with a full consideration of alternatives and results in significant policy decisions. Then, following decisions tend to be made through procedural incrementalism in the appropriation process. PART ratings had a significant impact on appropriations during a unified government, despite the incremental process in Congress; however during divided government, incrementalism overpowered the rational choice in budgeting decisions. Performance-based budgeting under the PART system is a reality in some very specific areas, but overall it still remains rhetoric.

Table 6.1 shows findings of this study.

[Table 6.1] Summary of Findings

Political Factor	Finding 1: PART is a politicized tool which can be used to justify cuts in program funding traditionally supported by Democrats. Finding 2: Impact of PART declines during divided government. Finding 3: Impact of PART declines for earmarked programs. Finding 4: Impact of PART declines for programs backed by greater interest groups. Finding 5: Impact of PART declines when the bureaucracy (careerist) has strong ties with interest groups and members of Congress.
Bureaucratic Factor	Finding 6: Careerists allocate program funding based on merit and result-based performance information, whereas political appointees focus on process-related performance information for funding cuts. Finding 7: Careerists link PART ratings to program funding in politically neutral ways, whereas politically appointed bureau chiefs link PART ratings to program funding based on partisanship. Finding 8: PART ratings are related to change in staff number.
Fiscal Factor	Finding 9: PART ratings correlate with budget cuts rather than increase. Finding 10: PART ratings were used to justify for increasing Homeland Security budgets.
Program Factor	Finding 11: Process-related scores have more influence on funding levels for programs that cannot directly measure results. Finding 12: PART ratings have stronger influence on small and medium sized programs.

Developing Analytical Model

The main conceptual contribution of this study is to propose an analytical model of performance-based budgeting. At the initial stage of this research, it was discovered that there is no analytical tool or standard definitions by which to inspect performance-based budgeting (OECD 2007). Setting definitions and tools for performance-based budgeting is challenging since it is still in the evolving phase and seems to continue to do so in different environments (Posner & Fantone 2007). This study adopted an analytical tool that examines how performance information is utilized in the budget process. The tool consists of three dimensions: (1) Impact: how the performance information is linked to budget allocations? Direct or performance-informed? (2) Focus: what kind of performance information is considered as the budgeting basis? Performance results or process? (3) Scope: who uses performance information for budgeting? Only the executive branch or both the executive and the legislative branch?

These three dimensions are not intended to be exhaustive but instead act as a lens by which to examine the effect of performance-based budgeting. When performance information is studied in isolation, apart from the inherent factors of the appropriation process, it brings out very little on how it works in actual practice. Hence, various political, fiscal, and bureaucratic factors emphasized by descriptive theory were taken into account in the analytical model. A comprehensive analytical model was developed in order to examine the impact of performance information in relation to other various factors of the congressional budget process.

Measurement of Political and Bureaucratic Variables

This study contributes to the measurement of political and bureaucratic variables that are difficult to quantitatively measure and collect. The variables consist of the Iron Triangle, political neutrality of careerists, earmarks, and lobbying amounts. The first variable, Iron Triangle, is measured using three interactive terms. In the first step, this study examines the significant relationship between careerists, interest groups, and members of Congress. The lobbying amounts from interest groups on congressional appropriations are more influential through careerists than political appointees. The second step is proving that members of Congress support careerists through high level of budget agreements. The requested budgets more positively correlate with appropriations for programs managed by careerists, than by political appointees. In the third step, this study finds cooperative relationships between careerists and members of Congress by confirming that careerists give increased PART ratings to earmarked programs when re-assessing programs in order to support their partners in Congress.

This study measures different patterns in linking performance information to budget decisions between two classes of bureau chiefs: careerists and political appointees. Fist, this study finds that political appointees use PART rating or Change in PART ratings based on partisanship in allocating funds. Political appointees positively apply Change in PART ratings to budget increase for Republican programs, while they negatively apply PART ratings to budget cuts for Democratic programs. In contrast, careerists use PART rating or Change in PART ratings free from the partisanship. Additional analysis found that careerists use program results for budget increase,

whereas political appointees use program purpose for budget cuts. This supports the argument that careerists adhere to the principles of performance-based budgeting that emphasizes result and merit-based funding allocations, whereas political appointees tend to follow the OMB's intent that aims to cut funding based on partisanship.
As to the third variable, there are few empirical studies that include earmarks, in analytical models due to the lack of data. Fortunately, the OMB, the data source for this study, began to provide earmark data in 2008, but its reliability has been noted as a problem. Therefore, this study did not take into account the costs or numbers of the earmarks due to this inaccurateness. Instead, earmarks have been handled as a dummy variable to indicate whether a bureau has earmarks or not. This measurement is not perfect, but it captures whether a program has political support.

The fourth variable is a proxy variable which measures the influence of interest groups. Information on lobbying amounts was collected by agency units for each fiscal year. The Lobbying Disclosure Act requires lobbyists to file activity reports with the Clerk of the U.S. House of Representatives and the Secretary of the U.S. Senate. This study collected both data on lobbying amounts through the Senate Office of Public Records and the Clerk of the U.S. House of Representatives.

6.4 Limitations

Limitations on Generalization

There is a limitation on the sample used for this study. Outliers that have more than 100 % budget changes were ignored, and others were dropped when control

variables were introduced due to the lack of data for small independent agencies. The conclusions of this study can be generalized for cabinet departments and some large-sized independent agencies. However, there are limitations in generalization for all federal agencies.

Limitations on Variable Measurement

First, finding and collecting control variables at the program level has its own challenges. The unit of the program does not even have a clear definition at the federal level. Gathering and measuring control variables at the program level is a difficult task. Although key independent and dependent variables, such as PART ratings and appropriations are measured at the program level, control variables are measured at the agency or bureau level. The difficulty of data collection at the program level can lead to omitted variables from the regression model and low level of R-squares in some regression results.

Secondly, the measurement of earmark variables might be debatable. Since OMB only provides earmark data for two fiscal years, FY 2005 and FY 2008, an arbitrary way to include earmark data for all fiscal years has been implemented. For example, if data showed that a bureau has earmarks in both fiscal year 2005 and 2008, this study assumes that the earmarks also existed in both fiscal year 2006 and 2007. Such an assumption is based on the earmark tendency to increase and the existing discrepancies among researchers with the current estimates on earmarks[36].

[36] For instance, there are other organizations that have been tracking earmarks, such as the Congressional Research Service (CRS) and Citizens against Government Waste (CAGW). When comparing earmarks information from OMB, CRS, and CAGW, it is found their estimations are so different one another. For

Limitations on Quantitative Approach

The particular limitation as to the methodology of this study is that it depends on quantitative methodology utilizing a secondary data set. Quantitative analysis may be more useful in order to derive the objective picture of impact of PART ratings on funding levels. However, it cannot explain whether members of Congress actually utilized the PART ratings in the appropriation process or not. With concern to the limitation as to methodology, it might have been more conductive for this research to have employed both the quantitative and the qualitative approach since the qualitative approach may help explore in detail the reality of the Congressional usage of the PART. Surveys among appropriations committees may be beneficial in understanding the overall situation, interviews and Q methodology in examining how and to what extent the members of Congress connect the PART ratings to actual appropriations (this is discussed further in the next section regarding future research).

6.5 Recommendations

Recommendations for Future Research

The analytical tool suggests that there are two ways to link performance information to budget allocations: direct or performance-informed. Only the direct impact of performance information on budget decisions is studied here. The direct method is a strict perspective of performance-based budgeting and it explicitly assumes that changes in

---

example, for 2005, the CAGW estimates 14 thousand at a cost of $27 billion, CRS estimates around 16 thousand at a cost of $52 billion, and the OMB estimates around 13 thousand at a cost of $19 billion.

performance scores lead to changes in program funding level. However, performance scores cannot tell us what to do in budgeting. Different interpretations may exist for the same program that performs ineffectively: one may suggest that the program should be eliminated because it is a waste of money, while another argues that it needs additionally funding because scare resource itself is the key reason for ineffective performance. This study implies that this direct relationship, based upon a mechanical formula is somewhat unrealistic in the actual budget process of Congress. Members of Congress are reluctant to link budget decisions directly with, or solely with performance information, which ignores all other relevant aspects of federal programs and the reduction of their discretionary power.

If the direct and strict definition of examination is unrealistic and undesirable, then the performance-informed method should be examined. In practice, performance-based budgeting is usually regarded as a loose linkage between performance information and budget allocations without formulating how decisions makers should use performance information (Moynihan 2008). Thus, the performance-informed perspective will need a different methodology from the quantitative analysis utilized in this study. Qualitative approaches, such as surveys or Q methodology, to the members of Congress may be better ways in which to explore performance-informed budgeting. Q methodology, a tool for subjective analysis of attitudes, perceptions, or opinions (Brown, et al. 1996), can explore how individual members of Congress think about the use of PART in budget decisions. Additionally, this approach will help clarify how members of Congress think about the use of performance information in the appropriation process; and whether they actually consider performance information during the budget decision process. Future research

should examine the impact of PART on appropriation decisions in the performance-informed perspective. Specifically, the research question should examine how performance information provided by PART is used in the appropriations process.

Recommendations for Improving Performance-based Budgeting System

There are several recommendations for better performance-based budgeting system. First, some program types have difficulties in collecting result-based performance information that leads to different patterns in program assessment and funding recommendations. The one-size-fits-all approach of the PART that ignores the reality that different program type needs different ways is the main reason behind this issue. Designing fair measurement system among program types is an important issue. Thus, PART questions should be updated to include diverse ways of measurement depending on the type of program which reflect the difference.

Second, this study finds that the *Change in PART rating* has a non-partisan characteristic, whereas the PART rating itself appears to be a politicized tool that presents the interest of Republicans. Currently federal programs are supposed to be re-evaluated every five years. Program re-assessment before 5 years is not a required task, however, if an agency wants to be re-assessed earlier, they can request it. In general, agencies request their program re-assessments to the OMB when they are ready for better performance results. Therefore, there might be a positive relationship between re-assessment and a PART ratings increase. In this sense, it'd be advantageous for performance-based budgeting if programs were to be reassessed more frequently; this would improve performance scores and would be a politically neutral way in which to use funding.

Thirdly, one of the key findings of this study is that two classes of bureau chiefs, careerist and political appointees show different patterns in linking performance information to budget decisions. The different patterns are basically based on the inherently different background and characteristics of the two manager groups. Political appointees focus on assisting policy directions of their appointers in the White House and careerists focus on cooperatively working with their long-term partners of Congress and clienteles of interest groups. Political appointees support PART as one element of the shorter-term political goals of PMA driven by the executive branch, whereas careerists adhere to the principles of performance-based budgeting as one element of managerial reform since GPRA, based on the statue of Congress. Therefore, political appointees focus on assisting the administration's efforts to cut program budgets based on partisanship. The under-reliance on the program results and over-reliance on the program purpose is due to the inherent political nature of appointees who usually focus on punishing programs that are unfavorable to their appointers. Careerists emphasize results and merit-based funding allocations in neutral ways. Careerists with the neutral competence that emphasize result-based information over process-oriented information, merits over punishment, and political neutrality over partisanship, seem to be the right people to implement the authentic meaning of performance-based budgeting in a federal agency[37].

Both manager classes have strengths and weaknesses with performance-based budgeting. Political appointees have the driving force to link performance information

[37] In a sense, merit-based funding allocations in a politically neutral way might give more benefits to long-term partners of Congress and interest groups networked by iron triangles, rather than by loyalty to any specific party leadership. If this is the case, the driving power to move neutral and merit-based budgeting is also based on political nature that is bureaucratic politics in iron triangles. This may suggest that public managers cannot be free from politics in their works due to the inherent politics of governmental affairs and budgeting.

with budget allocation; however they are too faithful to their party. Careerists know how to implement result and merit-based budgeting in politically neutral ways; however, they are too closely related to their partners in the iron triangle. Their weaknesses are intimately tied to their strengths. Aside from the faithful partisanship, political appointees have no reason to incorporate PART ratings with budget recommendations. And without the faithfulness to the iron triangle, careerists don't need to implement merit-based budgeting out of partisanship. For optimum performance-based budgeting, it is necessary to limit the bias of careerists and political appointees. This study suggests promoting a 'team' approach to PART assessments within individual programs. A coordinated approach will reduce the influence of partisanship and Iron Triangles. Teams could include careerists, political appointees, and front line staff.

The last recommendation is that the budget reformer should acknowledge the bounded rationality and involve more stakeholders in the performance-based budgeting process. Rational budget reform is not new in the federal government, but various reforms, such as PPBS, ZBB, and MBO, have never been sustained. The largest challenge in implementing budgetary reform is not technical or managerial. The field of rational budget reform has been described for a long time as in a state of disarray in part since there is not an agreed-upon definition of rationality in governmental affairs and neither is there a comprehensive theory linking rationality to resource allocations. Although each budgetary reform has tended to have its own measurement of rationality and its own set of procedures for utilizing rational information in budgeting, it is difficult to find any absolute rational reason why improved budget techniques should inform an inherently political decision making process. Performance-based budgeting

certainly can be counted as yet another because of its definitional vagueness and lack of an operational theory to link performance to funding (Moynihan 2008). While the achievement of a theory of performance-based budgeting is by no means imminent in the field and no single budgetary reform is expected to achieve that goal, the PART does show the same track record of past initiatives that failed to involve enough key stakeholders in the process (U.S. GAO 2005a).

Government is replete with various and conflicting values and goals, in which defining and measuring desired results is always an ambiguous task (Chun & Rainey 2005). The reality of bounded rationality may hinder the realization of an absolute objective way in which to assess program performance, which may cause decision-makers to distrust the information and therefore avoid its use in resource allocations. When the procedural rationality of budget reform conflicts with political dynamics, as proven in this study, budgetary reforms based on processes and techniques will unavoidably be overwhelmed by political and bureaucratic behaviors. If this is the case, subjective but agreed-upon rationality might be an alternative, which might be achieved through a deliberative process with various stakeholders. For example, rationale might be achieved through the reflection of diverse preferences through the process, from program design to resource allocations. The concept of rationality in budgetary reforms may need to be reconsidered in this sense. It might be better if understood in the way accompanying with the various values in the pluralistic society because a rationality that takes no account of diverse voices is not really rational at all in the public budgeting (Caiden 1981). As a matter of fact, history has repeatedly proven that any rational budgetary reform that is devoid of the deliberation process eventually

encounters the dismal results at the end of the regime. For better performance-based budgeting, policy makers have to rethink the authentic meaning of rationality in public budgeting in terms of harmonizing the normative budgetary theory with democracy.

REFERENCE

Abney, Glenn, and Thomas Lauth. 1998. The End of Executive Dominance in State Appropriations. Public Administration Review, 58 (5): 388-394.

Appleby, Paul. 1949. Policy and Administration. University, AL: University of Alabama Press.

Ashby, Barry. 2005. Earmark Madness: Federal Budget Spending Analysis. Industrial Heating, January 1, 2005.

Auten, G., Barry Bozeman and Robert Cline. 1984. A Sequential Model of Congressional Appropriations. American Journal of Political Science, 28(3): 503-523.

Bailey, S.K. 1968. Objectives of the Theory of Public Administration. In J.C. Charlesworth (ed.), Theory and Practice of Public Administration. Philadelphia: The American Acdademy of Political and Social Science: 128-139.

Bailey, John J., and Robert J. O'Connor. 1975. Operationalizing Incrementalism: Measuring the Muddles. Public Administration Review, 35 (1): 60–6.

Baltagi, Badi. 1995. Econometric Analysis of Panel Data. Great Britani: Wiley.

Behn, Robert P. 1976. On Tolerating Policy and Organizational Termination: Some Design Considerations. Policy Science, 7 (2): 134-36.

Blöndal, J. et al. 2003. Budgeting in the United States. OECD Journal on Budgeting, 3(2).

Bordcherding, Thomas. 1977. Budgets and Bureaucrats: The Sources of Government Growth. Durham, North Carolina: Duke University Press.

Botner, S. B. 1970. Four Years of PPBS: an Appraisal. Public Administration Review, 30(4): 423-431.

Bourdeaux, C. 2006. Do Legislatures Matter in Budgetary Reform? Public Budgeting and Finance, 26(1): 120-142.

Bozeman, Barry. 1977. The effect of Economic and Partisan Change on Federal Appropriations. Western Political Quarterly, 30 (1): 112-24.

Brint, Steven G. 1994. In an Age of Experts: The Changing Role of Professionals in Politics and Public Life. Princeton, NJ: Princeton University Press.

Breul, Jonathan D. 2007. GPRA: A Foundation for Performance Budgeting. Public Performance and Management Review. 30(3): 312–331.

Brook, Douglas A. and Philip J. Candrewva. 2007. Business Management Reform in the Department of Defense in Anticipation of Declining Budgets. Public Budgeting & Finance, 27(3): 50-70.

Brown S., D. Durning, & S. Seldon. 1996. "Q-Methodology," in G. Miller and M. Whicker (eds.) Handbook of Research Methods in Public Administration. New York: Marcel Dekker.

Buchanan, J. M. 1977. Why Does Government Grow? In T.E. Borcherding, ed., Budgets and Bureaucrats: The Sources of Government Growth. Durham, NC : Duke University Press.

Burkhead, Jesse. 1956. Government Budgeting. New York: John Wiley and Sons.

Caiden, Naomi. 1981. Public Budgeting amidst Uncertainty and Instability. Public Budgeting and Finance, 1(1): 6-19.

Capron, W. M. 1969. PPB and State Budgeting. Public Administration Review, 29(2), 155.

Chun, Y. H., and Rainey, H. G. 2005. Goal Ambiguity and Organizational Performance in U.S. Federal Agencies. Journal of Public Administration Research and Theory, 15(4): 529-557.

Croswell, Robert. 1975. Self-Governing Growth in Public Programs. Public Choice, 21 (1): 91-99.

Dalrymple, Mary. 2002. Performance and Politics. Special Report: Bush's Fiscal Year 2003 Budget. CQ weekly, February 9, 2002.

Downs, Anthony. 1957. An Economic Theory of Democracy. New York: Harper and Row.

_____. 1967. Inside Bureaucracy. Boston: Little, Brown.

Drucker, Peter F. 1954. The Practice of Management. New York: Harper.

_____. 1980. The Deadly Sins in Public Administration, Public Administration Review, 40 (1): 103-106.

Dull, M. 2006. Why PART? The Institutional Politics of Presidential Budget Reform. Journal of Public Administration Research and Theory, 16(2), 187-215.

Eghtedari, A. and Sherwood, F. 1960. Performance Budgeting in Los Angeles. Public Administration Review, 20(2): 63-69.

Elgie, R. 2001. What is Divided Government? In Robert Elgie (Ed.), Divided Government in Comparative Perspective: Oxford University Press.

Etzioni, A. 1967. Mixed scanning: A Third Approach to Decision Making. Public Administration Review, 27(4): 385-392.

Fayol, H. 1949. General and Industrial Management. London. Pitman Publishing Company.

Fenno, R. 1966. The Power of the Purse. Boston: Little, Brown.

Federal Yellow Book. New York, NY: Leadership Directories, Inc. Spring 2005, Spring 2006, Spring 2007, Spring 2008.

Foley, Michael and John E. Owens. 1996. Congress and the Presidency: Institutional Politics in a Separated System.

Figueiredo, John d and Brian S. Silverman. 2004. How Does the Government Want to Fund Science? Politics, Lobbying and Academic Earmarks. MIT Sloan Working 4484-4404. March 2004.

Frederickson, H. George. 1980. New Public Administration. University of Alabama Press.

Frisco, Velda and Stalebrink, Odd J. 2008. Congressional Use of the Program Assessment Rating Tool. Public Budgeting and Finance, 28(2): 1-19.

Gilmour, J. B. 2006. Implementing OMB's Program Assessment Rating Tool (PART): Meeting the Challenges of Integrating Budget and Performance" IBM Center for the Business of Government: 2006 (15).

Gilmour, J. B., and Lewis, D. E. 2006a. Does Performance Budgeting Work? An Examination of the Office of Management and Budget?: PART ratings. Public Administration Review, 66(5): 742-752.

_____. 2006b. Assessing Performance Budgeting at OMB: The Influence of Politics, Performance, and Program Size. Journal of Public Administration Research and Theory (10531858), 16(2): 169-186.

_____. 2006c. Political Appointees and the Competence of Federal Program Management. American Politics Research, 34(1): 22-50.

Goodnow, Frank J. 1900. Politics and Administration. New York: Russell and Russell.

Gross, B. M. 1969. The New Systems Budeting. Public Administration Review, 29(2): 113-136.

Gruber, A. 2003a. OMB Ratings Have Little Impact on Hill Budget Decisions, June 13. GovExec.com. http://www.govexec.com/dailyfed/0603/061303a1.htm (accessed on May 2006).

_____. 2003b. OMB to Brief Appropriators About Federal Program Ratings, July 2. GovExec.com: http://www.govexec.com/dailyfed/0703/070203a2.htm (accessed May 006).

_____. 2004. Bush's Management Agenda Lacks Congressional Support, Executives Say. July 27 GovExec.com: http://www.govexec.com/dailyfed/0703/070203a2.htm (accessed May 2006).

Gulick, L. 1937. Note on the Theory of the Organization. In J. M. Shafritz and A. C. Hyde (Eds.), Classics ofpublic administration, pp. 80-89 (3rd ed.). Pacific Grove, CA: Brooks/Cole, 1992.

Heclo, H. 1977. A Government of Strangers: Executive Politics in Washington. Washington, DC: Brookings Institution.

Ho, Alfred. 2007. GPRA after a Decade: Lessons from the Government Performance and Results Act and Related Federal Reforms: Introduction. Public Performance and Management Review, 30(3): 307–311.

Horn, M. 1997. The Political Economy of Public Administration. UK: Cambridge University Press.

Jones, L. R., and McCaffery, J. L. 2004. Integrating Theory and Practice: Financial Management Reform in the U.S. Federal Government. In A. K. a. W. B. Hildreth (Ed.), Financial Management Theory in the Public Sector (223-256): Greenwood Publishing Group, Inc.

Jordan, M. M., and Hackbart, M. M. 1999. Performance Budgeting and Performance Funding in the States: A Status Assessment. Public Budgeting and Finance, 19(1): 68-88.

Joyce, Philip. G. 1993a. Using Performance Measures for Federal Budgeting: Proposals and Prospects. Public Budgeting and Finance, 13(4): 3-17.

_____. 1993b. The Reiterative Nature of Budget Reform: Is There Anything New in Federal Budgeting? Public Budgeting and Finance, 13(3): 36-48.

_____. 2003. Linking Performance and Budgeting: Opportunities in the Federal Budget Process. In Managing for Results 2005. Ed. John M. Kamensky and Albert Morales. 83-140. Lanham, MD: Rowman and Littlefield Publishers, Inc.

Kelly, Janet M. and Rivenbark, William C. 2003. Performance Budgeting for State and Local Government. Armonk, NY: M.E. Sharpe, Inc.

Kemp, Kathleen A. 1982. Instability in Budgeting for Federal Regulatory-based Agencies. Social Science Quarterly 63(4): 643–60.

Kettl, Donald F. 2000. The Global Public Management Revolution. Washington, DC : Brookings Institution Press.

Key, V. O. 1940. The Lack of a Budgetary Theory. American Political Science Review 34(6): 1137-1144.

Kiewiet, D. R., and McCubbins, M. D. 1985. Appropriations Decisions as a Bilateral Bargaining Game between President and Congress. Legislative Studies Quarterly, 10 (2): 181-201.

Kravchuk, R. S., and Schack, R. W. 1996. Designing Effective Performance-Measurement Systems under the Government Performance and Results. Public Administration Review, 56(4): 348-358.

Law, Marc T. and Tonon, Joseph M. 2006. The Strange Budgetary Politics of Agricultural Research Earmarks. Public Budgeting and Finance, 26(3): 1-21.

Levine, Charles H., Irene S. Rubin, and George G. Wolohojian. 1981. Resource Scarcity and the Reform Model: The Management of Retrenchment in Cincinnati and Oakland. Public Administration Review, 41(6): 619-628.

Lee Jr, R. D., and Burns, R. C. 2000. Performance Measurement in State Budgeting: Advancement and Backsliding from 1990 to 1995. Public Budgeting and Finance, 20(1): 38-54.

LeLoup, L. T. 2005. Parties, Rules, and the Evolution of Congressional Budgeting. The Ohio State University Press. Columbus.

LeLoup, L. T., Long, C. N., and Giordano, J. N. 1998. President Clinton's Fiscal 1998 Budget: Political and Constitutional Paths to Balance. Public Budgeting and Finance, 18(1): 3-32.

Lewis, D. E. 2007. Testing Pendleton's Premise: Do Political Appointees Make Worse Bureaucrats? The Journal of Politics, 69(4): 1073-1088.

Lewis, V. B. 1952. Toward a Theory of Budgeting. Public Administration Review, 12(1): 42-54.

Light, Paul C. 1997. The Tides of Reform: Making Government Work, 1945-1995. Yale University Press.

Lindblom, C. E. 1959. The Science of "Muddling Through." Public Administration Review, 19 (1): 79-88.

Lowi, Theodore J. 1969. The End of Liberalism; Ideology, Policy, and the Crises of Public Authority. New York, NY: Norton.

Lu, Haoran. 1998. Performance Budgeting Resuscitated: Why Is It Still Inviable?," Journal of Public Budgeting, Accounting and Financial Management, 10(2): 151–72.

Lynn, Laurence E., Jr. 1998. Requiring Bureaucracies to Perform: What Have We Learned From the U.S. Government Performance and Results Act (GPRA)? Working Paper, University of Chicago. Available at http://harrisschool.uchicago.edu/About/publications/working-papers/pdf/wp_lynn.pdf (accessed November, 2005).

McCool, D. 1987. Command of the Waters: Iron Triangles, Federal Water Development, and Indian Water . Berkeley: University of California Press.

McNab, Robert M. and Francois Melese. 2003. Implementing the GPRA: Examining the Prospects for Performance Budgeting in the Federal Government. Public Budgeting and Finance, 23(2): 73-95.

Meier, Kenneth J. 2000. Politics and the Bureaucracy: Policy-Making in the Fourth Branch of Government, 4th edition. Orland, FL: Harcourt College Publishers.

Melkers, J. E., Katherine G. Willoughby, Brian James, Jay Fountain, Wilson Campbell. 2002. Performance Measurement at the State and Local Levels: A Summary of Survey Results. GASB.

Melkers, J. E., and Willoughby, K. G. 2001. Budgeters' Views of State Performance-Budgeting Systems: Distinctions across Branches. Public Administration Review, 61(1): 54-64.

Merton, Robert K. 1968. Social Theory and Social Structure. Enlarged ed. New York: The Free Press.

Moe, R C. 1982. The Hoover Commissions revisited. Boulder, CO.: Westview Press.

Moe, T. M. 1987. Congressional Controls of the Bureaucracy: An assessment of the positive theory of 'Congressional Dominance.' Legislative Studies Quarterly 12(4): 475-520.

_____. 1989. The Politics of Bureaucratic Structure. In J. E. Chubb and P. E. Peterson (Eds.), Can the Government Govern? : Washington, DC: Brookings Institution.

Mohr, L. B. 1969. Determinants of Innovation in Organizations. American Political Science Review. 63(1): 111-126.

Moreland, W. 1975. A Nonincremental Perspective on Budgetary Policy Action, Policy Making in the Federal Executive Branch (R. Ripley and G. Franklin, eds.), Free Press, New York, Chapter 3.

Moynihan, Donald P. 2006. What Do We Talk About When We Talk About Performance? Dialogue Theory and Performance Budgeting. Journal of Public Administration Research and Theory, 16(2): 151-168.

_____. 2008. The Dynamics of Performance Management; Constructing Information and Reform. Georgetown University Press. Washington D.C.

Mullen, P. R. 2006. Performance-Based Budgeting: The Contribution of the Program Assessment Rating Tool. Public Budgeting and Finance, 26(4): 79-88.

Nathan, R. 2005. Presidential address: "Complexifying" performance oversight in America's governments. Journal of Policy Analysis and Management, 24(2): 207–215.

Newcomer, Kathryn. 2007. How Does Program Performance Assessment Affect Program Management in the Federal Government?. Public Performance and Management Review, 30(3): 332-350.

Ngoyi, M. L. 2001. Outcome Budgeting: Assessing the Integration of Management Tools into Budgeting Systems. Dissertation, Rutgers University.

Niskanen, W. 1971. Bureaucracy and Representative Government. New York: Aldine.

Norcross, Eileen and Kyle McKenzie. 2006. An Analysis of the Office of Management and Budget's Program Assessment Rating Tool (PART) for Fiscal Year 2007. Working Paper in Government Accountability Project. Mercatus Center at George Mason University. Available as of December 1, 2008. Accessed at http://www.mercatus.org/PeopleDetails.aspx?id=17224.

Norcross, Eileen and Joseph Adamson. 2007. An Analysis of the Office of Management and Budget's Program Assessment Rating Tool (PART) for Fiscal Year 2008. Working Paper in Government Accountability Project. Mercatus Center at George Mason University. Available as of December 1, 2008. Accessed at http://www.mercatus.org/PeopleDetails.aspx?id=17224.

Osborne, D., and Gaebler, T. 1993. Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector. New York: Dutton/Plume.

Ostrom, Vincent. 1973. The Intellectual Crisis of American Public Administration. University of Alabama Press.

OECD. 2005a. Using Performance Information for Managing and Budgeting: Challenges, Lessons and Opportunities. OECD, Paris.

_____. 2005b. Performance Information in the Budget Process: Results of OECD 2005 Questionnaire. Final Report. OECD, Paris.

_____. 2005c. Government Performance: Lessons and Challenges. OECD, Paris.

_____. 2007. Performance Information in the Budget Process: An Overview of OECD Country Experiences. OECD, Paris.

OMB Watch. 2006a. New PART Ratings Showcase More Contradictions of Program. Published on March 7, 2006. Accessed on March 1, 2008 at http://www.ombwatch.org/article/articleview/3323/1/

_____. 2006b. Initial Analysis of the President's 2007 Budget. Published on Feb 6, 2006. Accessed on March 1, 2008 at http://www.ombwatch.org/article/articleview/3267/1/

_____. 2007. OMB Wraps Up First Complete Round of PART Reviews with Little to Show. Published on Februray 6, 2007. Accessed on March 1, 2008 at http://www.ombwatch.org/article/articleview/3710/1/.

Parkinson, Cyril Northcote. 1957. Parkinson's Law and Other Studies in Administration. Boston : Houghton Mifflin.

Petersen, R. Eric. 2006. Lobbying Reform: Background and Legislative Proposals, 109th Congress. Congressional Research Service. The Library of Congress.

Pitsvada, Bernard T. and Frank D. Draper. 1984. Making Sense of the Federal Budget the Old Fashioned Way—Incrementally. Public Administration Review, 44(5): 401-407.

Poister, T. H., and Streib, G. 1999. Performance Measurement in Municipal Government: Assessing the State of the Practice. Public Administration Review, 59(4): 325-335.

Posner, P. and Park, Chung-Keun. 2007. Role of the Legislature in the Budget Process: Recent Trends and Innovations. OECD Journal on Budgeting, 7(3).

Posner, P. and Fantone, Denise M. 2007. Assessing Federal Program Performance: Observations on the U.S. Office of Management and Budget's Program Assessment Rating Tool and Its Use in the Budget Process. Public Performance and Management Review, 30(3): 351-368.

Premfors, Rune. 1981. Review Article: Charles Lindblom and Aaron Wildavsky. British Journal of Political Science, 11(2): 201-225.

Quirk, Paul J. and Bruce Nesmith. 1998. Divided Government and Policy Making: Negotiating the laws. In Michael Nelson, The Presidency and the Political System, 5th edition.

Radin, B.A. 1998. Searching for government performance: The Government Performance and Results Act. PS: Political Science and Politics, 31(3): 553–555.

_____. 2000. The Government Performance and Results Act and the Tradition of Federal Management Reform: Square Pegs in Round Holes? Journal of Public Administration Research and Theory, 10(1): 111–135.

_____. 2003. PART - Another Federal Performance Assessment: New Approach, Same Problems. PA Times.

_____. 2005. Testimony to the Senate Homeland Security and Government Affairs Subcommittee on Federal Financial Management, Government Information, and International Security.

_____. 2006. Challenging the Performance Movement: Accountability, Complexity, And Democratic Values: Georgetown University Press.

Ripley, Randall B and Grace A. Franklin. 1976. Congress, the Bureaucracy, and Public Policy. The Dorsey Press. Homewood, Illinois.

Robinson, M., and Brumby, J. 2005. Does Performance Budgeting Work?: An Analytical Review of the Empirical Literature. IMF Report.

Rosenbloom, D. H. 1993. Public Administration: Understanding Management, Politics, and Law in the Public Sector. New York: McGraw Hill, Inc.

Rourke, F. E. 1984. Bureaucracy, Politics, and Public Policy (3rd ed.). Boston, MA: Little Brown.

Rubin, I.S. 1982. Running in the Red: The Political Dynamics of Urban Fiscal Stress. Albany: State University of New York Press.

_____. 1985. Shrinking the Federal Government. New York: Longman.

_____. 1990. Budget Theory and Budget Practice: How Good the Fit? Public Administration Review, 50(2): 179-189.

_____. 1993a. The Politics of Public Budgeting (2nd ed.). Chatham, NJ:Chatham House.

_____. 1993b. Who Invented Budgeting in the United States? Public Administration Review. 53(5): 438-444.

_____. 2006. The Politics of Public Budgeting: Getting and Spending (5th Ed.). CQ Press.

Ryu, J. E. et al. 2005. Exploring Explanations of State Agency Budgets: Endogenous or Exogenous Forces? (Paper presented at the annual conference of the Association for Budgeting and Financial Management, Washington, DC, November 10-12, 2005).

_____. 2007. Effects of Administrators' Aspirations, Political Principals' Priorities, and Interest Groups' Influence on State Agency Budget Requests. Public Budgeting and Finance, 27(2): 22-49.

Schick, A. 1971. Budget Innovations in the States. Washington, D.C.: The Brookings Institution.

_____. 1973. A Death in the Bureaucracy: The Demise of Federal PPB. Public Administration Review, 33(2): 146-156.

_____. 1990. Budgeting for Results: Recent Developments in Five Industrialized Countries. Public Administration Review, 50(1): 26-34.

_____. 2002. Getting Performance Measures to Measure Up. In D. Forsythe (Ed.), Quicker, Better, Cheaper? Managing Performance in American Government (39–60). Albany, NY: Rockefeller Institute.

Shafritz, Jay M., Norma M. Riccucci, David H. Rosenbloom and Albert Hyde. 1992. Personnel Management in Government: Politics and Process, 4th edition. New York: Marcel Dekker.

Sharkansky, Ira. 1968. Agency Requests, Gubernatorial Support and Budget Success in State Legislature. American Political Science Review 62(4): 1220-1231.

Shull, S. A., and Shaw, T. C. 1999. Explaing Congressional Presidential Relations: a Multiple Perspective Approach Albany: State University of New York.

Simon, H. A. 1976. Administrative Behavior (3rd ed.). New York: Free Press.

Starling, G. 1988. Strategies for Policy Making . Homewood, IL: The Dorsey Press.

Stewart, J., and Ranson, S. 1988. Management in the Public Domain. Public Money and Management, 8(1/2): 13-19.

Streeter, Sandy. 2004. Earmarks and Limitations in Appropriations Bills. CRS Report for Congress.

Taylor, F. 1911. The Principles of Scientific Management. New York: Norton.

U.S. General Accounting Office. 1997a. The Government Performance and Results Act: 1997 Governmentwide Implementation will be Uneven. June. GAO/GGD-97-109. Washington, DC: GAO.

_____. 1997b. Performance Budgeting: Past Initiatives Offer Insights for GPRA Implementation. U.S. March. GAO/AIMD-97-46. Washington, DC: GAO.

_____. 1999. Performance Budgeting: Initial Experiences Under the Results Act in Linking Plans with Budgets. April. GAO/AIMD/GGD–99–67. Washington, DC: GAO.

_____. 2001. Managing for Results: Federal Managers' Views on Key Management Issues Vary Widely Across Agencies. May. GAO–01–592. Washington, DC: GAO.

_____. 2003. Management Reform: Continuing Progress in Implementing Initiatives in the President's Management Agenda. March. GAO-03-556T. Washington, DC: GAO.

_____. 2004a. Performance Budgeting: Observations on the Use of OMB's Program Assessment Rating Tool for the Fiscal Year 2004 Budget. January. GAO-04-174. Washington, DC: GAO.

_____. 2004b. Performance Budgeting: OMB's Performance Rating Tool Presents Opportunities and Challenges for Evaluating Program Performance. March. GAO-04-550T. Washington, DC: GAO.

U.S. Government Accountability Office. 2005a. Performance Budgeting: PART Focuses Attention on Program Performance, but More Can Be Done to Engage Congress. October. GAO-06-28. Washington, DC: GAO.

_____. 2005b. Performance Budgeting: States' Experiences Can Inform Federal Efforts. February. GAO-05-215. Washington, DC: GAO.

_____. 2007. 21st Century Challenges: How Performance Budgeting Can Help. GAO-07-1194T. Washington, DC: GAO.

U.S. Office of Management of Budget. 2001. OMB circular no. A-11. Washington, DC: U.S. Government Printing Office.

_____. 2003a. Performance and Management Assessments, Budget of the United States Government, Fiscal Year 2004. Washington, DC: U.S. Government Printing Office.

_____. 2003b. Analytical Perspectives, Budget of the United States Government, Fiscal Year 2004. Washington, DC: U.S. Government Printing Office.

_____. 2006. Program Assessment Rating Tool Guidance. No. 2006-02. Washington, DC: U.S. Government Printing Office.

_____. 2008a. Available from http://earmarks.omb.gov/download.html, accessed as of December 1, 2008.

_____. 2008b. ExpectMore.gov, available from http://www.whitehouse.gov/omb/expectmore/, accessed as of December 1, 2008

U.S. Senate. 2008a. Party Division in the Senate, 1789-Present. Available from http://www.senate.gov/pagelayout/history/one_item_and_teasers/partydiv.htm, accessed as of December 1, 2008.

_____. 2008b. Lobbying Disclosure Act Reports. Available from http://www.senate.gov/legislative/Public_Disclosure/LDA_reports.htm, accessed as of December 1, 2008.

U.S. House of Representatives, Office of the Clerk. 2008a. Party Divisions of the House of Representatives, 1789 - Present. Available from http://clerk.house.gov/art_history/house_history/partyDiv.html, accessed as of December 1, 2008.

_____. 2008b. Lobbying Closure. Available from http://lobbyingdisclosure.house.gov/, accessed as of December 1, 2008.

Waldo, Dwight. 1948. The Administrative State: A Study of the Political Theory of American Public Administration. New York: The Ronald Press.

Wanat, John. 1974. Bases of Budgetary Incrementalism. American Political Science Review, 68(3): 1221-1228.

Weber, M. 1947. The Theory of Social and Economic Organization. Glencoe, IL: Free Press.

Whicker, Marcia Lynn. 1992. An Academician's Response: Toward a Grander Budget Theory. Public Administration Review, 52(6): 601-603.

White, L. 1926. Introduction to the Study of Public Administration. New York. Macmillan.

Wildavsky, Aaron. 1961. Political Implications of Budgetary Reform. Public Administration Review, 21(4): 183-190.

_____. 1964. The Politics of the Budgetary Process. 1st ed. Boston, Massachusetts: Little, Brown Publishers.

_____. 1978. A Budget for All Seasons? Why the Traditional Budget Lasts. Public Administration Review, 38(6): 501-509.

_____. 1988. The New Politics of the Budgetary Process . Glenview, IL: Scott/Freeman.

Wildavsky, Aaron, and Naomi Caiden. 2003. The New Politics of the Budgetary Process. 5th ed. New York: Longman.

Willoughby, K. and Julia E. Melkers. 1998. The State of the States: Performance-Based Budgeting Systems in 47 of 50. Public Administration Review, 58(1): 66-73.

_____. 2000. Implementing PBB: Conflicting Views of Success. Public Budgeting and Finance, 20(1): 85-120.

_____. 2001. Performance Budgeting in the States. In D. Forsythe (Ed.), Quicker, Better, Cheaper: Managing Performance in American Government (First ed., 335-364). Albany: NY: Rockfeller Institute.

Wilson, W. 1887. The Study of Administration. Political Science Quarterly, 56(4): 481-506.

APPENDIX

[Appendix 1.1] PART Basic Questions[38]

1. Program Purpose & Design (20%)

1.1. Is the program purpose clear?

1.2. Does the program address a specific and existing problem, interest or need?

1.3. Is the program designed so that it is not redundant or duplicative of any other Federal, state, local or private effort?

1.4. Is the program design free of major flaws that would limit the program's effectiveness or efficiency?

1.5. Is the program effectively targeted, so that resources will reach intended beneficiaries and/or otherwise address the program's purpose directly?

2. Strategic Planning (10 %)

2.1. Does the program have a limited number of specific long-term performance measures that focus on outcomes and meaningfully reflect the purpose of the program?

2.2. Does the program have ambitious targets and timeframes for its long-term measures?

2.3. Does the program have a limited number of specific annual performance measures that can demonstrate progress toward achieving the program's long-term goals?

2.4. Does the program have baselines and ambitious targets for its annual measures?

2.5. Do all partners (including grantees, sub-grantees, contractors, cost-sharing partners, and other government partners) commit to and work toward the annual and/or

[38] Source from OMB website at http://www.whitehouse.gov/omb/part/

long-term goals of the program?

2.6. Are independent evaluations of sufficient scope and quality conducted on a regular basis or as needed to support program improvements and evaluate effectiveness and relevance to the problem, interest, or need?

2.7. Are budget requests explicitly tied to accomplishment of the annual and long-term performance goals, and are the resource needs presented in a complete and transparent manner in the program's budget?

2.8. Has the program taken meaningful steps to correct its strategic planning deficiencies?

3. Program Management (20%)

3.1. Does the agency regularly collect timely and credible performance information, including information from key program partners, and use it to manage the program and improve performance?

3.2. Are Federal managers and program partners (including grantees, sub-grantees, contractors, cost-sharing partners, and other government partners) held accountable for cost, schedule and performance results?

3.3. Are funds (Federal and partners') obligated in a timely manner and spent for the intended purpose?

3.4. Does the program have procedures (e.g. competitive sourcing/cost comparisons, IT improvements, appropriate incentives) to measure and achieve efficiencies and cost effectiveness in program execution?

3.5. Does the program collaborate and coordinate effectively with related programs?

3.6. Does the program use strong financial management practices?

3.7. Has the program taken meaningful steps to address its management deficiencies?

4. Program Results (50%)

4.1. Has the program demonstrated adequate progress in achieving its long-term performance goals?

4.2. Does the program (including program partners) achieve its annual performance goals?

4.3. Does the program demonstrate improved efficiencies or cost effectiveness in achieving program goals each year?

4.4. Does the performance of this program compare favorably to other programs, including government, private, etc., with similar purpose and goals?

4.5. Do independent evaluations of sufficient scope and quality indicate that the program is effective and achieving results?

[Appendix 1.2] PART Specific Questions by Program Type

Strategic Planning

Regulatory-based Based Programs

- Are all regulations issued by the program/agency necessary to meet the stated goals of the program, and do all regulations clearly indicate how the rules contribute to achievement of the goals?

Capital Assets and Service Acquisition Programs

- Has the agency/program conducted a recent, meaningful, credible analysis of alternatives that includes trade-offs between cost, schedule, risk, and performance goals and used the results to guide the resulting activity?

R&D Programs

- R&D programs addressing technology development or the construction or operation of a facility should answer the Capital Assets and Service Acquisition question.

- If applicable, does the program assess and compare the potential benefits of efforts within the program and (if relevant) to other efforts in other programs that have similar goals?

- Does the program use a prioritization process to guide budget requests and funding decisions?

Program Management

Competitive Grant Programs

- Are grants awarded based on a clear competitive process that includes a qualified assessment of merit?

- Does the program have oversight practices that provide sufficient knowledge of

grantee activities?

- Does the program collect grantee performance data on an annual basis and make it available to the public in a transparent and meaningful manner?

Block/Formula Grant Program

- Does the program have oversight practices that provide sufficient knowledge of grantee activities?

- Does the program collect grantee performance data on an annual basis and make it available to the public in a transparent and meaningful manner?

Regulatory-based Based Programs

- Did the program seek and take into account the views of all affected parties (e.g., consumers; large and small businesses; State, local and tribal governments; beneficiaries; and the general public) when developing significant regulations?

- Did the program prepare adequate Regulatory-based impact analyses if required by Executive Order 12866, Regulatory-based flexibility analyses if required by the Regulatory-based Flexibility Act and SBREFA, and cost-benefit analyses if required under the Unfunded Mandates Reform Act; and did those analyses comply with OMB regulations?

- Does the program systematically review its current regulations to ensure consistency among all regulations in accomplishing program goals?

- Are the regulations designed to achieve program goals, to the extent practicable, by maximizing the net benefits of its Regulatory-based activity?

Capital Assets and Service Acquisition Programs

- Is the program managed by maintaining clearly defined deliverables,

capability/performance characteristics, and appropriate, credible cost and schedule goals?

Credit Programs

- Is the program managed on an ongoing basis to assure credit quality remains sound, collections and disbursements are timely, and reporting requirements are fulfilled?

- Do the program's credit models adequately provide reliable, consistent, accurate and transparent estimates of costs and the risk to the Government?

R&D Programs

- R&D programs addressing technology development or the construction of a facility should answer the Capital Assets and Service Acquisition question.

- For R&D programs other than competitive grants programs, does the program allocate funds and use management processes that maintain program quality?

Program Results

Regulatory-based Based Programs

Were programmatic goals (and benefits) achieved at the least incremental societal cost and did the program maximize net benefits?

Capital Assets and Service Acquisition Programs

Were program goals achieved within budgeted costs and established schedules?

R&D Programs

R&D programs addressing technology development or the construction or operation of a facility should answer the Capital Assets and Service Acquisition question.

[Appendix 2] Descriptive Statistics of Variables in the Regression Model

Variable	N	Mean	Std. Dev.	Min	Max
Change in Appropriations	1736	-1.2	21.3	-96.9	97.9
PART ratings	1736	64.5	18.6	10.5	100.0
Change in PART ratings	1736	2.2	11.5	-42.4	144.6
Change in Lobbying Amount	1707	18.0	123.3	-87.9	3441.0
Change in Staff Number	1664	0.8	5.0	-92.0	43.9
Change in Homeland Security Budget	1648	3.8	24.8	-76.6	187.7
Change in Requested Budget	1634	30.1	762.2	-723.6	29834.3

Note: Dummy variables, such as partisanship, career bureau chiefs, program size, and program types are excluded from this table.

[Appendix 3] Impact of PART on Appropriations by Manager Type : Neutrality vs. Partisanship

Decrease in Appropriations for Democratic Programs	
	Political Appointees
PART	
PART rating	0.06 (0.05)
Change in PART rating	0.02 (0.04)
Political Factor	
Change in Lobbying Amount	0.04 (0.03)
Bureaucratic Factor	
Change in Staff Number	0.01 (0.19)
Fiscal Factor	
Change in Homeland Security Budget	0.02** (0.01)
Change in Requested Budget	0.00 (0.01)
Program Factor	
Small and Medium Size	-4.17*** (1.46)
Directed federal (0,1)	-3.08 (2.89)
Competitive Grant (0,1)	4.01** (1.71)
Block/Formula Grant (0,1)	-0.41 (2.01)
Regulatory-based (0,1)	3.83** (1.78)
Capital Assets & Service (0,1)	-6.12 (3.73)
Credit (0,1)	-41.09*** (13.52)
R&D (0,1)	-4.42 (3.11)
Constant	-9.21** (3.79)
Observations	426
Wald chi2	33.08***
R-squared	0.19

[Appendix 4] Impact of PART on Appropriations by Manager Type : Merit and Results-based vs. Punishment and Process-oriented

Decrease in Appropriations		
	Careerists	
PART		
Program Purpose	-0.06	(0.11)
Strategic Planning	-0.13	(0.12)
Program Management	-0.13	(0.14)
Program Result	0.12	(0.08)
Political Factor		
Partisanship (0,1)	0.16	(5.48)
Change in Lobbying Amount	0.02	(0.02)
Bureaucratic Factor		
Change in Staff Number	0.18	(0.46)
Fiscal Factor		
Change in Homeland Security Budget	-0.02	(0.06)
Change in Requested Budget	-0.01	(0.01)
Program Factor		
Small and Medium Size	9.73**	(4.55)
Directed federal (0,1)	4.57	(5.17)
Competitive Grant (0,1)	0.27	(8.67)
Block/Formula Grant (0,1)	20.29	(20.30)
Regulatory-based (0,1)	-0.81	(4.76)
Capital Assets & Service (0,1)	14.58*	(8.71)
Credit (0,1)	0.00	0.00
R&D (0,1)	2.69	(15.07)
Constant	21.32	(13.26)
Observations	114	
Wald chi2	10.14	
R-squared	0.18	

Note: Wald chi2 indicates this model is not significant at 10% level.

[Appendix 5] Impact of PART on Appropriations by Change in Staff Number

	Decrease in Staff Number				Increase in Staff Number			
	Democratic Agency		Republican Agency		Democratic Agency		Republican Agency	
PART								
PART Score	0.13*	(0.07)	0.08	(0.09)	0.01	(0.17)	0.09	(0.11)
Change in PART Score	0.06	(0.05)	0.16	(0.11)	-0.05	(0.09)	0.33**	(0.17)
Political Factor								
Change in Lobbying Amount	-0.06**	(0.03)	0.00	(0.00)	0.66	(0.61)	0.06**	(0.03)
Bureaucratic Factor								
Careerist (0,1)	2.44	(1.97)	-5.35	(3.35)	-1.93	(7.73)	8.75*	(4.90)
Change in Staff Number	1.41	(1.08)	0.40**	(0.18)	-6.04	(7.55)	-4.94*	(2.54)
Fiscal Factor								
Change in Homeland	0.07*	(0.04)	-0.03	(0.06)	0.16	(0.13)	-0.10	(0.08)
Change in Requested	0.01	(0.00)	0.01	(0.01)	0.01	(0.01)	0.00	(0.01)
Program Factor								
Small & Medium Size	-3.32*	(2.01)	-5.71*	(3.09)	-3.53	(6.48)	-10.58**	(4.68)
Direct Federal (0,1)	5.89	(4.45)	1.37	(7.29)	-2.40	(6.09)	20.04	(12.21)
Competitive Grant (0,1)	4.60*	(2.51)	2.83	(8.64)	-11.09	(8.82)	15.46	(13.41)
Block/Formula Grant (0,1)	3.09	(2.80)	-2.87	(7.89)	-9.09*	(4.81)	9.93	(13.10)
Regulatory (0,1)	8.16***	(2.33)	10.87	(7.42)	-3.62	(5.87)	27.91*	(15.80)
Capital Assets & Service	5.99	(4.83)	6.40	(7.76)	0.00	0.00	20.88	(13.40)
Credit (0,1)	-29.70*	(17.87)	-7.56	(11.52)	0.00	0.00	26.73*	(13.70)
R&D (0,1)	2.64	(4.23)	1.55	(9.48)	16.74	(17.81)	12.16	(14.06)
Constant	-11.44*	(6.55)	-6.63	(10.04)	16.20	(21.59)	-15.29	(16.59)
Observations	346		255		69		156	
Wald chi2	51.82***		28.14**		28.85***		37.03***	
R-squared	0.11		0.07		0.12		0.17	

VITA

Dong-Young Rhee

1972	Born January 11 in Seoul, Korea
1998	B.A. in Public Administration, HanYang University, Seoul, Korea
2002	M.A. in Public Administration, HanYang University, Seoul, Korea
2003	Research Associate, Seoul Development Institute
2003	Attended Ph. D. Program in Public Administration, Rutgers-Newark
2004-07	Research Associate, National Center for Public Performance
2007-08	Dissertation Fellowship
2009	Ph. D. in Public Administration