Performance-Based Budgeting: A Case Study about the Effects of Performance Measures on the Agency Budgeting Process in West Virginia State Government

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This thesis titled
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on the Agency Budgeting Process in West Virginia State Government

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ABSTRACT

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This study is conducted to investigate the effects of performance-based budgeting on agency budget allocation decisions. Previous studies analyzed the use of performance-based budgeting by relying on either the perceptions of the budget officers or the aggregate budget outcomes. However, this empirical research combines agency performance measurement results and the main budget actors’ decisions. Till now no study has focused on the decisions of the main budget actors of the agency budgeting process to analyze the effectiveness of performance-based budgeting. By so focusing this research allowed for analyzing the effects of the agency performance measurement results on the decisions of the main individual budget actors. The aim of this case study is to understand the real effectiveness of performance measurement results in changing the decisions of the main budget actors and enabling them to make more informed budget allocation decisions in the State of West Virginia. Results of this study indicate that performance measurement results only influence the governor’s recommendations and do not have any impact on agency budget requests or the legislative appropriation. These results are explained by the challenges inherent in performance-based budgeting.

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CHAPTER 1: INTRODUCTION

The increasing efforts of federal, state and local governments to implement some form of performance budgeting raises questions about the benefits and challenges of this budgeting system. This study is conducted to gain more precise and detailed insights into the operation of performance budgeting and more specifically the role of performance measures on the budgeting process. The rationale for performance-based budgeting (PBB) is that performance results can be used by budget decision-makers to guide them in budget allocation decisions. Therefore, the aim of this case study is to understand the actual effectiveness of performance measurement results in changing the decisions of the main budget actors, enabling them to make more informed budget allocation decisions in the State of West Virginia.

This study is important first of all because of its level of study. Until now, many studies have been conducted to understand the impact of performance budgeting on budget allocation decisions in federal, state and local governments. However, unlike research conducted up to now, the focus of this study is on individual agencies at the state level and is conducted to understand the impact of performance measures on funds that are allocated to individual agencies. Performance measures can be used in three budget institutions – agencies, executive budget office and legislative budget office- to make budget allocation decisions (Joyce, 2007). Therefore, focusing on the agency budgeting process makes possible the analysis of the effects of agency performance results on the main budget actors’ budget allocation decisions. More specifically this research allows
for the discovery of the impact agency performance information have on agency requests, governor’s recommendations and legislative appropriations.

There are many studies on the effectiveness of performance-based budgeting. However, most are based on surveys rather than on actual fiscal data. (Lu, 2007; Wang, 2000; Jordan & Hackbart, 2005; Melkers & Willoughby, 2005; Willoughby, 2004; Willoughby & Melkers, 2000; Jordan & Hackbart, 1999). Only a few studies in the literature focused on the actual fiscal data (Klase & Dougherty, 2008). Therefore, the findings of this study will contribute to the literature about the effectiveness of performance budgeting, with both its unique unit of analysis and its method of study.

In the next chapter a brief explanation and history of performance-based budgeting and budgets will be given. After that, the methods and results of a selection of past research on performance-based budget effectiveness will be summarized. Based on past research findings a thesis statement will be presented and the model and methodology of the research will be explained. Results of the research findings will be explained and in the discussion chapter the results will be further clarified and evaluated based on the literature. This research paper will end with a conclusion about the overall findings and suggestions for future research studies.
CHAPTER 2: WHAT IS PERFORMANCE-BASED BUDGETING?

Although it has been implemented and discussed for more than a half century, performance-based budgeting still has no standard definition and there is no consensus among scholars and practitioners about its implementation. Furthermore, its implementation varies at different levels of government, as well as in different agencies.

Gilmour and Lewis (2006) define performance-based budget as a budget system that strives to form a link between allocation of resources and performance of programs. The key idea behind performance-based budgeting is the common belief that using performance measurement results in the budget process will improve budgeting decisions by making them more rational. In this way, budget allocation decisions will be made with constant emphasis on the expected results and on choosing the best alternative for spending tax dollars. Implementation stages of performance budgeting of all forms at the national level can be summarized by five stages repeated in every budget cycle. The first stage is the determination of an objective. All forms of performance budgeting systems start with such a determination or what is called the expected results of certain activities and programs of agencies or departments. This stage requires agency and department heads to engage in strategic planning in determining consistent organizational long-term and short-term objectives. The second stage is determination of the appropriate performance measures and estimating the expected level of performance for upcoming years. Recent performance measures focus more on outcome rather than output in order to measure the end results of the programs. In addition, outcome measures should have
some quantifiable indicators that enable objective evaluation of the results and their comparison across years and with similar programs.

After agreeing upon the measures of performance the third stage, the collection of data, is the longest stage and continues throughout an entire fiscal year. The fourth stage is analyzing data and reporting results to the Office of Management and Budget (OMB) and the Congressional Budget Office (CBO). The fifth and final stage is translating the performance measures into budget-allocation decisions. Different from the traditional line-item budgeting which focuses on the purchase of individual items of expenditure, performance-based budgeting focuses on the performance evaluation results of department and agency programs. Since the budget preparations start at least one year prior to the beginning of the fiscal year, performance results cannot be available for the next fiscal year’s budget, but are most likely to be used in the budget process of the second or third fiscal year following. In order to stimulate high performance, a performance budget system rewards or punishes agencies based on their performance measurement results. Therefore, performance budgeting requires high-performing agencies, departments and programs to be rewarded by increases in funding and low-performing agencies to be punished with budget cuts.

The inclusion of performance measures in the budgeting process has undergone a transformation through various budget reform attempts of the federal government. A brief history of the evolution of performance budgeting in the U.S. Federal Government will be explained in the next chapter.
CHAPTER 3: THE HISTORY OF PBB IN THE FEDERAL GOVERNMENT

The history of performance-based budgeting will be explained in two sections. The first section will cover the history of performance-based budgeting from its inception to budget reforms up to 1990. This section includes The Budget and Accounting Act of 1921, the Hoover Commission of 1949, the Planning, Programming Budgeting System (PPBS) of 1965, Management by Objectives (MBO) of 1971 and Zero-Based Budgeting (ZBB) of 1976. The second section which covers post-1990 budget reforms up to the Obama administration will include the Chief Financial Officers (CFO) Act of 1990, the Government Performance and Results Act (GPRA) of 1993, the National Performance Review (NPR) of 1993, and the Program Assessment Rating Tool (PART) implemented by the Bush administration.

The First-Wave Budget Reforms (Pre-1990)

Performance-based budgeting is the most recent initiative in a series of budget reform efforts to increase the rationality of the budgeting process by better integrating performance evaluation results into the budgeting process to improve the performance of the public sector. Some scholars attribute the origins of performance-based budgeting to the First Hoover Commission report in the late 1940s. This called for greater integration of performance data into the federal budget in order to make the budget process more efficient (Grifel, 1993; Jordan & Hackbart, 1999). Others claim that “the interest in performance budgeting had already manifested during the early 1920s, partly as a result of recommendations from the earlier Taft Commission of 1912” to control increased...
federal debts associated with increased expenditures as a result of World War I (Redburn, Shea, Buss, & Quintanilla, 2008, p. 7).

Prior to 1921, Congress had the key power to control the individual agency budgets. However, the absence of an overall federal budgeting process made it impossible for Congress to analyze and control the aggregate federal budget. Dominance of Congress in the budget process began to be criticized by the main idea of the Taft Commission that in order to improve the federal government, the President should be given more power in the budgeting process (Stever, 1997). The Budget and Accounting Act of 1921 was enacted during the presidency of Warren G. Harding “in response to the consensus…that a more centralized approach to financial policy and processes was needed, in both the executive and legislative branches” (Committee on the Budget, United States Senate, 1998, p. 7). This act required the President to annually submit a single consolidated federal budget proposal for congressional consideration and it created two institutions. The Bureau of the Budget (BOB), now called the Office of Management and Budget (OMB), was meant to oversee the executive budget process then housed in the Department of Treasury. The second institution is the General Accounting Office (GAO), a non-partisan auditing organ accountable directly to Congress.

The budget reform initiative of 1921 was successful in controlling federal spending. However, its failure to provide information about the goals and achievements of the programs led to its being considered an insufficient attempt to link public expenditures to public accomplishments (Pilegge, 1997). The Hoover Commission of 1949 undertook this task by requiring the implementation of a performance budget in the
The focus of budgeting thus shifted to functions, activities, costs, projects and accomplishments from objects of expenditure. The Hoover Commission also emphasized the importance of using performance data for improving decisions about budgeting and management. This separated the performance budgeting recommended by the Hoover Commission in 1949 from the one recommended by the Taft Commission on Economy and Efficiency in 1912 which proposed measuring performance of the government but did not mention using this information in the decision making process. So, for the first time, with the report of the Hoover Commission, collecting performance data was regarded as a means to an end, not as an end in itself. However, this initiative proved unsuccessful because of the difficulty of using performance measures in the decision-making process. According to Schick (1997), while the performance data that included detailed information were useful for operating officers, they were cumbersome and created a burden for the high-level officers responsible for determining organizational objectives and goals. Performance budgeting received more attention from local governments than from the federal government. Although performance budgeting continues to be applied in local governments, in the federal government it could no longer maintain the attention it enjoyed after a new budget reform was introduced in the early 1960s.

In an attempt to address the shortcomings of the previous budget reforms President Lyndon B. Johnson presented the Planning, Programming Budgeting System (PPBS) on August 25, 1965. This budgeting system had initially been implemented by McNamara in the Defense Department during the presidency of John F. Kennedy. Its
goal was to use limited available resources more efficiently. Accomplishing this goal required each individual agency and department to engage in strategic planning to clearly define its objectives consistent with the national objectives; evaluate alternative scenarios, and apply cost-effectiveness analyses to select the best programs and to eliminate overlapping program goals. PPBS was intended to mitigate the effect of politics on the budgeting process by providing performance measures to political leaders to help them make more informed decisions. Wildavsky explains this tendency as “a legacy of enlightenment, the optimistic confidence in the power of intelligence to order man’s environment and improve human welfare” (2009, p. 273). PPBS did not find support from either executives or legislatures. Overlapping goals and responsibilities, which are seen as a threat to comprehensive and consistent programs, continued to be funded under different jurisdictions with no initiative to integrate similar programs across organizational boundaries (Pilegge, 1997).

The implementation of PPBS was suspended in the federal government with the introduction of a new system called Management by Objectives (MBO) during the presidency of Richard Nixon in 1971. As its name reflected, in this budget system the emphasis was on the management side of program execution. The key point in MBO was clearly defining the objectives and the expected outcomes for everyone and rating these objectives based on their importance and urgency. Thus, the programs addressing high priority objectives would be funded first and others would be funded respectively when there are enough resources. Although there had been many attempts to link performance measures to budget, MBO was the first attempt to link outcome measures to budget
instead of output (Redburn, Shea, Buss, & Quintanilla, 2008). However, MBO failed in this attempt, first because almost all of public programs have multiple objectives and it is impossible to divide the total spending into a sub-category for each objective. Secondly as Wildavsky (1984) explains, it is a waste of time and a lot of paper work to list and define multiple objectives when the budget allotment is enough to finance only the first few of them. Since most of the time effort is spent on discussions for making a list of objectives, the issues about execution of the programs are not paid enough attention. Because of its deficiencies the MBO system started to be abandoned by the federal government by the end of the 1970s.

New budget systems were formulated as previous ones failed in reaction to the traditional line-item budgeting which continued to be widely implemented by federal, state and local governments. Zero-Based Budgeting (ZBB) was introduced into the federal government by President Jimmy Carter in 1976 as a reaction to line item budgeting in which ones programs are admitted they continue to be funded with incremental changes in their budgets year after year regardless of their necessity or performance. ZBB rejects the presumed base of the previous years and requires reevaluation of the whole budget each year.

Although PPBS offers trade-offs between different programs with the same objectives by comparing their performance and efficiency, ZBB offers trade-offs between different funding levels for the same program. However, ZBB did not propose any solution to the problem of determining clear objectives accepted by the key staff in the organization. Another problem was the increased paperwork associated with ZBB. One
side of the workload was preparation of all the decision packages that include alternative recommended levels of spending for different programs by budgeters and the other side was the analysis of this excessive information by the governor. This budget system, like its predecessors, was abandoned because of its cumbersome structure (Wildavsky, 2009).

All the budget reforms up to date, even those regarded as ineffective, had an influence on the formulation and implementation of the Performance-Based Budgeting of today. The Planning, Programming, Budgeting System (PPBS) of the 1960s, Management by Objectives (MBO) of the 1970s and Zero Based Budgeting (ZBB) of the 1970s prove the trend of increasing attention paid to the performance measures in the federal budgeting process throughout the last century. Each reform attempted to address the shortcomings of the previous ones and was built upon the knowledge gained from previous mistakes. These reform movements have been considered failures because they could not change the focus of the budgeting process from inputs to expected agency performance results. According to Joyce (2007), each of these reform movements improved the overall capacity of the government and laid the groundwork for successful implementation of future reform initiatives. So, from this perspective it would be incorrect to say that these reform attempts made no improvement in the budgeting process.

The Second-Wave Budget Reforms (Post-1990)

The efforts of the federal government to use performance measures in the budgeting process speeded up during the 1990s. Joyce (2007) lists three major initiatives

The CFO Act which was designed to enhance the federal financial management included a provision that requires CFOs to establish performance measures for their agency programs. This act developed the basis for GPRA which was “designed to strengthen the financial management enhancement efforts of the CFO” (Jordan & Hackbart, 1999, p. 70).

GPRA was initially introduced during the presidency of George H. W. Bush and signed by President Clinton in August 1993. The objective of GPRA is “to improve the effectiveness, efficiency, and accountability of federal programs by having agencies focus their management practices on program results” (United States General Accounting Office, 1997). GPRA necessitates all federal agencies to determine their objectives and activities through strategic planning; to set performance measures; report annual performance reports to the Office of Management and Budget and to Congress, and to integrate performance measures into the budget. Performance reports enabled “the Congress and the public to gauge whether agencies have complied with the goals” (Joyce, 2007, p. 23). That’s why GPRA is regarded as the most significant attempt to increase accountability of the federal government.

It is also very important with respect to the shifting primary goal of the budget reforms. Up to the 1990s the primary goals of the budget reforms were control, management and planning. However, with GPRA accountability became the first goal of
budget reforms in order to improve the American people’s confidence in the Federal Government. Parallel to these legislative initiatives the executive branch during the Clinton presidency carried out important efforts that emphasized the issue of government performance. The National Performance Review (NPR) was an interagency task force led by Vice President Al Gore. Its duty was to give recommendations for making the government perform better at less cost.

Although by the end of the 1990s nearly half the state governments were taking performance indicators into consideration in various ways while preparing their budgets, they linked only a small percentage of their budget to performance measures (Schmidtlein, 1999). This is an indicator of existing concerns about the benefits of performance budgeting at the time and the need to improve it. In 2001, president-elect George W. Bush declared the emphasis on performance measuring would continue during his administration in order to make the government more results-oriented and to improve overall the federal government. Based on the requirements of GPRA, the Budget and Performance Integration (BPI) initiative was started. Previous budget reforms of the 1990s were not successful in integrating performance with budgeting decisions and they were emphasizing only the supply of the performance information. However, the Bush administration was more ambitious about moving this one step further and using performance information in the budgeting process. Therefore, the integration of budget and performance was included in the President’s Management Agenda (PMA) as a management priority. Right after that, to accomplish the integration of performance measures into the budgeting process the Program Assessment Rating Tool (PART) was
developed. In contrast to the legislative-driven GPRA, PART is an executive-driven, performance-based budgeting system. PART is “a series of diagnostic questions designed by OMB to provide a consistent and transparent approach to measuring the performance of federal programs” (Mullen, 2006, p. 80). PART emphasizes the use of outcome measures which are the ultimate results of the programs in measuring their performance. It also helps to understand the strengths and weaknesses of programs in order to make informed appropriations and it makes adjustment recommendations to improve program results.

The PART questionnaire includes questions about program purpose and design, strategic planning, program management, and program results and accountability with each section given a specific weight in calculating the total score of programs. The scores are converted to grades ranging from effective to moderately effective, adequate and ineffective. These scores are used by the agencies to “justify funding requests, management actions and legislative proposals” (Joyce, 2007, p. 27). Public availability of these performance scores makes federal government more transparent. Recent budget reforms to better integrate performance information into the budgeting process have been getting more successful compared to efforts prior to 2000 as a result of improved technology in data recording, data analyzing, communication and developing human resources.

Overall, a performance-based budget is supposed to be a system that improves program effectiveness, increases efficiency and effectiveness of budget decisions and decreases cost by reducing duplicative services and changing appropriation levels. It
enables coordination between agencies and legislatures, and increases the accountability of government organizations. More benefits of PBB could be estimated here by just considering its short definition and implementation stages. Despite the increasing academic and professional attention to performance budgeting since the 1990s because of its supposed benefits, the use of performance budgeting is not pervasive in the United States. The reason is the associated challenges of performance budgeting with its benefits.
CHAPTER 4: PAST RESEARCH ON THE USE OF PERFORMANCE MEASURES IN BUDGET ALLOCATION DECISIONS

In order to understand whether performance-based budgeting is implemented free of the challenges, budget outcomes should be analyzed carefully. So, in this part some of the findings of previous research will be summarized with an emphasis the impact of performance measures on budget allocations. Wildavsky states that any change in the budget system must change budget allocations as the end product of the process (Wildavsky, 1992, as cited in Jordan & Hackbart 1999). Research findings about the influence of performance measures on budget allocations will be evaluated to understand the effects of these challenges on the implementation of performance budgeting.

The research conducted by Willoughby and Melkers (2000) is valuable to understanding whether budget officers find performance budgeting effective despite its threats. With an attempt to assess the implementation and effectiveness of performance-based budgeting, these authors conducted a survey of executive and legislative budget officers at the state level. They found the performance budget to be stated by most legislative and executive branch officers alike to be most effective in improving agency programs. It is found least effective in changing appropriation levels. The budget actors found performance budgeting only somewhat effective the remaining areas, such as improving general decision making in government, improving coordination between agencies and the legislature, reducing duplicative services, affecting cost savings and appeasing executive and legislative public budget officers.
Melkers and Willoughby (2005) conducted later research to examine the effects of performance data on budgetary allocation decisions, communication and other operations in local governments. They surveyed city and county administrators and budget officers from 300 local governments. Melkers and Willoughby found that performance measures are least effective in determining appropriation levels. However, it is promising that almost half of the respondents, from both city and county, agreed that performance data is an important decision aid in budget issues. Nonetheless, it is evenly optimistic and too early to expect that performance data can displace political factors in budget allocation decisions.

Jordan and Hackbart (1999) conducted a survey of executive budget officers at the state level in 1997 to determine the impact of performance budgeting on budget allocation decisions. At the end of the survey more than half of the respondents agreed that performance measures are a vital tool for budget allocation decisions. However, it was found using performance measures did not change the appropriation levels of the states. Although performance measures were integral to the budgeting process they had no influence on budget allocations. As a result, performance measures were found most useful as a tool in the management of fixed resources. Performance measures impacted only the appearance and preparation of budget documents, not allocations.

In their more recent article Jordan and Hackbart (2005) use a different logic, which claims that the success of a budget system can only be determined with regard to its perceived goals. With this in mind, they surveyed state executive budget officers regarding their views about the goals of performance budgeting. They found that most
respondents view improved accountability as the first goal of performance budgeting, followed by increased program effectiveness, increased program efficiency, changes in program management, changes in state budget allocations, changes in the budget process and, finally, changes in state policy. The authors’ findings about the goals of performance budgeting were consistent with their previous findings in which they referred to performance more as a management tool than as a budget-allocation tool. The second group of questions they asked was about the success of a performance budget in its previously ranked goals. Again performance budget was found to be most effective in improved program accountability and least effective in changing budget allocation.

The last research I will discuss in this part was conducted by Klase and Dougherty (2008). In it the departure point of the scholars was the suggestion that the outcome for any change in the budget system should be considered as well. So, they collected and empirically analyzed the budget data of 50 states over a 16-year period to find out the real impact of performance budgeting on budget allocation. Surprisingly, their analysis discovered a significant positive impact of performance budgeting on budget allocations. They found that states implementing performance budgeting tend to spend more than do states without a performance budgeting system. This study is significant because differing from previous studies which surveyed budget officers, it was based on an empirical study of budget outcomes. The findings are also significant for showing a significant correlation between implementation of performance budgeting and increased spending.
To sum up, focusing on the change that performance budgeting creates in budget outcomes five research findings are summarized. Four of these findings verify that performance measures do not change budget allocation decisions. However, Klause and Dougherty’s (2008) findings reveal that performance budgeting changes state spending. So, we have two contradictory results found in different research methods. Although the majority of the research findings show that performance measures have no impact on budget allocation, the existence of one research finding indicating that performance budgeting does change budget outcomes prevents making a generalization about the past research findings.

**Performance Evaluation Results: Are They Reflected in Budget Decisions?**

Previous studies on the use of performance data in the budget allocation process give two different results. Surveys of budget officers found that performance measures are least effective in changing budget allocation decisions. So, it is conceivable that the mere presence of performance results in the budget document does not lead to their effective use in budget allocation decisions (Melkers & Willoughby, 2005). According to these findings, performance measures are understood to be more useful in increasing accountability, improving efficiency of the agencies and, enhancing coordination between agencies and the legislature.

The literature up to 2008 did not present any findings that confirm a significant impact from performance measures on budget outcomes. However, the empirical study of Klase and Dougherty (2008) reveals that performance budgeting does make a difference
in budget outcomes. Their study, that includes all 50 states focuses, on the annual total outlay of the states for 16 years. In their study they assumed that the budget outcomes of the states that implement performance budgeting will be different from those that are not. Ultimately, their findings prove their hypothesis. States that do implement performance budgeting are found to spend an average of $332 per capita more than states that do not use performance budgeting. The Klase and Dougherty study is the first to make an empirical analysis using real budget amounts of the states. However, since they focused on the total budget outcomes of the states instead of the agency level budget choices, their study does not provide information on how performance-based budgeting influenced the decisions of the main budget actors.

My research is very appropriate in the presence of such controversy about the impact of performance measures in budget allocation decisions, and with the lack of research on agency-level budgeting choices. Unlike past studies on performance budgeting which focused on state total spending, the unit of analysis of this research is the decisions of main budget actors in agency-level budget appropriation process. The method used here also separates this research from previous studies. Empirical research is conducted here to test the extent to which performance budgeting has had an impact on the decisions of budget actors in each step of the budgeting process. So, with the goal of empirically testing the impact of implementing performance-based budgeting, this research concentrates on agency budget requests, and the governor’s recommendations and legislative appropriations and performance results for each individual agency in the State of West Virginia.
This research is the first of its kind because it uses performance measurement results and those decisions to understand the impact of performance measures on primary budget actors’ decisions. The impact of performance results on agency requests, the governor’s recommendations and legislative appropriations is separately analyzed. The findings of this research offer significant insight into the use of performance results on the budget allocation process. Until now no empirical research has been conducted to understand the impacts of agency performance results on the people who make budget decisions at the agency expenditure level that has been the focus of numerous budget studies (Wildavsky and Caiden 2004). For the first time, the impact of performance measures on budget outcomes is assessed with a study that investigates how agency performance results are actually reflected in agency-level budget outcomes.

Based on the literature and taking into consideration the challenges about performance budgeting, this research is not expected to substantiate a correlation between performance measures and budget allocation decisions. Performance budgeting as a system to rationalize budget allocation decisions still involves a number of operational challenges. The role of politics is one of the biggest challenges to the implementation of performance-based budgeting by interfering in most of the budget planning, preparing, and implementation stages. Agency objectives are supposed to be determined consistent with jurisdictional government goals, and priorities which change with each new administration. So, there are no long-term, commonly accepted and targeted goals. The shift in agency goals and objectives with changing political actors and their priorities also changes the measures used to understand the performance of the agencies. Nonpersistent
objectives and performance measures prevent the use of performance measures by budget decision makers as a tool to track the performance of an agency over the years.

In addition, a more serious problem about determination of the performance measures is the tendency towards politically biased measures which judge performance in a partisan manner instead of on the true merit of the agency in reaching its objectives. This same attitude prevails during performance-data collection. Political actors tend to deem successful the agencies and programs which are in line with their ideological priorities, rather than those more closely adhering to the ideology of the other party. This is done to justify allocating more monies to agencies and programs consistent with their own priorities (Gilmour & Lewis, 2006). Partisan-inspired selective data collection prevents detecting of the true performance of the agency. The same mentality governs interpretation of the results and translating them into budget decisions. Since there is no systematic methodology that enables objective interpretation of the performance results politicians interpret the results subjectively for their own interests. Because of these and other challenges to the implementation of performance budgeting, it is expected the research findings will prove an incremental tendency in budget allocation decisions.

Otto, Dempster and Wildavsky (1966) manage to explain the behavior of budgeting process participants by simple laws. They admit that budgeting, especially at the federal level, is very complex because of the multiple calculations and participants involved. However, the authors claim that human beings, in order to find solutions to complex problems, have a tendency to rely on simple rules of thumb (Clarkson, 1962, as cited in Otto, Dempster, & Wildavsky, 1966). They claim that past experiences guide the
behavior of the budget actors. So, budget participants use the previous year’s budget decisions and the decisions of the most recent budget actor as a base for their current decisions. This makes the U.S. budgetary process “linear …and…stable over periods of time” (Otto, Dempster, & Wildavsky, p. 531).

Performance budgeting complicates the budgeting process even further. In addition to all the information they have already budget actors are supposed to tie performance data into their budgeting decisions. All budget actors in three budget institutions - agency, executive budget office and legislative budget office—base their decisions on the choices of the previous budget actor as the budget document moves through the steps before it gets its final shape and is approved. Therefore, in this study it is assumed that budget actors rely on the most recent year’s budget amounts and the decisions of the previous budget actor more than on performance results while making decisions about the current budget allocations. As a result, no empirically significant relation is expected to be found between performance measures and budget outcomes in this research. Instead an incremental tendency is expected. Although I expect insignificant correlations between performance evaluation results and budget allocation decisions, the findings of this study will still make a significant contribution to the literature on performance budgeting because of its unique unit of analysis focusing on agency-level budget decisions and a comprehensive method that uses actual performance data and budget numbers to analyze the impact of agency performance results on the decisions of the main budget actors.
CHAPTER 5: WEST VIRGINIA BUDGETING PROCESS

West Virginia’s annual budget process starts with the release in July of budget allocation request guidelines by the state budget office (Figure 1). Based on the guidelines agencies prepare and submit their budget requests in September. State budget office hearings with agencies take place during September and October. Final budget recommendations are made in December and the governor submits the budget proposal to the legislative budget office in January. From January to March legislative budget hearings take place and the budget proposal is passed by the Senate and the House in March and sent to the governor, to be approved or vetoed that month. After approval, agencies can start spending their allocated money with the beginning of the fiscal year on July 1 (West Virginia State Budget Office).

The West Virginia Constitution orders the governor to submit the approaching fiscal year’s executive budget document to the legislative budget office and to the citizens. The budget recommended to the legislature by the governor after state budget office hearings with agencies is called the executive budget document. The West Virginia Budget Document has three parts. The first, Volume I Budget Report, includes the Governor’s Executive Message, Summary Financial Statements, Budget Planning, Revenue Sources and Debt Summary. Volume II Operating Detail includes descriptions and financial information about departments, bureaus, commissions, agencies, divisions, and programs of state government. The last document is the Budget Bill which becomes the Budget Act upon passage by House and Senate (West Virginia State Budget Office, 2010).
The necessary data needed for this research is included in the Operating Detail document. West Virginia uses performance budgeting because the performance results and estimates of the agencies are reported together with financial information in the Operating Detail of the state executive budget document. The Operating Detail document, generally between 600-700 pages, includes information about the mission, operations, goals/objectives, programs, performance measures and results, and expenditures of every department and individual agency in the State of West Virginia.

The performance budgeting process starts with the determination of goals and objectives. This document proves that all the departments and agencies have clearly defined one or two goals and several objectives to accomplish these goals. After goals are determined, performance measures should be developed to understand how successful the agencies are. Although performance budgeting requires using outcome measures, because of the difficulty of designating countable outcome measures some agencies also use output measures, and overall, use both output and outcome measures to measure performance. Agency performance results for outcome measures for the three years past sometimes are not available in the present budget documents because of the difficulty in measuring them. On the other hand, when the agency performance measures are about the agency’s workload, output results are almost always available in the budget document of two years later. There is no consistency within and among agencies about the form in which their performance results are presented. Some results are reported in raw numbers while others are reported in percentages. Even when performance results are reported in
percentages there is some disparities among them, and the same is true of raw-number reporting. Some of the results are of cumulative performance and others are annual.

This document includes agencies’ actual performance measurement results and performance estimates for the last three to four years, giving the reader a chance to compare the performance of the agency over time. However, since the goals of the agencies change with differing priorities or after previous ones are accomplished, performance measures for the agencies also change. So, even in a single budget document performance results of some years are not available because of recently adopted goals and measures. This change makes it difficult to analyze the executive budget documents for different years to understand agency performance change over time.

In addition to performance results, the Executive Budget Document for any fiscal year includes financial statements of the past two fiscal years and the present year for departments and agencies. It includes appropriated amounts for the previous fiscal year and actual outlays of the one before that. It also includes agency requests and governor’s recommendations for the present fiscal year for all departments and agencies.
CHAPTER 6: DATA, MODEL, AND METHODOLOGY

Data

Data used for this study are performance measurement results and budget decisions for the agencies in West Virginia. These data are included in the various versions of the Operating Detail of the West Virginia Executive Budget Document. These documents are obtained from the website of West Virginia Budget Office website\(^1\) (2010, April). Multiple issues of West Virginia’s Executive Budget Document, from 2006 through 2011, are used to collect necessary data for this empirical study. The financial values of agency budget requests, governor’s recommendations and legislative appropriations for each department and agency included in the documents constituted the data on budget allocation decisions in this thesis. Actual performance results of the departments and agencies constituted performance data for this research.

Model

*Dependent Variables*

This research is conducted to understand the influence of any change in performance results on the budget allocation decisions of main budget actors in the agencies, executive budget offices and legislative budget offices. Therefore, the dependent variables in this study are the annual percentage changes in agency requests, governor’s recommendations and legislative appropriations. All annual requested, recommended and allocated budget amounts in current dollars are converted into 2008

\(^1\) West Virginia Budget Office Home Page: http://www.wvbudget.gov/
constant dollars. Then, the annual percentage changes from 2007 to 2008 and 2008 to 2009 are calculated.

**Independent Variables**

The literature on incremental approach claims that budget actors, rather than working through the whole budget to make up a new one from the beginning, take the budget allocation decisions of the previous year as a reference and make decisions about incremental changes to it (Otto, Dempster, & Wildavsky, 1966). Thus, budget allocation decisions are influenced by the most recent budget allocation decisions. Therefore, in this study the changes in budget actors’ decisions for the previous year are the first group of independent variables affecting the budget allocation decisions. The independent variables in this group are lagged agency request change, lagged governor’s recommendations change and lagged legislative appropriation change.

In addition to past decisions, the three main budget actors in the budget process – the agency, executive budget office and legislative budget office- are influenced by the decisions of the previous actors as the document goes up through the budgeting steps. For instance, while making decisions legislators rely primarily on the recommendations by the governor, giving the governor’s recommendations the dominant role in determination of legislative appropriations for agencies. (Ryu, Bowling, Cho, & Wright, 2008). So, change in the governor’s recommendations is an independent variable affecting the dependent variable of change in legislative appropriations. Similarly, governors make recommendations using budget requests of the agencies. So change in agency requests is
an independent variable influencing the dependent variable of governor’s recommendations.

On the other hand, according to the key idea of performance budgeting, in order to promote high performing budget allocation decisions are made in accordance with performance results. If an agency’s performance is increasing, more budget should be allocated to reward this achievement. However, if its performance is decreasing an agency should be punished with a budget cut. Based on this idea, budget allocation decisions are influenced by the performance results of the agencies. In this research, the aim is to understand to what extent performance measures influence the decisions of the budget actors. So, the independent variable which is the subject of this research is the performance change variables of the agencies. Agency performance measurement results for 2005, 2006, 2007 and 2008 are recorded. Then the performance changes from 2005 to 2006, 2006 to 2007, 2007 to 2008, 2005 to 2007 and 2006 to 2008 are calculated. After that three performance change variables were created. The first one is the performance change from three years past to two years past. The second is the performance change from three years past to one year past. The last one is the performance change from two years past to one year past. Performance measurement results of any particular year becomes available only two years later. However in this study the last two performance change variables –those that include performance change from one year past— are used to understand whether, or to what extent, ongoing performance change can be reflected into budget choices. The influence of ongoing performance, if any can be explained by the anticipated communication channels and information flow within the government.
Although the actual agency performance results are not published in the executive budget document, budget actors can learn about the performance results of the agencies through observation or their own information sources.

Three separate regression analyses were conducted for each of the three dependent variables—change in agency request, change in governor’s recommendations and change in legislative appropriation—to understand the effects of these performance variables when other independent variables are controlled for. The three performance measure indices are separately included in regression models to avoid a collinearity problem. In addition to all the independent variables described above, still other variables influence the decisions of the budget actors. In order to measure those unobservable but fixed effects I created a dummy variable for year 2009.

The first dependent variable to be analyzed in this study is the agency budget request change. The change in budget requests of the agencies can be explained by the change in the main budget actors’ decisions for the previous year and by the change in performance of the agency while other unobservable variables are controlled for by year dummy. So the models for the agency request change are:

\[
\text{Change in Agency Request} = \beta_0 + \beta_1 \text{Lagged Agency Request} + \beta_2 \text{Lagged Governor’s recommendations} + \beta_3 \text{Lagged Legislative Appropriation} + \beta_4 \text{Performance Change } 1 + \beta_5 \text{ Year 2009} + \text{error}
\]

\[
\text{Change in Agency Request} = \beta_0 + \beta_1 \text{Lagged Agency Request} + \beta_2 \text{Lagged Governor’s recommendations} + \beta_3 \text{Lagged Legislative Appropriation} + \beta_4 \text{Performance Change } 2 + \beta_5 \text{ Year 2009} + \text{error}
\]
Change in Agency Request $= \beta_0 + \beta_1 \text{Lagged Agency Request} + \beta_2 \text{Lagged Governor’s recommendations} + \beta_3 \text{Lagged Legislative Appropriation} + \beta_4 \text{Performance Change 3} + \beta_5 \text{Year 2009} + \text{error}$

In these models a positive correlation is expected between change in agency request and lagged change in the decisions of the main budget actors. Between agency request change and performance change a positive correlation is again expected to be found (Otto et al. 1966; Ryu et al. 2008). The correlation between change in agency request and year dummy can be either positive or negative.

The second dependent variable is the change in governor’s recommendations. In this study change in governor’s recommendations is explained as a function of the change in agency request for the same fiscal year, change in main budget actors’ decisions for the previous year and the change in agency performance and other unobservable independent variables controlled by the year dummy. In this research change in governor’s recommendations is analyzed by the three regression models below:

Change in Governor’s Recommendations $= \beta_0 + \beta_1 \text{Agency Request Change} + \beta_2 \text{Lagged Agency Request} + \beta_3 \text{Lagged Governor’s recommendations} + \beta_4 \text{Lagged Legislative Appropriation} + \beta_5 \text{Performance Change 1} + \beta_5 \text{Year 2009} + \text{error}$

Change in Governor’s Recommendations $= \beta_0 + \beta_1 \text{Agency Request Change} + \beta_2 \text{Lagged Agency Request} + \beta_3 \text{Lagged Governor’s recommendations} + \beta_4 \text{Lagged Legislative Appropriation} + \beta_5 \text{Performance Change 2} + \beta_5 \text{Year 2009} + \text{error}$

Change in Governor’s Recommendations $= \beta_0 + \beta_1 \text{Agency Request Change} + \beta_2 \text{Lagged Agency Request} + \beta_3 \text{Lagged Governor’s Recommendations} + \beta_4 \text{Lagged Legislative Appropriation} + \beta_5 \text{Performance Change 3} + \beta_5 \text{Year 2009} + \text{error}$
Based on previous literature the governor’s recommendations are expected to positively correlate with agency request change, lagged change in the decisions of main budget actors and the agency performance change (Otto et al. 1966; Ryu et al. 2008). The governor’s recommendations can have either positive or negative correlation with the year dummy.

The last dependent variable analyzed in this research is the change in legislative appropriations. The next three models state change in legislative appropriations as a function of change in governor’s recommendations for the same fiscal year, lagged change in main budget actors’ decisions, performance change of the agency and the year dummy variable. So the models for the change in legislative appropriations are:

\[
\text{Change in Legislative Appropriations} = \beta_0 + \beta_1 \text{Change in Governor’s recommendations} + \beta_2 \text{Lagged Agency Request} + \beta_3 \text{Lagged Governor’s recommendations} + \beta_4 \text{Lagged Legislative Appropriation} + \beta_4 \text{Performance Change} + \beta_5 \text{Year 2009} + \text{error}
\]

1. Change in Legislative Appropriations = \beta_0 + \beta_1 \text{Change in Governor’s recommendations} + \beta_2 \text{Lagged Agency Request} + \beta_3 \text{Lagged Governor’s recommendations} + \beta_4 \text{Lagged Legislative Appropriation} + \beta_4 \text{Performance Change} + \beta_5 \text{Year 2009} + \text{error}

2. Change in Legislative Appropriations = \beta_0 + \beta_1 \text{Change in Governor’s recommendations} + \beta_2 \text{Lagged Agency Request} + \beta_3 \text{Lagged Governor’s recommendations} + \beta_4 \text{Lagged Legislative Appropriation} + \beta_4 \text{Performance Change} + \beta_5 \text{Year 2009} + \text{error}

3. Change in Legislative Appropriations = \beta_0 + \beta_1 \text{Change in Governor’s recommendations} + \beta_2 \text{Lagged Agency Request} + \beta_3 \text{Lagged Governor’s recommendations} + \beta_4 \text{Lagged Legislative Appropriation} + \beta_4 \text{Performance Change} + \beta_5 \text{Year 2009} + \text{error}

It is expected the change in legislative appropriations will positively correlate with governor’s recommendations, lagged change in the decisions of main budget actors.
and the performance of the agency (Otto et al. 1966; Ryu et al. 2008). The correlation between change in legislative appropriation and year dummy can be negative or positive. Overall, three models for each of the three dependent variables will be analyzed in this study.

**Methodology**

In this study, in order to understand how the performance measurement results are actually reflected in the budget decisions of the main budget actors ordinary least square regression method was used. Multiple regression analysis was conducted to understand whether and how the independent variables explained above influence the behaviors of the budget actors in making budget allocation decisions.
CHAPTE...
skewed variables. In order to reduce this positive skewness the cases having values equal to or larger than 100 were deleted. Table 1 shows the descriptive statistics of these variables after the exclusion of cases with extremely high values.

Based on early incrementalist theory and the findings of a recent study it was likely for agencies, governors and legislators to respectively request, recommend and appropriate budgets increased mostly by about 5 percent (Ryu, Bowling, Cho, & Wright, 2008). Before the exclusion of the outliers the mean values of the budget decision change variables from top to bottom were respectively 16.84, 7.65, 16.76, 34.18, 163.10 and 11.45. These high values are not consistent with the real central tendencies of the change in budget decisions. As can be seen from Table 1, after exclusion of the outliers the mean values of these budget decision variables change between -0.75 percent and 2.19 percent. Although these values are lower than what was stated in the literature, compared to the values of the previous means they are more consistent with the literature when the outlier values are excluded. The minimum values of the six budget decision change variables are around -70 percent and -60 percent. This means that budget decisionmakers decreased their budget allocation decisions as much as 70 percent from the previous year. The maximum values of budget decision change variables are between 73 and 88 percent. Standard deviation of the six budget decision change variables were between 50 and 400 percent in the first data set. After the exclusion of extreme values, the values of standard deviations dropped around 15 to 20 percent.

The exclusion of the outliers in three performance change variables decreased otherwise exaggerated means of performance variables as well. The averages of these
performance change variables are respectively 1.93, 2.73 and 0.50 after the removal of extreme values. Maximum performance decrease is -102.68 percent and observed in performance change 3 variable. In other performance change variables maximum decrease is around -52 percent. The maximum increase in the performance variables changes around 60 and 80 percent.

In addition, the number of observed cases is less in the lagged changes in budget decisions than current budget decision changes. The number of cases observed is lowest in performance change variables. This is partly due to the unavailability of immediate performance results immediately because of the time performance measures need to appear. The number of cases observed is least in the performance change 3 variable which includes performance change from 2005 to 2007 and 2006 to 2008. The reason for so few cases is the frequent change in the performance measures used as a result of changing agency objectives. Most of the measures were used for one or two years and then new ones were determined, Thus fewer observations become available as older data are included in the performance comparison of the agencies.

Models and Regression Results

Multiple regression analyses were conducted to explain how the main budget actors are influenced by agency performance measurement results while making budget allocation decisions for these agencies. For each of the dependent variables (change in agency request, change in governor’s recommendations and change in legislative appropriation) multiple regression analyses were performed to explain the variation in the
budget outcomes in terms of a number of other independent variables (performance change variables, change in the budget allocation decision of the most recent budget actor, change in previous years budget decisions and year dummy).

Table 2 reports the OLS regression results. Nine regression analyses were conducted for three different dependent variables. Based on the p-values of the F-tests all nine regression models are overall significant at $\alpha=0.1$ significance level (p value < 0.1). That means the independent variables as a package have a significant influence on the dependent variable in each model.

Firstly, the change in agency request was explained by three regression models. In these models the change in agency request is formulated as a function of changes in the decisions of budget actors’ for the previous year, change in performance and by other unobservable variables controlled for by the year dummy.

The first regression equation for agency budget request can be formulated as below:

$$\text{Change in agency request} = -0.461 + (-0.90) \text{ lagged agency request change} +$$
$$(-0.60) \text{ lagged governor’s recommendations change} + 0.451 \text{ lagged legislative appropriation change} + 0.017 \text{ performance change 1} + 2.708 \text{ year 2009}$$

For this model, in which agency request change is the dependent variable, adjusted $R^2$ is 0.21. Thus, 21 percent of the variance in agency request change can be accounted for by the independent variables and the remaining 79 percent can be explained by other variables not considered in this study. The performance change 1 variable is the main performance change variable in this study which is the performance change from three years past to two years past. According to p-value of t-test
performance change 1 does not have any significant impact on agency request change (p =
0.867). Based on the results, only the legislative appropriations of the previous year have
significant impact on the change in agency request. The parameter estimate for lagged
legislative appropriation is 0.451. This means for every unit increase in lagged legislative
appropriation change, a 0.451 unit increase in agency request change is expected,
controlling for other independent variables in the model. This implies that agency budget
decision-makers obtain budgetary cues from what their political masters approved in
previous years. As a result, it can be concluded that not the performance change but the
previous year’s legislative appropriations have significant impact on agency requests.

The second regression equation for the dependent variable of change in agency
request is as below:

\[
\text{Change in agency request} = -0.313 + (-0.107) \text{ lagged agency request change} \\
+ (-0.038) \text{ lagged governor’s recommendations change} + 0.397 \text{ lagged legislative} \\
\text{appropriation change} + (-0.061) \text{ performance change } 2 + 2.580 \text{ year 2009}
\]

Similar results were reported in this model in which the dependent variable is
again the agency request change; however, the performance variable is the performance
change from two years past to one year past. \(R^2\) in this model is 0.20 and reveals that the
model explains 20 percent of the variance in the dependent variable. In this model,
performance change variable again does not exert significant influence on the budget
allocation decisions of the agency budget actors. In line with the results of the first
regression model, only the lagged legislative appropriations were found to have a
significant impact on agency budget requests. Also, a positive correlation is found
between agency budget requests and the lagged legislative appropriations.
The third regression equation for the dependent variable of change in agency request is given below:

\[
\text{Change in agency request} = 0.184 + (-0.092) \text{ lagged agency request change} + \\
(-0.067) \text{ lagged governor's recommendations change} + 0.431 \text{ lagged legislative appropriation change} + (-0.053) \text{ performance change 3} + 1.868 \text{ year 2009}
\]

This model’s R² is 0.21, so the model explains the 21 percent of the whole variation in the agency request change. The results are again consistent with the findings of the previous two regression models. The performance change 3 variable which is the performance change from three years past to one year past does not have any significant influence on the agency budget request decisions. While preparing their budget requests, agency budget actors are influenced by the budget appropriation decisions of the legislators for the previous year. The correlation between agency request change and lagged legislative appropriation change is positive.

Therefore, from the results of these three regression models it can be concluded that performance measurement results of the agencies are not used by agency budget actors while preparing agency budget requests. Instead, legislative appropriations for the previous year are taken into consideration and budget requests are prepared based on changes in the previous year’s budget appropriations.

Next, the change in governor’s recommendations in the budgeting process is analyzed by three models. These models explain the variance in the dependent variable of change in governor’s recommendations as a function of change in agency requests,
lagged changes in the main budget actors’ budget decisions, agency performance and year dummy. The first model for the change in governor’s recommendations is below:

\[
\text{Change in governor’s recommendations} = (-0.264) + 0.856 \text{ change in agency request} + 0.513 \text{ lagged agency request change} + (-0.491) \text{ lagged governor’s recommendations change} + 0.038 \text{ lagged legislative appropriation change} + 0.144 \text{ performance change 1} + 1.983 \text{ year 2009}
\]

According to the R² this regression equation explains 62 percent of the variance in the governor’s recommendations change. The results show that performance change 1 variable, which is the change from three years past to two years past, does have a positive impact on the governor’s budget recommendations (p-value = 0.08). This result is contrary to the expectations at the beginning of this study and means governors take into account the performance measurement results of the agencies while making budget allocation decisions. Governors are also influenced by the three budget decision change variables while preparing their budget recommendations. These are agency requests for the same and previous year and the governor’s recommendations for the previous year. A significant positive correlation is found between the governor’s recommendations and the budget requests of the agencies prepared for the same year and the previous year. So, any increase in agency request change for the previous or the same year increases the governor’s recommendations moderately. These results are in line with the previous studies and the expectations at the beginning of this research. On the other hand, governor’s recommendations have a significant negative correlation with their recommendations for the previous fiscal year. This means any increase in the governor’s recommendation for the previous year results in a cut in the governor’s recommendation
for the present year. This negative correlation again contradicts the expectations at the beginning of this study. It is probable that the governor might tighten up agency budgets, over which the governor recommended more budgets the previous year.

The second model used in this study to explain governor’s recommendations in this study is below:

\[
\text{Change in governor’s recommendations} = (-0.390) + 0.871 \text{ change in agency request} + 0.434 \text{ lagged agency request change} + (-0.407) \text{ lagged governor’s recommendations change} + 0.026 \text{ lagged legislative appropriation change} + 0.031 \text{ performance change 2} + 2.731 \text{ year 2009}
\]

This model explains the 61 percent variation in the change in governor’s recommendations. In this model performance change 1 variable is replaced by performance change 2 variable, the performance change from two years past to one year past. Differing from the results of the previous model, in this model the agency performance change variable was found to have no significant impact on governor’s recommendations change (p-value = 0.615). This can be explained by the most recent agency performance results being unavailable to the governor while the budget recommendations are being prepared. Budget preparation in West Virginia starts one year before the start of any fiscal year. Governors submit their budget recommendations for the next fiscal year in December, in the middle of the operating fiscal year. The most recent performance data then available belongs to the previous year. Therefore, only performance data at least one year older than the current fiscal year can be used during the preparation of the next fiscal year’s budget. Other than this, three independent variables are found to have a significant impact on governor’s recommendations. These
are agency request changes for the same and the previous year and the governor’s recommendations. The change in the governor’s recommendations is positively correlated with the first two and negatively correlated with lagged governor’s recommendations. This finding, which is contrary to the findings of the previous studies can be explained by the governor’s attempt to cut the budgets of agencies which received high budget recommendations the previous year.

The third regression model used in this study to explain governor’s recommendations in this study is below:

\[
\text{Change in governor’s recommendations} = 0.042 + 0.849 \text{ change in agency request} + 0.492 \text{ lagged agency request change} + (-0.469) \text{ lagged governor’s recommendations change} + 0.034 \text{ lagged legislative appropriation change} + 0.057 \text{ performance change 3} + 2.315 \text{ year 2009}
\]

This model, according to \(R^2\), explains 62 percent of the variation in the change in governor’s recommendations. The results of this model are the same as the results of the second model for the dependent variable of change in governor’s recommendations. Agency performance change from three years past to one year past has no significant influence on the budget decisions of the governors. Three budget decision variables are found to have a significant impact on governor’s budget recommendations. These are agency request change for the same and the previous year and the governor’s recommendation. The positive correlation between agency request variables and governor’s recommendations is consistent with the literature. The negative correlation between change in governor’s recommendations and lagged change in governor’s recommendations is not consistent with the literature. One explanation for this negative
correlation could be that the governor might reduce his or her budget recommendations for agencies that had had larger budget recommendations the previous fiscal year as noted above.

Based on these three models, it can be concluded that governors use performance measurement results of the agencies while formulating their budget recommendations for agencies. According to previous literature, performance-based budgeting was found to be effective as a managerial tool that only improves managerial information (Willoughby & Melkers, 2000; Melkers & Willoughby, 2005; Jordan & Hackbart, 1999 and 2005).

Budget decisions are influenced by the most recent budget actor’s decision (agency budget request), the previous year’s agency budget request and the governor’s recommendations. Although the most recent budget actor’s decision and the previous year’s agency budget request have a positive correlation with the governor’s recommendations, the previous year’s governor’s recommendations has a negative correlation with the current year’s governor’s recommendations. This finding is contrary to the expectations at the beginning of the research and requires further research.

Finally, the third budget actors whose decision was analyzed in this study were the legislators. The three models below explain the variance in change in legislative appropriations as a function of change in governor’s recommendations, lagged changes in the main budget actors’ budget decisions, agency performance and year dummy. Two models were developed to explain the change in legislative appropriations. The first model is:
Change in legislative appropriation = (-3.167) + 0.566 change in governor’s recommendations + (-0.051) lagged agency request change + 0.286 lagged governor’s recommendations change + (-0.273) lagged legislative appropriation change + 0.183 performance change 1 + 5.520 year 2009

The R-square is 0.29 which means the model explains 29 percent of the total variance in the legislative appropriation change. According to the regression results performance change 1 variable does not have a significant correlation with the dependent variable (p = 0.128). On the other hand, there are three independent variables that have significant correlation with the dependent variable. These are the most recent budget actor’s budget decision change (change in governor’s recommendations), governor’s recommendations for the previous year (p = 0.068) and the previous year budget appropriation. The change in legislative appropriation is positively correlated with the change in the governor’s recommendations and lagged change in the governor’s recommendations. This is in line with the previous literature. On the other hand, the change in legislative appropriation is negatively correlated with the lagged legislative appropriation change. This is contrary to the previous literature and the assumptions at the beginning of this research. Although more thorough future studies are needed, declining statewide revenue sources might have driven legislators to be more conservative in their budget appropriations during the study period in which state governments have been plagued by revenue shortage.

The second regression equation to explain the change in legislative appropriation is below:

Change in legislative appropriation = (-0.018) + 0.573 change in governor’s recommendations + 0.039 lagged agency request change + 0.183 lagged governor’s recommendations
recommendations change + (-0.217) lagged legislative appropriation change + 0.046

performance change 2 +1.012 year 2009

This model explains 24 percent of the variation in the change in legislative appropriation. The performance change 1 variable in the first model is replaced by performance change 2, the performance change from two years past to one year past. However, performance measurement results still do not have significant influence on the budget allocation decisions of the legislators. Two independent variables are significantly correlated with the dependent variable – change in governor’s recommendations and lagged change in legislative appropriation. The change in legislative appropriation is positively correlated with the change in governor’s recommendations and negatively correlated with the lagged change in legislative appropriation. This negative correlation is contrary to the expectations at the beginning of the study as mentioned above.

The third regression model used in this study to explain change in legislative appropriation is:

\[
\text{Change in legislative appropriation} = (-2.790) + 0.608 \text{ change in governor’s recommendations} + (-0.042) \text{ lagged agency request change} + 0.269 \text{ lagged governor’s recommendations change} + (-0.295) \text{ lagged legislative appropriation change} + 0.071 \text{ performance change 3} + 4.462 \text{ year 2009}
\]

The model above explains about 31 percent of the variation in the legislative appropriation change. According to the regression results performance change 3 variable, which is the change from three years past to one year past, does not have a significant impact on the dependent variable (p = 0.301). On the other hand, three other independent variables have significant correlation with the dependent variable. These are the most
recent budget actor’s budget decision change (change in governor’s recommendations, p < 0.0001), governor’s recommendations for the previous year (p = 0.080) and the previous year budget appropriation (p = 0.004). The change in legislative appropriation is positively correlated with the change in governor’s recommendations and lagged change in governor’s recommendations. This result is consistent with the previous literature. On the other hand, change in legislative appropriation is negatively correlated with the lagged legislative appropriation change.

So, from the three models above it can be concluded that performance data do not influence budget allocation decisions of legislators. Their decisions are positively influenced by those of the most recent budget actor prior to their appropriations and change in governor’s recommendations for the previous year. These findings are consistent with a previous finding which shows the crucial influence of governor’s recommendations on the legislative appropriations for state agencies (Ryu, Bowling, Cho, & Wright, 2008, p. 41). In that study it is found that legislative budget actors rely on the decisions of their executive counterparts while making budget appropriation decisions. Change in the legislative appropriations also has significant negative correlation with legislative appropriations for the previous year. This finding is contrary to the previous literature. So, further study is required to investigate this negative correlation.

Overall, the results of these nine regression analyses show that performance measurement results are used only by the governor throughout the whole budgeting process. These measurements are used by the governors as managerial information
improvement only. However, in the agency budgeting process of West Virginia incremental budgeting tendencies are more prominent than performance-based budgeting. Although the performance measurement results are included in budget documents, they are used only by the governor and have no significant influence on the budget decisions of the other two budget actors. As Melkers and Willoughby (2005) stated, the mere presence of the performance measurement results in the budget document does not lead to their use in the budget allocation decisions because budget is usually a political process not a managerial one.
CHAPTER 8: WHY PERFORMANCE MEASURES ARE NOT USED BY
BUDGET ACTORS IN BUDGET ALLOCATION DECISIONS

The Challenges of PBB

This case study on West Virginia states that performance measures influence only the budget recommendation decisions of the governor. Performance measurement results have no influence on either the budgeting decisions of the agency budget actors or the legislative budget decisionmakers. Therefore, the effect of performance-based budgeting is very limited in West Virginia. In this chapter these limitations will be explained by referring to possible threats inherent in performance-based budgeting. In accordance with the literature, I described performance-based budgeting over five stages. So, the challenges of performance-based budgeting which constrain its flawless implementation will be evaluated based on the five stages of the performance-based budgeting process. These challenges will be further clarified with negative examples from the West Virginia budgeting process.

Challenges to Determination of the Objective

Determination of goals is the first part of performance budgeting. It requires decisionmakers to engage in strategic planning, taking into consideration critical issues to be faced, capabilities, and resources to determine the expected results of certain government activities. Short-term and long-term goals are the guidelines for government agencies. When these goals are clearly defined and understood by an entire agency,
including managers and subordinates, they will improve the harmony among administrators at different levels. Furthermore, when all administrators are well-informed about the expected results they can use their discretionary power to address small problems encountered in the execution of tasks and higher-level officers will have more time to deal with more serious issues. However, Schmidtlein (1999) contradicts the assumption that “governments have clearly enunciated and reasonably stable policy objectives” due to the ambiguous and ever-changing character of government objectives (p. 165). The policy agendas and objectives of the governments shift with their frequently changing priorities in a changing world. Therefore, it is difficult to determine stable policy objectives or long-term expected results to guide the government activities in performance budgeting.

In the West Virginia executive budget document discontinuity in the objectives can be observed in many agencies in which objectives change in each fiscal year. The Division of Labor is an example of this kind of agency. Tables 3 and 4 show how the objectives of the agency changed from 2009 to 2010. The Division of Labor and other agencies with inconsistent objectives pose a threat to the implementation of performance-based budgeting. When inconsistent goals and their achievements are reflected in budget choices, wrong performance evaluation results will be matched to new budget choices.

The political dimension of the budgeting process creates a challenge in the determination of the objectives, just as it does in most stages of performance budgeting. It is impossible to separate politics from budgeting because budgeting itself is a political process (Wildavsky, 1984). Though some optimists claim the two elements can be
separated and budgeting can be made more rational, politics has penetrated into the whole budgeting process. As a result, decisions about organizational objectives may change with a new ruling party after elections. Party priorities will be reflected in the objectives of the various organizations at all levels of government. In addition, changing economic, social and political conditions require that organizational objectives be altered frequently; the lack of a base makes “year to year comparisons and long term analysis” more complicated (Smith, 1999). So, the unstable character of the public sector prevents the performance budgeting system from facilitating comparisons of organizational performance. Understanding the political content of agency goals requires further detailed study, and can be the subject of future research. The different agency objectives under an administration dominated by different parties can be analyzed to understand the role of politics in the determination and instability of agency goals.

A similar problem concerns agreement on the objectives. Discussions to make decisions about the results expected from the activities of a government agency can reach a deadlock because of an overabundance of public needs and different priorities. Agency budgets often can finance only a few objectives and are not adequate to satisfy all interests. It is often easy to get agreement on general, long-term goals but when they are translated into annual objectives and activities to accomplish these goals different priorities and approaches inhibit reaching a common agreement (United States General Accounting Office, 1997). Neither in the government nor in the public sphere is there a common idea about the most significant objectives that should be pursued by any government agency in a fiscal year (Schmidtlein, 1999). Therefore, the lack of
commonality about objectives might be a challenge to the implications of performance-budgeting for West Virginia.

The next problem regarding determination of objectives concerns decision-making authority for organizational objectives. Kong (2005) says that although the idea of performance budgeting is raised for rationalizing budget allocation decisions, it does not provide a clear answer to the question: Who has the authority to determine objectives which are good enough to be targeted and commonly agreed upon? On the other hand, Schmidtlein (1999) defines the problem as the challenge of choosing the appropriate hierarchical level at which decisions of organizational objectives should be made. It is sometimes assumed that “decisions on complex issues…can be made at the highest levels of bureaucratic hierarchies if accurate and relevant data are made available” (Schmidtlein, p. 166). However, many times high-level officers lack the knowledge required to make decisions about the local affairs nor do they have time to analyze excessive and costly data prepared by local officers (Schmidtlein). Even if the officers at higher levels had time to analyze the data, their attempts to make detailed decisions about complex lower-level issues, would be superficial and create errors in the governance process. On the other hand, their decisions can be more objective and compatible with the entire jurisdictional priorities. Therefore, it is most likely that they will not address specific needs and problems or make use of certain advantages which can be understood only by lower-level officers engaged in the execution of lower-level programs. In the case of West Virginia, further study is warranted to investigate the extent to which central budget officers utilized performance evaluation results for agency programs.
Challenges to Developing Performance Measures

The first problem in developing performance measures is the difficulty of choosing outcome measures that reflect organizational objectives. While doing this, administrators should shift their focus from activities and outputs which are short-term issues and take a long-term perspective. In West Virginia both output and outcome measures can be observed. Compared to output measures, outcome measures are more abstract and difficult to identify. They are usually about the activities and workload of the agencies whereas outcome measures are the results and impacts of agency activities.

Table 5 shows the performance measures of the West Virginia Office of Miners’ Health, Safety, and Training for fiscal year 2010. The first performance measure is about the inspection of mines, which is an activity of the agency, so it is an output measure. The second performance measure is reducing the accident rate. Although reducing the number of accidents is not under the direct control of the agency, accident reduction can be accomplished through agency activities. Since this is an impact of agency activity it is an outcome measure. Therefore, it can be concluded that West Virginia agencies use both output and outcome measures. The agencies use more output measures instead of outcome measures, the more difficult it can be to overcome the challenges of performance-based budgeting and the less influence performance measures can be observed in the decisions of budget actors.

In national programs it is hard to link the variety of local activities to national outcomes (United States General Accounting Office, 1997). Agreeing on the validity of
outcome measures is another problem for administrators. Program officials and agency staff always tend to oppose the use of measures that reveal deficiencies of their organizations and to insist on measuring the well-functioning parts. They fear performance results will be used against them rather than be used to identify and fix operational deficiencies to improve performance. In addition, during execution of programs, program officials, in order to get high performance scores, may give all their attention to measured elements and to the satisfaction of performance expectations and ignore other unmeasured elements of the program, putting the overall performance of the agency at risk. As a result the program might appear to be high-performing while it actually includes some serious unmeasured performance problems.

The second problem in determining performance measures is unstable organizational objectives as a result of changing priorities of the government. The same measures cannot be used for different objectives, new performance measures must be developed to measure the performance of the organizations and programs when the objectives change. The need to determine new performance measures for frequently changing objectives, when taken together with the difficulty of agreeing on appropriate measures, is a threat to the implementation of performance budgeting. The Division of Labor is an example of unstable agency performance measures with changing agency objectives. In Table 4 the change in the performance measures of the Division of Labor from 2009 to 2010 is introduced.

In West Virginia a substantial number of the agencies change their measures every fiscal year. When a new performance measure is assigned for any fiscal year, the
result of this measure for previous years will be labeled N/A in the executive budget
document. This can be observed in the last measure for FY 2009 and the new measure for FY 2010 in Table 4. As a result, in the absence of performance data the most accessible information they can use while making budget decisions is the budget allocation decisions of the previous budget actor(s) and the previous year. The changing performance measures complicated measuring agency performance changes in this study, so it is expected to be a challenge for the budget actors to understand the performance changes and link them to their budget decisions. These agencies with inconsistent performance measures pose a threat to the implementation of performance-based budgeting in West Virginia.

The difficulty in identifying a quantifiable outcome measure is another threat to the supposed advantage of performance budgeting of enabling performance comparison across years and between similar programs. The objectives of some government organizations are described as preventing rare events and in this case it is hard to develop quantifiable measures for the expected outcomes (United States General Accounting Office, 1997). There is no way, for example, to measure the performance of an organization tasked with preventing terrorist attacks. Although it can be concluded, after an attack has occurred that the organization did something wrong and could not accomplish its objective, it is not correct to assume that the organization is doing its duty well in the absence of an attack.

According to Smith (1999), performance-budgeting is more vulnerable to “threats from fraud, falsification and misrepresentation” than other budgeting systems because of
its complexity and dependence on performance data (p. 4). Intentionally or not choosing wrong performance measures creates serious problems about the accuracy of the performance results and, by extension, in the implementation of performance budgeting. In this way, the performance results will not reflect the performance of the programs with respect to reaching expected goals. Any mistake in determining performance measures creates more serious problems than does a mistake in determining objectives. In the latter instance, although the objectives might not reflect what is really needed, at least performance measures give correct information about them and since the visibility of the objectives is high the problem can be detected easily. However, in determining performance measures, objectives and performance measures are not compatible so performance results collected by measuring something else do not reflect the performance of the program. Further study is needed to understand the level of this threat in West Virginia.

Another challenge to the determination of performance measures is the political character of public budgeting which makes the use of performance measures over political measures difficult (Kong, 2005). When performance measures “reflect political favoritism” they cannot measure the true merit of the programs (Gilmour & Lewis, 2006, p. 743). Furthermore, if the political content of the measures prevails over performance content they become political measures instead of performance measures (Gilmour & Lewis). Politicization of the measures prevents the use of performance budgeting as a tool to improve performance and makes a performance budget a tool in the hands of politicians to consolidate their powers. Future research can be conducted to understand
the political favoritism reflected in the performance measures of the West Virginia state agencies.

**Challenges to Collecting Performance Data**

The most common threat to collecting performance data is the time required for the outcomes to materialize. Output measures are short-term and direct products of program activities, whereas outcome measures, which are the results expected in the long-term, need a longer time to show up. For example, the direct product of a job training program can be the number of people trained or hours of training given. However, the program outcome should be something expected in the long run, like decreased unemployment or increased salaries for program participants. The timeline of most budgeting systems, including performance budgeting, that requires annual or biennial budget preparation and performance reporting is not compatible with the needs of outcome measures that may require longer than one fiscal year to show up. For instance, it can be observed in Table 4 that although a mix of output and outcome measures were used by the West Virginia Division of Labor, the most recent actual performance measurement results available in the FY 2010 executive budget document belong to FY 2008 and only estimated results for FY 2009 are included. Although lagged performance data is used in this study, some of the performance measurement results were still not available even after two years in the West Virginia case.

Another problem about collecting performance data is that some outcome measures cannot be easily observed, even after they are materialized. Although it is easy
to observe a decrease in the unemployment rate just by comparing the numbers of different years, it requires more effort and careful observation to understand the results of a program with an unquantifiable goal like improving community consciousness, restoring a feeling of security or decreasing domestic violence. Some expected results might happen slowly and it will be hard to see any improvement. Something like domestic violence happens out of the public space and prevents collecting data about the real effects of the program. The cases reported to police can be used but since they constitute only the tip of the iceberg they do not give accurate information about the results of the program.

According to Kong (2005), another challenge to collecting data is the cost. Data collection strategies include but are not limited to direct observation, interviews, surveys, questionnaires, and official records. The job of collecting data about organizational or program performance increases the expenditures of the organizations and simultaneously increases the workload of officers. So, collecting data is costly in terms of both money and time.

**Challenges to Analyzing Data and Reporting Results**

The challenge of analyzing data is the process of identifying the real impact of program activities. Kong (2005) stresses the difficulty of determining the causality of outcomes in the existence of various uncontrolled independent variables. Similarly, Schmidtlein (1999) criticizes the general idea about a positive proportion between input and outcome. He cites the roles of uncontrolled variables like economic, political, social,
etc, which also affect the end result of program activities. External factors may influence the results in two ways, they can either suppress or exaggerate expected results of the programs. For example, the activities of a health agency with an objective of creating a healthy society might be very successful in addressing problems and creating solutions some external factors outside the control of the agency, like poverty, environmental pollution and an aging population, may curb the expected result of a healthy society. In this case, although the agency is actually performing well, the negative effects of external factors it will render it unable to accomplish its objectives.

On the other hand, external factors may have positive effects on the expected results. For an agency with goal of decreasing the illiteracy rate in the state, the willingness of illiterate people to participate in the literacy programs, along with the support of dedicated people and volunteers, will increase expected program results. This agency might not be so successful in achieving the same results if it encountered resistance and did not benefit from donations and volunteer work. In this case, although the agency is not necessarily performing well, by the help of the external factors it became successful in accomplishing its objective. Understanding the overall influence of the external factors on the performance of the West Virginia public agencies is not the target of this study and requires further study.

One problem that I encountered during this study was that performance measurement results are reported in different forms. Some results were given in raw numbers and others were reported as percentages. This can be seen in the example in Tables 4 and 5. Although most of the performance measures are recorded as annual
performance measurement results, some performance measurement results are recorded as cumulative (see Table 4). Although almost two-thirds of all performance measures were reported as annual percentages in the West Virginia case, this diversity will prevent the flawless implementation of performance-based budgeting.

Another problem in data analysis concerns technology. Compared to techniques used in the 1990s, the today’s techniques show an enormous improvement in data analyzing technology. However, either because of the unavailability of this high-level technology in every level of government or the incompetency of the officers using it, the employment of technology in data analysis is still below expected levels. The challenge of this technology shortfall in data analysis makes smooth implementation of performance budgeting difficult.

The Challenge of Translating Performance Measures into Budget Allocation Decisions

Regarding the translation of performance measures into the budget allocation decisions I will concentrate on three elements in the executive budget documents, in line with Joyce (2007) who explains the potential uses of performance results in the federal budgeting process. However, since the focus of this research is the budget process at the agency level, the terminology that is going to be used here is going to be different from the one Joyce used. The three elements of the agency budgeting process in which performance measures can be used are agency budget requests, governor’s recommendations and legislative appropriation. In his article Joyce touches on all the possible uses of performance measures in the budgeting process. However, I will use
only performance measures in the budget allocation decisions in order to understand in which ways performance measures can affect the amount of money requested, recommended or appropriated by each of the three institutions.

First, while preparing their budget requests agencies can use performance values to show their accomplishments and to justify their budget estimates and requests submitted to the central budget office (Wang, 2000). Performance measures can be also used at the agency level to make trade-offs between agency subunits and different programs. If it is found that one program is performing better than another, similar one, agency heads will request more funds for the high-performing program to generate more results. Next, in the state executive budget office, while preparing the budget recommendation for the governor and other budget officers, performance data can be used to make trade-offs between different agencies and to determine overlapping services. Based on performance data, executive budget officers are supposed to recommend more money for high-performing agencies and less for poorly performing ones. In addition, performance data is used as a justification of budget recommendations submitted to the legislative budget office. Finally, the state legislative budget office prepares the budget resolution for the legislative committees. It becomes law after it is signed by the governor. Legislative budget officers can use performance data while preparing the budget resolution, the final version of the budget allocations if approved by the legislators and signed by the governor.

The possible uses of performance data in these three stages of state budgeting process are based on assumptions and do not reflect the actual process. The use of
performance data in the budgeting process and as a result, the effect of performance data on budgeting decisions can be limited by the challenge of linking performance values to budget allocation decisions. First of all, Schmidtlein (1999) clarifies the existence of a strong link between input and output by citing the relation between the number of students in an institution and cost. He disagrees with the assumption that performance-based funding will increase incentives to link resources to quality rather than quantity. However, he criticizes performance budgeting for being removed from the realities of the budgeting process and anticipates that performance-based budgeting will fade away because its erroneous structure is a mismatch with the actual budgeting processes.

In the literature, politics are claimed to play an important role in eliminating the impact of performance results on budget decisions. Just like the argued triumph of political measures over performance measures at the development-of-performance-measures stage, the stage of linking performance results to budget, it is claimed that electoral results prevail over performance results. Priorities and policy objectives of the elected party suppress priorities indicated by performance results. In the absence of a systematic methodology to interpret performance results, it cannot be known whether a low-performing program should be penalized by cutting its budget or should be given more money as a result of attributing its low performance to insufficient funding (Kong, 2005). This loophole in the methodology of interpreting performance results is filled by politics. Politicians have a tendency to interpret these results according to their own interests (Smith, 1999). Not surprisingly, if programs or agencies created during the administration of their party get low performance scores, politicians have a tendency to
interpret it as an indicator of need for more funding. However, if the programs and agencies that reflect the priorities of the other party get low scores this is seen as the perfect chance to cut the budget of said programs and agencies and transfer the money to programs in line with their own priorities. In order to understand how the West Virginia case is affected by this challenge further study is required, incorporating the variables of political structure and budget allocation decisions throughout different years as did Gilmour and Lewis (2006).

Overall, challenges to flawless implementation of performance budgeting include shifting government policy objectives; politicization of objectives; politicization of measures, and lack of commonality in measures among different states. Simplicity and inaccuracy of measures prepared by high-level officers without detailed information about lower-level affairs and costly data collection for high-level officers contribute to the problem along with errors of data integrity; need for a methodology or system to translate performance measures into budget allocation; political impact; uncontrollable variables affecting outcome; immeasurable outcomes, and indefiniteness of the time that an outcome needs to materialize. It can be concluded that although performance budgeting is an excellent system in theory there are serious threats to it which prevent it from performing effectively in practice. The threats limit effective implementation of a performance budget. In order to understand how effective these challenges are at disrupting the implementation of performance budgeting it is useful to look at the findings of past research about the use performance measures and effectiveness of performance budgeting to change allocation levels.
CHAPTER 9: CONCLUSION

The aim of this thesis is to understand the influence of agency performance measurement results on the budgeting process in the State of West Virginia. The data used in this research is the original agency performance measurement results and the budget allocation decisions of the main budget actors from the Executive Budget Document of the State of West Virginia. Some studies about the implementation of performance-based budgeting in federal, state and local governments have either surveyed budget officials about the execution and success of performance-based budgeting or focused on the total budget outcomes to understand the influence of a performance budgeting system on budget allocation decisions (Klase & Dougherty, 2008). Until now no study has analyzed the use of performance-based budgeting by focusing on the decisions of the main budget actors in the agency budgeting process. Thus, focusing on the agency budgeting process in this research allowed analysis of the effects of agency performance measurement results on the decisions of main individual budget actors. The empirical method applied by combining agency performance measurement results and the individual budget actors’ decisions offers precise and reliable conclusions about the long standing discussion of the role of performance measurement results in changing the decisions of main budget actors.

Even though they contradict initial expectations, the results show that performance measurement results do influence the budget recommendation decisions of the governor. This finding is in line with the previous literature which cites the use of performance measurement results as a managerial tool to improve information (Jordan &
Hackbart, 1999; Jordan & Hackbart, 2005; Melkers & Willoughby, 2005; Willoughby & Melkers, 2000). However, although compatible with the literature, this confirmed influence of performance measurement results on the governor’s recommendations is a significant finding for the literature on performance-based budgeting for showing the effect of performance measurement results on individual budget actors.

Nonetheless, despite the confirmed use of performance measures by the governors as a managerial information tool, the findings of this present study show that the overall budgeting process in West Virginia also has the symptoms of an incremental budgeting system. This means that budget actors rely on the previous year’s budget decisions and the decisions of the previous budget actors while preparing their own budget decisions. So, the findings of this study for the West Virginia budgeting process fit the literature that confirms the dominant role of budget actors in the agency budgeting process (Ryu, Bowling, Cho, & Wright, 2008). According to the findings, each of the budget actors is significantly influenced by present and previous decisions of the most recent budget actor and his or her own budget decisions for the previous year. Since the agency budget officers are the first budget actors to make budget decisions for the new fiscal year they are influenced by the legislative appropriations of the previous year. So, different from the more recent literature that states the dominance of gubernatorial power in the budgeting process, in this research all the budget actors are found to have significant roles.

In this research the limited influence of performance measures is attributed to the challenges inherent in performance-based budgeting. Further studies are needed to
understand to what extent the West Virginia performance-based budgeting system has been negatively influenced by each of these challenges. Based on the findings of this research either some revisions can be made in the execution of performance-based budgeting in West Virginia to eliminate these challenges or some powerful measures can be taken to prevent their influence. However, since these threats are inherent in the performance-based budgeting system, perfect implementation of this budget system requires reforms and transformation within the budget system itself. Indeed, unless the budget system, process, and structure are ready, willing, and able to apply the results of performance evaluation results, this rational approach to budget decision-making is unlikely to successfully navigate through the entire budget process that is often dominated by politics.
REFERENCES

http://budget.senate.gov/democratic/the_budget_process.pdf


Table 1: Descriptive Statistics of Dependent and Independent Variables

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### Table 2: Regression Results

**Dependent Variable:** Change in Agency Request, # of cases = 108, 112, 107

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**Dependent Variable:** Change in Governor's Recommendation, # of cases = 108, 112, 107

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<td>Performance Change 3</td>
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<td>1.983</td>
<td>0.058</td>
<td>0.350</td>
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<td>2.731</td>
<td>0.082</td>
<td>0.187</td>
<td>Year 2009</td>
<td>2.315</td>
<td>0.068</td>
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<td>Dependant Variable</td>
<td>Change in Legislative Appropriation, # of cases= 108, 112, 107</td>
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</tr>
<tr>
<td><strong>Independent Variables</strong></td>
<td><strong>B</strong></td>
<td><strong>Coeff</strong></td>
<td><strong>P</strong></td>
<td><strong>Independent Variables</strong></td>
<td><strong>B</strong></td>
<td><strong>Coeff</strong></td>
<td><strong>P</strong></td>
<td><strong>Independent Variables</strong></td>
<td><strong>B</strong></td>
<td><strong>Coeff</strong></td>
<td><strong>P</strong></td>
</tr>
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<td>Intercept</td>
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<td>0.164</td>
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<td>Intercept</td>
<td>-0.018</td>
<td>0.993</td>
<td>0.011</td>
<td>Intercept</td>
<td>-2.790</td>
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<td>Change in Governor's Recommendation</td>
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<td>0.539</td>
<td>0.000</td>
<td>Change in Governor's Recommendation</td>
<td>0.573</td>
<td>0.534</td>
<td>0.000</td>
<td>Change in Governor's Recommendation</td>
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<td>0.590</td>
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<td>Lagged Agency Request Change</td>
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<td>-0.050</td>
<td>0.738</td>
<td>Lagged Agency Request Change</td>
<td>0.039</td>
<td>0.038</td>
<td>0.795</td>
<td>Lagged Agency Request Change</td>
<td>-0.042</td>
<td>-0.043</td>
<td>0.774</td>
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<tr>
<td>Lagged Governor's Recommendation Change</td>
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<td>0.068</td>
<td>Lagged Governor's Recommendation Change</td>
<td>0.183</td>
<td>0.187</td>
<td>0.237</td>
<td>Lagged Governor's Recommendation Change</td>
<td>0.269</td>
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<tr>
<td>Lagged Legislative Appropriations Change</td>
<td>-0.273</td>
<td>-0.254</td>
<td>0.010</td>
<td>Lagged Legislative Appropriations Change</td>
<td>-0.217</td>
<td>-0.208</td>
<td>0.033</td>
<td>Lagged Legislative Appropriations Change</td>
<td>-0.295</td>
<td>-0.280</td>
<td>0.004</td>
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<tr>
<td>Performance Change 1</td>
<td>0.183</td>
<td>0.128</td>
<td>0.128</td>
<td>Performance Change 2</td>
<td>0.046</td>
<td>0.044</td>
<td>0.613</td>
<td>Performance Change 3</td>
<td>0.071</td>
<td>0.085</td>
<td>0.301</td>
</tr>
<tr>
<td>Year 2009</td>
<td>5.520</td>
<td>0.154</td>
<td>0.074</td>
<td>Year 2009</td>
<td>1.012</td>
<td>0.028</td>
<td>0.746</td>
<td>Year 2009</td>
<td>4.462</td>
<td>0.127</td>
<td>0.139</td>
</tr>
</tbody>
</table>
Table 3: The Change in the Objectives of West Virginia Division of Labor from 2009 to 2010

<table>
<thead>
<tr>
<th>Goals/Objectives of West Virginia Division of Labor stated in 2009 executive budget document:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve customer service in the Wage and Hour Program.</td>
</tr>
<tr>
<td>Improve compliance to contractor licensing statutes at locations throughout the state where contractors are performing construction work.</td>
</tr>
<tr>
<td>Initiate a first year pilot inspection program to verify the local employment statutes of workers, and report these inspection findings to the appropriate state governmental agencies.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Goals/Objectives of West Virginia Division of Labor stated in 2010 executive budget document:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce by 50% the number of backlogged (pre-2007) wage and hour cases by the end of FY 2010.</td>
</tr>
<tr>
<td>Conduct on-site inspections of possible undocumented work activity within five working days of receiving notice.</td>
</tr>
<tr>
<td>Improve employee accountability for field personnel.</td>
</tr>
<tr>
<td>Improve transmission capability of inspection reports in the Elevator Safety Program.</td>
</tr>
<tr>
<td>Develop and implement on-line systems that permit individuals and businesses to electronically submit renewal applications and pay all DOL fees by FY 2010.</td>
</tr>
</tbody>
</table>


Table 4: The Change in the Performance Measures of West Virginia Division of Labor from 2009 to 2010 West Virginia Executive Budget Document

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Fiscal Year</td>
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</tr>
<tr>
<td>Track Wage and Hour Program cases from initial receipt through the required administrative steps, reaching actionable conclusions within five months of receipt for 65% of the cases by FY2009.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Case decisions within five months</td>
<td>N/A</td>
<td>19%</td>
<td>29%</td>
<td>39%</td>
<td>50%</td>
</tr>
<tr>
<td>Concentrate on contractor licensing compliance by increasing by 65% the number of annual inspections conducted from 3,650 in 2006 to 6,000 by the end of FY 2009.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>On-site contractor inspections</td>
<td>2,260</td>
<td>3,650</td>
<td>4,562</td>
<td>5,795</td>
<td>6,000</td>
</tr>
<tr>
<td>Inspect 19% of the over 16,000 targeted state industries during FY 2008 for undocumented workers, and inspect an additional 19 to 20% each succeeding year.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>West Virginia businesses inspected (cumulative)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>19%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiscal Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduce by 50% the number of backlogged (pre-2007) wage and hour cases by the end of FY 2010.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduction of pre-2007 wage and hour cases</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>20%</td>
</tr>
</tbody>
</table>


Table 5: Performance Measures of Office of Miners’ Health, Safety, and Training for FY 2010

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspect all coal mines and mining facilities as set forth in the West Virginia Code.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Required inspections of mines and facilities</td>
<td></td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Reduce the miner’s accident incident rate each year.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accident incident rate*</td>
<td></td>
<td>4.56</td>
<td>3.60</td>
<td>3.11</td>
<td>3.32</td>
<td>3.10</td>
<td>3.00</td>
</tr>
</tbody>
</table>

* The accident incident rate is based upon incidents per 200,000 employee hours.

Figure 1: The Budget Process Calendar for the State of West Virginia
Retrieved April 30, 2010, from The Budget Process Calendar: