IMPLEMENTING GPRA: EXAMINING THE PROSPECTS FOR PERFORMANCE BUDGETING IN THE FEDERAL GOVERNMENT*

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August 2002

Abstract

The Government Performance and Results Act (GPRA) is the latest in a series of attempts to introduce performance-based management and budgeting techniques at the federal level in the United States. In the past these attempts largely failed due to administrative complexities; lack of investment in managerial, accounting, and information systems; and the absence of institutional incentives to promote gains in economic efficiency. While the GPRA is primarily a management reform, most policymakers view it as the main vehicle by which performance information will be included in the federal budget process. If the GPRA and its related reforms were to succeed in significantly altering the focus of federal budgeting from inputs to outputs and, more importantly, to outcomes, it would have a positive influence for years to come. While we find the objectives of the GPRA laudable, we question whether this current incarnation of performance budgeting can succeed in transforming the traditional focus of federal budgeting from annual appropriations and obligations to multi-year outputs and outcomes.

JEL Classification Numbers: D73, G38

Keywords: Government Performance and Results Act of 1993, GPRA, Performance Budgeting

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We are grateful to Diana Angelis, Jameson Boex, Michael Stroup, and three anonymous referees for their comments and suggestions. An earlier version of this paper was presented at the RAND sessions of the 1998 WEA conference at Lake Tahoe, California. The usual disclaimers apply.

1. Introduction

The objective of this paper is to review the apparent resurrection of performance budgeting in the United States and to evaluate the prospects of success for the Government Performance and Results Act of 1993 (GPRA).[1] Preceded by the Financial Management Initiative (Great Britian, 1982), Programme Management and Budgeting (Australia, 1983), Public Finance Act (New Zealand, 1989) and the Chief Financial Officers Act (United States, 1990), the GPRA is the latest in a series of international management and budget reforms with the objective of shifting the focus of policymakers and budget practitioners from expending resources to providing outputs and services to customers (Mascarenhas, 1996; OMB, 2001a,b).[2] Each of these initiatives shares the common goals of improving decision-making processes between the various branches of government, restructuring management processes to enhance administrative and economic efficiency, and increasing accountability to taxpayers. Curiously, even though its potential impact on the federal budgeting process is significant, the GPRA has received scant attention in the economics literature.[3]

While it may appear to the casual observer that the GPRA is primarily a management reform, we argue that in its implementation, the GPRA is also a budget reform. As early as 1995, the Office of Management and Budget (OMB) stated that efforts were being made with the objective of linking various

[1] See Public Law 103-62 approved on August 3, 1993 for the full text of the Government Performance and Results Act. The GPRA is an amendment to the Budget and Accounting Act of 1921.

[2] In this paper we define "performance budgeting" in the widest possible context as any initiative or reform that attempts to quantify public sector outputs or outcomes and to explicitly incorporate these outputs and outcomes in the budget process.

[3] GAO (1997a, 1997b, 2000) and Jones and McCaffery (1992, 1993, 1997) discuss issues related to the implementation of the GPRA. See Jordan and Hackbart (1999) and Willoughby and Melkers (1998, 2000) for reviews of performance budgeting at the state level.

GPRA requirements to the budget process (OMB, 1995).[4] If the GPRA significantly alters the focus of federal budgeting from annual appropriations and obligations to near and long-term operational and strategic objectives, it is likely to have a positive influence on federal budgeting for years to come. On the other hand, if the GPRA creates rent-seeking opportunities and incentives for federal agencies to understate their capabilities or overstate their resource requirements, then it is likely the GPRA will become another in the long list of discontinued federal budgeting reforms. We believe three key challenges must be surmounted for the GPRA to be considered a success. First, the GPRA should assist in the creation of an institutional framework conducive to forming consensus on a unique set of objectives among conflicting stakeholders. Second, GPRA implementation must support the ultimate stated objective of linking resources to results - or to relate data on program performance to appropriation account structures - for the conjectured efficiency gains to be realized. Finally, the GPRA must overcome a traditional system of budgeting that, while often criticized and the focus of almost continuous reform efforts, has survived to this day (Wildavsky, 1992).

In this paper we review the GPRA and its chances of success given its current structure and the experience of earlier budget reforms in the United States and abroad. In Section 2, we review the key differences between control and performance budgets, noting how performance budgeting reforms are designed to address the incentive structure of control budgets. In Section 3, we briefly discuss lessons learned from domestic and international performance-oriented reforms. We then review the GPRA in Section 4 and follow with a discussion of incentives and the budget process in Section 5. In Section 6, we

[4] Congress intended for the GPRA to improve the effectiveness of federal programs by shifting the focus away from a preoccupation with staffing and activity levels to a broader focus on the results or outcomes of federal programs (GAO, 2000). The current administration has explicitly stated its intent to use the GPRA and other management reforms to explicitly link the allocation of resources to outcomes (Budget and Program, 2000; OMB, 2001a,b).

discuss the challenges of achieving consensus among multiple competing stakeholders and the development of performance metrics. The last section summarizes and conjectures on the future of the GPRA.

2. Are there significant differences between control and performance budgets?

Typically, public budgets serve three different functions: a planning function, a management function, and a control function (Schick, 1966).[5] These functions roughly correspond to the four stages of the budget cycle: executive preparation and legislative review (planning), execution (management), and audit (control).[6] While traditional, control focused budgets are oriented toward the allocation of resources among different expenditure categories, performance budgets instead focus on the outcomes generated by the final production of public goods and services. Performance budgets generally emphasize two key elements: a) outputs, and the inputs required by government agencies to produce those outputs; and b) outcomes which are implicitly assumed to represent consumer preferences for public goods and services. If, as currently envisioned by the OMB and other decision makers, budget requests are to be ultimately tied to outcomes, then the role of federal budgeting and accounting systems will need to shift from principally a control function to more of a planning and management function.[7] The GPRA is one of the primary mechanisms by which this shift in focus is expected to occur.

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[5] Wildavsky (1974) noted that public budgets can be thought of as a series of objectives with price tags attached to each objective.

[6] See McCaffery (1999) for a discussion of the four stages of the federal budget process.

[7] Eventually, the annual performance plan of each agency is to be integrated with the agency=s budget request so as to illustrate the resources requested to meet the performance objectives (OMB, 1995, 2001a).

The planning function of public budgeting emphasizes the allocation of resources among competing public programs and roughly coincides with the concept of allocative efficiency.[8] Traditionally, due the political nature of the planning function, it has resided at the highest levels of government. While the planning function of public budgeting focuses on the inter-program allocation of public resources, the management function instead focuses on the intra-program allocation of resources. The management function can influence allocative efficiency through the reallocation of intra-program resources and technical efficiency through improved management and production techniques. Finally, the control function of public budgeting focuses on the legal, administrative, and other restrictions on the expenditure of public resources and is often thought of as the mechanism by which government is held accountable to the taxpayer.

Control budgeting systems are principally designed to allocate and track expenditures on inputs to ensure fiscal accountability and to minimize the misappropriation of public funds.[9] Control systems typically rely on statutory requirements, administrative procedures, and institutional structures to minimize diversion or misuse of public funds. Departments may argue for greater flexibility and less oversight in the use of public resources in order to respond to what they view as the evolving preferences and needs of their customers. Congress, on the other hand, may feel the need to exercise the power of the purse and increase its restrictions on the use of appropriations and oversight of departmental operations to ensure the appropriate use of public resources and accountability to taxpayers (Pitsvada, 1983, 1998).

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8 See Bruce (2001) for a discussion of the concepts of allocative, distributive, and technical efficiency. The World Bank (1998) and Schick (2001) argue that the budgeting process in an inherently allocative process.

9 See Premchand (1983) and Gianakis (1996) for a discussion.

Ironically, while a control budget's primary function is to insure accountability to taxpayers, this function may be subverted by the focus on expending current resources and maintaining the current level of appropriations. The incentive structure of a control system is largely negative in orientation, in that the non-use or misuse of public resources results in the imposition of institutional (lowered appropriations in succeeding fiscal years) and personal penalties (demotion, reassignment, or, in the worst cases, incarceration). While the inputs in a control system are readily quantifiable and thus can be managed with standard accounting and administrative techniques, the transaction costs of administering a control system may increase over time due to the proliferation of administrative, statutory, and institutional requirements. More importantly, there is no guarantee that control budgeting and accounting systems encourage cost-minimizing behavior.

An example of the perverse incentives created by control budgeting is the "use it or lose it" phenomenon (Niskanen, 1971, 1972, 1975, 1994). Congress typically appropriates monies to agencies on an annual basis to fund operations throughout the fiscal year and may be hesitant to provide supplemental appropriations except in cases of significant national interest (natural disasters, acts of war, or other emergencies). Operating funds not spent or obligated by the end of the fiscal year typically cannot be transferred to the next fiscal year, that is, either the funds are expended or they are lost. [10] Congress also places restrictions on the reprogramming of appropriations (inputs) between programs.[11] Public sector

[10] Multi-year appropriation accounts, on the other hand, may use funds across fiscal years. Procurement appropriations for the Department of Defense, for example, have a five-year life span.

[11] Reprogramming is the transfer of funds within an appropriation to purposes other than those intended at the time the appropriation was requested and approved by Congress. In some instances, agencies are allowed to reprogram resources from one program activity to another as long as the amount of resources does not exceed the threshold specified by the relevant Congressional committee. See Schick (1966), Premchand (1983), among others. The U.S

managers may rationally respond to these incentives by ensuring their appropriations are exhausted by the end of the current fiscal year and by engaging in defensive actions to preserve their current budgetary allocation. Curiously, such behavior is even observed in multi-year program accounts (Wall, 2001).[12]

The incentive structure of the control budget is such that public managers are penalized for identifying and implementing cost saving techniques. Departments that expend all their appropriated resources in the current fiscal year may be rewarded with an equal or greater appropriation in the following fiscal year. On the other hand, departments that realize cost savings through process improvements or managerial reforms may have their budgets cut in the following fiscal year and resources transferred to organizations that met or exceeded their funding levels. Departments with shrinking client bases (agriculture and veterans administration, for example) may respond by expanding their portfolios to retain or increase current levels of funding, leading to complex institutional structures where several agencies offer rival public services. In effect, the institutional structure of control budgeting inadvertently rewards agencies that are over budget while penalizing departments for implementing reforms that improve efficiency.[13] Addressing this moral hazard is one of the primary arguments for implementing a performance budgeting system (Melese, 1997).

Army reprogramming guide at http://www.asafm.army.mil/budget/di/ard/ard.pdf provides an example of this technique.

[12] Wall (2001) finds empirical evidence of a "bureaucratic effect" that significantly increases spending at the end of the fiscal year in multi-year procurement accounts.

[13] An anonymous referee suggests that a significant overview and audit system already exists with the express purpose of mitigating the misuse of public funds. Managers may, as this argument goes, respond to the prospect of institutional penalties by seeking out process and efficiency improving mechanisms to increase the probability of receiving reputation awards or minimizing institutional penalties. We concur that the system is designed to prevent the misuse of public funds but not the complete expenditure of appropriated funds for legal purposes by the end of the fiscal year even though a less than complete expenditure may be sufficient to meet the agency's objectives and

Performance budgeting initiatives attempt to address the input bias of control budgeting systems by shifting the focus from resource allocation to outcome (or output) generation.[14] By shifting emphasis from inputs to outcomes, the planning and management functions of the budget are supposed to gain importance relative to the control function. However, the case for performance budgeting rests on three implicit assumptions: (a) **goal congruence** -- that departments with multiple principals can develop relevant and useful strategic plans; (b) **measurement** -- that goals can be quantified so that success in achieving the goals or outcomes can be checked in performance reports; and (c**) incentives** -- that control budgeting systems can be redesigned to tie budgets to outcomes and sufficient motivation exists for organizations to effectively allocate resources and administer programs.[15] In linking resources to results, the last step of performance budgeting attempts to refocus attention from the control to the management and planning functions.

3. What lessons can be drawn from the U.S. and international experience?

As one of the last major government-wide budgeting reforms of the 20th century, it is useful to adopt two different perspectives in discussing the Government Performance and Results Act of 1993 (GPRA). Viewed historically, the GPRA is the latest iteration in a series of government-wide performance oriented

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Congressional intent. This is a question that awaits further examination.

[14] Activity Based Costing (ABC) may be thought of as an effort to address this problem. Under ABC, input or control budget data (costs) associated with specific activities are aggregated to serve a management function. Ideally, this effort will offer public managers the opportunity to identify the true costs of providing specific outputs. See Brown, Myring, and Gard (1999), Mullins and Zorn (1999), and Williams and Melhuish (1999).

[15] Joyce (1993, 1999) similarly argues that the challenges to performance budgeting are (1) agreeing on objectives or targets; (2) managing costs and results through the measurement of inputs and results; and (3) using performance information in the budget process.

initiatives. Viewed contemporaneously, GPRA is the leading initiative among a host of current federal management and financial reforms. In this section, we examine lessons drawn from previous attempts at budget reform in the United States and other countries.

What lessons can be drawn from previous reforms in the United States? Although the consensus in the literature appears to be that the previous attempts at performance-oriented budget process reform largely failed to meet their stated objectives, we believe that these efforts laid the foundation for the current performance-oriented effort currently underway in the United States.[16] If viewed though a sufficiently long lens, there appears to be a consistently upward trend in the attempts to integrate performance information into the federal budget process.

Several lessons can be drawn from these efforts. First, the effort to implement performance management and budgeting techniques requires a significant investment in accounting and information systems and human capital. If, as in the United States, systems have been developed to allocate and track the expenditure of fiscal resources, and not the influence of these expenditures on outputs and outcomes, then these systems will require modification to link inputs (appropriations and obligations) to outputs and outcomes (acres of forest managed, number of clients served, reductions in specific types of pollution). Second, while the impetus for reform may be a "top-down" initiative, the process and systems must be sufficiently flexible to encompass the diverse inputs and outputs of the various federal departments and agencies. Organizations should be granted sufficient autonomy in the budget process to develop their

[16] See Premchand (1983) and GAO (1997a) for reviews of the Budget and Accounting Procedures Act of 1950. Novick (1965, 1973), Schick (1966, 1973), and Premchand (1983), among others, discuss the Planning, Programming, and Budgeting System. See Tosi, Rizzo, and Carroll (1970), Tosi and Carroll (1971), Morrisey (1976), and Odiorne (1979) for discussions of Management by Objectives budgeting techniques. Novick (1965), Premchand (1983), and Savage and Schwartz (1999) discuss Zero-Base Budgeting techniques.

objectives and to allocate resources across competing objectives in reflection of the priorities of the President, Congress, other stakeholders, and the organization itself. Third, the determination and evaluation of performance objectives requires input from the various stakeholders, to include the legislative branch and, where appropriate, the client base. The effectiveness of the Planning, Programming, and Budgeting and Zero-Base Budgeting systems, for example, were impeded by the exclusion of the various stakeholders in the performance planning and measurement process. When the budgets developed using these methodologies were presented to Congress, they were often misunderstood and viewed with suspicion as products of the executive branch that were developed without the appropriate level of Congressional input. For budget reform to be successful, Congress should take an active role in the continued development of the reform process to ensure that its views and concerns are adequately addressed by the impending reforms.

What can we learn from performance budgeting reforms in other countries? The United States is not the only developed country to introduce significant budget process reforms in the past decade. Several OECD countries, including Australia, Germany, Great Britain, and New Zealand have undertaken reforms with the objective of moving the focus of the budget process from an annual, input-oriented perspective to a multi-year, performance-based focus. Three general trends emerge from these efforts.[17] First, many of these countries have introduced performance budgeting techniques in an attempt to quantify performance and to explicitly link resource allocation with performance.[18] Second, there has been a

[17] Premchand (1999) reviews budget techniques in the United States, Australia, New Zealand, and the United Kingdom. Boex, Martinez-Vazquez, and McNab (2000) examine multi-year budgeting techniques and their application in transitional countries. See also OECD (2002) for a brief review of performance budgeting trends.

[18] Schick (2001), however, argues that while many countries actively compile and include performance information in

tendency to move away from centrally driven budgets to budgets that are created by line departments and ministries. Third, each of these countries moved to highlight, and in some cases, explicitly incorporate, the multi-year budgetary implications of resource allocation decisions.

What lessons do these reforms hold for the United States? First, performance oriented budget reform cannot be successful without reforms in other supporting budget processes. Examining the budget reforms in Australia, Great Britain, and New Zealand, we note that the reform process has been systemic rather than piecemeal.[19] Performance objectives have been tied to multi-year budget estimates that are consolidated in a centralized budget database. The role of the central finance department or ministry has been transformed from one of generating estimates and resource allocations to one of providing budgetary guidance, consolidation, and evaluation of the estimates of the line departments and ministries. The line departments and ministries, and not the central finance department, have assumed the responsibility of generating their budget estimates. While variations exist among the Commonwealth countries, this approach to budgeting appears to be a marked departure from that currently practiced by the federal government in the United States.

Second, as we noted in the preceding section, budget process reform requires a significant investment in accounting and information systems and personnel. This financial investment must be accompanied by an empowerment of line departments and agencies through enhanced flexibility in personnel and other policies. In Great Britain, for example, budget reform resulted in the creation of new task-

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their budgets this does not guarantee that spending decisions are significantly based on performance information.

[19] See Premchand (1990, 1994a, 1994b, 1996) and Joyce (1999) for further information on performance budgeting and budgeting techniques in OECD and other countries.

oriented agencies. The heads of these agencies, which were hired on a contractual basis, were given control over resources and were held accountable for results.[20] At the same time, heads of traditional agencies were gradually granted the authority to determine the pay scales for their employees. Concurrently, the role of central agencies was gradually transformed from centralized management to oversight, audit, and, when necessary, intervention (Premchand, 1999). In Australia, the on-going budget reform process has led the Australian Department of Finance and Administration to offer training programs for the support staff of Members of Parliament. These programs were designed not only to address the need for training for budget analysts in the executive branch of government, but also the legislative branch of government. Supporting this effort was the implementation of the Parliamentary Services Suite, which replaced a number of aging information systems and incorporated financial management, entitlements processing, superannuation and human resource management systems (ADOFA, 2000).

Lastly, devolving authority in the budget process appears to enhance accountability and the transparency of the budget process. In Great Britain, line departments are responsible for determining program priorities subject to general guidance provided by the Treasury. Line departments have the authority to reprogram funds within their departments to concentrate scarce resources on higher priority programs by reducing or eliminating lower priority programs. In this context, departments are responsible for allocating scarce resources to produce the best possible outcomes, so an incentive exists for departments to allocate resources in response to citizen preferences and to conserve scarce resources to

[20] Similar legislation was recently submitted to Congress in the Fall of 2001. The proposed Management Flexibility Act would, in part, treat Senior Executive Service members more like private sector counterparts by using performance standards to hold them accountable. Alternate pay systems are also being considered to attract and retain job candidates (Budget and Program, 2001).

meet program priorities. Departments that achieve cost savings can transfer a portion of the savings to the next fiscal year, a provision that appears to be directly aimed at defeating the "use it or lose it" behavior associated with control oriented budgets. [21] These, and other reforms, attempt to redress the incentive structure associated with control oriented budgets.

4. The Government Performance and Results Act

Signed by President Clinton in 1993, the Government Performance and Results Act is the latest in a long line of federal initiatives seeking to integrate performance information in the federal budget process. [22] Although the GPRA can be viewed as the culmination of a series of government-wide performance budgeting initiatives, it is also the leading initiative among a host of contemporary federal management and financial reforms. Noteworthy among these complementary contemporary reforms are: the Chief Financial Officers (CFO) Act of 1990; the Government Management Reform and Federal Acquisition Streamlining Acts (GMRA and FASA) of 1994; and the Information Technology Management Reform Act (ITMRA) of 1996.[23] The GPRA's ambitious agenda includes three primary objectives: improving congressional decision-making; promoting better internal management of government programs; and increasing accountability to taxpayers.

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[21] Similar recommendations were made as part of the National Performance Review (Gore, 1993).

[22] The GPRA statute amended Chapter 11, Title 31, United States Code to include language directing the OMB to establish "not less than five projects in performance budgeting." Furthermore, the Act states: "Pilot projects in the designated agencies shall cover the preparation of performance budgets. Such budgets shall present, for one or more of the major functions and operations of the agency, the varying levels of performance, including outcome-related performance, that would result from different budgeted amounts."

[23] See GAO (1997a, 1997c), Jones and McCaffery (1992, 1993, 1997, 1999), among others, for examinations of the CFO Act, GMRA, FASA, and ITMRA.

In order to accomplish this ambitious agenda, implementing the GPRA consists of a four-step plan. The first step is for departments to submit five-year strategic plans containing general goals and objectives for all major functions and operations. The second step is for departments to develop annual performance plans expressing these goals and objectives in measurable form or, alternatively, through the inclusion of descriptive statements of minimally acceptable and successful programs. The third step is for departments to deliver annual performance reports to the President and Congress that measure progress toward performance objectives stated in their performance plans. The final step is to link budgets with performance.

Unlike many of the previous performance oriented budget process reforms, the GPRA has been implemented on an incremental basis. We believe that this alone is a significant improvement over the previous performance budgeting oriented attempts at reform. The pilot programs produced valuable information on the obstacles to achieving the stated objectives of the GPRA. An important stumbling block uncovered by the General Accounting Office in the test phase of GPRA was the problem many agencies faced in bringing stakeholders together to achieve consensus on a unique set of agency goals (GAO, 1997a, 1997b, 2000). Before developing performance metrics, agencies must first overcome this problem of goal congruence. Only when the agency, stakeholders, and clients have achieved consensus on a set of objectives can the agency develop metrics to gauge its performance over time relative to these objectives. Progress is also needed in linking GPRA performance goals to agency budget presentations so that the performance and budget consequences of decisions can be more clearly understood (OMB, 2001).

Beginning with the 1999 budget cycle, all federal agencies submitted five-year strategic plans to the

Office of Management and Budget (OMB). In these five-year plans, the agencies attempted to identify their objectives, how performance would be measured, and how the agencies would achieve their objectives over the course of the five-year plan. Concurrent with the submittal of the five-year plans, the agencies also submitted their annual performance plans to Congress. Beginning with the year 2000 budget cycle, agencies delivered their first annual performance reports that documented how well they met the prior year's performance plans. Meanwhile, OMB has developed an overall federal government performance plan from individual agencies' performance plans. These overall performance plans are to be routinely submitted to Congress along with the President's budget. The ultimate objective is to increase transparency by tying annual performance plans to agency budget requests with the initial effort occurring in the President's 2003 budget submittal.

As noted in President Bush's 2003 budget submittal, the ultimate objective is to move the budget debate from "What will the federal government spend?" to "What will the federal government achieve? (OMB, 2002). The Bush administration has continued (and in some ways expanded) the efforts of the Clinton administration to integrate performance information in the federal budget process and to increase managerial flexibility. The performance information from the GPRA process is to be used to score agencies on their performance, allocate (and reallocate) funds among competing programs, and consolidate and terminate unnecessary programs (OMB, 2002).

As discussed in the previous section, past budget initiatives tended to impose unique structures upon agencies in an attempt to capture performance information that proved difficult and costly to transform into the traditional congressional budget presentation framework. Drawing upon this experience, Congress

sought with GPRA to reform the budget process and develop performance budgeting within the existing budgeting structure and cycle. Departments are required under GPRA to develop performance metrics and evaluate their performance relative to those metrics using the basic structures which form the basis for Congressional budget presentations: program activities. Departments are now also required to display expenditures required to achieve performance objectives and to crosswalk performance objectives and the specific budget accounts funding the objectives (OMB, 2001a, 2001b). The hope is that the previous impediments to management and budget process reform can be overcome by working within the existing budget structure. Of course, the danger is that the GPRA will be subsumed by the existing structure, thwarting the objective of linking expenditures to outcomes.

A significant risk arising from the concurrent implementation of these financial (CFO and GMRA) and managerial (FASA and ITMRA) reforms is the potential increase in administrative and transaction costs (See Table 1 for major reporting requirements). In evaluating costs associated with these initiatives, it is prudent to include the opportunity costs involved in complying with these initiatives. Anecdotal evidence suggests that the current burden of satisfying legislative requirements already absorbs valuable resources that, with the proper incentives, might otherwise be invested in improving the quality or quantity of public goods and services.[24] The environment in which GPRA is being implemented may also be an impediment to reform. Over two-thirds of federal workers in financial management positions were aged 45 or older in 1999 and the overall workforce is characterized as having significant skill imbalances relative to work

[24] In 1999, for example, 24 agencies produced audited financial statements, of which 14 received clean opinions. However, this success was, in some cases, attributed to intensive staff efforts to gather and reconcile information from systems that are not yet integrated (JFIMP, 2001).

requirements.[25]

However, we also recognize that for performance oriented reform to succeed, it must be systemic in scope. While significant impediments may present themselves in terms of an aging federal workforce, skills imbalances, and technological obstacles, the GPRA is not a 'stand-alone' reform but a component in a package of reforms with the objective of improving decision making processes and the allocation of resources by federal agencies. We believe that this systemic approach also is a significant improvement over previous attempts at management and budget process reform in the United States. Whether the benefits associated with systemic reform outweigh the transactions costs remains an unanswered, and perhaps unquantifiable, question.

5. Incentives, Performance, and Budgets

While the federal budgeting environment has changed significantly from the time of the Hoover Commission, the tying of monetary inputs to performance outcomes has remained an elusive objective. If the GPRA is to create an explicit linkage between budget appropriations (and obligations) and the outcomes generated by public expenditure, it must assist in the creation an institutional environment that rewards efficiency, transparency, and the prompt, concise, and accurate reporting of costs, outputs, and outcomes. In the absence of such an environment, departments may respond to the current incentive structure by "gaming" their performance reports to present their activities in terms designed to maximize their budgets.

The current challenge facing Congress and other interested parties is to create a system of incentives to solicit the timely and accurate submittal of cost, output, and outcome data which can then be used in the

[25] The average age of the Federal worker was 45.9 years in 1999 and the share of Federal workers eligible for retirement has doubled over the last decade (GAO, 2001).

budget process. Departments, on the other hand, may be focused on objectives other than cost minimization or output maximization.[26] They may instead have the objective of obtaining budgets that provide as much residual funding as possible in excess of the true cost of providing a given level of output.[27] Providing Congress with accurate information on costs and outputs may pose a threat to this objective. If the department provides an output for which it is the sole supplier, it is likely that only the department itself knows the true cost of the output in question. Congress, in this case, may be dependent on the department for the provision of cost data. In an environment characterized by asymmetric information and monopolistic supply, the department may be able to secure a budget that is greater than that desired by Congress (Niskanen, 1971; Miller, 1977; Moene, 1986; Mueller, 1989; Wintrobe, 1997; Claar, 1998). [28]

The task of creating an environment in which resources can be linked to outcomes is daunting. Congress, in effect, would need to contract with the various agencies and departments on cost and performance terms. In many cases, Congress (the principal) could not contract with each department (the agent) on its true objective. Congress could not, for example, enter into a contract with the Department of Defense for a non-quantifiable outcome called "national security." When the outcome is not quantifiable, the principal (Congress) would have to use output or quantifiable performance measures (number of active-duty

[26] An anonymous referee notes that, in some cases, administrators have argued for cost-reducing changes, only to be turned down by Congress as this would adversely impact specific constituencies.

[27] Migue and Belanger (1974) refer to an agency's budget surplus as discretionary spending that may be used to purchase items not directly related to the production of an agency's output. See Wyckoff's (1990) behavioral analysis of budget-surplus maximizing agencies.

[28] Niskanen (1971) and Miller (1977) impose an additional constraint where the department's sponsor presents a take-it-or-leave-it budget proposal. Mueller (1989) and Claar (1998) are among those that have relaxed this assumption. Imposing an additional constraint on the type of the budget proposal does not, given the other assumptions, appear to affect the ability of the department to secure a budget greater than that desired by its sponsor.

soldiers, aircraft carriers, or aircraft-readiness rates) as a means of telling the agent what must be done.[29] However, since performance measures may not always provide the agent accurate incentives, the agent may engage in activities that the principal, if they had the agent's information, would consider suboptimal (Baker, 1992).

In order to solicit accurate information from departments in support of the performance-budgeting process, Congress should consider altering the incentives that influence the behavior of departments in the budget cycle. The incentives-contracts literature is replete with examples of agents modifying their behavior in response to new incentive schemes.[30] As noted previously, the current budgeting system inadvertently creates a perverse incentive that rewards agents (departments) for budget-maximizing behavior (through static or increased funding levels in the next fiscal year) and penalizes agents engaging in cost-saving behaviors. This type of behavior could be attenuated by allowing agents to keep a portion of non-expended resources for discretionary activities.[31] Of course, the principal (Congress) would also have to contract with the various agents on output and performance terms, else agents would then have the incentive to conserve resources by constricting or lowering the quality of output.

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[29] A potential danger lies in that, for some agencies, the link between outputs and outcomes may be weak. Would an increase in active-duty soldiers increase national security? Did improved welfare-to-work services move people off welfare during the 1990s or was this a result of economic growth?

[30] See Holmstrom and Milgrom (1991) for an analysis of multitask principal agent incentives and contracts. Wintrobe (1997) reviews the literature on bargaining games between government agencies and their sponsors while Prendergast (1999) reviews the literature on the provision of incentives in firms. Prendergast (2000) examines the tradeoffs between risk and incentives.

[31] In fact, many mechanisms already exist that could be used for this express purpose. Multi-year budget authority and working capital and franchise funds, already in use for capital and procurement accounts, are examples of how operating funds could be appropriated on a multi-year basis. Whether Congress would be amenable to extending such authority to annual operating appropriations is an unanswered question.

Contracting on cost and performance data would also require that Congress and the executive branch move away from the current, adversarial budget process. Congress can, in the current system, contract with each department on the quantity of output and the price per unit of output. However, in the presence of asymmetric information on costs, monopolistic supply, and the principal contracting on output and unit cost, the welfare-maximizing unit price will be above the agent's true marginal cost per unit of output (Claar, 1998). The contracting process would also have to consider uncertainty in the demand for and production of public goods. The principal, in order to provide the agent with incentives to accurately report their cost information, may have to pay a subsidy to elicit accurate information. It is likely, given the literature on incentives and public sector performance, that Congress would have to offer pricing terms in excess of the true marginal cost of each department to effectively solicit cost and performance information.

Even if Congress were to offer pricing terms in excess of the true marginal cost, the development of performance metrics that identify the influence of public expenditures on outcomes would not necessarily guarantee the adoption of these metrics by department managers. They may, in fact, propose metrics (unit costs, caseloads, and other cost-output information) with which they are most comfortable (See Table 2). They are likely to take action to improve their performance in terms of these familiar metrics, even if such actions may detrimental to those outcomes that are of interest to their stakeholders (Osborne and Gaebler, 1992). Excessive quantities of goods and services whose characteristics are quantifiable and easily monitored may be produced as agents exploit principals who lack the knowledge on the true demand for public goods and services and the costs of producing them. These behaviors favor programs for which metrics are readily available over those whose outcomes are more difficult to quantify. Moreover, in the

presence of asymmetric information, departments may also have the incentive to produce highly differentiated goods and services with characteristics that do not lend themselves to being measured or monitored (Niskanen, 1971). In fact, we can observe some of these behaviors. A recent survey of federal managers suggests that the majority are largely ignoring performance information when allocating resources.[32]

In an attempt to address some of these problems, Great Britain, Australia, and New Zealand now allow departments to retain a portion of unexpended resources that arise due to cost-savings or process improvements. Metrics can be used to identify cost-savings improvements that hold the quantity (or quality) of output constant in the case where outcomes are not readily quantifiable. Where outcomes can be quantified, departments can be rewarded by Congress for the development and use of new metrics that improve Congressional and Administration budgeting processes. By rewarding behavior that results in cost-savings or process improvements, departments are encouraged to improve the efficiency and effectiveness of their operations.[33]

Does the GPRA create an environment conducive to departments accurately reporting cost and performance information to Congress? In its current form, GRPA does require agencies to report cost and performance information to Congress and it is expected that the linkages between cost and performance will

[32] In only six of twenty-eight federal agencies did 51 percent or more of the managers surveyed indicate that they employed performance information to a great or very great extent in resource allocation. In 11 agencies, less than 40 percent said that they employed performance information in this manner (OMB, 2001a).

[33] Three problems remain including monitoring that: a) cost savings awarded are not obtained at the expense of quality; b) awards to individuals do not reduce the effectiveness of team production; and c) rewards are allocated based on internal process (product) improvements - and not on the basis of external (or exogenous) events (Melese, 1997). Whether such savings are included in the base funding level for the next fiscal year is an unresolved issue. If Congress used the savings to lower the base, the incentive to engage in cost-saving or process improvement techniques may be diminished.

develop over time. Congress and the GAO are actively examining performance plans and reports for accuracy and are not solely relying on agencies to accurately state their cost and performance information.[34] Congress, however, does not contract with agencies on cost and performance terms. Agencies are likely to remain focused on appropriations and obligations rather than performance because the Congress continues to make appropriations on an obligation basis (Anthony, 2000). Thus, the incentive remains for agents to maximize their budgets by overstating the true marginal cost of providing public output, increasing the asymmetry of information over time.

We believe that a weakness of the GPRA statute is its failure to address the existing incentives in the federal budgeting process. Without a modification of these incentives, the final step of linking agency performance to budget decisions is unlikely to occur. While the GPRA has been used to establish a framework for reporting cost and performance information, it currently lacks the incentives by which Congress can elicit accurate cost and performance data from departments. Until these incentives are addressed, we believe efforts to use the GPRA to lower costs and improve performance will be disappointing.

6. The Problem of Goal Congruence

While private sector performance can typically be captured in a single measure such as economic profit or return on investment, quantifying the performance of public sector organizations is a more difficult task. Public sector organizations differ from private organizations in two fundamental respects. First, public sector organizations lack a residual claimant. Second, public sector organizations often lack a set of defined

[34] See, for example, http://www.gao.gov/new.items/gpra/gpra.htm for GAO analysis of performance plans and reports.

and quantifiable objectives (Courty and Marschke, 1997). Unlike the private sector where performance is often measured in terms of profit or return on investment, public sector organizations may require a set of metrics against which performance may be measured (Smith, 1996). Developing performance metrics for public sector organizations is a necessary step in the process of linking inputs to outcomes. Developing metrics, however, is only part of the problem. The interested parties must first agree on what is to be measured before metrics can be developed to measure performance.

Public sector organizations, unlike their counterparts in the private sector, may have to answer to numerous, and often adversarial, stakeholders. Each of these stakeholders (principals) may have a different set of preferences on the objectives and activities of each organization in which it has an interest. The existence of multiple, competing stakeholders creates obstacles to achieving goal congruence. That is, with multiple principals, it is difficult to achieve agreement on an agent's goals and objectives. Without goal congruence, developing performance metrics that can be used to evaluate an agent's performance is difficult and contentious (Greiner, 1996).

While the United States adopted multi-principal politics as a founding principle of its system of governance, multi-principal politics also comes at a cost in terms of economic efficiency. In a system where multiple principals compete for the dominance of their set of preferences, resources are allocated to activities that may not be economically efficient. Inefficiencies may arise if the objective of a controlling group of principals is to transfer public resources to its supporters.[35] Rent-seeking behavior by principals can also lead to negative-sum games (Niskanen, 1971, 1974; Dunleavy, 1991). When one set of principals

[35] See Shleifer and Vishny (1993), Mauro (1995, 1998), Tanzi (1998), and Tanzi and Schuknecht (2000), among others, for a further discussion of this issue.

seeks rents from the public sector, this action can motivate other principals to take action to protect their current benefits. The net outcome may be that more resources are used in defensive and unproductive activities (promoting or defending a specific program or activity) than the actual value of the program or activity in question (Krueger, 1974; Bhagwati, 1980; Tullock, 1971, 1993). Achieving goal congruence in is this environment is a difficult task in that it requires an answer to whose preferences will be considered in setting objectives and developing performance metrics.

In order to measure performance, agents must first develop sets of metrics against which the outcomes generated by the agents will be judged. By developing performance metrics, agents are implicitly ranking the preferences of one group of principals over another (Smith, 1996). Which groups' preferences prevail ultimately depends upon the relative political power of the competing principals. If it is still possible to fix the structure of the political game, three potential solutions exist to the multi-principal, multi-dimensional bargaining game. First, one may restrict the principals' incentive schemes so that each principal is allowed to observe and reward only the dimensions of output that are of direct concern to the principal. Second, it may be possible to group principals whose interests are closely aligned. This creates homogenous groupings where the principals can collude to produce the desired result. Finally, more agents can be created by reassigning activities and programs from the current set of agents, thereby reducing externalities among the principals affected by the agents' actions (Dixit, 1997).

Even if we were able to create homogenous groupings of principals or split departments into smaller bureaus with highly specialized programs and activities, goal congruence may still be difficult to achieve. Achieving the economic efficiency improvements that are the motivation for performance budgeting will

invariably require the reallocation of inputs and outcomes, which would favor the preferences of one or more principals over others. Reaching consensus on what objectives should be modified and how progress should be measured is likely to occur in an environment characterized by the presence of concentrated costs and diffuse benefits (Stiglitz, 1998). Although the majority or all the principals may initially support the proposed efficiency improvements, the emergence of concentrated costs, which are borne by a sub-set of principals, may lead to the emergence of an active opposition to the proposed improvements. Ultimately, the supporters of the proposed improvements may suffer from free riding and thus may encounter difficulty in defending their preferences against the objections of those who must bear the costs of the proposed reform (Olson, 1971).

With these problems in mind, we argue that contemporaneous decisions on objectives and performance metrics will shape coalitions in the future. Consider that every four years administrations can come and go, and every two years control of the House and Senate can shift from one party to another. Although those in government at one date cannot commit future governments to abide by their goals and objectives, they can affect the transaction costs of reversing their initiatives. If people are more sensitive to losses than to gains, then losers will invest more in blocking (or undermining) than winners do to achieve gains (Kahneman & Tversky, 1991). Thus, it is conceivable that inefficiency could actually be built into a government program as part of a legislative compromise over the goals of the program.

Arriving at a single set of objectives and metrics may ultimately result from compromise, conflict, and confusion among the competing principals. Nonetheless, by attempting to define goals, and measuring and rewarding outcomes relative to those goals through the budgeting process, performance budgeting

systems seek to discipline public-sector agencies much as markets discipline firms. This approach underlies the contemporary resurrection of federal performance budgeting. Unfortunately, these initiatives often neglect the power of the profit motive, the influence of competition, and the incentives needed to link performance to the allocation of scarce resources.

Does the GPRA enhance goal congruence? As noted above, the development and submittal to Congress of performance plans requires a degree of congruence within each organization. Whether congruence has been achieved between the organizations, Congress, and the Administration remains an open question. The recent change in Administrations has led to a call by Congress for the editing and re-submittal of performance plans so they are consistent with the new Administration's priorities. If congruence had been achieved then the rewriting of performance plans should have not been necessary. If the inability to achieve goal-congruence is in part due to the multi-principal, fragmented nature of the U.S. political system, goal congruence may be indeed quite hard to achieve. We observe, however, examples of democracies were congruence is achieved (Germany, for example, achieves a high degree of congruence through negotiation among major parties), so congruence may be possible, though more difficult to achieve, in the U.S. system. A valuable contribution of the GPRA, therefore, would be the establishment of a formal mechanism by which departments and Congress establish goals, objectives, and metrics that are the foundation of a performance-oriented process. The current vision of the GPRA as a means by which performance information is presented with cost information appears to be a step in the right direction.

Summary and Conclusions

As we have discussed in this paper, the GPRA is a laudable effort to transform the focus of the federal budgeting from inputs and outputs to outcomes. Moving away from the current focus on obligations will be a difficult task. Investments in human capital and information systems will be necessary. Procedures will need to be modified and institutions will require reform. For performance budgeting to succeed, all these steps must occur.

We do not, however, believe that the GPRA, as implemented in its current form, can succeed in transforming the federal budgeting process. The GPRA lacks a mechanism by which the incentive structure of the current budget process can be modified to reward behavior that results in cost-savings and efficiency improvements. Departments, who may suffer budget cuts for accurately reporting their performance, are responsible for reporting their own cost, output, and outcome information to Congress. Moreover, Congress, and departments for that matter, may lack adequate resources to link inputs to outcomes or to audit performance reports. All this leads to an environment where departments may be tempted to focus on those outputs and outcomes that are easily managed and to downplay those outcomes that are hard to measure, let alone monitor.

We have, throughout this paper, developed several suggestions that could improve the chances of the GPRA achieving the stated objective of linking resources to results. First, Congress must address the use-it-or-lose-it incentive by allowing departments to transfer savings between fiscal years. This will require, at a minimum, a more comprehensive multi-year budgeting approach than is currently present at the federal level. Second, Congress should consider additional means of independently auditing departmental plans and reports in a manner consistent with financial audits in the private sector. Third, Congress must

allocate sufficient resources to build the foundations necessary for performance budgeting through investments in accounting and information systems and the adequate training of personnel.

If these steps do not occur, the future of GPRA is not bright. As time passes, departments will learn of the gaming activities of other departments and follow suit. Congress, already deluged with performance plans and reports, will see the amount of data submitted grow significantly. At the same time, the information contained in these reports will become less accurate as departments strive to hide their true demand and cost information. In the end, GPRA, like its predecessors, is likely to be discontinued unless the problems we noted in this paper are addressed. The stakeholders in the budget process should recognize that GPRA has provided lessons upon which the next steps to performance budgeting can occur. The question is whether the stakeholders can achieve consensus to implement the reforms necessary to address these challenges.

Table 1
Time Line for Major Reports

January	February	March	April	September
Governmentwide 5-Year Financial Management Plan (CFO Act)	Governmentwide performance plan (GPRA) Agencies annual performance plans (GPRA) Information technology management report (ITMRA)	Audited Consolidated Financial Statements (CFO Act) Agencies annual performance reports (GPRA) Agencies audited financial statements to OMB (CFO Act)	CFOs' reports to agency heads and OMB (CFO Act)	Agencies' strategic plans (GPRA)

Source: GAO, 2000

Table 2
Examples of GPRA Metrics

- The single objective of the U.S. Department of Defense (DOD) procurement program in FY 2001 was to maximize the percentage of procurement funds requested and appropriated by Congress relative to DOD requests.
- The Health Resources and Services Administration measures program performance by the number of grants made to academic institutions, hospitals, and students in contrast to its mission to increase the number of primary care physicians and the number of minorities in health professions.
- A performance goal of the Health and Human Services' Health Care Financing Administration 2000 performance plan was to reduce the percentage of improper Medicare fee-for-service payments to 7 percent in FY 2000 and to 5 percent in FY 2001.

Source: OMB 2001a, 2001b and GAO (2000).

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