

THE PLANNING - PROGRAMMING - BUDGETING SYSTEM

Paul E. Carey and Roger R. Shipley, Illinois Department of Transportation

The Planning - Programming - Budgeting System (PPBS) is heralded as a revolutionary method for making fundamental decisions affecting the objectives and magnitude of governmental financial support. This paper looks at this dynamic process as a tool that must be used and modified to meet the ever changing demands put on our government agencies. To understand PPBS, it is necessary to grasp its basic concept: accountability. It forces each agency to ask itself: What is our business? PPBS provides a basis for particularizing the answers to this question by clearly establishing a purpose and objectives. Explicit objectives make for a common agency-wide approach toward eventual goal achievement. When used properly, these specific objectives will become standards for departmental self-appraisal and accountability. Implementation of such a program poses unique demands on the existing functionaries of government and the results are potentially far different from those hoped for. Implementation problems are seen as primarily conceptual or operational in nature. Conceptual problems spring from the difficulty in defining concrete, meaningful objectives since they do not always exist, sometimes cannot be articulated, and are seldom agreed upon within the confines of a particular agency. Secondly, operational problems emanate from the bureaucracies inherent resistance to accept change, difficulty in relating programs to specific resources; resources to budget dollars, and development of competent analytical staff to formulate objectives and analyze the programs.

INTRODUCTION

The Planning - Programming - Budgeting System (PPBS), now being considered throughout state governments, and the analytical techniques that underlie it are designed primarily to improve the evaluation of state programs. It is likely to become one of the most significant innovations in planning and budgeting for all levels of government.

President Johnson, when he announced the adoption of the Federal Planning - Programming - Budgeting System, called it

revolutionary, and stated that, "through the tools of modern management the full promise of a finer life can be brought to every American at the lowest possible cost." PPBS is more likely to become part of the quiet evolution in improved government management.

PPBS might seem revolutionary when compared with traditional state budgetary practices. But it is not revolutionary or even startling from the standpoint of today's unprecedented demand on government decision-makers who will, in the years to come, be called upon to make an enormous number of decisions: decisions to recognize or ignore new needs, decisions to abandon, enlarge or revise old programs; and decisions on how to modernize and make more efficient the means of carrying out state programs.

PART I

THE PLANNING - PROGRAMMING - BUDGETING SYSTEM:

KEY INGREDIENTS

An understanding of what a PPB System is, and how it functions, rests upon recognizing the existence of and the interplay of the two key components of PPBS. These two ingredients are:

1. A single concept--deals with the accountability of each department, forms the philosophic base of the PPBS structure.
2. A PPBS language--cites terms which allow PPBS to have a unique vocabulary. There are eight of these special terms: Objectives, Programs, Program Options, Outputs, Progress Measurement, Inputs, Alternative Ways to do a Given Job, and System Analysis.

The Basic Concept: Accountability

One of the many uses for PPBS, and the one receiving predominant attention at this time, is the improvement of individual state departmental operations. Whether the regulation of departmental activities is a key purpose or not, the careful installation of PPBS in each department is essential assuming each department is an indispensable building block in the total system.

The PPBS concept is that each department should be accountable to the Governor and to the people of the state for the production of goods and services. The accountability concept forces each department to ask the question: What is our business? The PPBS concept provides a basis for particularizing the answers to this question: Accountable for specifically what products (goods or services). What PBS continually stresses is the assumption that production of goods and services is the central purpose of departmental operations rather than merely a by-product of other purposes.

The Language of PPBS

Objectives: Given the basic concept, it becomes clear that the central term of the PPBS structure is "Objectives." Each department must generate explicit objectives to make possible a genuine department-wide understanding and, therefore, a common departmental approach toward their achievement. When used properly, these specific objectives will become standards for departmental self-appraisal and accountability. Such standards are quite common for private industry, except that total sales volume is a more readily obtainable index of objectives and goal attainment, than will be available in government.

Allowing for the absence of various profit mechanisms in government, the effect of PPBS will be to bring governmental practice to a somewhat closer approximation of common industrial practice than has been possible before.

Programs. In PPBS language, a program is a package which encompasses each and every one of the departments efforts to achieve a particular objective or set of objectives.

If the objective was to link together through land transportation facilities all urban areas in a portion of the state, the program to accomplish this objective might be a "Supplemental Freeway System."

Currently, most departments use the term program to characterize functions and professional disciplines. Hence, "Purchasing and Inventory," "Data Processing," "Engineering," and many other activities are called programs. Individual activities, functions, tasks, and professional disciplines are very different from the programs in the PPBS sense. The whole PPBS idea is working toward the drawing together and the summation of all departmental efforts to meet particular objectives. In this way each program can be assessed in terms

of overall approach, and costs may be compared with other competing programs. A department with a functional type organization must break down functional efforts and apportion them among programs in order to successfully assess each program.

There is a strong conceptual relationship between objectives and programs. In a PPB System there can be no objectives except those which propose a program to fulfill them. There can be no programs unless they are designed to accomplish explicit objectives.

Program Options. The term "program options" is next in the PPBS vocabulary. Within any department, this term means other possible programs besides those already decided upon. It suggests a comparison of two or more possible approaches (programs) toward fulfilling the same objective. For example, as in the hypothetical case mentioned earlier, suppose that a department wanted to provide a transportation link between urban areas. There are any one of several programs that could accomplish this objective. The department would want to choose the best program for the purpose and to discard alternative programs.

Output. In PPBS language, an output must have all of the following properties:

- . It is a product (either a good or a service).
- . It is produced by a state department or is produced under the Department's auspices.
- . It is a tangible outgrowth of a particular program (i.e., it is the result of a calculated program effort).
- . It is the sort of product which can be appropriately singled out as an indicator of program results.
- . It is considered by the department as satisfying an explicit objective.

This list of properties should illustrate the connective tissue which runs all the way through PPBS. That is, the idea of output is inseparably linked to the previously discussed ideas of objectives and programs. This idea-connection is highly significant for interpreting the PPBS notion of output.

It means that many types of products which the departments have been accustomed to regarding as outputs can no longer be so regarded. In order to be considered an output in PPBS language, the goods or service produced must satisfy an explicit objective and must be an indicator of program results.

The following example shows a few items traditionally considered outputs. Suppose that a department decides upon a program to build supplemental highways. One of the department's divisions place a series of contracts with construction firms. One month later, the department's statistical division prepares and forwards to the director of the department a "construction progress report." Are the contractual documents properly countable as outputs? No! Is the statistical report an output? No! Why? Neither the documents nor the report satisfies our objectives and neither represent an indicator of program achievement. They are intermediate, or contributory products, rather than outputs in the PPBS sense.

What would constitute program achievement and thus be an output in the PPBS sense of the word? In the example cited above, the miles of highways put in place or the number of bridges built would be examples of output.

The distinction between intermediate or contributory products and output is a very critical matter insofar as understanding PPBS is concerned. For purposes of PPBS output, the government's many departments may be regarded as analagous to the separate divisions of any large corporation. The corporate outputs, in any such enterprise, are only those items produced to reach the public. Neither those items consumed by and for the production processes themselves nor those exchanged between the corporate divisions are regarded by the corporation as output.

Progress Measurement. The notion that progress should be measured in some fashion is not likely to trouble many people. The question: "What does PPBS regard as progress in a given program" requires some elaboration.

If output means only those programmatic end-products which satisfy explicit objectives, then program fulfillment must imply that the output which had been planned has materialized. If that is fulfillment, then progress must imply, depending upon that stage the program happens to be in at that time when progress is measured, how closely the production progress matches planned progress.

Input. Of all the terms in the PPBS language, input is probably the easiest to grasp because the PPBS definition is fairly close to the traditional usage of the term. If all of the inputs to a given program were expressed in dollars, the sum would comprise the total costs incurred by the program. In other words, the total quantity of manpower, facilities, equipment, and commodities applied to the program, expressed in either units or dollars, is the program input.

Alternative ways to do a given job. The concept of "alternative ways to do a given job" is input related, insofar as PPBS is concerned. The "given job" means that the output to be produced has already been decided upon. The question at any phase of the program subsequent to the decision-point becomes: Can the production techniques be altered to improve either:

- . The timing of the production?
- . The quantity or quality of the item(s) being produced?
- . The unit or total cost of the production?

Every one of these three questions is input-oriented. "Program alternative" as discussed earlier is output related. It suggests substituting an entirely different program (and therefore different output) for a program already planned or in progress.

Viewed in another way, the first involves policy questions while the second involves operational matters.

Systems analysis: In the PPBS sense, systems analysis is the application of "Cost Benefit" analysis to several areas of the PPBS structure.

From the standpoint of the individual state department, two PPBS phases are especially open to cost benefit analysis. One is posing an evaluation of program alternatives, i.e., determining the cost benefit advantage of shifting to different output programs to meet objectives. The other is the measurement of progress in a given program. In either case, the function of the systems analyst is to diagnose the cost benefit situation as it exists, so the department head may have the opportunity to make decisions on a cost benefit basis.

PART II

WHY SHOULD A PPB SYSTEM BE ADOPTED

Traditionally, our budget has been organized by executive departments and their subdivisions. Within this organizational structure, expenditures emphasize personnel, equipment, commodities, or other, depending on the activities of the department. The expenditures for these resources have usually been projected for only one year. Such a system is input oriented. That is, it focuses on the resources that must be brought together to carry out the departments programs and objectives.

For several reasons, this approach is no longer adequate for the analysis of our state expenditures. First, the name or even the apparent mission of a department is usually not sufficient to describe what it does. Second, numbers or types of personnel reveal little of the functions they perform. Third, a one-year budget throws little light on the significance of planned expenditure decisions, the effects of which may be spread over the next decade or beyond. Fourth, and most important, it does not tell us whether we are accomplishing our objectives or whether we are spending the proper amount of money on alternative programs. Thus, a budget should be a financial expression of a program plan.

Until now, however, program review for decision making has been concentrated within too short a time period. The objectives of department programs and activities have not been specified with enough clarity. Accomplishments have usually not been specified and alternatives have not been analyzed adequately or presented for consideration by top management. In most cases, the future costs of present decisions have not been systematically analyzed. In short, planning and systems analysis have had too little effect on budget decisions or vice versa.

The adoption of a Planning - Programming - Budgeting System should help to remedy these shortcomings. It is designed to provide line managers, the department heads, and the Governor with information and analysis that will assist them in analyzing state objectives and in deciding on the use of resources among competing claims to meet these objectives. PPBS is designed to facilitate budget decision-making by utilizing more useful program categories, by in-depth analytical studies of alternatives, and by comparison of systems costs over a longer span of time with planned benefits or accomplishment.

The PPBS has three requirements:

1. The existence in each department of an analytic staff to do continuing in-depth analyses of the department's objectives and of its various programs to meet these objectives.
2. The existence of a multiyear planning and programming process that presents data in meaningful categories essential to the making of major decisions by department heads, the governor, and the State Legislature.
3. The existence of a continuous budgeting process that can take broad program decisions, translate them into more refined decisions in a budget context, and present the appropriate program and financial data for action to the governor and the legislature.

PART III

IMPLEMENTATION

By now it should be obvious that PPBS is not simply a proposal for the improvement of public administration or planning that is easily defined, readily installed, and promptly effective in operation. On the contrary, from initial concept to final implementation, the project raises difficult and important problems. These problems must be anticipated at the outset, but this does not seem to have happened in the initial enthusiastic acceptance to date by the Federal Government. The system poses unique demands on the existing functionaries, and the results are potentially far different than those hoped for.

PPBS is viewed here as another attempt at "rationality", closely related to the ideal of comprehensive planning. A rational decision is defined as one that: (1) establishes goals and objectives after observation; (2) designs alternative means to accomplish these objectives; (3) predicts all consequences of each alternative; and (4) selects the preferable alternative in terms of the most valued ends. The necessity of a greater rationality is underscored by the increasing complexity of government programs and the unprecedented demands upon government decision-makers. The problems are greater than ever before, and the traditional methods of allocating scarce or limited resources are often no longer adequate for the

complex tasks now facing our government leaders. More rational decisions are sought because they are either more efficient, more economical, more objective, more effective, or more in the public interest. Clearly they cannot be all these things, and we quickly realize that the rationality sought is that of specific interests. The dominant interest may be termed the taxpayer-consumer, who seeks the maximum possible services per tax dollar spent. Interests such as those of legislators (who seek patronage and contracts) and bureaucrats (who seek more pay for less work) resist the assertion of the taxpayer-consumer interest, and therefore PPBS.

Difficulties with implementation of PPBS may be divided into two major categories - conceptual and operational - with further distinctions being made as to short-range and long-range problems.

Conceptual Problems

The conceptual problems are those encountered in designing the program budget and relating it to decision-making requirements. Included here are the fundamental questions of the aims and functions of government, its constituency problems that demand government action, and the processing of data that are needed in decision-making. First, the determination of objectives is a basic step in the PPBS (and the rationality model). This poses a unique set of problems at the outset. To begin with, societal goals are rather elusive. Ends are rarely agreed upon among individuals, departments, or in government as a whole, and they possess dynamic properties. Moreover, societal goals are often substantially different from individual departmental objectives. In short, concrete meaningful objectives do not always exist, sometimes cannot be articulated, and seldom are agreed upon even within the confines of a specific department.

Relating means to ends is also a prerequisite of "rationality" and, therefore, of PPBS. Even if we had specific objectives that were agreed upon, the knowledge of effective means to achieve them is overwhelmingly inadequate. Herbert A. Simon has thoroughly covered the conceptual problems of relating means to ends, illustrating that the means-ends hierarchy must be employed with considerable care and sophistication if it is to have any validity. The objections to the means-ends scheme that are applicable here include (1) the ends to be attained by the choice of a particular alternative are often incompletely or incorrectly stated through failure to consider

the alternative ends, thus obscuring the comparative element in decision-making; (2) a complete separation of the factual elements from the value elements is impossible; and (3) the role of the time element in decision-making is obscured, thus blurring the differences between short-run and long-run affects. The connections between organizational activities and ultimate objectives are not always clear, indeed cannot be so, given the complex nature of the constraints operating upon any organization. Sometimes the means are unknown, and sometimes there are internal conflicts and contradictions among the means selected. Decision-making in general and PPBS in particular are thus restricted in their application of the true rational model because means and ends cannot always be effectively compared.

We have then an administrative proposal that insists upon a performance never before attained, except in theoretical terms. One can only wonder how ends will be selected, means evaluated, consequences evaluated, and so forth, given the existing limitations placed on all would-be decision-makers.

Operational Problems

Most of the factors mentioned previously are inherent problems of PPBS, in that the requirements of the system dictate performance never before or seldom attained in practice. Another major set of problems are operational in nature, centering around managerial implementation and acceptance in the period after adoption.

For PPBS, it is no small chore to relate objectives to specific programs, assuming of course that we know the objectives. The structural elements around which a program budget operates must be built. Ideally, program elements should be designed to be relatively independent, but interdependencies will no doubt be exposed that will require continual modification.

Another severe problem is relating the specific programs to resource requirements and the resource inputs to budget dollars. The task is first to compare alternative programs with respect to both costs to be incurred and gains to be achieved. Then translate the program requirements, into budget dollars projected several years ahead. The conversion of manpower, facilities, and other resource requirements into budget dollars, projected several years ahead, sounds much easier than it is likely to be in practice.

If the proposed new tool is to be something other than an exercise in arithmetic, it must gain acceptance by the operating departments, the legislative bodies, and probably numerous interest groups as well. It is not enough to invoke the sacred words of "economy," "efficiency," "better decisions," or "total welfare." PPBS is heralded as a revolutionary method of making fundamental decisions affecting the objects and magnitude of governmental financial support. What this means is that it will be construed as a threat to existing, familiar, and manipulative institutional arrangements, and will therefore incur opposition from the bureaucracy itself, as well as from outside. A key fact is that any bureaucratic institution is going to oppose change, partly because of uncertainty and partly because of a desire to hang onto those things that are known. Aside from the stated objectives, there is an overriding desire to maintain and enhance the power and prestige of existing institutions. These cannot be overemphasized, for they play a crucial role in any reorganization effort. This is not to say that major administrative innovations have not taken place, but that they encounter very strong resistance, at least initially.

In addition to generating acceptance, which may be accomplished over a period of time, an even more immediate need is to develop the analytical staffs to help formulate those objectives and analyze programs. Extensive educational efforts and strengthening of staff capabilities will be required in the executive departments, budget offices, and other staff agencies. This is a big assignment, considering the inadequacies mentioned previously.

A corollary problem is the fact that public administrators and legislators have little experience in developing, evaluating, and using long-term cost estimates. What this means is that the old budget structure will co-exist with PPBS. The legislature will continue to use the input-oriented categories to which it is accustomed. Since PPBS will not coincide with the annual budget structure, the obvious result is an enormous amount of paperwork and calculation.

A last important question to consider is how forthrightly a long-range expenditure program should be laid out. By projecting expenditures accurately, there may be an emotional response to a program which endangers it. If a decline in expenditures is projected, for instance, affected groups may try to alter the plans. Clearly major budget decisions are not always made on the basis of rational examinations of costs versus benefits. Elected officials are not inclined to commit

themselves to long-range expenditures because a commitment would declare their stance, which they would prefer to leave ambiguous on many issues.

CONCLUSION

One must conclude that PPBS has many shortcomings, although its attempts at normative decision-making may be desirable. There is no disagreement about the need for new decision-making tools, only a caution that the PPBS Framework alone will not solve the immense problems facing us. It is hoped that working with PPBS will result in a greater awareness of ends, means and consequences, needs, and resources, all of which will facilitate decision-making within departments. Its attempt at quantification of costs and benefits may lead to more sophisticated comparative efforts, particularly the use of mathematical models. Perhaps the basic advantage of PPBS is in the forced examination of ongoing activities in program terms. This is in direct contrast to the present approach of incrementalism, where we do not evaluate what has already been approved and is operational. Such an examination is bound to reveal problems heretofore unrecognized.

Although a strict adherence to PPBS is deemed both impossible and undesirable, I am urging modifications in the present procedures. Perhaps the most essential ingredient in the implementation of PPBS is acceptance at the level of each line and staff unit and on the part of elected officials and throughout government of the value and need for the tremendous amount of detail and effort being imposed from above. If these factors can be demonstrated for each participant, decision-makers can definitely benefit from the efforts.

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