

PPBS AND THE CHOICE OF POLICY ALTERNATIVES

by

Paulos Milkias

ABSTRACT

The research traces the evolution of PPBS through early reform movements. Case studies of the New York Bureau of Municipal Research, the Borough of Richmond, the United States Department of Defense and the Canadian Treasury Board are conducted because of their special significance.

The study is divided into two parts. The first part describes the circumstances leading to the evolution of PPBS. Similar reform movements that were going on in Canada are briefly discussed and a special effort is made to assess the impact of the transplantation of PPBS in the Canadian system.

The second part attempts to portray PPBS decision making both in theory and practice, the main aim being to relate PPBS policy alternative selection to political reality. An empirical study was conducted in the Canadian Treasury Board to test several hypotheses that portray PPBS as a hybrid rather than a rational or an incremental budgeting model.

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**PLANNING - PROGRAMMING - BUDGETING - SYSTEM
AND THE CHOICE OF POLICY ALTERNATIVES**

by

Paulos Milkias

Thesis Advisor — Professor Thomas Bruneau

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PART ONE

I. INTRODUCTION

II. EVOLUTION OF PPBS — A HISTORICAL ANALYSIS

I. INTRODUCTION

i. Significance of the Problem — On August 25, 1965, the United States President Lyndon Baines Johnson endorsed what he called, "a very new and very revolutionary system of Planning, Programming and Budgeting through the vast federal government — so 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,"¹ — and directed the integration of PPBS into the Executive Branch. As Mr. Simon Reisman, Secretary of the Treasury Board disclosed in a Senate hearing on the 6th of February, 1969, "the Treasury Board first got actively interested in PPBS in 1965 and has been planning its introduction since that time." "Perhaps," added Mr. Reisman, "the words 'planning its introduction' understate the range of progress already made. Departments have been working with this system for quite a little while now, and the five year program is part of it."² It should also be noted specifically that Mr. Trudeau, the Prime Minister of Canada, has shown in his policy statements before the New Year that Canada is to follow this popular PPBS crusade.

1 - Bureau of the Budget, Planning, Programming and Budgeting System Bulletin No. 66-3, (Washington, D.C., Oct. 2, 1965).

2 - Government of Canada, Proceedings of the Special Committee on Science Policy, The Senate of Canada, No. 26, Queen's Printer. (Ottawa, 1969), pp. 3697-3698.

Prior to 1965, however, despite the fact that the technique was already in practice at the United States Defense Department, there were very few written articles dealing with the overall objectives and workings of PPBS. But since then, this situation has changed drastically. PPBS has captured the interest of administrators, politicians and academicians to the extent that there has been an outpouring of articles, studies, and books on various aspects of PPBS, from both its broadest and narrowest angles. The most important of these new materials include: the December, 1966 issue of Public Administration Review, which was devoted to a symposium on PPBS; a series of hearings held by the Sub-Committee on United States National Security and International Operations during the summer and fall of 1967; the February, 1969 Proceedings of the Special Committee of the Senate of Canada on Science Policy; a Symposium on "PPBS Reexamined" in the March/April, 1969 issue of Public Administration Review; and valuable books on PPBS compiled by Enke, Miller and Lyden.

These articles and books which have appeared since 1965 in almost avalanche proportions have both ardently supported and harshly attacked this supposedly "new discipline". Some consider it "a revolutionary development in the history of government management". Others belittle it and refer to it as purely "impractical". Still others comment, "there is nothing new in PPBS; it is hardly different from what we have been doing until now." In this interesting controversy,

however, the main aim of PPBS — referred to by former United States President Johnson in his March 17 message as "the ability to develop objectives and goals precisely and carefully and then examining in every case alternative means of achieving them" — seems to be ignored. It is by analyzing the practical implications of this cardinal but largely-neglected area, that the thesis initially aims to contribute to knowledge.

ii. Statement of the Problem — The purpose of this study is to trace the evolution, purposes, procedures, techniques and formats of PPBS, and to test its strengths and weaknesses as a tool for the choice of policy alternatives. More specifically, the study will attempt to answer the following questions:

- (1) Is PPBS a system that was suddenly conjured up by business-minded scholars to portend a radical change in the central function of government budgeting, or is it a result of reform movements anchored to half a century of tradition and evolution?
- (2) What are the major purposes of PPBS?
- (3) Does PPBS policy-making method correspond to the "Rationalistic Model"³ or the "Incrementalist Model"?⁴

3 - Rationalist Assumptions: (i) Classification of values and objectives are important for empirical analysis of alternative means; (ii) Policies are formulated through means - ends analysis; (iii) It is after objectives are isolated that means are sought; (iv) A good policy is one whose ends can be achieved through objectively-evaluated means; (v) All relevant factors have to be considered to make a comprehensive analysis; (vi) There should be heavy reliance on theory — see Charles Lindblom, "The Science of Muddling Through," Public Administration Review, XIX (1959), pp. 79-88.

4 - Incrementalist Assumptions: (i) Rather than attempting a comprehen-

- (4) Has the adoption of PPBS techniques and formats improved budgetary policy-making procedures?
- (5) Does the use of PPBS policy-making procedures, techniques, and formats violate any of the commonly-accepted standards of Western democratic values and processes?
- (6) What are the acknowledged virtues of PPBS? What are its deficiencies?

iii. Hypotheses — As the problems contained in this study came more clearly into focus, certain hypotheses emerged and had a significant influence on both the review of literature and personal interviews conducted. In order to maximize the returns from the research, the following hypotheses have been tested as part of the major effort:

1. In practice, PPBS policy-making method does not fall into the category of the Rationalistic Model, as is often advocated by its proponents; nor does it fall into the category of the Incrementalist Model. Rather, it is a hybrid of the two.

sive evaluation of alternatives, a decision maker should focus only on policies which differ incrementally from existing policies; (ii) only a small number of policy alternatives should be considered; (iii) for each policy alternative, only a restricted number of "important" ends should be evaluated; (iv) there is no one decision or "right" solution but a never ending series of attacks on the issues at hand; (v) for the sake of manageability, the problem is continuously redefined, allowing means-ends and ends-means adjustments; (vi) decision making is remedial-geared to the alleviation of present, concrete social imperfections rather than to the promotion of future social goals. Ibid.

2. The selection of PPBS alternative policies is influenced by the anticipated reactions of the Superiors or Co-equals of the Decisional Unit.
3. The selection of PPBS alternative policies, far from being merely a matter of cost/benefit, cost/effectiveness or cost/efficiency analysis, is directly or indirectly influenced by the polity, the bureaucracy, the media, the general public, clientele, etc.
4. In PPBS policy making, when a current decision can be related to past decisions, alternative selection tends to follow the pattern established by precedent.
5. Even if it is assumed that all relevant factors will be considered in the choice of means to an end, members of the Decisional Unit do not generally agree on the objectives and goals to be achieved.

The hypotheses have been examined against information gathered from current documents and literature and the results of an unstructured interview form directed to government officials who have access to information pertaining to PPBS in the U.S. and Canada, and specifically in the Canadian Treasury Department. In addition, a special effort was made to acquire ideas and opinions of prominent personalities in the academic world.

iv. Assumptions — This study was based on the assumption that PPBS policy making in one form or other will continue to be a fact both in the United States and Canada.

v. Scope of the Study — The study followed the evolution of PPBS from early reform movements until the present time and has, of necessity, given more attention to PPBS in the United States, where it was, in the first place, conceived and nurtured. But the empirical findings were based on research in the Canadian Treasury Board. Thus, the study concentrated more on PPBS than on in-depth studies of any organization or nation. Accordingly, the Bureau of Municipal Research, the Borough of Richmond, the United States Department of Defense and the Canadian Treasury Board were selected — not at random, but for their direct or indirect effect on PPBS or its antecedents. In all cases, enough sample material was obtained from organizations mentioned.

The study is divided into two parts. The first part tries to trace the evolution of PPBS through early reform movements; it describes the circumstances that led to the executive budget movement, object-of-expenditure budgeting, functional budgeting, program and performance budgeting, and finally, PPBS. The reform movements in this part are discussed under the subtitles of the 'control orientation', the 'management orientation' and the 'planning orientation' or PPBS.

Similar reform movements that were going on in Canada are discussed in the last chapter of the first part, and a special effort is made to assess the impact the transplantation of PPBS has made on the Canadian political system.

The second part attempts to portray PPBS decision making both in theory and in practice. The main emphasis in this part is to relate PPBS policy alternative selection to political reality. The conclusion is reached after reading available literature and assessing empirical data gathered in the Canadian government. I take all responsibility for the views reflected in these concluding paragraphs.

vi. Definitions of Terms

Alternatives are relevant propositions that will enable an organization to meet its objectives.

Annexes are lists of resource costs that provide information for all resource categories.

Cost-data budgeting is an attempt to discard itemization by objects (which is the essence of object-of-expenditure budgeting) and instead concentrate on coordinated functions in the allocation of scarce resources.

Costs are quantified estimates of expenditure associated with specific programs.

Decision as it is used here denotes the four characteristics described by Simon:

Each decision involves the selection of a goal, and a behavior relevant to it; this goal may in turn be mediate to a somewhat more distant goal; and so on, until a relatively final aim is reached. In so far as decisions lead toward the selection of final goals they will be called 'value judgements'; so far as they involve the implementation of such goals, they will be called 'factual judgements'.⁵

Decision algorithms are means of measuring the effectiveness of Programs in meeting specified objectives. In systems analysis, there are two approaches to decision algorithm. One assumes that a specific pay-off is adequate and uses decision algorithm to indicate programs with the least cost, while the other assumes that costs are fixed and employs decision algorithm to indicate a program with maximum benefits. In most cases, however, the two approaches are combined in the measurement of Program Performance.

Decision making and Policy making, in this study, are used synonymously. It is recognized that some writers distinguish the two reserving decision making for choices that involve conscious action and are subject to sanctions and policy making for a collectivity of intersecting decisions that has no choice-making unit in a position to decide for all participants.⁶ In order to avoid further confusion, (for most academics the two are the same), by decision making and

5 - See Herbert Simon, Administrative Behavior, A Study of Decision Making Processes in Administrative Organization, New York, Macmillan, (1957), pp. 4-5. See also Herbert Simon, The New Science of Management Decision, New York, Harper (1960).

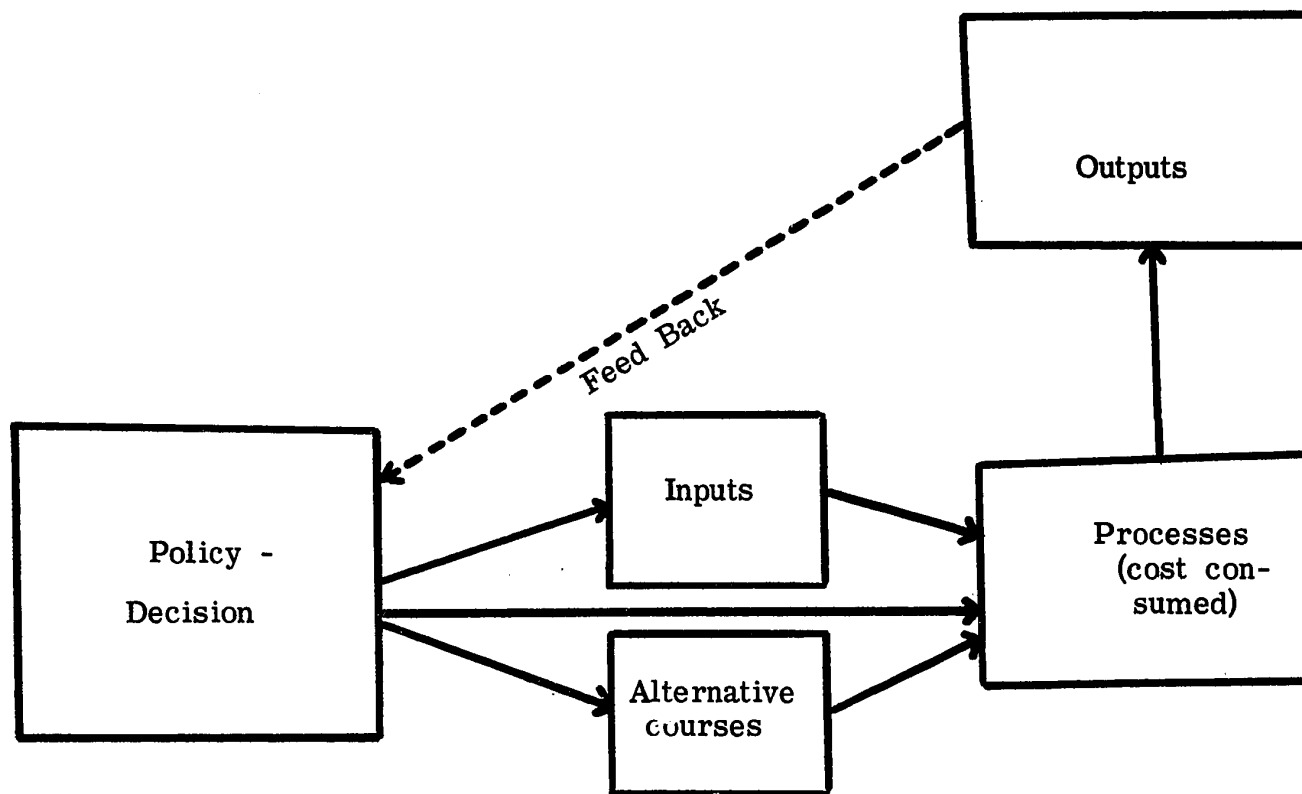
6 - For example see David Brybrooke and Charles Lindblom, A Strategy of Decision: Policy Evaluation as a Social Process, New York, Free Press (1963), p. 249.

policy making we mean a process that selects a problem and produces a limited number of alternatives from among which a particular choice is made for implementation and execution.

Five-Year-Force-Structure and Financial-Program is another name for Planning-Programming-Budgeting-System. The term was widely used in the Department of Defense during the McNamara days.

Functional Budgeting as used here denotes a budgeting system that had activities or functions as its major aim in the allocation of expenditures.

Input-Output-Processes — The following diagram shows the relationship between input-output-process and decision-making as used in this thesis:



Inputs are public resources allocated for consumption, in order to achieve specific objectives.

Outputs are accomplishments achieved in accordance with specifications established in the objectives of listed programs.

Process is the method of producing outputs. (Inputs are consumed through processes to produce outputs.)

Object-of-Expenditure Budgeting was a budget system that was an outgrowth of the reform movements of the early 1900's. Object-of-expenditure budgeting primarily aimed at assuring accurate and uniform expenditure accounts based on specific objects, rather than aiming at comprehensive central planning by the executive branch.

Objectives are precise statements of the goals of an organization, government, department or agency. By objectives we mean specific levels of aims in line with general policy.

Planning-Programming-Budgeting-System is a budgetary process that has replaced traditional government budgeting in both Canada and the United States (at least theoretically). The traditional process did not: (1) contain precisely articulated statements of agencies' goals and objectives, (2) indicate program accomplishments, (3) put the previous year's budget on equal footing with the following year's budget, (4) have a long time horizon, and (5) spell out a full range of relevant alternatives. PPBS, on the other hand, promises to convert the traditional budgetary process, by: (1) assuring a choice of valid, comparable alternatives for meeting specified objectives; (2) putting the previous

year's budget on equal footing with the following year's budget in the allocation of scarce resources, (3) indicating program accomplishments, (4) introducing analytical techniques into policy definition and program review, (5) restructuring budgets so that they are output oriented and costs are associated with output, and (6) requiring a longer planning horizon of five years or even "as much as ten years".⁷

Program Budgeting and Performance Budgeting are distinguished as budgetary processes with different approaches and functions;

(1) Program budgeting aggregates expenditure information into broad classes while Performance budgeting itemizes information into small units; (2) Program budgeting deals with policy alternative issues at high governmental level, while Performance budgeting deals with particular departments. (3) Program budgeting deals with actual choices of alternatives, while Performance budgeting deals with the methodology to be utilized in budgetary allocations. Except in some cases, (where the connotation is the same), we have avoided using "Program budgeting" synonymously with "Planning-Programming-Budgeting-System". We shall further clarify this in the study.

Program elements as used here denote the smallest units of Program outputs.

Programs are project "packages" by which similar missions are aggregated into broad functional areas.

⁷ - Gene Fisher, "The Role of Cost-Utility Analysis in Program Budgeting," in David Novick (ed.) Program Budgeting (Cambridge: Harvard University Press, 1965), pp. 47-48.

Resource Category is used to denote either a unique type of input or homogeneous groupings of related inputs.

Trade-off Functions are utilities or benefits connected with each program.

vii. Method of Data Collection — In reconstructing cases and analyzing PPB systems of policy analysis, a nonstructured interview was used. Before this decision was reached, several empirical approaches were pondered.⁸ But the approaches used in policy decisions and the points made out of them seemed to raise serious doubts as to the validity of the conclusions reached. In this field, little research has been actually conducted. The empirical enquiries, when attempted at all, were engaged in studying the processes of decision-making, their possible consequences, their organizational sources and so on. Even the scientific studies of March and Simon, in Organizations, can be criticized for being guided by data based on empirical studies conducted by others.

The approach found most appropriate for our study was that of William J. Gore.⁹ Gore selected field offices in the state of

8 - A few of the approaches considered were those of: Richard Snyder, "A Decision Making Approach to the Study of 'Political Phenomena'", in Roland Young (ed.), Approaches to the Study of Politics, Evanston, Illinois: Northwestern University Press, 1958; Herbert Simon, Administrative Behaviour, A Study of Decision Making Processes in Administrative Organization, op. cit.; also, "An Introduction to the Theory and Measurement of Influence", H. Eulau and M. Janowitz (eds.) Political Behaviour: A Reader in Theory and Research, Glencoe, Illinois, The Free Press, 1956.

9 - William J. Gore, "Administrative Decision Making in Federal Field Offices," Public Administration Review, vol. 16, Autumn, 1956.

Washington. As a pioneer study, he invited six federal administrators to serve as his advisory panel in setting up his research design. Together, they planned a preliminary study to answer such questions as:

- (1) What kinds of individuals (in terms of organizational status and power) participate in decision making; what channels or patterns of relationships do they use to interact with one another; and what means of communication are used to collect and distribute information about problems which require decisions?
- (2) What kinds of values receive consideration as a basis for making choices between alternative courses of action?
- (3) What forces, pressures, or circumstances produce situations where it is either expeditious or necessary to make decisions?¹⁰

Understanding the methodological difficulties of researching these queries, Gore selected a case history technique as being best suited for his study. However, we find that there were several shortcomings in this method.

Gore's advisory panel constructed categories of what they considered to be important decisions of each field office. The categories "included twenty classes of decisions such as budgetary, procedural, program and structural."¹¹ Then, eight field officers representing

10 - Gore, op. cit., p. 281.

11 - Ibid., p. 282.

the multifarious activities of the federal government were selected for research. Next, interviews followed to obtain one case history for each category of decision from each field office, totalling 160 case histories in all.

The shortcomings are obvious. In the first place, it would be assuming too much to expect that the case histories collected could be easily assimilated by the decisional categories. The administrators interviewed were unable to mention a specific decision for a specific category, thus making it difficult to narrow down the scope of the study. In addition, the administrators were quite at a loss when it came to details of certain pertinent information on decisions made. This confusion may be partly because of administrative secrecy, and partly because details of information on decisions that were once vividly in an official's mind might have been forgotten or confused as new decisions were made.

After analyzing the pros and cons of Gore's approach and finding that it left certain key questions unanswered, a preliminary study was made to ascertain more precisely how to conduct this study. I found it quite adequate to rely on available literature for the historical analysis of the evolution of PPBS. But for PPBS decision making, its deficiencies and prospects, the custodian of PPBS in Canada, the Department of the Treasury Board, was selected.

Nonstructured interviews were used in collecting data to reconstruct cases of PPBS alternative policy selection. The reason for

dropping the questionnaire and structured interview was the fear that, in a political question directed to civil servants bound by the Cabinet-government tradition of keeping official decisions secret, the response would be inadequate. Although United States Civil Servants are neither by tradition nor by actual experience as politically neutral as Canadian Civil Servants (who are still influenced by the British system of unwritten usages), even Gore found it hard to get answers to some sensitive questions.

The question of language is also important. For instance, there is serious doubt if the concept of 'programmed' and 'non-programmed' decisions would mean much to most administrators.¹² Nor would decisional algorithm for that matter. The only way to get around this difficulty would be to explain the terms in advance, but that would be self-defeating, since it would definitely influence the answer.

The unstructured approach used in this study requires the interviewer to collect his data from the respondent's comments. It, of course, assumes that the interviewer has the notion of what information he is after. This method, with some modification, is based on Jahoda, et al., who points out that "interviewers using this method generally have in mind a list of points to be covered but no formal set of questions, so that they can be flexible in following the leads given by the respondent."¹³

12 - It may be a little amusing to find, for example, what Simon's thought-provoking theory of 'satisficing' or Schick's term of PPBS decision being 'teleetic' would mean.

13 - Marie Jahoda, et al. Research Methods in Social Relations, New York, The Dryden Press (1957), p. 622.

The investigation in my thesis shows that each interview tends to be somewhat different since one respondent describing and commenting on a case of budgetary decision making gave a more complete explanation than another. In addition, due to the fact that the unstructured interview is less restrictive than other data-gathering techniques, it allows the interviewer to probe deeper into the unanticipated comments of the respondents. For example, while a highly-informative senator who, at the beginning, claimed to be a non-specialist on PPBS policy analysis was giving his free comment, he mentioned how cost-audit and cost-benefit analysis would be useful, had it not been for the difficulty of the Canadian government being "multi-disciplinary". Being unrestricted by a formal questionnaire or sets of questions, the interviewer interrupted the senator with apology and asked what the last statement meant. The senator mentioned how some programs that should have become obsolete long ago still continue. Some programs, he said, are "redundant" and "duplicated". Again the interviewer apologized and asked why he thinks they are "redundant" and "duplicated". And here the senator came up with a ready example. He mentioned the case of the Atomic Energy of Canada which he said "was legally established in 1952 but was not once audited in 18 years except a brief scanning in 1962." "This," he went on, "is a multi-dollar and one of the most costly Canadian projects." The interviewer went on to ask what he thought the reason was. And the senator continued, "because very few Members of Parliament feel

competent to deal with the professionals. They feel 'How do I challenge them?'" Thus, a new case illustrating a different aspect of the difficulty of putting PPBS cost/benefit analysis to application was constructed. It is highly doubtful that the distinguished senator would voluntarily divulge this information if prearranged series of questions were used in the interview.

My interview proceeded as follows. An official was asked to describe the work of his office or division in connection with the study under investigation. This approach has a dual purpose. First, it corroborates the interviewer's understanding of the work conducted in the division or office in question. And second, since an unstructured interview is used, it builds up the official for the interview.

Once this stage of the interview is reached, the respondent is asked what budgetary decisions he or his associates had to make. The answers at this point are usually far from meaningful. But they provided a case for deeper probing. If no case is mentioned, the respondent is asked for an example. Questions were sought to reconstruct a case, but at no time was a case tipped to the respondent for comment.

From my experience, the best way to ask a question without influencing the respondents conclusion is to pose such questions as, "What was the step that was taken next?" or "What action followed?" In most cases, the respondent describes a case in such phrases as, "It was decided that, of all possible courses of action, this was found

to be the best." Such a statement suggested that policy alternatives, in one way or other, were formulated and chosen. Then the interviewer followed up the statement above and asked what he meant by "possible courses of action". Sometimes, it had been necessary to ask more direct questions such as "What were the other possible courses of action?" and "How were they derived?" Throughout the interview, utmost care was taken not to lead a respondent to make a reply that would conform to what he thought was desired. Even in the last case, once the respondent indicated that other alternatives existed, it meant that the matter was open for further questioning without biasing the intent of the interview.

After deciding how I was going to conduct my interview, I wrote letters to ten prominent officials and five academic specialists and posted the letters with a summary of my project. My letters to the officials asked for brief interviews, while my letters to the academic specialists aimed at acquiring an assessment of my thesis proposal and their special comments on the subject matter, so as to enable me to lay a building block for my theory. The letters were written directly (with some reservation, of course, since I had a speculation that they would be too busy to comply with my requests). However, to my surprise, the result was overwhelming. All contacted showed great interest in the project and I was soon flooded with letters. The following few letters show the extent of the response received:

Syracuse University
The Maxwell School of Citizenship and Public Affairs, Syracuse.
Office of the Albert Schweitzer Professor in the Humanities

February 16, 1970

Mr. Paulos Milkias
Department of Political Science
Faculty of Graduate Studies and Research
McGill University
Montreal 110, P.Q.
Canada

Dear Paulos Milkias:

Yours of February 6 received. It is a pleasure for me to receive such letters, gratifying to know that my work has diffused so widely and is respectfully received and influential. On the other hand, a request such as yours makes me feel humble, even unworthy — or worse, fraudulent — because I am not able to respond very meaningfully or helpfully to a request such as yours.

Despite the fact that I have now edited two symposia on PPBS — one in PAR 2 for 1969 in addition to the one for 1966 that you cite — I am by no means an expert on the subject. My peculiar role and function in public administration seems to center upon the fact that I know a little bit about everything, rather than a great deal about anything in particular. That is, I am in this sense a "generalist" and my mission seems to be that of having and conveying a general sense of what is going on in public administration, and how it relates to events and ideas normally considered beyond public administration.

I have reviewed your dissertation proposal. I judge it to be a satisfactory and promising one. Your hypothesis (page 4) I found especially interesting. It had not occurred to me to put the matter as you do: that in practice PPB is or will become a compromise between the Rationalist and the Incrementalist methods of decision making. That is, I had known or thought that this was true; it had not occurred to me explicitly to relate my feeling or thought to the two Models.

As I recall, I gave you a "thumbnail" version of my general point of view orally when I visited Montreal. In brief:

(1) I don't think PPBS is as new as it has been represented by its proponents and enthusiasts. Professor Frederick Mosher has quite properly called attention to the very substantial amount of similarity with the Program Budgeting movement of the decade previous.

(2) On the other hand, PPBS has obviously added new tools and concepts. These most prominently and certainly come from Economics, but they relate to other intellectual developments such as the diffusion of Systems Theory.

(3) No doubt the proponents exaggerate what has and can come out of the movement. On the other hand, I expect that the result, the residue, will be an advance upon old methods of budget making and decision making.

I may add here that in my opinion the alleged success of PPBS in its original habitat, the Department of Defense, has remained too much an unexamined phenomenon. The argument against PPBS has too often taken the form that, while it has been undoubtedly successful in the Department of Defense, this doesn't mean that it can be generalized to other and often quite different sorts of governmental activities. We need a re-evaluation, with the perspective that time and distance gives, which will determine whether and in just what ways PPBS really was an advance in decision making in the Department of Defense. This in itself is worth a dissertation (to say the least of it).

(4) The immediate effect of "forcing" PPBS on agencies across the spectrum in the federal government no doubt resulted in the first instance in a great deal of waste effort, frustration, and dishonesty. My strong impression is that what has happened is that "two sets of books" are now kept. The motions of PPBS have now been gone through to conform to the demand for compliance. On the other hand, because of inertia, disbelief and so forth the agency has continued in fact to make its budgetary decisions as it has always made them.

Naturally, as Editor-in-Chief of the Public Administration Review, I am hardly unbiased. On the other side, it is reasonable to presume that you have perused it rather thoroughly in connection with your study. However — I call to your attention the fact that there is considerable material in PAR beyond the symposia themselves. There are occasional essays, book reviews, letters to the editor, and whatnot that bear importantly upon what has happened in the United States. Not all of it carries the PPBS label. I call attention, for example, to the writings of Amitai Etzioni and of Yehezkel Dror which deal with decision making and policy analysis; but the authors are really concerned with many of the same problems and issues that PPBS addresses.

It was a pleasure to meet you and I hope that your study is concluded on schedule and fulfills not only the function of advancing your understanding but the understanding of all of us.

All best wishes.

Sincerely,

(Signed) Dwight Waldo
Professor

P.S. Should you wish to do so, you may quote my remarks.

World Bank
International Bank for Reconstruction and Development
International Development Association
1818 H Street, N.W., Washington, D.C.

February 17, 1970.

Dear Mr. Milkias:

Your recent letter to Mr. McNamara inquiring about the programming, planning budgeting system he instituted in the Department of Defense has been referred to me.

Two of the most relevant volumes in this field are "Decision Making for Defense," by Charles N. Hitch and Roland N. McKean, University of California press and Hitch's "Economics of Defense in the Nuclear Age," Harvard University press. As you may know, Mr. Hitch worked very closely with Mr. McNamara on this problem.

Also, there is a very good analysis of the PPBS system in the federal government that appeared in the magazine called "The Public Interest" for summer of 1966. The magazine's publication office is at 404 Park Avenue South, New York, N.Y. 10016.

I hope these suggestions will be helpful.

Sincerely,

(Signed)

Thomas A. Blinkhorn
Public Affairs Specialist

Mr. Paulos Milkias
Department of Political Science
Faculty of Grad. Studies and Research
McGill University
Montreal 110, P.Q. Canada

THE SENATE

Canada

Ottawa, February 18, 1970.

Mr. Paulos Milkias,
Department of Political Science,
Faculty of Graduate Studies and Research,
McGill University,
Montreal 110, Quebec.

Dear Mr. Milkias:

Thank you for your letter of February 6th received on my desk in Ottawa this morning, in other words, 11 days after it was written.

I am most interested in the fact that the Faculty of Graduate Studies and Research at McGill has assigned you the problem for a thesis entitled "PPBS and the Choice of Policy Alternatives". I have read your outline with a great deal of interest and must congratulate you on tackling a difficult but, nevertheless, important problem.

With respect to being able to help you, I am not sure that I am the man that could be of very much help. I certainly would be glad to see you if I am in Ottawa at the time you happen to be here I must say from the beginning that I am far from an expert, in fact I am very much of a layman in this highly-technical discussion. My own view, based on quite a number of experiences in business and having been involved in the Parliament of Canada since 1955, I think the Planning-Programming-Budgeting System is almost a must in long-range programming. But it is not the only system. I think it is a useful tool to use in making long-range plans and more and more today, we must make long-range plans, otherwise we are in trouble. The fact that we may have to modify plans two, three or four years after they have been made, doesn't invalidate the plans at all because in these days of such rapid technological change, it is more often than not likely that plans will be modified. But it is not likely that the goals will be modified, simply that the road to the goals may be arrived at through a different mechanism of approach.

More and more governments are using the PPBS System and, of course, the man who really introduced it was a tremendous success; in the American program it was Robert Macnamara and it had probably its finest fruition in the space program and the spinoff from the utilization of this program in the American Space Program is only now beginning to be realized by many government officials and they are gradually trying to evolve some of the same techniques of public administration as were applied so successfully in the space program.

I am convinced that one of the great challenges facing our society today and particularly our democratic government is the challenge of technology and how it can be controlled in the interest of the people. The easy-line direction of technology is for the technocrats to take over and for them to become the chief formulators of policy. I think it is inevitable that they will play an increasingly important role in the future over what they have done in the past and the challenge to people who believe in the democratic system is to find the methods by which technology can be controlled. The PPBS System is just one of the mechanisms of the new type of governmental machinery that is being used in the financial areas.

. . . Again I would say that I doubt that I could be very much help to you but if you would like to spend a few minutes with me and we can find a mutually-satisfactory time, I shall be glad to do so.

Yours sincerely,

(Signed)
Donald Cameron.

University of California, Berkeley

Graduate School of Public Affairs

Office of the Dean

Berkeley, California

February 25, 1970

Mr. Paulos Milkias
Department of Political Science
Faculty of Graduate Studies and Research
McGill University
Montreal 110, Quebec
Canada

Dear Mr. Milkias:

I appreciate your kind letter.

I am enclosing my latest article on program budgeting, which contains my current sentiments. I can add nothing to it at the present time. Your research project looks most promising. Good luck!

Sincerely,

(Signed)
Aaron Wildavsky, Dean

AW/od
Enc.

Office of the President of the Treasury Board
Cabinet du Président du Conseil du Trésor

Ottawa, March 2, 1970.

Mr. Paulos Milkias,
Department of Political Science,
Faculty of Graduate Studies and Research,
McGill University,
Montreal 110, Quebec.

Dear Mr. Milkias:

Further to our recent telephone conversation I am informed that Mr. Bruce MacDonald, Director General of Budget Coordination, Programme Branch, is to contact you (if he has not already done so) to arrange a meeting to discuss your thesis.

I trust that you will receive all necessary information in this regard. Please keep us informed on the progress of your thesis. You might send Mr. Drury a copy of it when completed, for his own interest.

Yours sincerely,

(Signed)
Peter Dunn,
Special Assistant.

As soon as dates for interviews were set, the unstructured interview discussed above was used to examine the applicability of PPBS system of policy formulation and selection in relation to the Government of Canada in general, and the Treasury Board in particular. In probing this matter, the interview sought answers to several questions. In asking the questions I have not followed any specified pattern. For example I did not seek to test hypotheses one through four in order. I asked questions at random and waited for spontaneous developments. Sometimes, a set of questions satisfied two or three hypotheses. My questions mainly concerned policy formulation and selection, and were set as follows. In order to test the 3rd hypothesis, for example, I usually posed questions such as:

PPBS Policy Alternative Formulation

How is PPBS alternative selection initiated? Does it begin as a result of action taken above or below the hierarchy of the Treasury Board or agency? Does it begin as a result of action initiated from outside the Treasury Board? What action follows? On awareness of a problem, is there a delay, a period of consultation, deliberation and investigation?

To test the 2nd hypothesis, I usually asked:

Once the problem is recognized, who defines or delimits the subject? Do certain administrators or officials assume this responsibility? Is there a stable (established) decisional unit to handle the problem? Does a stable decisional unit begin to function automatically when

the need for decision or when the problem is recognized? Is the decisional unit influenced by a leader, or are the members treated as equals?

Is the decisional unit invested with full authority to explore every facet of a problem, or is its authority limited to certain areas of the problem?

Why did it become necessary to select these specific members of the decisional unit? Were some or all of the members selected because of their knowledge of the problem, qualifications or specialization? If so, do these factors influence or produce alternatives?

Again to test hypotheses 3, I asked:

Approximately how many alternatives are formulated for one PPBS policy analysis? Are the possibilities seemingly exhausted, or does this stage end when it appears an alternative is found which satisfies the requirements of the problem?

How much time is spent at this stage? Are regular conferences or meetings held to search for the suggested alternatives? Do informal meetings or discussions take place? If such are held, who calls them? What are some of the controversial issues involved? How are they resolved?

To test hypothesis 4, I posed the questions:

What are the communications used in this stage? Are formal communications or reports used? Are informal communications, such as telephone calls, used? How frequently do the members communicate with one another? Are alternatives suggested by the decisional group as a unit, or do they originate individually? Do they use manuals for guidance?

If the decisional unit is only one person, such as the Secretary of the Treasury Board, does he by himself formulate alternatives, or does he need assistance from others?

What do you think are the sources of alternatives: (1) Experience? (2) Precedent? (3) Innovation? (4) Training (Specialization)? (5) Organizational policy? (6) Manuals?

Are further investigations undertaken to find additional alternatives?

My questions, when an opportunity allowed, were direct. For example, if the event being described had relevance to, say, hypothesis 2, I usually asked:

How much effect does the anticipated reaction of the decisional unit have on alternative formulation of policies? If it does affect, how does this come about?

Do you think there is any indirect participation in the formulation of PPBS alternatives? If so, how does this come about?

In this stage, is there a conflict of interests or perceptions between generalists and specialists or line administrators and staff administrators?

PPBS Policy Alternative Selection

To test hypothesis 3, in alternative selection the following questions were normally posed:

How much deliberation takes place during the selection of PPBS alternatives? Is each alternative carefully explored? Are investigations and studies made to determine which alternative is more feasible? Are all possible consequences considered for each alternative, or is some alternative immediately chosen and defended as the best solution?

Do such factors as intuition, moral concepts and political considerations condition the selection of an alternative?

Is an alternative selected because it seems to satisfy the problem, or does the decisional unit rely on apparent chance in choosing an alternative?

To test hypothesis 2, I then asked:

Is an alternative sacrificed because of an anticipated reaction?

To test hypothesis 4, I asked:

Is PPBS alternative chosen because of some experience or precedent

in the previous years? Is an alternative based on similar decisions made in the office?

Is an alternative chosen due to organizational policy or because of some reference in organizational manuals?

To test hypothesis 3 further, some of the questions asked were:

If there are doubts about what seems to be the best PPBS alternative, is an attempt made to find other relevant alternatives?

And then for hypothesis 2:

Are some members of the decisional unit more active and influential than others in policy decision?

Are participants other than the members of the decisional unit consulted because of their specialization?

Is the final selection of an alternative made by an individual or by consensus?

In case of conflict or deadlock in PPBS policy decision, does it become necessary for the official at the next highest level to arbitrate the differences or to make the decision? Are there appeals upwards when one or several members of the decisional unit do not agree with the choice? Do the decision makers consider the fate of an alternative in terms of whether it would or it would not be passed in the legislature?

To test hypothesis 5, I asked the following:

Is there a conflict of interests or perceptions between generalists and specialists or line administrators and staff administrators in the final selection of PPBS policy making? Do they disagree as to what the final objective should be?

To test hypothesis 1, I usually asked:

Are all objectives and values evaluated, or are there a limited number of policy choices? Is cost/benefit analysis used in every case? Do decisions tend to aim at short term benefits or long range goals? Is the budget for a year in question put on equal footing with the previous years budget or is it only the increment that is usually discussed?

viii. Summary of Research Findings

Hypotheses — Results

Hypothesis 1.—Findings

The response of all officials interviewed has indicated that PPBS in practice is neither purely rationalistic nor purely subjective. The controversy between the rationalists and the incrementalists judged on the basis of this study is, therefore, overdrawn. PPBS has come as a rationalist into an incrementalist realm and has been modified in the image of the political system it serves. It has thus ended up as a hybrid system.

Hypothesis 2. — Findings

All respondents have indicated, although in different degrees, that PPBS policy alternatives selection is influenced by the anticipated reaction of the superiors or coequals of the decisional unit. Thus, budgetary decision making in the Canadian Treasury Board has not been free of the traditional practice of choosing alternatives that have a better chance of surviving a serious conflict whether the expected behavior may originate from horizontal or vertical sources (that means, the probable reactions of, say, other departments and/or the legislature can either encourage or discourage the selection of a specific alternative).

Hypothesis 3. — Findings

The findings show that decision makers either push forward, avoid, or modify policies by considering all factors that play a major role in a pluralist system. The introduction of PPBS, in the view of all respondents, has improved budgetary decision making since it provided objective tools to act as a measuring yardstick. However, they are also all agreed that political considerations do blur this supposedly rational PPBS technique.

Hypotheses 4. — Findings

Many of our respondents have been reluctant to admit this

fact, but they all agree that the consideration of Precedent cannot be underemphasized. In the view of most officials interviewed, every budget maker tries to be as objective as possible in his approach to policy selection, but the consideration of Precedent can advertently or inadvertently affect his decision. As one respondent pointed out, whatever its goal, an increment may be easy to refuse, but it is not as easy to cut from the previous budgetary allocation of any department.

Hypothesis 5. — Findings

On this point, also, the respondents were divided, but the majority of them have admitted there is a serious question as to what is, say, the "public will." The goals are, in many ways, vague, overlapping and controversial. What one may consider the best goal for a society, for an agency, or for a government, therefore, may be secondary or even undesirable for another. This is, in their view, a matter of "value judgement".

II. EVOLUTION OF PPBS — A HISTORICAL ANALYSIS

1. ANTECEDENTS TO PPBS

i. The Control Orientation¹-Object-of-Expenditure vs. Functional

Budgeting — During the years 1911 and 1926, radically new systems of budgeting were developing and long-standing practices were abandoned, since the gospel of budget reform was sweeping like wildfire across the United States. Prior to this move, traditional budgeting had created a pervasive and easy discontent among liberal statesmen and scholars, since it provided leeway for political manipulation in its fragmented method of "legislative budgeting."

1 - I am indebted to Allen Schick, who mentions these stages of budget reform. However, to the best of my knowledge, there has been no scientific and detailed study of this important link that marked the eventual outcome of PPBS. On the question of the exact dates of the reform periods, my study shows disagreement with Schick's classification. Schick puts the "Control Orientation" roughly between 1920 and 1935, while my study shows it to be between 1906 and 1935. The second stage, "The Management Orientation", which started from the New Deal era and gathered momentum a decade later, gives way to program-and performance-budgeting reforms that were in vogue immediately before and after the first Hoover Commission Report.

My study shows that Schick's "Planning Orientation" was too sporadic in the initial stage to be traced back to the first Hoover Commission Report. Thus, I consider program-and performance-budgeting movements as marshalling the beginnings of PPBS, but until after the second Hoover Commission Report, the management-and planning-oriented reforms were, for all practical purposes, undistinguishable; thus, we start the third stage, which is PPBS, in 1961. For Schick's classification in this regard, see Allen Schick, "The Road to PPB: The Stages of Budget Reform," in Lyden and Miller (eds.) Planning, Programming, Budgeting -- A Systems Approach to Management, Markham Publishing Co., (Chicago, 1969), pp. 26-52.

According to a contemporary scholar, Arthur Holcombe:

Each department of administration ordinarily reports directly to the legislature upon the expenditure of its appropriation and transmits, in the same manner, its estimates of the appropriations necessary and proper for the ensuing years The officer, if any, who collects the estimates and transmits them to the legislature, has no control over them. The department heads themselves have no constitutional right to defend their estimates and, in practice, the legislature may disregard them Under such circumstances, the departments with the most political influence are likely to receive the most favourable treatment at the hands of the legislature. It is not surprising that the strong hand of the executive is welcomed as a means of controlling such an unbusinesslike system.²

Prior to the advent of budget reform, the salient features of budgeting were that: 1) estimates were generally received by the legislature in piecemeal fashion; 2) there was no official with prerogatives to review departmental estimates and to make recommendations to the legislature; 3) estimates had no uniformity, since each department classified its accounts in its own unique way; 4) the estimates were grouped into broad lump sums, and lacked supporting data; 5) expenditure estimates were not related to estimates of over-all revenue; 6) each department bargained individually, and funds were appropriated separately for each department; 7) there was neither a supervision of departmental spending during budget execution, nor a central surveillance over the over-all performance of the departments.

2 - Arthur N. Holcombe, State Government in the United States, (New York, Macmillan, 1916), pp. 332-333.

By the year 1910, the basis of this politically-manipulable fragmented budgeting seemed to have started to crumble. As Gulick's admirable study of the evolution of budgeting in Massachusetts reveals, a succession of increasingly-centralized arrangements was used for the submission of expenditure estimates to the legislature. Fragmentation was, it should be noted, a product of nineteenth-century attitudes toward government: rigid separation of powers; limitation of executive authority; and, administrative centralization. With these dogmas of "good government" being challenged and gradually attenuated, the stage was prepared for the adoption of executive budget systems.

The shift from legislative to executive budgeting was part of convergent trends in politics and administration. Frederick Cleveland says that, "legislative budget is an instrument of control in the hands of a representative body over a strong executive leadership . . . to make that leadership responsible to the people through their representatives." "It is," he adds, "a means of developing representative government and keeping it in harmony with the highest ideals of democracy."³

The executive budget movement was a principal plank in the drive for political and administrative integration under the banner of executive leadership. In this case, it was related to the short ballot, functional consolidation, and the extension of executive power.

3 - Frederick A. Cleveland, "Evolution of the Budget Idea in the United States," Annals of the American Academy of Political and Social Science, LXII (1915), p. 35.

In its rapid spread from one area of the United States to the other, the "budget idea", as Cleveland puts it, created its own tempo, and so widespread and popular was the clamor for reform that he could caution, "anyone who wishes to obtain the approval of the American people at the present time gets up and announces himself as favouring a budget idea."⁴ The acceptance of the executive budget increased during the 1920's and 1930's as the budget statutes were revised and the commitment to executive leadership embodied in the original budget idea were accepted. Understandably, the legislature resisted yielding a portion of its power to the executive. This power was, in the views of many, a sine qua non of independence from the executive. It was indeed, over this same issue that an arduous struggle was waged between parliament and the Crown in England and legislature and governor in Colonial America. Accordingly, many legislatures adopted non-executive systems in the first round of budget reforms. It was not until the fiscal crisis of the 1930's that political and administrative power over budget execution, concomitant with the original concepts of executive budgeting, was ceded to the executive.

The struggle between the executive and the legislature was not moving by itself alone. It was also related to the dualism between the quest for standards of efficient administration and the quest for

4 - Ibid.

administrative and political centralization.⁵ The main object of the executive budget movement was, however, administrative and political centralization. As Cleveland argued in 1915, it was only the executive head who "could think in terms of the institution as a whole", and is therefore the only one that can be made responsible for leadership."⁶ Under the system envisioned by the advocates of executive budgeting, the chief executive could give, through integration of the legislative appropriations, a comprehensive direction of the multifarious activities of the government. Although political centralization was actually regarded as a must for executive budget in line with British practices, which were considered ideal by many, the main fear the reformers voiced was that fragmentation of the appropriations process and its independence would allow leeway to the spending agencies for multiple points of access to budgetary influence and evasion. Hence, from their own point of view, a dire need for integration of legislative budgeting could be easily understood.

Administrative efficiency, which was the second goal of reform, also led to the executive budget idea. A system of comprehensive accounts of government expenditures was deemed the most appropriate way of establishing and maintaining such accounts, since the executive

5 - These concepts are in line with the need for neutral competence and the need for executive leadership in government. See Herbert Kaufman, "Emerging Conflicts in the Conflicts of Public Administration," American Political Science Review, L (1956), pp. 1057-1073.

6 - Cleveland, op. cit., pp. 17-18.

alone has full responsibility for the activities of departments and agencies.

The cardinal theme of budgetary reform during this period was therefore, control-oriented, the emphasis was on centralized political leadership and on improvement of expenditure accounts and administrative efficiency. This control-oriented idea coupled with the legislature's antagonism to executive political power, however, motivated the reformers to seek standard and accurate accounts without political considerations. This is a manifestation of most reformers⁷ — the same manifestation seen in PPBS advocates of today. The truth is, however, budgeting cannot be divorced from politics and we shall deal with this point in detail later.

The leading members of executive budget movement, thus relegating political considerations to the background, envisioned a functional system which would focus on the task to be accomplished. Objects-of-expenditure data was considered only as a subsidiary in the budget document for informational purposes. It is to be noted, however, that this preference for functional accounts derived from the emphasis on the budget as a means of planning and executing the

7 - Goodnow, for example, in his well known work, Politics and Administration tried to make a clear distinction between political control and administrative functions. He wrote, "there are then, in all governmental systems two primary or ultimate functions of government, viz., the expression of the will of the state and the execution of that will. There are also in all states, separate organs, each of which is mainly busied with the discharge of one of these functions. These functions are, respectively, Politics and Administration." See F.J. Goodnow, Politics and Administration, New York, The Macmillan Co. 1900), p. 22.

activities of government, while the subordination of object data was consonant with the style of government of the day, namely, the emphasis on division between politics and administration. Goodnow, for example, wrote in 1912 that the legislature "may properly extend its control of appropriations to the point of defining with a considerable degree of particularity the activities for which public money shall be expended, and the amounts of money which shall be expended for the particular activities defined" ⁸ On the question of appropriations by objects, Goodnow adds, "It is more than doubtful if it is ever justified . . . except where it is imposed as a limitation of the maximum expenditure which may be incurred." ⁹ Cleveland, Willoughby and the Taft Commission were also in complete agreement with Goodnow. ¹⁰

Although political and administrative centralization which the executive was seeking was far from being realized, object classification was of considerable value from the point of view of legislative

8 - Frank Goodnow, "The Limit of Budgetary Control," Proceedings of the American Political Science Association, (Baltimore, The Waverly Press, 1913), p. 72.

9 - Ibid., p. 73.

10 - See William F. Willoughby, "Allotment of Funds by Executive Officials, An Essential Feature of Any Correct Budgetary System," ibid., pp. 78-87.

See also United States President's Commission on Economy and Efficiency, The Need for a National Budget, (Washington, House Document No. 854, 1912), pp. 210-213; "The legislature, having determined the amount to be spent, the person to spend it, and the character of the expenditure, . . . the executive officer should be made responsible for judgement with respect to contracting and purchasing relations which are to be entered into in the execution of the policies and work provided for." p. 211.

and administrative efficiency. It did curb wasteful or improper expenditures and had enabled the legislature to exercise tight control over departmental expenditures. Accordingly, in varying degrees of itemization, the budget systems introduced throughout the United States during the era were based on object classifications and the statutes creating the budget systems either spelled out in detail the form of the budget or specified that the estimates were to be itemized by objects of expenditures. The emphasis on separation of powers was, of course, a great hindrance to the development of functional accounts. From the information available, considering early classifications systems, there is no indication of functional accounts being widely used in the United States.¹¹

a) Development of Functional Budgeting — The Case of New York Bureau of Municipal Research

The New York Bureau of Municipal Research, during the decade following its founding in 1906, had set a good case history that shows the conditions and tensions that forged the characters of budgetary conditions. The Bureau's experience in New York City are specially significant because they present an historic confrontation between diverse conceptions of budgeting. The problems that the Bureau faced in its search for modern techniques culminated in a conflict between functional and object-of-expenditure budgeting, the emergence of con-

11 - See Powell, The Recent Movement for State Budget Reform in the States (New York, D. Appleton and Co., 1918).

ditions that impelled the Bureau toward the object approach and the rejection of functional classifications. While virtually all other budget systems of the day started on an object basis, the Bureau in search of modern techniques, arrived at itemization of objects through trial and error. This it did by first experimenting with problem type methods. Thus, this initial transition from functional to object-of-expenditure accounts by experimentation makes the Bureau sui generis in the annals of American budgeting.

As two reports issued in 1907 show, the idea of modern budgeting in New York initially emphasized the work and activities of agencies and departments. These reports recommended the installation of "functional accounts" in the Department of Health. First, by an accountant's report dated January 15, 1907, a criticism was directed against then existing financial accounts in the departments and agencies as follows:

The prime question is what supplies are used for what purpose, and what were the results obtained thereby. To this end, a segregation leader should base its classifications and activities of the department, and entries should be made from requisitions or other sources of data as to supplies used which, in turn, might be related to the work performed by the department.¹²

Soon after, the Bureau of Municipal Research issued its first major publication, Making a Municipal Budget,¹³ containing some 125 pages

12 - Arnold W. Lahee, "The New York City Budget," Municipal Research, LXXXVIII (1917), p. 95.

13 - New York Bureau of Municipal Research, Making a Municipal Budget, (New York — 1907). Concerning this document, Buck was later to observe, "This report was perhaps the first attempt . . . to show the need for the application of budget methods to the work of city governments. The effort put forth in getting out this report may be regarded as the beginning of

explaining the Bureau's concept of Budgeting and including sample charts and functional accounts. The directive stated in no uncertain terms that budgetary decisions "should be based on the cost of a function or activity within a given time and not on the amount expended for purchase of stock."¹⁴ The accounts furnished information of several categories of activities or output.

The reports clearly indicated that the very first steps in Bureau budgeting presaged the contemporary need for program budgeting. The Bureau later commented, "Beginning in 1909, the slogan of budget reform was 'segregation of items by functions'. This means . . . that the budget should show the amounts requested for each kind of work to be done or public service to be rendered."¹⁵

However, the experimentation with functional accounts was not enduring. Between the years 1908 and 1913 there was an increasing emphasis on object-of-expenditure classifications and, in 1914, the Bureau decided that New York City appropriations be "defunctionalized" — meaning a clear move to strip them of functional accounts. As a strong critic of the Bureau's policies noted in 1918, "The trend is

what later became a nation-wide campaign to educate the public in the significance of the budget." A.E. Buck, Municipal Finance (New York — The Macmillan Company, 1926), p. 32.

14 - New York Bureau of Municipal Research, Making a Municipal Budget, op. cit., p. 28.

15 - New York Bureau of Municipal Research, "Next Steps in the Development of a Budget Procedure for the City of New York," Municipal Research, LVII (1915), p. 34.

unmistakable. The functional classification primary in 1908 was gradually subordinated to the object classification" In 1913, both object classes and subdivisions (minor objects) were made superior to the functional groupings.

It may be properly asked why functionalization was enthusiastically accepted in 1907 and suddenly dropped just a few years later? As Charles Beard puts it, "budget reform bears the imprint of the age in which it originated."¹⁶ In an era in which personnel and purchasing systems were lacking or unreliable, the first consideration was obviously how to prevent administrative improprieties. Other objectives, such as political direction by the executive, comprehensive planning and functional accounting, were all relegated to the background. Thus it was explained:

In the opinion of those who were in charge of the development of a budget procedure, the most important service to be rendered was the establishing of central controls so that responsibility could be located and enforced through elected executives The view was, therefore, accepted that questions of administration and niceties of adjustment must be left in abeyance until central control had been effectively established and the basis had been laid for careful scrutiny of departmental contracts and purchases as well as departmental work.¹⁷

It should be noted that the retreat from functional accounts was not a deliberate rejection of budgeting on the basis of work. In fact, the Bureau found a new tool — in "work programs" — to replace

16 - Charles A. Beard, "Prefatory Note," in Lahee, *op. cit.*, p. vii.

17 - New York Bureau of Municipal Research, "Some results and limitations of Central Financial Control in New York City," Municipal Research, LXXXI (1917), p. 10.

functional classifications. What happened was that the Bureau was faced with the urgent need for political and administrative centralization to ensure a budget that was accurate and efficient. The Bureau did not realize in the beginning that its stress on methods of control would lead to the discontinuation of the functional approach because, when it was faced with the choice between an object-of-expenditure system of control and a functional emphasis on activities and work, it showed its preference for an object-of-expenditure control.

It was said that functional accounts had been designed to facilitate rational allocative decisions, not to deter misfeasance by officials. The classification by "functions" affords no protection; it only operates as a restriction on the use which may be made of the services.¹⁸

Moreover:

There did not exist in the City of New York . . . the character of administrative responsibility or the method of administrative control in departments responsible for expenditures which would ensure the proper use of funds, even when allotted under conditions imposed by functional segregation. This condition, brought out in specific instances, prompted the institution of further devices for controlling administrative discretion.¹⁹

It is detailed object-of-expenditure classification that is referred to as "further devices" here. Line itemization of expenses was regarded as desirable "because it provides for the utilization of all the machinery of control which has been provided, but it also limits to a

18 - "Next Steps", op. cit., p. 39.

19 - Henry Bruere, "The Budget as an Administrative Program", The Annals of the American Academy of Political and Social Science, LXII (1915), p. 179.

much higher degree of perfection than it has at present attained.²⁰

The important thing here is the system's ability to itemize the objects into detailed classifications. "Through the subclassification of appropriations accounts by objects-of-expenditure, the control over payroll and payroll orders goes down to the specification established by the Board of Estimate and Appointment (the quasi-legislative, quasi-administrative body in New York City) in its standardization of salaries and grades."²¹

The Bureau's New York City budget, as an object of expenditure accounts, had a three-fold classification: (1) classification by organization; (2) functional classification; and (3) the new object-of-expenditure groupings.²² The Bureau's main aim was to develop an efficient budgetary system which would give equal attention to objects, as well as to inputs and outputs, to the need for planning expenditures as well as for the need for controlling expenditure accounts. The Bureau aimed at the inclusion of more varied and detailed information in the budget so that all purposes would be served and the public would have a more complete information on governmental finances. Thus, the Bureau "urged from the beginning a classification of costs in as many different ways as there are stories to be told."²³ Unfortunately, this optimism

20 - "Next Steps", op. cit., p. 67.

21 - Ibid.

22 - Some departments also used geographical classifications (reclassifications by boroughs). See Lahee, op. cit., pp. 99-100.

23 - "Some Results and Limitations", op. cit., p. 9.

did not have the anticipated end because of the confusion and rigidity generated by the 1913 New York City Appropriations Act.²⁴ The Act was such that:

There were 3,992 district items of appropriation Each constituted a distinct appropriation, besides which there was a further itemization of positions and salaries of personnel that multiplied this number several times, each of which operated as limitations on administrative discretion.²⁵

The itemized appropriations were disdained by the Bureau because there was a suspicion that it may rob "the manager of discretion in directing the functions with which it is charged, and result in enormous waste."²⁶ However, the Bureau found itself in a dilemma, since it wanted to retain both the functional and the object information. It undertook a thorough reappraisal of its budgetary techniques and issued a report, Next Steps in the Development of a Budget Procedure for the City of Greater New York (in 1914). It acknowledged that, as a result of reforms previously instituted in hiring and purchasing, some irregularities that had led to object controls had been removed. "The protective barriers surrounding the various departmental chiefs had been broken down . . . the independent contracting and purchasing powers and the patronage of local officials had been brought under control and

24 - Despite its strenuous attempts to distinguish between a 'budget' and an 'appropriations act', the Bureau was not always careful in its usage, and sometimes used the term 'budget' to refer to appropriations.

25 - "Next Steps . . . , " op cit., p. 35.

26 - Ibid., p. 36.

review." As a result, "the dominant interest of officers and staff members of the Bureau came to be one of improving processes of administration, and of establishing standards for measuring units of cost." Furthermore, the Bureau also acknowledged, "the inconsistency of the procedure of central board control with the development of an accounting system that would furnish a fact basis for a budget," and it began to wage a modification of the procedure of political control from the central control.²⁷

From the point of view of self-analysis, one might surmise that the Bureau had decided to cast off or subordinate classification by objects. In fact, however, the Bureau recommended retention of object accounts and the total abandonment of functional budget. In short, confronted with a direct choice between the itemization of objects and functional accounts, the Bureau showed its preference for itemization of objects.

The reasons for this decision are of utmost significance for contemporary efforts at budget reform, since they touch on the persisting emphasis on objects in budget practice. As soon as the system of object controls had been adopted, it immediately gained a status symbol as an indispensable curb on administrative misfeasance. It was the view of New York City and Bureau officials that an abandonment of object controls would have definitely entailed a return to the abuses of earlier years. A genuine amelioration of the stranglehold imposed by the multiple classifications was to be accomplished in a manner which

27 - "Some Results and Limitations . . .", op cit., pp. 11-12.

the Bureau earnestly believed would strengthen centralized planning of functions and activities. The Bureau, in its "Next Steps" proposals, recommended that appropriations retain "exactly the same itemization so far as specifications of positions and compensations are concerned."

On the other hand it considered 'budgets' as instruments of planning and publicity and proposed that all budgets should include "the details of the work plans and specifications of cost of work."²⁸

In addition to the usual object and organization presentations, the budget was expected to report the "total cost incurred, classified by functions . . . for determining questions of policy having to do with services rendered as well as to be rendered, and laying a foundation for appraisal of results."²⁹ A further recommendation was also given that a work program be added to the budget processes. The work program was expected to provide "a detailed schedule or analysis of each function, activity, or process within each organization unit. This analysis would give the total cost and the unit cost wherever standards were established."³⁰

However, there was an unfortunate miscalculation of the practical effects of the Bureau's recommendations in the "Next Steps". The idea of the work program was rejected by New York City officials due to lack of adequate accounting data and the return to functional budgeting

28 - Ibid., p. 7.

29 - Ibid., p. 9.

30 - "Next Steps . . . ", op cit., p. 30.

left the city without any actual procedure for focusing on activities and programs.

Arnold W. Lahee, who made the first logical analysis of trends described above, has the following to say:

In the first place, the men most active and concerned in improvement of budgetary methods were accountants or auditors, whose training and habits of thought gave them an initial bias toward object classification rather than classification by function At a time when one of the chief criticisms of the budgetary system was its confusion, there was naturally a leaning toward that basis of classification which promised greater uniformity and order. This bias was further assisted by the fact that departmental accounts, such as they were, were kept under the object classification . . . merely to standardize the existing classification was easier than to change the entire basis of classification. Finally, Appropriations by functions would apparently fail to correct some of the most trying evils . . . Appropriations by class of object would apparently check the evil. There would be an immediate chance to make the audit of payrolls and vouchers an effective means to enforce the budget provisions.³¹

Although showing clear intent to retain objects in the appropriations ordinance, Bureau officials expressed the hope that, eventually, it might be possible to remove the object controls. Henry Bruere, one of the directors of the Bureau, reflects such sentiment when he says that when administrators "recognize the need for definite planning of work, the establishment of economical methods of operation and the close control of operative results, it will be feasible to release them from the restraints of present budgetary restrictions."³² Notwithstand-

31 - Lahee, op. cit., pp. 96-97.

32 - Bruere, op. cit., p. 186.

ing this and similar sentiments by others,³³ the New York City budget system retained the detailed itemization of objects for nearly half a century. At this stage, the Bureau of Municipal Research's experimentation, that had commenced in 1906, came to a close. As Lahee puts it, since 1913, there has been no important development in the form of the budget. The form attained was considered adequate for purposes of centralization of control over purchasing and contract relations.³⁴ Before closing this chapter, let us look at another very important case that shows the failure of functional budgeting.

b) The 1913 Cost-Data Experiment

Another rise and fall of functional budgeting can be seen in the attempt for a cost-data experiment by the Borough of Richmond. Thanks to A.E. Buck's comments in Public Budgeting, which enlightened me in my research, it did not take me long to recognize the fact that the cost-data budget is the earliest (but unsuccessful) introduction of program budgeting analysis.³⁵

33 - Writing in 1917, Beard forecast that "if we can, by some process, secure responsibility and honesty in the management of public business, the extremely segregated budget will drop into the background Extreme itemization in the act of appropriation is, therefore, not a permanent feature of budget making, unless we are to assume that the old days of corruption in public expenditures are likely to return." Beard, op. cit., p. 1.

34 - Lahee, op. cit., p. 101.

35 - A.E. Buck, Public Budgeting (New York, Harper and Brothers, 1929), pp. 170-71, 460-62.

During the experimental period, the Bureau was in retreat from the functional approach. The initiative was that of George Cromwell, president of the Borough of Richmond, who persuaded a reluctant Board of Estimate to authorize the cost-data budget. Under the trial, a significant amount of temporary changes were introduced in budgetary practices. Itemization by objects was discarded and appropriations were made for co-ordinated functions.³⁶ These proposals were supported by detailed cost schedules specifying the quantities of work to be performed and the cost per unit of work. Department heads were provided with authority to increase or decrease salaries. A central division of efficiency was established to oversee the experiment and to make quarterly reports to the Board of Estimate: "the quantities of work performed . . . the unit costs thereof, and the degree to which the results accomplished conform with the program laid down in the budget for 1913."³⁷

Cost-data budgeting claimed advantages its predecessor, functional budgeting, claimed earlier and, incidentally, just like its predecessor, the life of cost-data budgeting was cut short. It was doomed to death in 1915 after being put in practice for a couple of years. Right from the start, the experiment was faced with numerous obstacles.

36 - There is some ambiguity on this point because the unit cost schedules were not incorporated into appropriations, and their legal status was unclear. See Lahee, op. cit., p. 215, and Buck, op. cit., p. 462.

37 - Lahee, ibid . . , p. 120.

The proponent of cost-data budgeting, Bureau President Cromwell, was replaced in 1914 by a person who did not look on the cost-data idea with enthusiasm. In addition, the Board of Estimate warned that the cost approach was "for the purpose of experimentation," and that "this Board hereby emphatically reaffirms its belief in the efficiency of the form of segregated (object-of-expenditure) budget now employed in preventing waste or misuse of funds."³⁸ Thus, the Board challenged the cost-data approach as a more effective control mechanism than the object-of-expenditure.

The promises of cost-data also became superfluous, since this approach proved to be what the officials loathed — the probings and surveillance of the central examiners. They were all hostile to the cost-data idea and withdrew their cooperation and support.³⁹ They particularly complained that both the object and the cost-data

system of budget control were being applied at the same time. The comptroller compelled the submission of estimates in accordance with his forms, which controlled appropriations by objects of expenditure and specified the number of men to

38 - Ibid., p. 118. The Board also reaffirmed its belief "in the continuance of the present form until the proposed change shall have amply demonstrated that it does actually secure greater economy in administration, and in no respect opens the way to extravagance or to the use of funds for purposes not specifically approved by this Board."

39 - Ibid., p. 125. Tensions reached a high point in January 1915 when heads of two of the bureaus participating in the experiment ordered their employees, "not to give the efficiency staff any information either written or verbal, and to deny the staff access to the reports."

be employed. The efficiency staff attempted to control by function or work done. Whatever elasticity properly belonged to one system of control was eliminated by the other.⁴⁰

Last, but not least, administrative difficulties were created because of departmental discretion in setting salaries. The dilemma was "that salary increases could easily be granted, but it was an entirely different matter to reduce them."⁴¹ (The political implications of this situation will be analyzed later in connection with PPBS decision making.)

Due to the reasons enumerated above, the results were far below expectations, and the experiment was suddenly terminated. Contemporary writers gave varying interpretations to the failure. The Bureau of Municipal Research considered the experiment's demise a result of a mistaken conception of government budgeting. The detailed cost units, coupled with the elimination of objects from the Appropriations Act, the Bureau concluded, "... deprived central authorities of information," necessary in any kind of budgeting. It added:

The work unit budget has its place in history . . .
 [but] "unit cost data" cannot take the place
 either of appropriation accounts or of expense
 summaries showing "functional expenses" and
 "stores" [objects] for purposes of board control
 over authorities to spend money.⁴²

40 - Ibid., p. 123.

41 - Ibid., p. 125.

42 - "Some Results and Limitations . . .", op. cit., p. 15.

Tilden Adamson, Director of the New York City Bureau of Contract Supervision, had his own reason for the failure. His conclusion was that cost-data budgeting was no longer accepted "by anyone who has an intimate practical knowledge of the requirements of the budget."⁴³ He maintained that the cost approach had two fundamental shortcomings: (1) "It fails to control expenditures;" and (2) "The unit cost of a thing does not always represent the proper cost."⁴⁴ The best way of controlling expenditure and ascertaining the proper cost of a service, his argument went, was by means of object classifications.

The best appraisal of the cost experiment was done by Arnold W. Lahee who saw, in 1917, defects in the design and execution of the experiment, "owing to exigencies, lack of sufficient data and, perhaps, to mistakes in definitions."⁴⁵ However, his feeling was that cost-data was not given a fair trial, due to the fact that:

The scheme was initiated with reluctance and forced upon hostile departments; the staff concerned with its introduction was poorly supported by the central controlling authorities; and, before the preliminary pioneer work was fairly completed,

43 - Tilden Adamson, "The Preparation of Estimates and the Formulation of the Budget — The New York City Method," The Annals of the American Academy of Political and Social Science, LXII (1915), p. 253.

44 - Lahee, op. cit. "The so-called program budget," he argued, "does not analyze cost data but accepts and applies the costs of this year as fixing the proper costs for the same things next year In order to get the proper cost, it is necessary to obtain the unit price for entering into the thing done."

45 - Ibid., p. 115.

the entire experiment was quietly snuffed out. It is not possible, therefore, to judge the true success or failure of the Richmond cost-data experiment.

Lahee, in his judicious evaluation of cost-data budgeting, concludes, "The lesson to be derived from the failure of the Richmond scheme is ~~that~~ that it requires a different and more highly-developed system of accounting and better departmental organization than, at present, exists."⁴⁶ In spite of the cause of its failure, the Richmond idea was never again given a trial, and, in 1929, A. E. Buck noted that "no other attempt has been made in this country to hitch up definitely with the budget the record of departmental performance as expressed through cost data."⁴⁷

It was with the spirit of utmost seriousness that, looking back to its pioneering efforts, the Bureau of Municipal Research could parody its own accomplishments in 1917 as:

The history of "budget making" in the city of New York, so far, as the attempt to "segregate" the appropriations by functions is concerned, is best summed up in the well known stanza —

"The noble Duke of York
He had ten thousand men
He marched them up the hill
and he marched them down again."⁴⁸

However, it would be wrong to consider the whole experiment an absolute retreat. The Bureau did bequeath a firm object of expendi-

46 - Ibid., p. 127.

47 - Buck, Public Budgeting, op. cit., p. 171.

48 - Lahee, op. cit.

ture tradition to American budgeting. Cleveland and his later disciples accepted that tradition and spread the idea across the United States. Cleveland's gospel of budgeting was taken more for its pioneer technical requirements than for its political or budgetary concepts. There was no need for trial-and-error-experimentation, since the "two-steps-forward-and-one-step-backward" approach of the Bureau of Richmond. Throughout the 1920's and 1930's, the main interests were centered on perfecting and spreading the widely approved object-of-expenditure approach. The ultimate result was to use Wallace Sayre's apt phrase, "the triumph of technique over purpose." Functional accounts, work programs, and cost data were relegated to the future or the past. Functional classifications took a back seat to functional consolidation of departments. Thus, Pfiffner could write in the first edition of Public Administration: "In a well-organized administration, the departments would be, in general, unfunctionally organized; that is, all the classifications for a single function would be in one department. Under such conditions, the classification by functions would be synonymous with classifications by organization units."⁴⁹

There were sporadic clamours of dissent urging a return to the original concepts of budgeting. There were also isolated experiments with new techniques. These voices of dissent and attempts of experimentation posed serious challenges to budgetary traditions and

49 - John M. Pfiffner, Public Administration (New York, The Ronald Press Company, 1935), p. 296.

will be examined later, but it would be necessary at this stage to investigate the reasons why the reformers put too much emphasis on administrative control and efficiency. It should be recognized that just like the innovations of the Bureau of Municipal Research paved the way for subsequent American budgetary movements, it also reflected the same trend followed by present day budgetary reformers. The early reformers, like present day reformers, knew quite well how the United States political system worked. The executive budget movement, for them, was however, a central control to improve administrative efficiency. Political considerations were deliberately left out of their arguments. The difference between legislative and executive budgeting, on the one hand, and object-of-expenditure and functional budgeting, on the other, was a matter of technique to remove administrative misfeasance and to promote efficiency. In all cases, the reformers have succeeded in having their ideas accepted and experimented upon. But in all cases, their attempts to divorce politics and administration have failed. Whatever secondary reasons may be given, the failure of functional budgeting and the cost-data experiment was mainly due to the fact that they could not sustain themselves against the prevalent pluralist politics which the reformers deliberately disregarded.

It is indeed wrong to consider executive budgeting only a facet of liberal discontent with administrative abuses which led them to seek central control to improve efficiency. The movement, in my view, was in line with the movement for the consolidation of executive power,

which has been going on since the founders of the American Constitution instituted the idea of separation of powers.

The concept of separation of powers had been a matter of great concern right from the beginning. For example, when the anti-Federalists tried to draw a parallel between the King of England and the President of the United States, Hamilton made several comments on The Federalist Papers to support the spirit of Article 11 of the American Constitution. He argued that it would be absurd to compare the power of the King of England with the power of the President of the United States. "There is no pretence," Hamilton pointed out, "for the parallel which has been attempted between him and the King of Great Britain." What the Federalists tried to do at this time was to explain the meaning of "executive power", and their view was that "the chief magistrate" — as they referred to the President — had no counterpart in any other country.⁵⁰

Since the days of the Founding Fathers of the American Constitution, however, the situation has changed a great deal. Executive power has continued to be consolidated and the chief executive has assumed a very important position on the American political scene.

The attempt to shift budgetary control from the hands of the legislature into the hands of the executive was part and parcel of the

50 - See Max Beloff, The Federalist Papers, No. 2, (New York, The Macmillan Company, 1950). People have continued to make a comparison between the chief-executive and the King even when the monarch has been stripped of all political power. See, for example, Laski's analogy when he refers to the President as "both more or less than a king; both more or less than a prime minister," — Harold Laski, The American Democracy: A Commentary and Interpretation, New York, The Viking Press (1943).

political movement to strengthen the political power of the executive head. The early decades of this century that saw a strong executive budget movement also saw a movement towards the consolidation of executive power.

When the constitution was drafted, the makers of the Constitution tried to secure political control from the hands of the President. At this early time, the function of government was limited, and there was no mass party in the sense that we understand it today.

At the turn of the century, however, a strong party machinery emerged to act as the mainstay of the American political system. There was substantial growth in the activities of the federal government and an increased American involvement in foreign policy had become a fact.

The movement towards executive centralization and power at the turn of the century can be best explained by Theodore Roosevelt, who candidly said:

I declined to adopt the view that what was imperatively necessary for the nation could not be done by the President unless he could find some specific authorization to do it. My belief was that it was not only his right but his duty to do anything that the needs of the nation demanded unless such action was forbidden by the Constitution or by the laws. Under this interpretation of executive power, I did and caused to be done many things not previously done by the President and the heads of the departments. I did not usurp power, but I did greatly broaden the use of executive power.⁵¹

In a letter written to George Otto Trevelyan in 1908, Roosevelt expressed the same idea. He wrote:

51 - Quoted in Arthur B. Tourellot, Presidents on the Presidency, (Garden City, New York, Doubleday, 1964), pp. 55-56.

While President I have been President emphatically; I have used every ounce of power there was in the office and I have not cared a rap for the criticisms of those who spoke of my usurpation of power; for I knew that the talk was all nonsense and there was no usurpation. I believe that the efficiency of the government depends upon its possessing a strong executive.⁵²

This situation widened the President's spectrum of political control.

Accordingly, as Friedrich points out, Presidents Theodore Roosevelt, Woodrow Wilson and Franklin Delano Roosevelt "extended and deepened the control over concentrated economic power and monopoly."⁵³

The misleading distinction made between administration and politics, and therefore administrative efficiency and political control, has persisted for a very long period of time. The reformer's attempts have, as a result, led to a great deal of confusion. Friedrich refers to their stand as "fetish" and "stereotype". He traces the root of the reformer's idea of making "this distinction an absolute antithesis," to what he calls a "metaphysical, if not abstruse, idea of the will of the state." Friedrich goes on to suggest that in their view, "the problem of how a public policy is adopted and carried out is bogged down by a large ideological superstructure which contributes little or nothing to its solution."⁵⁴ I shall further elaborate on this point when I go deeper into the analysis of the problem in the last part of my study.

52 - Quoted in John P. Roche and Leonard Wikery (eds.), The Presidency (New York, Harcourt, Brace and World Inc., 1964), p. 22.

53 - Carl J. Friedrich, Constitutional Government and Democracy (Revised edition) Toronto (1950), p. 32.

54 - Ibid., p. 361.

Summary

Object-of-Expenditure budgeting is an outgrowth of the reform movements during the early 1900's. At the turn of the century, the need for accurate and uniform expenditure accounts outweighed the conception of the budget as an instrument for comprehensive planning by the executive and, consequently, a primary attention was given to objects rather than to functions in budget making.

Nevertheless, it would not be conveying the true picture, as early reformers have done, to regard the emphasis on objects as simply a response to the administrative deficiencies of that era. The movement was part of the political developments leading to the strengthening of the chief executive. It should be remembered also improvement of procurement and personnel practices were, in fact, far from bringing an end to object budgeting. Tradition has persisted in spite of the vast changes that have taken place.⁵⁵ Object budgeting plays, even today, what it did at its inception — that is, a more fundamental role in budgetary behavior, as will be shown in the following parts of this study.

Object and functional budgeting methods were exemplified in the search of the New York Bureau of Municipal Research for improved budgeting methods. It was while I was trying to trace and ascertain

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the evolution of current budgetary traditions that I found it to be the best case study. It did not take me long to recognize that the Bureau was, perhaps, the foremost tradition-maker in American budget making. On the other hand, it could easily be recognized that the Bureau's concepts of functional budgeting had to negatively affect (as we shall show below), later efforts for budgetary reform.

The case study gathered from contemporary and current literature shows that the Bureau's functional ideas did not take root when they were proposed. However, even when budgeting developed into a settled routine, there were sporadic attempts to return to this innovative idea. But, it was not until the movement towards the planning orientation (which has now culminated in PPBS) that the functional accounts and cost-data budgeting were able to challenge the object-of-expenditure traditions, in use for several decades.

ii. The Management Orientation

In the preceding section of this chapter, we noted that the executive budget movement, which was in vogue during the first two decades of this century, had a two-fold purpose: to strengthen executive control over the political and administrative machinery of the government; and, to provide objective standards of management control. Neither the first nor the second goal was fully attained in the budget systems that were installed in the 1915 - 1925 period. In this period, the head of the executive branch was vested with authority to review departmental estimates and to submit recommendations to the legis-

lature. Through uniform and accurate expenditure accounts, administrative efficiency was improved. But reliance on object-of-expenditure classification hindered the full materialization of executive leadership. Lent D. Upson argued in an article written in 1924⁵⁶ that "budget procedure has stopped half way in its development . . . the average city official confronted with the budget finds nothing in it that enables him to determine in a large way the value of the activities that are rendered the public or, in a lesser way, the degree of efficiency with which such activities are conducted."⁵⁷

Upson saw two purposes in executive classifications: (1) to measure the objectives of governmental activities; and (2) to measure the efficiency of such activities. The two goals correspond closely to the dichotomy between 'program' and 'performance' budgeting and are reflected in six classifications of the budget suggested by Upson:

1. "The activity rather than function should be made the unit of appropriation."
2. "The budget should present a complete picture of what is hoped to be accomplished ultimately by governmental means."
3. "The budget should be expressed in terms of work to be accomplished as well as material things to be purchased."
4. "The budget should be supplemented by an operation audit that will measure the effectiveness of expenditures as thoroughly as financial audits measure the legality of expenditures."

56 - Lent D. Upson, "Half Time Budget Methods," The Annals of the American Academy of Political and Social Science, XIII, (1924), p. 69.

57 - Ibid., p. 72.

5. "Lastly, the budget should be supplemented with operation reports."58

Ten years later, Wylie Kilpatrick also suggested the same points. He pointed out that "the failure to visualize the problem of expenditure as a whole, and to appreciate more than one category of classification is essential" He added:

" . . . The one fundamental basis of expenditure is functional and accounting of payments for the services performed by government The ultimate justification of any expenditure is in functional services whose classification and analysis is indispensable to the performance of the public activities."59

Thus, writings of Upson, Kilpatrick and a few others kept alive the early ideas of the Bureau of Municipal Research and were to be reflected in the movement for program budgeting, even though they had only marginal effects on the object orientation, already established in those early years.

However, gradual changes started unfolding, and many of the adverse practices that had necessitated the concept of object controls were curbed by statutes, administrative regulations, the general improvements introduced into the public service, and above all, by

58 - The distinction that Upson made between functions and activities was based on scope, the function encompassing a number of activities. In advising that the activity rather than the function should be the basic appropriation unit, he argued that because they were so broad, the functions did not furnish adequate information about departmental plans and programs. Thus, Upson urged that appropriations be made in smaller activity units. Ibid., pp. 72-74.

59 - Wylie Kilpatrick, "Classification and Measurement of Public Expenditures," The Annals of the American Academy of Political and Social Science, CLXXIII (1936), p. 20.

the fact that local party machines were not strong enough to challenge the new idea. As a result, administrative and financial reforms were introduced and reliable accounting systems were established, thus making it possible for the budget to be executed without stringent controls.

As touched upon in the preceding section, executive control over all aspects of politics and administration continued to increase. The 1930's brought a new phenomenon into the picture. Mass unemployment in the early 1930's — with one fourth of the labour force out of work — helped to undermine the laissez-faire assumption of natural economic order. The need for more active government participation in the economy became an accepted fact. Direct payment of relief funds to underprivileged citizens became necessary. Various kinds of "economic stabilizers" such as old age and survivor's insurance, minimum wage, and unemployment compensation were introduced.⁶⁰ This steady proliferation of governmental activities and expenditures in turn brought new responsibilities to budgeting, thus making it less suited for the old style. The growth of government activities made it more difficult to comprehend the great amount of information in objects-of-expenditure budgeting. With expansion, the bits and pieces of detail into which the objects were itemized became more and more insignificant, while problems of output increased more and more. The situation thus necessitated the strength of executive leadership, and the appraisal of

60 - Regan makes a good comparison between the traditional and the new economic approach. See Michael D. Regan, The Managed Economy (New York, Oxford University Press, 1963), pp. 181-189.

objective methods of administrative performance. Also the increase in governmental expenditure attracted attention to the impact of the budget on the economy of the whole nation. The budget process was no longer regarded merely as a mechanism for financing existing or stable programs. Instead it became a policy process for determining the range and direction of governmental functions.

The growth in activities and expenditures signaled a new approach in the increase of the role of government in the public sector. The government was no longer considered a "necessary evil". The purpose of budgeting basically was that government spending must be kept in check. As E.A. Fitzpatrick wrote in his critique of the executive budget, "this was only the ethos of the early economy and efficiency movements."⁶¹ Under these conditions, it was necessary to direct budgetary efforts primarily to inputs (salaries, rent, utilities, supplies and so forth); the outputs (work and results) were deemed of limited and fixed value. It was the above attitude that gave rise to the presumption that expenditures for the purchase of supplies and equipment were wasteful, since they led to the squanderings of extravagant or malfeasant officials. It was the opening up of new areas of governmental action, described in the preceding paragraphs, that unleashed a different set of attitudes toward public spending. Public agencies came to be considered of positive social value, and the task of budgeting was interpreted as the maximization of their values. The change of

61 - Edward A. Fitzpatrick, Budget Making in a Democracy (New York, Macmillan Company, 1918).

attitude, in turn, focused attention on the effects of expenditures and activities on public goals.

The factors enumerated above actually converged during the New Deal Era. Federal expenditures rose rapidly, and the new Keynesian economics focused attention on the relationship between budgeting and economic condition. The President's Committee on Administrative Management made severe criticism of the control-minded, routinized approach of the Bureau of the Budget, and it urged that budgeting be used to coordinate the programs of federal agencies under the leadership of its president. Two years after, in 1939, the Bureau was transferred, by executive order, from the Treasury Department and was attached to the newly-created Executive Office of the President. The transition was "from routine business to general staff."⁶² However, in spite of such a significant change, the traditional object-of-expenditure classifications, basically retained their original function. This situation persisted until the Hoover Commission's recommendation for a change in budget classification.

What is described in the foregoing paragraphs deals primarily with the first goal of functional budgeting, which aims at using budgeting for top-level executive planning and for evaluating alternative proposals of expenditure. Besides these developments, there was an

62 - Norman Pearson, "The Budget Bureau : From Routine Business to General Staff," Public Administration Review, III (1943), pp. 126-149; see also Fritz Morstein Marx, "The Bureau of the Budget: Its Evolution and Present Role," The American Political Science Review, XXXIX (1945), pp. 653-689, 869-898.

attempt at the lower levels of the administrative hierarchy aiming toward the second goal of reform, using the budgetary process for the appraisal of program performance. As the public service was reformed and the value of government activities was taken for granted, a greater attention was paid to the efficiency of government operations. In addition, it was necessary that the outputs projected in the budget should be attained at the lowest possible cost. Public officials and interest groups sought to devise different techniques of measuring administrative performance. Thus, cost accounting and work measurement were introduced into a number of federal agencies such as the Forest Service, the Census Bureau, and the Bureau of Reclamation.⁶³ The need for aiming at economy and efficiency were still recognized, but with a different focus. The emphasis in this case became the achievement of optional output by means of efficient performance rather than by holding down expenditure appropriations.

Progress on the second level of reform was, however, sporadic. Individual agencies made piecemeal moves, but their innovations were not felt throughout the public sector. Pfiffner predicted in 1935 that "the next step in the perfection of the budget technique undoubtedly will be the stating of requests in the form of work units, rather than of men, supplies and equipment."⁶⁴ However, not until the Hoover Com-

63 - See Public Administration Service, The Work Unit in Federal Administration (Chicago, 1937).

64 - John M. Pfiffner, Public Administration (New York, The Roland Press Company, 1935), p. 318.

mission recommendations, which came a decade later, was the impetus for reform felt by all organs of the government.

It was in the year 1949 that the Hoover Commission recommended that "the whole budgetary concept of the Federal Government should be refashioned by the adoption of a budget based upon functions, activities and projects."⁶⁵ Perhaps, to create a sense of novelty, the Commission labeled it "performance budgeting", since the concept had long been known as "activity" or "functional" budgeting.⁶⁶ In a sense, this action led many people to a great deal of confusion and ambiguity. Surprisingly enough, the Commission's task force had used still another term — "Program budgeting."⁶⁷ Among writers, there was no uniformity in usage. In the academic circle, also, some preferred "program budgeting," while others used "performance budgeting" in describing the same techniques.⁶⁸ (As we shall see later, there is the same problem today

65 - U.S. Commission on organization of the Executive Branch of the Government, Budgeting and Accounting (Washington, Government Printing Office, 1949), p. 8.

66 - Frederick Mosher reports that "the story is told in Washington that former President Hoover himself invented the term 'performance budget' to lend sales appeal to a different and improved method of Federal budgeting." Frederick Mosher, Program Budgeting: Theory and Practice (Chicago, Public Administration Service, 1954), p. 78.

67 - See U.S. Commission on organization of the Executive Branch of the Government Task Force Report on Fiscal Budgeting and Accounting Activities (Washington, Government Printing Press, 1949), pp. 74-77.

68 - The Task Force of the Hoover Commission recommended, "in the interest of clarity — that the designation 'program budget' . . . [be] . . . substituted for that of 'performance budget'", but this advice was disregarded by the parent body which retained the more glamorous designation. See U.S. Commission on the Organization of the Executive Branch of the Government, Task Force Report on Budget and Accounting (Washington, Government Printing Office, 1955), p. 29.

in the exchanged usage of 'PPBS' and 'Program budgeting'.)

It is beyond the scope of this paper to treat this matter in detail, but it has to be noted that the confusion of program budgeting and performance budgeting arises from their multiple roots and aims. It is not, as some people believe, an interchangeable terminological jargon coined by the Hoover Commission. In actuality, there are four interlocking distinctions between 'program budgeting' and 'performance budgeting'. Firstly, the method of 'program budgeting' is to aggregate expenditure information into broad classes; the method of 'performance budgeting' is particularistic, since it itemizes data into discrete units.⁶⁹ Secondly, 'program budgeting' aims at a high level review of alternative spendings, while 'performance budgeting' deals largely with departments of its appropriations. Thirdly, 'program budgeting' deals with activities to be authorized, while 'performance budgeting' concentrates on the determination of what methods shall be utilized. Finally, 'program

69 - This distinction between the two methods is in accord with the conclusion of a panel at a regional conference of the American Society for Public Administration which runs — "consensus on a distinction between 'performance budgeting' and 'program budgeting' may be emerging on the notion that 'program' is the appropriate term for the larger aggregates and that 'performance' should refer to the component units. In one government, for example, there might be several dozen 'programs' and several hundred 'performance' units and 'performance' budgets." — See David W. Minar et al. (eds.), Problems and Prospects in Public Management, A Digest of ASPA Regional Conferences 1956-57-58 (Oxford Bureau of Public Administration, University of Mississippi, 1960), p. 109. Jesse Burkhead takes a similar position in writing that, "A program budget embraces a number of performance units." See Jesse Burkhead, Government Budgeting (New York, John Wiley and Sons, 1956), p. 139.

budgeting' is directed at strengthening executive direction over expenditure policies, while 'performance budgeting' lends objective measurements of administrative efficiency.⁷⁰

Regarding the Hoover Commission Report at the time when it appeared, the government of the day had already adopted a clear attitude to put an emphasis on efficient management techniques. But it would be misleading to think that the growth in activities of government — and hence the growth in executive control — had ceased in the 1930's. In fact, the final demise of the notion that government cannot be responsible for the nation's economic well-being came with the passage of the 1946 Employment Act. The Act assumed that indirect controls of the economy through fiscal policy (taxes and government expenditures) and monetary policy (decision on the availability and cost of credit) would be necessary to achieve the economic goals of the nation.

Accordingly, it would not be difficult to form a conjecture that the government should look for new talent and technique to run its mounting activities. The move towards this end was, however, far from being smooth. For example, when in the same year (1946) the

70 - This distinction is in line with Mosher's observation that "the two purposes of budgeting, the naming of program decisions and the provision of an effective system of administration, must be linked, but they should not have to ride the same track at the same time." He recommends "a tailoring of budgetary systems and classifications to the requirements of the different budget systems: one designed for the development, appraisal and authorization of future policies and programs at top levels; the other, to facilitate internal programming, management and control." See Mosher, op. cit., p. 237.

President's Council of Economic Advisors, was established, there was widespread feeling that the professionals' advice would reflect only the underlying philosophy of the administration in power — hence, a fear that the executive branch may be trying to perpetuate its centralized power through the cover of professional expertise.⁷¹

In its recommendations, the Hoover Commission had insisted that the government should be restrained from competing with private business. It had also argued that the President could not possibly give proper attention to all the agencies under his legal jurisdiction. But it went further and made a strong suggestion to the effect that the President be empowered to regroup and reorganize the agencies. According to Corry and Hodgets, the reason for this recommendation is to be found in the Commission's conviction, that the agencies being too independent, were functioning at cross purposes and should therefore be brought in line under executive coordination.⁷² Thus, executive

71 - In fact, one of the original members of the President's Council of Economic Advisors had to resign because of the intense controversy involved. See John M. Pfiffner and Robert Presthus Public Administration (5th edition) New York, The Roland Press (1967), p. 352. To understand the magnitude of the controversy, see Edwin G. Nourse, Economics in the Public Service : Administrative Aspects of the Employment Act, New York : Harcourt Brace and World Inc. (1953) — Chris Argyris gives a good commentary on the issue of Centralized Control. See Chris Argyris, "The Individual and Organization," 2, Administrative Science Quarterly (June, 1957), p. 16.

72 - See J. A. Corry and J. E. Hodgets, Democratic Government and Politics, University of Toronto Press (Toronto, 1959), p. 486. The successive Reorganization Acts passed by Congress between 1939 - 1949 and the Amendments made to the Reorganization Act of 1949 in 1957 have empowered the President to reduce, consolidate and reorganize the agencies, subject to congressional veto. See Senate Committee on Expenditures in the Executive Departments, 82nd Cong., 2nd Session, Reorganization of the Federal Government, Washington, D.C., Government Printing Office, 1952.

centralization of administration continued throughout the 1940's and 50's, although with different emphasis depending on the circumstances and the personality of the presidents in office.

In general, however, the overriding aim of the Hoover Commission report and the reform movements immediately before and after it, is improvement of efficiency in government management, and it is with this in mind that I adopted Schick's designation of this period as the "Management Orientation."⁷³

Summary

In the management-oriented reform, which gathered momentum immediately before and after the first Hoover Commission report, 'program' and 'performance' budgeting approaches diverged in their treatment of expenditure data, in their focus on levels of budget making, and in the scope of expenditure choices they dealt with. The interchangeable use of the terms has, however, resulted in substantial ambiguity and confusion. The brief explanation outlined above attempts to distinguish 'program budgeting' from 'performance budgeting'. The cardinal aim of the reform movements in this era was to develop efficiency in the administrative management of the public sector, but since the growth of government activities continued through the 1940's and 50's followed by a substantial increase in executive power, the Hoover Commission also recommended that all agencies be regrouped and their particular functions be brought in harmony with the general policies of the President.

The 1964 Reorganization Act authorizes the President to reorganize agencies through transfer, abolition or consolidation of agency functions. See Marian D. Irish and James W. Prothro, The Politics of American Democracy, Englewood Cliffs, New Jersey (1968), p. 453.

73 - Allen Schick, op. cit., pp. 26-52.

2. TOWARDS A THEORETICAL FRAMEWORK

i. "The McNamara Revolution" Unfolds in the Department of Defense

In the preceding chapters, I have explained how much reform had been initiated and how much struggle was involved in an attempt to bring about a radical change in the traditional function of budgeting. I have also tried to show that the presently-existing system of budgeting has a century of evolution and tradition.¹ Now let us turn to the Department of Defense and see the historic developments that took place there.

Although as explained previously, the concepts of 'Program' and 'Performance' budgeting were popularized by the first Hoover Commission Report, a working theory of how to put the new concepts into operation fell to the lot of the RAND Corporation.² The RAND Corporation, convinced that the traditional method of choosing among alternative means of warfare was inadequate to meet the expanding needs of the U.S. Defense Department with which it was under contract, completed its first studies of weapons systems analysis in 1949. RAND's recommendations were first tried in the Air Force, but due to lack of inform-

1 - Allen Schick, "The Road to PPBS, The Stages of Budget Reform," Public Administration Review, (1966), p. 243.

2 - Novick traces the first Federal experiment in Program Budgeting way back to the Controlled Materials Plan of the War Production Board which used cost-effectiveness analysis in 1942, though not in such a sophisticated way as we understand it today. See David Novick, "The Origin and History of Program Budgeting," California Management Review, Fall, 1968, pp. 7-12.

ation which was badly needed to make a comprehensive analysis, the experiment did not meet with marked success. In order to provide a good working environment for such analysis, RAND proposed in its 1953 publication an introduction of Program budgeting into the Air Force and other branches of the Defense Department.³ The idea was officially accepted. But official acceptance and real adoption are two entirely different things however, and to use Novick's words, program budgeting was "kicked around" for several years following.⁴

Even though the preliminary experiment was a failure, RAND was far from being discouraged, and in 1961, C.J. Hitch and Roland M. McKean, head of the Economics Division of the RAND Corporation and research economist with the RAND Corporation, respectively, published a book entitled The Economics of Defense in the Nuclear Age. This important book stated the deficient use of military (and often government) resources, which it traced to the absence of any built-in mechanisms, like those in the private sector of the economy, which led to greater efficiency.⁵ In government, according to Hitch and McKean, there is no profit lure, since promotions or salary increases do not depend on profits. In most projects, an objective criterion of

3 - David Novick, Efficiency and Economy in Government Through New Budgeting and Accounting Procedures, The RAND Corporation, Santa Monica, California, R-254 (Dec. 1953).

4 - Ibid., p. 10.

5 - William W. Kaufmann, The McNamara Strategy, (New York : Harper and Row, 1964), p. 169.

efficiency is not readily available and, even if available, incentives to seek profitable innovations and efficient (least cost) methods are not strong. The scope is limited to "Parkinson's Law", and there is room only for personal idiosyncrasies, and uneconomic preferences of officials to take hold, because the costs of inefficient policies do not directly affect those who select specific projects. Finally, the authors stated that the process of natural selection, whose workings depend upon the degree and type of rivalry, operates only weakly, if at all, to eliminate wasteful government departments. As an example, the Federal Government competes only with the political party that is out of office, and survival in this competition depends upon many factors other than efficiency in the use of resources. There is neither an adequate price mechanism to rival the cheapest methods of performing public functions nor any force which induces or compels the government to adopt such methods.⁶

According to Hitch and McKean, there are three possible approaches interrelated and interdependent, which can be considered appropriate for achieving efficiency in defense budgeting. First on their list is the improvement of institutional arrangements within the government, to promote efficiency. In extreme cases, these kinds of proposals simulate, within the government, the price and market mechanisms of the private sector of the economy. Proposals that

6 - Charles J. Hitch and R.J. McKean, The Economics of Defense in the Nuclear Age (Cambridge, Harvard University Press, 1960), pp. 105-106.

are less ambitious improve budgeting and accounting methods and would generate more appropriate incentives. Secondly, the authors suggested that increased reliance on systematic quantitative analysis was needed to determine the most efficient alternative allocations of policies. And finally, they proposed increased recognition and awareness that military decisions, whether they specifically involve budgetary allocations or not, are faced with economic decisions; and that unless an economic criterion is used for choosing the most efficient policy alternatives, military power and national security will suffer.⁷

Incidentally, the presidential election of 1960 rescued the systematic techniques envisaged by Hitch and McKean since President John F. Kennedy of the United States, and his Secretary of Defense, Robert McNamara, required a management system that would ensure their smooth and effective control over the military establishment. One should not also underrate the magnitude of the impression that Hitch's and McKean's book made on both Kennedy and McNamara.

The underlying cause for adopting this radical idea was, however, the prevailing deficiencies in traditional budgeting which were described as:

Locking management techniques for identifying resources to objectives, the Secretary of Defense did the budget and planning job, by first bringing the overall defense budget into line with the fiscal policy of the administration. He then divided the total budget among the three military departments. The departments were then, for the most part,

7 - Ibid., p. 107.

left alone to allocate their funds as they saw fit. As a result, each department tended to favour its area and special interests, often without concern for the total problem. Understandably, they sought to guarantee larger shares in future budgets by concentrating on dramatic new weapons. The Navy concentrated on its newly developed nuclear capability, emphasizing attack and missile-carrying submarines and air-craft carriers. The Air Force centered its interest on strategic equipment — bombers and missiles. The Army focused on new defenses against air-craft and missiles. And probably more important, all of these new developments were undertaken without very much interest in, or information about, their resource requirements.⁸

As can be easily guessed, this condition deprived the high civilian officials of the Defense Department the necessary techniques needed to analyze military spending, the basic problem being lack of unity among the military departments. A Five-Year-Force-Structure and Financial-Program ('planning orientation') was thus conceived as the most significant mechanism to coordinate these departments. It would be wrong to believe, however, that Eisenhower did not understand the deficiencies in the traditional system which was in use during his terms of office. He had earlier pointed out that:

... Complete unity, in our strategic planning and basic operational direction (is a vital necessity). It is, therefore, mandatory that the initiation for this planning and direction rests not with the separate services, but with the Secretary of Defense and his operational services, the Joint Chiefs of Staff assisted by such staff organization as they deem necessary.

8 - David Novick (ed.), Program Budgeting, Program Analysis and the Federal Budget (Cambridge, Harvard University Press, 1965), p. 85.

No military task is of greater importance than the development of strategic plans which relate our revolutionary new weapons and force deployments to national security objectives. Genuine unity is indispensable at this starting point. No amount of subsequent coordination can eliminate duplication or doctrinal conflicts which are introduced into the first shaping of military programs.⁹

The main reason why McNamara had to force a system developed in business on government departments was best described by Dr. Alain Enthoven, Deputy Assistant Secretary of Defense for Systems Analysis and one of the contributors to the book by Hitch and McKean who said, in 1962, that the Eisenhower system of budgeting for defense agencies did not embody the essential characteristics for which the McNamara staff was searching. He described the pre-McNamara system of budgeting in the Department of Defense in the following manner:

It had several important defects, perhaps the most important of which was the almost complete separation between planning and decision making on weapons systems and forces on the one hand, and budgeting on the other . . . In other words, the long-range plans for weapons systems forces and all of their supporting elements were made by the services on the basis of their estimates of the forces required to assure our national security. Generally speaking, costs were not introduced systematically either to test the feasibility of the whole program or for purposes of evaluating the efficiency of the allocation.¹⁰

9 - Quoted in Charles J. Hitch, Decision Making for Defense (Berkeley and Los Angeles : University of California Press, 1965), p. 17.

10 - Alain C. Enthoven, Address (speech before the American Economics Association, Pittsburgh, Pennsylvania, December 29, 1962). (Mimeographed Material.)

In a testimony before a committee of the Congress, Mr.

McNamara later told his approach to decision making:

It is a philosophy based on a decision pyramid and a system of administration in which all possible decisions are pushed to the bottom of that pyramid. But for intelligent decisions to be made at the bottom of the pyramid, there must be a framework within which those decisions can be made. Basic policies must be established against which a decision-maker at the lower level can compare his decisions and gain some confidence that he is acting in accordance with a pattern of decisions elsewhere in the organization. This will lead to unity and strength rather than to imbalance, which can only lead to weakness.¹¹

McNamara emphasized in this same testimony that the establishment of such policies could only be done from the top. He further indicated that only top-level decisions could ensure that the financial budget is balanced to the military force structure required as a foundation for United States foreign policy.

In the course of this testimony, Mr. McNamara gave one of the earlier detailed descriptions of the new Planning-Programming-Budgeting-System.

It is through this system that we look at the defense effort as a whole. Major program priorities can be meaningfully determined only in terms of the total program, and a proper

11 - Hearings on Military Posture and H.R. 2400, To authorize appropriations during FY 1964, for Procurement Research Development, Test and Evaluation of Aircraft Missiles and Naval Vessels for the Armed Forces, and for other purposes, before the Committee on Armed Services, House of Representatives, 88th Congress, 1st Sess. (Washington, Government Printing Office, 1963), p. 373.

balancing of all the elements of the defense effort can only be achieved at the Department of Defense level. For example, the size of the Polaris force cannot be determined in terms of the Navy Shipbuilding program or even the entire Navy program, but can be validly judged only in relation to all of the other elements of the strategic retaliatory forces — the B-52's, the Atlas, the Titan, the Minuteman and ICBM's. Similarly, the requirement for Air Force tactical fighters cannot be determined independently of the requirement for Army ground forces. All such interdependent decisions must be made at one place in the defense organization and, in this process, the joint chiefs and the secretary must play a major role. Alone among the elements of the department, they have the overall vantage point from which to reach sound recommendations on balanced military forces.¹²

But McNamara was quick to point out that although he considered centralized decision making indispensable:

... the actual operation of the program should be managed to the maximum extent possible, on a decentralized basis. The defense effort is entirely too big, too complex, and too geographically dispersed for its operations to be managed from a single central point.

Thus, the organization and the management of the Defense Department must be based on the principle of centralized planning and decentralized operation.¹³

Another basic problem in defense management which led McNamara to adopt PPBS was the lack of reliable techniques for policy alternative choices. PPBS was viewed from the outset as a framework within which alternative courses of action would be brought to the surface when considering alternative choices of programs. The prevailing

12 - Ibid.

13 - Ibid.

belief was that policies and programs could be judged most effectively if there could be a rational choice among policy alternative with the full knowledge of their possible implications within the PPB system. One of the prime objectives has been the comparison of the effectiveness and the cost of alternative objectives. This comparison was designed to identify past experience, the alternatives which are believed worthy of consideration, earlier differing recommendations, and earlier cost and performance estimates.

The search for policy choices in this case has become, to a large extent, an innovation attributed to Secretary of Defense McNamara, and to a lesser extent, Assistant Secretary of Defense Charles J. Hitch. McNamara, Hitch and other top defense officials identified PPBS to be a vehicle by which alternative ways of accomplishing goals could be identified, and the choice among them could be made on the basis of cost-effectiveness studies. As Assistant Secretary of Defense Hitch put it:

In developing the program, Secretary McNamara has chosen not simply to make decisions, but also deliberately to create opportunities to make decisions. He is constantly asking questions, requesting studies, goading the services and his staff to propose new alternatives, better alternatives to programs currently incorporated in the Five-Year Program.¹⁴

Hitch also stated that PPBS provides for all claimants of the Defense Department a single uniform point of departure for all purposes.

14 - Charles J. Hitch, "Remarks of Assistant Secretary of Defense Charles Hitch," (mimeographed, Sept. 14, 1964).

He considered it impossible to analyze alternative courses of action without such an agreed-upon, internally-balanced, forward plan to provide a framework of basic assumptions.¹⁵

Thus, both McNamara and Hitch felt that what the Defense Department needed badly was a system that involved planning and control of resource inputs to achieve a desired military output. PPBS, as they envisaged it, was to be concerned with the cost, feasibility and military effectiveness of alternative methods of meeting military requirements, so that the greatest benefit could be achieved out of any given resource expenditure. The idea is, that since programming involves both military outputs and resource inputs, a structure must be available for a consistent definition of each of them.¹⁶

Seven major goals were established for the new PPB System, and they were described as: (1) planning oriented around major missions; (2) ability to relate resource imports to military output; (3) coordination of long range planning with budgeting; (4) continuous appraisal of programs; (5) progress reporting; (6) ability to make cost/effectiveness studies; and (7) integration of the Office of the Secretary of Defense's information systems.¹⁷

15 - Ibid.

16 - The Navy Programming Manual, Part 1, Programming Overview, Office of the Chief of Naval Operations, OPNAV, 90P1 (September, 1964), pp. 1-3.

17 - Organizing for National Security, State, Defense, and the National Security Council. Hearings before the subcommittee on National policy machinery of the Committee on Government operations, U.S. Senate, 87th Congress, 1st Sess., Part IX (Washington, Government Printing Office, 1961).

Prior to 1961, another major defect in Federal Government management in general, and defense management in particular, was the short time span for budget allocations. It is true the budget portrayed three years, but one of the years was the previous year, and the second year was the current year. Thus, the budget was mainly concerned with appropriations and expenditures for the succeeding year. That is to say, it contained figures only for the year just completed, the current year and the following year to which the budget related. This system might have been useful for many administrative activities, but it was considered thoroughly inadequate for procurement of long-range projects. Thus, the problem was best described by Assistant-Secretary Hitch:

The budget focused on the financial problems of a single upcoming fiscal year, thereby discouraging adequate consideration of decisions whose near-term dollar impact was slight, but whose impact in later years was very large to the point of becoming an important constraint on defense managers.¹⁸

This situation was also most aptly described by the Bureau of the Budget which put the point Hitch referred to at the top of its lists of deficiencies in traditional budgeting. The Bureau pointed out that:

Under present practices, . . . program review for decision making has frequently been concentrated within too short a period; objectives of agency programs and activities have too often not been specified with enough clarity and concreteness; accomplishments have not always been specified correctly; alternatives have been insufficiently presented for consideration of top manage-

18 - Charles J. Hitch, Remarks of Assistant Secretary of Defense, Charles Hitch, op. cit.

ment; in a number of cases, the future year costs of present decisions have not been laid out systematically enough; and, formalized planning and systems analysis have too little effect on budget decisions.¹⁹

Accordingly, McNamara sought to find a ready answer to the solution of what he called hectic and hurried decisions on major programs in the course of budget reviews, and he could find no better answer than PPBS. McNamara thus established for each service or Defense Agency, an approved force structure for eight years in the future, and projected financial levels for five years, also in the future.

As a first step, in March, 1961, McNamara gave directives to the Military Departments that the Fiscal Year 1963 Budget would be developed as the outgrowth of a three-phase operation to contain:

1. Review of military requirements.
2. Formulation and review of programs to implement military requirements, extending several years into the future.
3. Development of the annual budget estimates.²⁰

In order to enable the office of the Secretary of Defense to carry out the second phase effectively, McNamara established an office of programming under the Assistant Secretary of Defense (Comptroller) with the following duties and responsibilities:

1. To assemble, consolidate and present the physical programs of the services and all other agencies of the Department of Defense;

19 - Bureau of the Budget, op. cit., p. 1.

20 - Program Change Control System in the Department of the Navy, NAVEXOS, August, 1962, pp. 1-2.

2. To translate these physical programs into financial summaries and present them in several ways; i.e., by time period, by initial investment and annual operating costs, by new obligational authority (obligations and expenditures), by mission or task, by weapon system, and by appropriation category;
3. To provide, in the same manner, the total financial implications or view of alternative programs.²¹

Furthermore, McNamara aimed to use PPBS as the foundation of the DOD resource 'input' — 'output' analysis. The ability to relate 'inputs' (resources) to 'outputs' (forces) was to provide the Secretary of Defense with two main planning dimensions so that: (1) he could gather the military forces required to counter the anticipated threat; and (2) could concurrently allocate available resources toward meeting resource requirements necessary to provide and support those military objectives. PPBS was expressed in terms of three major components: programs; program elements; and resource categories.²²

Programs

Main programs represented the original program 'packages' by which similar military missions of the services were aggregated into broad functional areas, such as, all out war (program I), continental defense (program II), conventional war (program III), and transportation

21 - Study Report on the Programming System for the Office of the Secretary of Defense prepared by OASD (C) Programming, Directorate for Systems Planning, 25 June, 1962.

22 - The Navy Programming Manual, op. cit. The Bureau of the Budget considers the basic components as "program elements, program categories and program sub-categories" — see Bureau of the Budget, op. cit.

of combat forces overseas (program IV). Other programs were added to support these from basic missions, so that the entire defense activity was cast in terms of nine major programs:

- Program I - Strategic Retaliatory Forces
- Program II - Continental Air and Missile Defense Forces
- Program III - General Purpose Forces
- Program IV - Airlift and Sealift Forces
- Program V - Reserve and Guard Forces
- Program VI - Research and Development
- Program VII - General Support
- Program VIII - Retired Pay
- Program IX - Military Assistance Program²³

23 - It is necessary to note here that under the old pre-McNamara system, each program service competed for a larger share of the defense budget, and within the total service, weapons such as ICBM's, used for strategic purposes competed for funds with program services used for tactical purposes, while in the new system, it is only close substitutes with similar missions which are to be compared with each other, although their services are different in nature. For example, the old budget system put the three different branches of the Defense Department, namely, the Navy, Army and the Air Force and their service programs, to compete with one another. Thus, the Navy demanded a budget on the basis of Polaris, Marine Corps and Carrier Task Forces; the Air Force demanded on the basis of ICBM's, Tactical Aircraft, Air Defense Aircraft and Long Range Bombers; and the Army demanded budget allocation on the basis of Air Defense Missiles and Armoured Divisions. But, according to the new McNamara PPB system, budget is allocated on the basis of Missions for Strategic Forces, including polaris, ICBM's and Long Range Bombers; General Purpose Forces, including Marine Corps, Armoured Divisions, Tactical Aircraft and Carrier Task Forces; and Continental Defense, including Air Defense Aircraft and Air Defense Missiles. See F. Lyden and E. Miller, op. cit.

Program Elements

The major programs described above were subdivided into program elements, which were considered the smallest units of military output controlled from the Department of Defense level. It constituted an aggregate of human resources, equipment and facilities which together built a building block of identifiable military capability. "Long Range Bombers," together with all of the associated supplies, equipment, weapons, and manpower, is a good example of such a program element. Other examples would be "Carrier Task Forces" and "Air Defense Aircraft." Some specific support activities, such as "Base Operation Support" for strategic aircraft forces, were also considered program elements. All program elements, taken together, constituted the complete defense establishment, and not even the DOD activity was an exception — it was also considered as one of the program element units.

Costs of Program Elements

The major program decisions within the DOD were to be made in terms of program elements, and accordingly, it was necessary to determine the cost consequences of these decisions. Thus, the Department of Defense required detailed costing broken down by program elements. However, program element cost information which was needed could not be readily available. The limitations stemmed primarily from the inherent difficulty of allocating the costs of resource inputs to the program elements. One reason was the difficulty of allocating fixed costs of

operating a support activity which serves more than one program element. To overcome this problem, it was suggested that cost of such an activity not be allocated. Instead, the activity was to be a separate element. This deletion was done, for example, in the case of the "recruit training" program. By avoiding these allocations, it became easier to make independent decisions concerning support activities. Adversely, however, failure to allocate support costs resulted in an understatement of "true costs." The best solution was found to be the allocation of variable portion of support costs and the retailing of fixed costs in a separate support program element. But even this idea did not present the best solution because a problem of differentiating between "fixed" and "variable" costs was also a most difficult one. Notwithstanding these obstacles, however, program element cost data were described as providing valuable cost information as long as the limitations of the information were recognized.²⁴

Resource Inputs

An emphasis in top-level programming was placed on making decisions regarding military output in terms of program elements, but situations often arose in which it became necessary to make decisions oriented around specific resource inputs which were, in a significant degree, independent of program element decisions. For instance, a decision regarding the replacement of one B-52 bomber could not be

24 - Study Report on the Programming System . . ., op. cit.

directly considered as a program element decision. Instead, it would involve an independent decision about specific resource inputs. It is a decision of this sort that the PPB system must ultimately make. In addition, even in cases where independent resource decisions were not called for at the DOD level, there existed a need for expressing program element decisions in terms of their applied resource requirements.²⁵ This expression was intended to allow clear planning mechanisms for the acquisition and financing of the resources, to provide a convenient connection with budgets, and to make subsequent control of programs possible. It is to be recognized that such a second dimension of planning added to the complexity of the whole system, but it was considered an inescapable consequence of the need to relate military output to resource input for the purposes of planning, execution, and control of military spending.

Resource Categories

Resource category was considered either a unique type of resource or a homogeneous grouping of related sources. By definition, all resource categories were considered parts of the main categories, so that the sum total of all resource categories would be equal to the total resource requirements of DOD resource category.

Four major types of resource categories were recognized. These were: items of equipment; military construction; manpower; and, the

25 - Ibid.

functions of activities financed under the operations and maintenance appropriations.

Annexes

The resource categories described above were listed in two annexes of PPBS — a Material Annex and a Construction Annex. These two listings contained the majority of resource costs in Department of Defense. In addition, manpower operation and maintenance Annexes were later developed in order to provide complete cost information on all resource categories.²⁶

Relating Program Elements to Resource Inputs

I have said earlier that the sum of all program elements constituted the total military output, and the sum of all resource categories equaled the total resource input to defense programs. Accordingly, the two dimensions of planning, the input and output sides, provided the same overall Department of Defense program in a broadly broken-down fashion. Both dimensions were not expected to give sufficient information for all OSD planning and control. Taken together, they gave a complete picture of the sources and uses of resources among the various defense projects.

A consistency was expected of the two dimensions, since program element and resource category planning were both based on the same underlying program. One of the fundamental characteristics of the

26 - Ibid.

PPB System was that it sought to identify explicitly the relationship between program element and resource category, for only in this way was it considered to be possible to display the full impact of the overall program and to check if required resources were available to carry out the diverse activities of the DOD. I shall further elaborate on the methods of relating program elements to resource inputs when I deal with the battery of techniques used in cost-effectiveness analysis in the second part of this study.

It is a must at this stage to analyze the impact the introduction of PPBS made on defense planning in general. No doubt President John F. Kennedy understood the enormous complexity of the defense planning and programming problem when he took office in 1961. He definitely had a relatively clear grasp of what he needed to do. He had also no doubt synthesized what past deficiencies were. In his inaugural address on January 20, 1961, he said, "only when our arms are sufficient beyond doubt can we be certain beyond doubt that they will never be employed."²⁷

Accordingly, the establishment of PPBS to achieve this purpose represented one of the most far-reaching management efforts attempted in the Department of Defense and was later to be diffused throughout the Federal government. The goal of that effort was to develop an

27 - John F. Kennedy, Inaugural address, January 20, 1961. Public papers of the Presidents of the United States, John F. Kennedy, containing public messages, speeches, and statements of the President, January 20, to December 31, 1961, Washington, Government Printing Office (1962), p. 1.

integrated defense program, planned ahead for a minimum of five years, with the prices and quantities of the whole range of United States Military weapons laid out, so as to facilitate decision making by the Secretary of Defense, in terms of relative costs and effectiveness. In short, it was a management system to reveal how much defense per dollar the United States was to buy.²⁸

On being entrusted with the responsibility of running the Defense Department, McNamara visualized the following role for himself:

I see my position here as being that of a leader, not a judge. I am here to originate and stimulate new ideas and programs, not just to referee arguments and harmonize interests. Using deliberate analysis to force alternative programs to the surface and then making explicit choices among them is fundamental.²⁹

In the spring of 1961, when Hitch was named Assistant Secretary of Defense (Comptroller), McNamara announced that a major effort would be undertaken to "bridge" the gap between planning and budgeting through the development and implementation of a programming system, the major objectives of which were:

1. To plan programs around major missions rather than services;
2. To relate resources — manpower, material equipment and the like — to military output;
3. To coordinate long-range planning with shorter-range planning and budgeting;

28 - Program Change Control System in the Department of the Navy, op. cit., p. 1-1

29 - Quoted by Joseph Kraft in his article "McNamara and His Enemies", Harper's Magazine, August, 1961.

4. To appraise programs on a continuous basis;
5. To control approved programs through timely progress reports;
6. To provide a capability for making cost-effectiveness studies of alternative force structures;
7. To integrate defense information systems in order to avoid duplication.³⁰

As is to be expected, a reasonably clear state of objectives was established, and it became possible to identify the previous deficiencies.

It is true that many people put these new procedures in a misleading context, but as I have pointed out earlier, since the end of World War II, there had been an era of reform in the management and planning processes.

Although it would be beyond the scope of this study to trace specific actions taken to achieve this aim, it is necessary to say that both the legislative and the executive branches of the government had placed particular emphasis on establishing improvements in defense finance for a long time. These improvements had been concentrated on the budget process, but attention had also been focused on the related processes of planning and program budgeting. Accordingly, all the three processes of planning, programming, and budgeting had the opportunity to undergo significant improvements in the Department of Defense.

30 - Program change control system in the Department of the Navy,
op. cit., p. 2416.

The major attention in the initial stage was largely on the budgeting process, but a system had been formalized for reviewing, approving or controlling the relation of budget programs to service missions for either the budget year or the years preceding it.

The Department of Defense, with an expenditure totalling more than that of half the Federal Government budget, obviously requires two basic fiscal activities. First is the budget process, an annual cycle which culminates each December in a statement of the Defense establishments requirements in forces and money. The budget states the defense policy of the United States. In this regard McNamara has stated: "I equate planning and budgeting and consider the terms almost synonymous, the budget being simply a quantitative expression of the operating plans."³¹

The second basic activity, at least in peacetime, is the expenditure of the appropriated funds for the procurements and maintenance of the needed combat power for supporting defense policy. However, although the performance of these functions looks deceptively simple, the reality, as the Eisenhower Administration discovered, was quite different.

Professor Kaufmann reminds us that the problems lie not so much in drawing up a budget or in disbursing resources, but rather in the process of relating basic strategic concepts to forces and budgets, and in seeing that funds are spent in the most economical way commensurate with the objectives. Professor Kaufmann further states that,

31 - Organizing for National Security, op. cit.

despite those who believe in determining the budget first, or the requirements first, what can actually be done in the field of deterrence and Defense depends very much on how much the government is willing to spend. He also adds that how much the nation (through its leaders) is willing to spend may well depend, among other things, on the type and level of military effectiveness that can be achieved with additional increments. In turn, how available resources are spent determines how much combat power is actually acquired. The ability to reduce the costs of purchasing a needed item of equipment, as Kaufmann believes, can mean either an increase in the amount of equipment purchased or a reallocation of resources to the achievement of other important goals, and therefore, cost and effectiveness are intimately related.

Commenting on pre-McNamara budgeting, Dr. Enthoven pointed out that as its point of departure budgeting had the guideline dollar totals laid down by the administration and was based on estimates of the burden the economy could or should bear as a consequence:

The "required forces" always cost much more than the administration and the congress were willing to pay. The process by which conflicting interests were resolved was unsystematic and wasteful because it led to unbalanced programs. Furthermore, the Secretary of Defense did not receive adequate cost data. The budgetary system identified cost by object classes-procurement, military personnel, installations, etc. . . . the inputs to the Defense Department, rather than by weapons systems and forces, such as B-52 Wings and Army divisions, which are the tangible outputs of the department . . . moreover, cost data were presented and financial management was conducted at the defense department level on a year-at-

a-time basis. The full-time phased costs of the proposed forces were not presented to the Secretary of Defense, because the costs of most programs are small in their first years. This led to the starting of many programs that could not be completed at anything like existing budget levels. Although a certain amount of this is a desirable hedge against uncertainty, it is clear that there were a great many wasteful stretch-outs and cancellations of programs that would not have been started if the costs of all the approved programs had been anticipated.³²

Many people believed, as Enthoven does, that McNamara's Revolution had brought a great deal of change. Many even thought that its explicitness would make it easier for Congressmen to comprehend. Here is the impression it created. When the DOD budget schedules based on PPBS were prepared in December, 1961 and submitted to the Bureau of the Budget for inclusion and approval procedures in the President's budget document, the usual debate started. In justifying the budget before the House Subcommittee on Department of Defense Appropriations, Secretary McNamara discussed DOD requirements in terms of programs. Following Secretary McNamara's presentation and certain other "overall" presentations, the subcommittee conducted its hearings on the appropriations basis "in the traditional manner." Surprisingly enough, McNamara's system did not create a bad image at all. The House Committee on Appropriations commented:

This new approach to defense budget analysis is quite obviously a useful tool for planning purposes and the management of our defense effort. It should be made clear, however, that the committee's past advocacy of this concept for analyzing defense require-

32 - Enthoven, op. cit.

ments and the committee's present support and enthusiasm for the effort this year does not mean that a radical change in defense budget preparation and organization is being supported. From the Committee's point of view, at this time, a new aid in evaluating defense requirements has been added, nothing more.³³

Although the impression PPBS created on some congressmen was favourable, before closing this chapter I would like to explore the question of whether McNamara's dream of rationalizing defense spending has actually reached a successful conclusion.

In my opinion, the so-often-talked-about success in the Department of Defence has been only marginal. I do not fully agree with Wildavsky, who holds the view that PPBS policy-analysis has been successful in the Department of Defense. Wildavsky's argument is that, although PPBS has worked well in the Department of Defense, it does not follow that PPBS can also meet with the same kind of environment in other government departments.³⁴ I have reasons for disagreeing.

33 - Department of Defense Appropriations Bill, 1963, Committee on Appropriations, House of Representatives. Report Number 1607, 87th Congress, 2nd Sess. (Washington, Government Printing Office, 1962), p. 5.

34 - Wildavsky, of course, is very critical of PPBS, but in his thought provoking article, "Rescuing Policy-Analysis from PPBS," he assumes that McNamara's Systems-Analysis was successful in the Department of Defense. Some of Wildavsky's reasons for success are attributed to, "the fact that defense appropriations were increasing at a fast rate made life easier for McNamara." The expected objectives of clientele groups, for example, were mooted by the fact that defense contractors had lots of work, even if it was not exactly what they expected. Rapid organizational growth may also improve the possibilities for change. The sheer increase in organizational size means that many new people can be hired who are not tied to the old ways" See Aaron Wildavsky, "Rescuing Policy-Analysis from PPBS," Public Administration Review, vol. XXIX, No. 2, (March/April, 1969), pp. 189-202. See specially the sub-sections, "Why Defense Was a Bad Model" and "No One Can Do PPBS", pp. 191-192 and p. 193 respectively.

I believe that the centralizing effects of PPBS are inevitably curbed by the fact that, although major policies can be controlled from the DOD, due to the exigencies of the war in South East Asia, several important decisions are left to the discretion of military service departments. There is no doubt that in a war situation, sufficient weight has to be given to the views of people who are near to the base of the pay-off function. No systems-analysts can embark on challenging the wisdom of the officials in the service departments who probably know more about the tasks of their section than anybody else from the top echelons of the DOD. The officials of the service departments with full control over information in their sections do use cost/benefit analysis to their department's advantage, and in such a circumstance, it would be hard to scrutinize the deductive and inductive methods employed to prove their points. As a result, each service function goes its own way as long as it can achieve its limited military objectives within the framework of the overriding policy laid down by the Joint Chiefs of Staff.

In addition, there is always a gap between professionals and generalists. This situation is most aptly described by Hammond, who says that:

Military judgement is esoteric and reserves a privileged position in the market place of ideas as well as in the policy clearance process for specified authorities who possess it. In some degree, every professional group claims that its professional talents involve esoteric knowledge. It cannot claim special status without doing so. . . .³⁵

35 - Paul Y. Hammond, "Functional Analysis of Defense Department Decision-Making in the McNamara Administration," The American Political Science Review, vol. LXII, 1968, pp. 57-69.

John Ries also, in his stimulating analysis of organizational and decisional control in the DOD, calls attention to this same fact. He reminds us that the civilian official at the top of the pyramid and the military official with specific military duties cannot work on the basis of a clear-cut division of labour. This means that the soldier's task does not end with determining the methods of dealing with, say, manpower and equipment needed. Nor does the statesman's task end with the determination of organizational goals. Both are intertwined and shade off into each other's area. Accordingly, the statesmen and the military man make policies on a par basis. But the control of the defense establishment is more of politics than administration. Since military men always have a strong backing from congressmen, who, whether for the pay-off in local politics or just due to their patriotic tendencies, find it hard to oppose expenditure requests for most segments of the Department of Defense,³⁶ the man at the apex of the pyramid has to be tactful in all of his actions. To prove this point, Ries tells us the cases of several Secretaries of Defense who lost control when they failed to recognize this cardinal factor. It is a fact that the authority of the Secretary of Defense does not depend upon the degree of uniformity imposed upon the defense establishment, but the degree of agreement that can be developed among various people, who, because of responsibility, knowledge and expertise, participate in means-ends adjust-

36 - See Irish and Prothro, op. cit., pp. 642-651.

ments of policy making.³⁷ The ultimate power of the Secretary to get his policies implemented is therefore through "power to persuade."

Due to the peculiar nature of the defense establishment, even the points discussed above may not have the expected results. As long as service departments enjoy an unquestionable monopoly over information passing up the pyramid, as long as military men are accorded special status for political and other related reasons, and as long as there is a gap between the specialist and the generalist, it is hard to imagine how defense policy makers can use PPBS techniques to their advantage.

Let us take the 1961 Bay of Pigs affair, which took place at the same time as Hitch's and McKean's Economics of Defense in the Nuclear Age was being enthusiastically embraced by the Pentagon. To shorten the explanation of the event, I quote Brzezinski and Huntington. The authors of Political Power U.S.A./U.S.S.R summarize the event as follows:

The exile units had been formed, armed and made ready. The CIA had prepared a plan of attack, which in March was submitted to the president and his advisors. The president's military staff confirmed the feasibility of the undertaking. It involved a concentrated landing of a brigade of men, backed by limited air strikes and presumably aided by internal uprising. It is to be noted that, the undertaking, planned by lower echelons, was the only plan of action presented to the Chief Executive. Its rejection would have been tantamount to abandonment of direct action

37 - John C. Ries, The Management of Defense : Organization and Control of United States Armed Forces, Baltimore, The John Hopkins Press, (1964).

and would have meant continued reliance on . . . the Eisenhower policy explicitly criticized by Kennedy during the campaign. Furthermore, the rejection of the plan would raise the additional problem of the disposal of the armed men, of their morale and of the fate of the anti-Castro guerrillas on the island. Finally the president was warned that within a short period of time Castro was to be equipped with MIG's, and hence even a brief delay would make subsequent action of this sort more hazardous. The warning was thus the trigger event . . . The decision was made to land.³⁸

The campaign was, of course, a failure, but what is important here is that the military proved it could do anything by preparing an event in a way advantageous to its wishes. In such a case, I do not think that there is much the Chief-Executive, (who is also the Commander-in-Chief of the Armed Forces) and the Secretary of Defense could do. Nor do I believe that cost/benefit analysis could help to avoid the dilemma.

Coupled with the above points, there is also another political consideration. President Eisenhower, during his term of office, had called attention to the fact that the "Military-Industrial-Complex" has acquired unwarranted influences in all walks of life, whether economic, political, or even spiritual, "in every city, every statehouse, every office of the Federal Government." The Department of Defense spends billions of dollars for the procurement of missiles, airplanes, helicopters, guns, electronic devices, tanks, vehicles and so on. Military

38 - Zbigniew Brzezinski and Samuel Huntington, Political Power : U.S.A./U.S.S.R., New York, The Viking Press (1964), pp. 380-381.

men not only decide what to buy and how much to buy, but where and from whom to buy. This obviously involved business arrangements and contracts with several big corporations. The Defense Department also spends billions in investments on naval bases, real estate developments, training camp arsenals, air bases, etc. Where to locate them involves not only military but political considerations.

Thus, the Defense Department is far from being within the grips of top officials of the DOD. It involves scientists, engineers, and defense contractors. The magnitude of this phenomena is best summarized by Price, who wrote:

If anyone doubts the boundaries are different today, let him reflect on the facts that Mr. Francis Powers, who flew the ill-fated U-2 over Russia, did so (or so the NASA announced) on the payroll of a private aircraft company; that technical assistance and international educational exchanges which have become important arms of foreign policy are largely conducted by universities and private institutions under contract for the government; and that some of the most important strategic studies are being made for the military, not by staff officers in uniform, but by a series of private institutions which began work under the somewhat narrower concept of operations research.³⁹

Considering all the points I enumerated above, my personal view is that even with PPBS cost/benefit analysis, there is no escaping the fact that in all fields of policy decisions, DOD officials have to assume large political risks. Whatever action is desired cannot be successfully employed without a political support outside the Defense Department,

39 - Don Price, The American Assembly, The Secretary of State, (Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1960), p. 169.

whether from the White House, the Congress, the interest groups or the general public. Conversely, even if the pay-offs in both military and political sense are high, as long as there is departmental and professional inertia, the effective use of PPBS cost/benefit analysis will still remain marginal.

Looking back on its limited achievements, McNamara's management system seems to have been pushed too fast and too far. To obtain a working balance, more external support should have been generated. It is true that, as Wildavsky points out, balance was kept by some unusually favourable circumstances during the 1960's,⁴⁰ but the chances are that, had this not been the case, several adverse factors might have developed and the innovative promises of PPBS might have backfired.

I concede that if political balance is stressed, retrenchment in PPBS would be inevitable. I also recognize that in order to have the necessary political support, it would be necessary to exploit the available political base in pluralist politics. It follows from there that the more a given political base is exploited, the more centralized decision making has to be sacrificed. Accordingly, if DOD officials want to accept the political reality, they cannot wholly dispense with tradition, even if it would mean suppressing some risky innovations, hedges and options to a certain degree.

40 - Wildavsky, "Rescuing Policy Analysis . . .", op. cit., p. 192.

In the last few pages, I have described pertinent circumstances which existed at the time when PPBS came out of its cradle in the Department of Defense. Some of the obvious deficiencies in defense planning and budgeting were identified. A record is made of information which set forth the goals of the new PPB system; and the policies, procedures, forms and reports which constituted the mechanisms of the PPB system in the DOD have been briefly introduced. A bird's-eye view was given of the first hectic months in 1961 when the system took its initial shape and form.⁴¹ Finally, I described how McNamara brought PPBS into being as an existing management system — later (in 1965) to be introduced into all branches of the government of the United States;⁴² or, as Wildavsky cynically referred to this phenomena, "Spread around the land."⁴³ I have also given my personal views of its present position.

41 - Procedures for Program Change Control and Related Progress Reporting, Department of Defense Instruction 2045.2, April 17, 1962, ASD (Comp.).

42 - See Bureau of the Budget, Bulletin No. 66 - 3, op. cit.

43 - It is interesting to note that, since its introduction, PPBS has been greeted both as a "revolutionary development in government budgeting" and "an impractical hasty development." Wildavsky, who looks at PPBS with skepticism, states, "We would be in a much stronger position to predict the consequences of program budgeting [PPBS] if we knew: (a) how far toward a genuine program budget the Defense Department has gone; and (b) whether the program budget has fulfilled its promise. To the best of my knowledge, not a single study of this important experiment was undertaken before the decision was made to spread it around the land." See Aaron Wildavsky, "The Political Economy of Efficiency of: Cost-Benefit Analysis, Systems-Analysis, and Program Budgeting," Public Administration Review, (December 1966), p. 306.

Professor Frederick Mosher, on the other hand, greets it differently when he states, "PPBS has provided presidential and departmental support for the intensive analysis of programmatic and budgetary problems in depth." Hearings, U.S. Cong., Senate, Planning - Programming - Budgeting, Washington, Government Printing Office (1967), p. 25.

It is my hope that the information in this chapter provides an essential stepping stone to move onto the more detailed review analysis and practical implications of the main aim of PPBS — referred to by United States President Johnson, in his March 17 message after the introduction of PPBS into the Federal Government of the United States, as "the ability to develop objectives and goals precisely and carefully and then examining in every case alternative means of achieving them,"⁴⁴ not within the context of the United States Bureau of the Budget in which numerous researches have already been conducted, but within the context of its counterpart, the Treasury Board of Canada, where, to the best of my knowledge, no specific empirical study in this field had ever been attempted, from an academic point of view.

Before going into the detailed analysis of PPBS policy-making, I shall make a brief scanning of the American counterpart of budgetary reforms in Canada until the introduction of PPBS and then give a short contrast between traditional budgeting (by traditional, I mean object-of-expenditure), and PPBS.

44 - See Lyden and Miller, op. cit.

3. BUDGETARY REFORMS AND PPBS IN OTTAWA — TRANSPLANTATION IN THE CANADIAN SYSTEM?

i. A Capsule History of the Canadian Treasury Board

The trend in reform movements discussed in connection with the United States budgeting evolution was not a unique phenomena. There was a similar trend in Canada during the same period and this can be best illustrated by scanning a capsule history of the Treasury Board. (The reasons why the budgetary systems of the United States and Canada are undergoing the same change will be dealt with in due course.)

The Canadian Treasury Board was established by P.C. 3 of July 2, 1867. It is an executive machinery that carries out financial control and decisions, concerning annual appropriations of government expenditures. The Board is the Committee of the Privy Council dealing with all matters of finance, accounting and budgetary programs and administration of the civil service within the framework of the decision of Governor-in-Council. It is therefore quite appropriate to refer to it as the "Queen of Departments".

Until the year 1930, public funds in Canada were governed by the Consolidated Revenue Act of 1878. This period was characterized by faulty financial control and over commitment to unbalanced programs. In 1931, the Revised Consolidated Revenue Act was enacted establishing a pattern of Central Control over the financial operations of government departments. The act gave more prerogatives to the Treasury Board

to tighten control not only in government finance but also over administrative procedures of the departments.

At the time when Program and Performance Budgeting movements were in vogue in the United States and the first Hoover Commission Report was being debated, a similar trend was developing in Canada.

In 1946 a report by the Royal Commission on Administrative Classification in the public service (best known as the Gordon Commission Report), severely criticized the dual control of departmental and Civil Service function by the Civil Service Commission and the Treasury Board, since the former was responsible for administrative classification and organization while the latter exercised full financial control over the same functions. The Commission recommended that the Board be given full powers to deal with all financial and administrative matters in the public service.¹ The recommendation of the Gordon Commission, however, was not adopted. Whatever reasons the government may have for showing reluctance in implementing this recommendation,² however, the

1 - Government of Canada, Royal Commission on Administrative Classification in the Public Service, Report, vol. 1, King's Printer, (Ottawa, 1946).

2 - Professor James Mallory (in his lecture in Canadian Government) feels that the reluctance was mainly because it was politically impossible to implement, although it seemed, in a sense, quite a sound recommendation. The truth is, according to Professor Mallory, most of the decisions of the Commission were actually made by civil service mandarins such as Mr. MacKintosh who made the research and provided information for it. He further adds that M.P.'s from French Canada were specially reluctant to accept the recommendation since they had a legitimate fear that a centralized financial and administrative control by the Treasury Board based on merit would mean an undermining of the already shaky French-English balance in the civil service.

idea of strengthening Treasury Board control was not abandoned.

The Financial Administration Act of 1951 gave sweeping powers to the Treasury Board. The Act empowered the Treasury Board to act as "Controller of the Queen's Privy Council for Canada" in all matters relating to finance, resources, estimates, expenditures and financial commitments, accounts establishments, and the terms and conditions of employment of persons in the public service.³

The 1958 Royal Commission headed by Heeney, (a well known civil servant) recommended that it was necessary to make a distinct clarification of distribution of authority between the Treasury Board and the Civil Service Commission. The distinction between the Treasury Board and the Civil Service Commission was, however, tied to the distinction between governmental finance and policy. As a result, the Heeney Report was accused of trying to give a 'novel role' to the Civil

3 - It also provided that the Council may authorize the Board to exercise all or any of its powers except that of appointment under the Civil Service Act, the Civil Service Superannuation Act, the Defence Service's Pension Act and Part II and VI of the Royal Canadian Mounted Police Act. Some of these powers were vested in the Treasury Board by Orders-in-Council of May 6, 1952. By Order-in-Council of May 30, 1952, the Treasury Board was given delegated powers to approve entry into contracts and leases other than those described in the regulation with approval of Governor-in-Council. Some still need approval by Governor-in-Council after approval of the Treasury Board. For example, Section 5 of the Financial Administration Act reserves the power of appointment to Governor-in-Council. Section 22 of Financial Administration Act also requires that remissions of fees, taxes or penalties be approved by Governor-in-Council, and Section 23 of the same Act requires similar approval for deletion from public accounts of certain debts due to the Crown. See Financial Administration Act, 1951; and its subsequent amendments.

Service Commission at the expense of efficiency control by the Treasury Board, a bias attributed to Heeney's civil service background. Fortunately or unfortunately, the report came too late, since a new government was already in power in 1958.⁴

Meanwhile, the government set up another Royal Commission headed by Glassco to make further enquiry into Government Management. Since I consider the Glassco Commission Report as a prelude to the introduction of PPBS into Canada, (as the Hoover Commission Report is considered a prelude to the introduction of PPBS into the Federal Government of the United States), I shall touch briefly upon the recommendations, their impacts and outcomes on the proper functioning of modern management of techniques in the Treasury Board.

It was on the 27 of September, 1961, that the Government of Canada set up the "Royal Commission on Government Organization" headed by J. Grant Glassco "to report upon steps that may be taken for the purpose of improving efficiency and economy by alterations in the relations between government departments and agencies on the one hand, and the Treasury Board on the other."⁵ The Report classified

4 - In addition, there were many other recommendations in the Heeney Report in fields generally considered politically sensitive. For example, some radical steps suggested in collective bargaining for the public sector and the recommendation to repeal veterans preference in the name of efficiency and merit in government, were either passed at a point of emasculation or dropped altogether. Professor Mallory considers Heeney's immediate appointment as Ambassador to Washington as a clear political move since his absence was hoped to halt the controversy surrounding these issues, at least for some time to follow.

5 - Government of Canada, the Royal Commission on Government Organization, Report, Vol. 1, Queen's Printer, Ottawa, 1962.

effective management into two Categories, the first being the administrative operations of each department and the second, central direction and coordination of all activities of government. Although the report acknowledged the fact that the Treasury Board had been evolving as a strong governmental machinery over the years, it recommended that if better and effective management characterized by full flexibility and responsiveness, (ideal to the need of modern government), is to be instituted, it is necessary: that the Treasury Board have its own presiding minister; that the secretary of the Board should be elevated to the position of a Deputy Minister; that there should be a change in the pattern of the Board's organization; that the Treasury Board be joined to the Privy Council Office; that the Board should be divested of administrative details and instead concentrate on the essential functions of administrative coordination and leadership; that the new management techniques developed by the private sector should be adopted, since, as it puts it, "both aim at 'maximum productivity'"; and that to serve the needs of departments and agencies, an automatic data-processing machine should be established in Ottawa.

The Glassco Commission Report, just like the previous two Reports, became a subject of controversy in academic and political circles. However, many of its recommendations were eventually adopted.⁶

6 - The creation of the office of Treasury Board President by section 3 (2); the elevation of Treasury Board Secretary to the rank of Deputy Minister by section 4 (2); and the institution of a separate Treasury Board Staff by section 4 (3) of the Financial Administration Act of October 1, 1966 are some of the results of the Report. However, considering its overall recommendations, there remained several sensitive spots open to controversy. The assumption of dealing only with administrative management without adequate political considerations reflected the same trend that was develop-

ii. PPBS : A Transplantation in the Canadian System

Not so long ago, academics could warn:

... there is very real danger that our government, while trying to emulate a most popular movement in the United States might be misunderstanding, misinterpreting, and grossly underselling the true precepts of Program Budgeting Certainly no one can discredit the efforts of our government and many others to increase efficiency and improve methods through scientific technique. It is unfortunate, however, that these efforts, are often naively compared with the advanced thinking of United States Program budgeting.⁷

This judgement, in my thinking, is already outdated.

The established tradition in the Canadian budgeting system for the last several decades was based on object-of-expenditure by units of organization, the development of which was elaborated upon in the first part of this study. This system was obviously cumbersome for expenditure analysis as the proliferation of government activities in-

ing in Program budgeting movement of the United States. The Glassco Commission Report did not take Parliamentary government in its totality. The social and political implications of replacing most Treasury Board jobs with computers had not been given enough consideration and evaluation.

The analogy between business and government was also totally unrealistic. Assuming that government and business have the same aim is also questionable. Even if that were true, it does not follow that they can use the same means to reach the same ends. As Professor Mallory puts it, "no wonder that these sweeping proposals angered many people." Even the chart showing the general plan of central authority which put the President of the Treasury Board and the Prime Minister side by side had puzzled some observers. Professor Mallory does not consider it fair to put the blame squarely on Glassco. The government mandarins, "who directly affected the Report are to blame." In my view, it would not seem fair to blame them either, because they do not seem to know the political implications of recommending actions that would hinder the proper functioning of a Cabinet Government.

7 - P.L. Little and C.L. Mitchell, "The Program Budget : Planning and Control for the Public Sector" in A.M. Whilms and W.K. Kernaghan, Public Administration in Canada : Selected Readings, Methuen, Toronto, 1968, p. 198.

creased. As the Honourable Mr. M.C. Drury, the president of the Treasury Board explains:

There is ample evidence that this form of Presenting the Requirement for the funds had a strong influence in the departments on the Planning For the Use of the funds. Certainly, the staff of the Treasury Board and, I am told, in days before I was associated with the Treasury Board, the Ministers of the Board themselves, became lost in the details of kinds of expenditure and tended to give less attention to purposes than one would expect, so that the central review of expenditures was mired in detail.⁸

The traditional plan of taking the previous year's budget as a base and dealing only with the following year's increment alone tended to perpetuate tradition and new programs were introduced "without appropriate critical evaluation of their relativity to the old."⁹

Five years ago, approximately the same time that President Johnson endorsed the PPB system and introduced it into the Federal Government of the United States, the Canadian Treasury Board made a requirement that departmental proposals be based on program objectives. Accordingly, each department is now required to present a document called a Program Forecast Submission showing resource inputs needed to fulfill specific objectives in dollar costs, five years in advance.¹⁰

8 - The Honourable C.M. Drury, President of the Treasury Board, Speech at a Financial Seminar, York University, March 6, 1970.

9 - Ibid.

10 - Government of Canada, Planning, Programming Budgeting Guide, (Revised Edition), (September, 1969), Queen's Printer, p. 4.

Just like the United States budgetary system passed through early reform movements of executive, object-of-expenditure, cost-data and performance budgeting, and finally culminated in PPBS, Canada had also pulled itself through the reform movements of the 1930's, the Royal Commission recommendations of 1946, '58 and '61 and has now alighted on the road to PPBS.

To date, in form and content, PPBS has been as enthusiastically, (and controversially), received in Canada, as it was in the United States. The Prime Minister, Mr. Pierre Elliott Trudeau, has officially endorsed PPBS, in his policy statement and the departments are now required to follow PPBS guide-lines in their submission of budgetary proposals. Of all enthusiasts, even Time Magazine greeted it well. It even attempted to explain "how to do PPBS". Time wrote:

The Holy Writ in Pierre Trudeau's East Block is gaining acceptance among other Government departments. Called PPBS — for Planning, Programming, Budgeting System — the new system made its Commons debut last week when Treasury Board President C.M. Drury tabled the Government's 1970-71 spending estimates. As M.P.s were delighted to discover, PPBS produced a readable Blue Book.

A management tool used by business and Robert McNamara's Pentagon, PPBS has bloomed in the Trudeau Government both as an intellectual discipline and a central planning technique. It insists that the budget-making process should start with clear, detailed definitions of objectives. In the sort of example East Block planners dream up, if the traditional function of a department were to make doughnuts, budgeting under the old system might simply have involved a decision to "give the doughnut division \$2,000,000 to do its job in '70-71." PPBS would instead begin by defining the precise

objective, say to produce 6,000,000 savory doughnuts. It would then assign the job to an appropriate division, with a complete cost breakdown: \$900,000 for mixing dough, \$500,000 for cutting holes and so forth.

Psychological Boon. An advantage of introducing the system is that it often turns up savings — as in a discovery that the doughnut division really needs only \$1,900,000 to do its job, and all along has been spending the extra \$100,000 on a pet ladyfinger project. In the discipline of PPBS, money is budgeted to satisfy specific objectives rather than institutions, and produces the salutary psychological attitude that says not "I work for the doughnut division," but "I make savory doughnuts."¹¹

However, Little and Mitchell make a good point when they remark that:

... efficiency, rather than effectiveness, is already a considerable goal of our government. More important would be an effort to appropriate funds in terms of specific goals and desired outputs instead of on any agency basis. Secondly, perhaps one of the most important imperatives of the program budget is to place the emphasis on identifying "alternative means of achieving the goal of a program."

They add:

These are two basic steps that we must look for in our government's budgetary process, before we can say that program budgeting has started. Cost comparisons, appraisal, development of control techniques . . . can only follow these two basic characteristics.¹²

As regards the first point, Mr. Bruce McDonald, Director General for budget coordination in the Treasury Board stresses the

¹¹ - Time Magazine, vol. 95, No. 8, February 23, 1970.

¹² - P.L. Little and C.L. Mitchell, "The Program Budget : Planning and Control for the Public Sector," in Cost and Management, Vol. 41, September 1967, pp. 22-26.

fact that the budget for 1970-71 is written not in line-item form but in terms of integrated programs and plans aiming at the achievements of long range goals.¹³ Mr. McDonald also calls attention to the fact that the Treasury Board basically aims to use PPBS cost/benefit analysis in alternative policy selection.¹⁴

Perhaps the best picture of the Canadian brand of PPBS can be found in the speech by the Honourable C.M. Drury, President of the Treasury Board in the House of Commons on February 11, 1970. Mr. Drury addressed the House with the following words:

The tabling of these estimates marks a major step forward in an endeavour by the government to improve the process of resource allocation and to better inform Parliament and the people of Canada of the objectives, operations and costs of the departments and agencies of government. The form of these estimates is radically different from that which has been followed for more than half a century. For the first time the expenditure proposals respecting departments and agencies are clearly formulated in terms of programs. The objectives and sub-objectives of each program are stated and the nature of the program further amplified through a description of the activities carried on in pursuit of program objectives.

13 - Personal interview. See also Distribution of 1968-69 Estimates PPBS Guide, op. cit., Appendix B, p. 66.

14 - Interview. See also the Planning, Programming Budgeting Guide. This Guide, which is particularly addressed to senior management officials who have access to budgetary decision making, in fact provides a brief instruction of the ways of using cost/benefit analysis. See Planning, Programming Budgeting Guide, op. cit., pp. 26-39 and an adopted illustration in Appendix D, at pp. 96-110.

The aggregate of expenditures proposed to Parliament for each program is classified, first in terms of these activities and, second in terms of the portions of the aggregate to be devoted respectively to operations, to capital and to grants and contributions. Data are provided, under the same classifications, for the forecast expenditure for 1969-70 and the actual expenditure for 1968-69.

When a program involves large expenditures on capital there is provided a table listing the major projects and showing for each the expected total cost distributed between expenditures up to and including the current year, the expenditures forecast for 1970-71 and the subsequent total until completion.

In previous estimates all items for loans, investments and advances were grouped together at the back of the Blue Book. In the new form, such items are shown alongside the related budgetary expenditures in order to be more informative

Mr. Speaker, I believe that the estimates in the form I am now tabling provide a clearer and more informative presentation than we have had heretofore of the proposed allocations of fiscal resources to the budgetary requirements of Canada¹⁵

In my study so far, I have shown that PPBS grew out of reform movements born out of dissatisfactions in the local conditions of the United States' budgetary administration. I have also shown that similar movements and developments were going on in Canada throughout all the three stages of budget reform discussed in the preceding chapters.

One may surmise why the government of Canada has to show

15 - The Honourable C.M. Drury, Speech in the House of Commons, Canada, House of Commons Debates, Vol. 114, No. 64, 2nd Session, 28th Parliament, February 11, 1970, pp. 3467-3469.

so much interest in a PPB system. I would consider it naive to think that this is a surprising coincidence. In my view, it rather seems that Canada has chosen to follow in the footsteps of its great neighbour, not only because it undoubtedly shares its political values, but also because of the great analytical techniques PPBS promises to provide. It may also be conjectured that the impact of publicity given to the "McNamara Revolution" in the United States Department of Defense has something to do with Canada's immediate enthusiasm for PPBS.

However, the main reason is best described in a speech made by the Honourable C.M. Drury, President of the Treasury Board, on March 7, 1970. Mr. Drury said:

The danger of the traditional budgeting process is really of a more serious kind. It arises from the fact that we have been attempting to get along with the same old budgetary process that we used in the 1920's and '30's and certainly the '40's and '50's while the size of the government budget, the scope of its activities and the sweep of its operations have changed out of all recognition. The old budgetary process had begun to break down under the burden of carrying a load it was not designed for. It presupposed a government so small that the detail of departmental expenditures could be subject to almost day-by-day central control. And a government so small that in fact, the budgetary process was almost entirely an accounting and not at all a planning and a resource allocation exercise. I think it may be argued that we have found in our first steps in implementing program budgeting at least a partial answer to the problem of producing an allocation of resources, much more in line with the deliberately chosen priorities of the political process than used to be the case.¹⁶

16 - The Honourable C.M. Drury, Speech at a Financial Seminar, op. cit.

At this stage, a question may be posed how the transplantation is actually working. Is PPBS in Canada in the same environment as PPBS in the United States? The answer is emphatically "No." Perhaps transplantation is not even the right word. The process seems rather a half-hearted adaptation.

What makes PPBS in Canada different from PPBS in the United States? The point usually made by the United States critics of PPBS is that to adopt PPBS in the United States is to encourage executive centralization of policy decisions which is contrary to the cherished ideals of the separation of powers in the American system. It would rather, they argue, lead to the British System of, what several observers consider, "Cabinet dictatorship" in parliamentary democracy.¹⁷

However, "Subject to variations in detail" as Corry and Hodgets put it, "the legislative-executive relationship in financial matters in the federal government in Canada follows closely the British pattern."¹⁸

The Canadian Department of Finance and the Treasury Board are already very powerful in the shaping of financial policy, since they constitute together the Committee of Cabinet in budgetary decision-making and the allocation of resources.¹⁹ If this is the existing state of affairs, one may further ask, would not the adoption of PPBS in Canada mean

17 - See Wildavsky, in Lyden and Miller, op. cit., pp. 393-397.

18 - J.A. Corry and J.E. Hodgets, Democratic Government and Politics, University of Toronto Press, (Toronto, 1959), pp. 342-343.

19 - MacGregor Dawson, Government of Canada, 4th Edition, University of Toronto Press, (Toronto, 1958), p. 393.

putting too much power in the Cabinet, an executive body that is not only part of the legislature, but is also already in firm control of the parliament through its majority status, which is not the case in the United States? The argument is not without foundation.

It is true that in the United States, as Wildavsky points out, the adoption of PPBS in its pure form would mean an outright shift of the American system to the British type of parliamentary democracy. It is also true that Canada has a system that roughly corresponds to the British system, and since the Treasury Board and the ministers are the Committee of the Cabinet which already enjoys a monopoly on the shaping and execution of budgetary policies, the adoption of PPBS would further entrench the strength of the government of the day.

This, however, is not considered a malaise in the views of many Canadian officials. On the contrary, it is considered most efficient and advantageous, since the situation obviously reduces the resistance to the adoption of PPBS techniques that is rampant in the United States today. On this point, the president of the Canadian Treasury Board says:

Part of the criticism levelled by Dr. Wildavsky against PPB was that it hindered rather than helped policy analysis. From the Canadian Government point of view, I do not quite see why that should be so, however true it may be of the American environment with which Dr. Wildavsky is familiar. Indeed, I would say that these purely structural changes that we have made will go a long way in reducing one of the impediments to policy analysis and that is the shortage of time of those who make policy decisions and those who advise upon them. In a democratic state, with a Parliamentary system, the demands on time of Ministers and upon the officials who advise them most directly, often starve policy questions of the time they merit. Nonethe-

less, policy decisions have to be made. In what we have done so far in PPB, we have at least contrived to make more information available to the policy mill at an earlier time and in better ordered form.²⁰

Donald V. Fowke also feels that, "the American experience augurs well for successful employment of PPB in Canada," although he goes on to warn, "but it raises danger signals about the way in which programs are designed."²¹ In practice, the picture drawn by Fowke of PPBS in cross-country Canada is that:

Detailed budget preparation often precedes the resolution of policy issues on which such budgets should be based. Policy issues and review of executive plans are frequently undertaken simultaneously. Planning bodies often have fragmentary impact on the program mix of the government and sometimes, only through direct intervention. On the other hand, cabinets often feel that they can have little effect upon departmental expenditure patterns; on the other, program efforts are frequently frustrated by across-the-board budget adjustments which render planned activities impotent.²²

This state of affairs is not very different from that in the United States. I shall thus put both experiences together and subject them to a closer analysis in the last part of my study. Let us now have a clear picture of the difference between traditional budgeting and PPBS before we go into this analysis.

20 - The Honourable C.M. Drury, Speech at a Financial Seminar, op. cit.

21 - Donald V. Fowke, "PPB for Provinces," Canadian Public Administration, Spring, 1969, Vol. XII, No. 1.

22 - Ibid.

4. TRADITIONAL BUDGETING AND PPBS — CONTRAST IN A NUT SHELL

One of the major reasons that led to the development of PPBS is the need to bring co-ordination to the traditional process that had been marred by fragmentation and conflict arising from agency self-interest. PPBS, as a theoretical framework, is intended to integrate policy making under the leadership of the chief executive. It is to be remembered that the previous performance budgeting movement initially aimed at making allocation of resources a "value neutral technical process,"¹ and PPBS is nothing but a further manifestation of this movement.

As described in the preceding chapters, there were several inherent obstacles in traditional budgeting. Budgetary practice, before PPBS came of age, was a process which created difficulties for the executive to translate policy objectives to the fulfilment of the social and economic needs of the citizen, by enabling agencies to partly conceal their programs and performance from central scrutiny. Since data were organized along organizational lines, it impeded interdepartmental comparisons. It emphasized objects which were important for agency management, rather than activities which were relevant for central policy making. The traditional incrementalist budget model

1 - Glendon A. Schubert Jr., "'The Public Interest,' in Administrative Decision Making : Theorem Theosophy or Theory?" The American Political Science Review, vol. LI (1957), p. 347.

tended to accept the previous year's level and distribution as the base for the following year's and thus made it difficult for the chief executive to reinforce policy dynamism.²

On the other hand, PPBS encourages executive leadership and administrative integration by coordinating interdepartmental expenditure policies under the chief executive. PPBS puts departments side by side and the previous year's level of spending beside the requests for the following year.³ Since budget in this case is the product of a comprehensive evaluation of alternatives, the spending estimates in PPBS are more likely to be coherently and consistently fitted to the executive policies than recommendations based on give and take among competing units. PPBS is thus, at least theoretically, a potent centralizing force, for no longer is a budget a bargain between pressure groups with the chief executive playing only a marginal part in the final making of the budget.

Budgeting in PPBS is also integrated by a second tool — objective performance measurements. Whereas executive leadership offers the advantages of coordination, performance measurements make possible a natural harmony through the common goals and commitments of the budget makers. PPBS enforces a unity of purpose by bringing the agencies under the control of the chief executive. It also seeks an end to haggling and discord by harmonizing the relationships between

2 - Schick, op. cit., pp. 26-52.

3 - Ibid.

the budget makers.

PPBS decision making is to be aided by the scientific use of information. What was prophesied of cost/data several decades ago, is to be fulfilled by the PPB system. ("Budget-making is a science and should be dealt with scientifically," said the New York City Board of Estimates in 1917.⁴) This 1917 assertion has been a persistent dogma of reform since 1906. From the Taft Commission to the Hoover Commission reports, the failure of traditional budgeting had been recognized. As the Association of Business Management in Public Health claimed, the development of Program Measurement was the result of "the failure to develop a rationalized System of Managerial statistics." The Association declared:

Historically, public health management has approved its problems largely through deductive analysis based on personal experience and observation and fortuitously assembled administrative data. It has been guided in its decisions by intuition, consultation, the forces of circumstances, and generally accepted rules of thumb."

The Association added, "The 'face to face' contacts and personal impressions that had been traditionally relied upon to provide information on program information are becoming less dependable as staffs and services expand. Positive sources of objectives and significant data are required to fill these gaps in communication."⁵ It was felt that if

4 - Letter from the New York City Board of Estimate to the Mayor. Quoted in Arnold W. Lahee, "The New York City Budget," Municipal Research, LXXXVIII (1917), p. 19.

5 - Association of Business Management in Public Health, A Guide to Public Health Program Accounting (December, 1958), p. 12.

budget data were deprived of their traditional subjectivity, departmental manoeuverings and quarrels would not arise. William Mosher put this position clearly at a 1937 meeting on the use of work measurement in federal agencies when he wrote:

If budget bureaus and budget officers were accustomed to think in terms of units of work and performance achieved in the past, and to be achieved in the future, — the determination of the new budget could be handled on a much more realistic basis and with closer reference to known facts and reliable predictions, thereby eliminating a considerable part of the 'higgling' . . . the annual get togethers of the budget bureau and the department heads.⁶

The budgetary system envisioned by John Dwyer and Carl Tiller are a striking illustration of the coordinating aspirations of PPBS.

Dwyer defined performance budgeting which is a prelude to PPBS as:

. . . a process which requires departments to systematize their records and operations along the lines of work programs and activities with planned objectives and goals and with measured manpower allocations and costs for the efficient accomplishment of these objectives and goals. It is a process which requires central budgetary authorities to review the departmental budget requests in the light of projected goals, work loads and performance yardsticks, and to make decisions within the framework of this system

The process can be deemed effective if it (a) provides a rational framework for the quantitative explanation and evaluation of staff needs, (b) removes from controversy between the parties to the decision making - process, a maximum of issues of fact and measurement, (c) provides a common technical language for those constructing the staff request

6 - William E. Mosher, "The Development of work units in Public Administration," in The Work Unit in Federal Administration (Chicago : Public Administration Service, 1937), p. 7.

and those reviewing it; (d) provides a picture of what should be, so that post audits can compare what actually took place with what should have taken place; and (e) assists Management in the investigation of deviations from plan and in taking appropriate corrective actions.⁷

Tiller also expresses the same idea in a more practical language, when he enumerates what he considers the essentials of modern budget formulation to facilitate decision-making, in the following manner:

- (1) Providing a clear delineation among the factors in decision-making — that is, requiring a separate look at the output side of the budget as distinguished from the input side. For each appropriation and fund . . . , two schedules of data are required which come to the same totals. One of them emphasizes output and shows "programme by activities." The other emphasizes input factors and classifies financial data according to uniform objects of expenditures (salaries, travel, etc.).
- (2) Utilizing a structure for programme analysis which truly represents the various objectives of the performance which the citizens may expect from their Government. . . . in the installation of "performance budgeting," we found that this requires a distinct effort to focus on objectives or ends, as distinguished from work methods or means toward the ends
- (3) Determining upon a system for measuring performance. Measures chosen for any one programme must have a reasonable degree of homogeneity, consistency, and reliability over time Ideally, measures of accomplishment of results are to be preferred over measures of work done, although even the latter may be helpful in reaching programme and budget decisions
- (4) Requiring consideration of input-output relationships. Most simply stated, this may involve cost accounting, in which the results are stated in terms of cost per unit of output. In more sophisticated form, this comes

7 - John H. Dwyer, "Yardsticks for performance," paper presented at the 55th Annual Conference of the Municipal Finance Officers Association, May 29, 1962, pp. 1-2.

to cost-benefit analysis, requiring that the value of the output be quantified in terms of dollar benefits to the citizens, thus permitting the development of a ratio that shows the number of dollars to be received in benefits for the number of dollars to be used in carrying on the programme. This latter type of analysis found its earliest development in the field of public works relating to water resources, but it has seen more recent applications to other areas of governmental activity.

- (5) Developing alternatives, together with information on the probable consequences of adopting each of the suggested choices. Decision-making necessarily involves a choice; if the decision-maker has no choice, there is nothing to decide. A system that provides a range of choices, rather than merely requiring a yes or no decision, will best serve the goal of obtaining wise decision. The alternatives may include choices as to the objectives, choices as to the methods to be used, and choices as to various levels of activity to be reached within the period of operation.
- (6) Providing for searching review and analysis of the basis for continuing programme already in being, as well as for the inauguration of new or developmental programmes
- (7) Seeing that reliable factual data is the foundation for the budget estimates. Most reviewers of budget estimates like to compare the estimates for the budget year with actual results for the most recently completed year
- (8) Seeing that the budget process involves in a responsible manner, those who are in the chain of command.
- (9) Placing the annual budget within a longer time frame. Since 1961, . . . budget instructions in the United States Government have called for each agency to include with its annual budget a multi-year financial plan which goes from 3 to 5 years into the future, and enables the current budget to be examined in the perspective of a longer period.
- (10) Utilizing effective techniques of analysis. These include the various facets of what is known as 'operations research' as well as the advanced techniques described as 'systems analysis'. It also includes the thorough application of common sense.

- (11) Providing an orderly sequence of events in the budget process, with sufficient time for the analysis and reflection that are essential to decision-making.⁸

All the characteristics of PPBS as rational and objective budgeting system are included in these portrayals in a slightly different degree. PPBS unquestionably requires that departments conform to objective methods of data collection and analysis. Subjectivity has no place. Neither compromise nor permissiveness can be allowed in the choice of policy alternatives. (The lack of objectivity has, after all, been considered the sin of traditional budgeting.) Quantification in PPBS is essential because it creates a common technical language for those who request as well as for those who review expenditures. It is also essential, that budget makers behave rationally and use data objectively. Departments as well as central officials must yield their particular perspectives and develop a common language for communication of information among themselves.

PPBS thus provides, its proponents believe, standards which would be acceptable to the executive and the legislature alike in determining the needs and performance of all agencies of a government.

A rationalized budget system is expected to avoid conflict and discord. There would be deference to facts just like there should be commitments to efficiency. Thus, it would be permissible to differ on what the facts are, but manipulation of data for partisan purposes would

8 - Carl W. Tiller, "Budget Formulation as a Decision making Process in the United States Government," The Indian Journal of Public Administration, Vol. XV, No. 2, April - June, 1969.

have to be curbed. As soon as the facts are ascertained, the budget makers would have a rational framework within which they can make a quantitative explanation and evaluation of departmental needs. As a result, controversy would be removed, and everybody projects towards the promised future. Furthermore, budget, when authorized, acts as a link between legislative and executive officials, since all parties are expected to abide by the terms of the budget. This, in short, is the contrast between traditional budgeting and PPBS in theory. Whether this is an illusion or a reality has already been touched upon in connection with PPBS in the DOD, but I shall deal with this question thoroughly in the following part.

PART TWO

I. PPBS AND POLICY ALTERNATIVE DECISIONS

II. CONCLUSION

I. PPBS AND POLICY ALTERNATIVE DECISIONS

1. PPBS POLICY FORMULATION AND SELECTION

Decision making can be considered both as political and administrative phenomena, since as a process, it encompasses the conscious selection of an alternative course of action among several perceivable possibilities to attain a result contemplated by the political and administrative participants of a government. The focus of this chapter is to explore PPBS decision making within the framework of this concept.

In budgetary decision making, there are several questions that a government has to contend with. It has to decide the source of revenue, the total spending for a projected period of time, forecast of program output to be accomplished and a quantitative means of available resource inputs, such as manpower, material and services that are required to fulfill the projected goal.¹ I shall try to describe this below.

Theoretically, the first step in PPBS policy analysis is the clarification of objectives before means are sought.² That is to say, that before a decision is pondered, organizational goals must be translated into specific objectives. It is to be noted that 'goals' in this sense indicate broad trends or directions of activity, while objectives are quantified reflections of general goals. Objectives are considered important because they are necessary standards against

1 - See Tiller, ibid.

2 - Government of Canada, PPB Guide, op. cit., p. 16.

which program effectiveness can be measured, or the cost of trade-offs among goals are weighed. Any evaluation of program effectiveness relies on measuring change in some direction; but change can be measured only quantitatively. Hence, it is only when these goals are first translated into objectives that numerical trade-offs among general goals can be determined.

A very simplified example of this translation process is a hypothetical problem based on the work of DOD systems analysis.³ Assuming that the general defence policy of Canada's retaliation against any nation that illegally makes a clear move to invade it, the commonly understood strategy would be to retaliate against the invader nation. But in systems analysis, the effectiveness of various retaliatory devices cannot be measured in such vague terms as retaliation against Nation A. Although the objective is within the framework of Canadian defence policy, it does not allow for evaluation of effective retaliation through various defence devices. The only quantitative standard against which an analyst can measure change in this case is a specific objective. Supposing that the specific objective is destruction of two major sea ports in Nation A, the effectiveness of various retaliatory devices to fulfill the goal can then easily be measured. Policy analysts can compare, for example, the effect of an attack by the Navy or the Air Force. Assuming equal

3 - The researcher is very grateful to Mr. Robert McNamara through whose good offices the works of Hitch and McKean were recommended. This hypothetical example was framed after reading Hitch and McKean, The Economics of Defense in the Nuclear Age, op. cit., pp. 133-158.

cost and equal probability of success for the Navy and the Air Force, the more effective device would be the one that would be more destructive. If a Nation B also poses a threat and carries out similar action as Nation A, then the trade-offs between the two enemy nations could be measured. One way of doing this is measuring the impact of 25 percent shift in striking power away from Nation A to Nation B. In this case, policy makers could easily decide if the impact of the change, say destruction of one less seaport in Nation A for destruction of two more seaports in Nation B, is worth the shift strategically.

PPBS policy making does not only focus on programs in terms of specific objectives which are only partial reflections on goals but also on a single objective which is part of a whole. It should be noted that no one policy making is capable of taking into account all of the qualitative and quantitative factors which determine the final outcomes of programs.⁴ Resolution of such complexity is indeed beyond human dimensions and it is with this understanding that PPBS decision making is adopted by both the U.S. and Canadian governments.⁵

Let us assume that the cost of building tertiary sewage treatment plants or control equipment to cope with the phosphate-based detergents responsible for much of Lake Erie's pollution(Canada's share)

4 - Lindblom, op. cit.

5 - The Canadian Treasury Board is careful when it comes to such points. For example, see the last two paragraphs of the Illustration of Cost/Benefit Analysis, reproduced from Sewell and Ross, PPB Guide, op. cit., Appendix D.

over a five-years' period is \$400,000,000.⁶ The following table gives a five-year pollution damage in Lake Erie without protection and the reduced damage figures when progressively more ambitious pollution control projects are introduced.

PROJECT	Cost of Project over a Five- Year Period	Average Cost of Damage over a 5 year period	Benefit (Reduction of Damage over 5-year period)
Without Control	-	\$400,000,000	0
Alternative A*	\$24,000,000	280,000,000	\$120,000,000
Alternative B*	52,000,000	240,000,000	160,000,000
Alternative C*	75,000,000	164,000,000	236,000,000
Alternative D*	100,000,000	150,000,000	250,000,000

*Alternative A - Improvement of existing sewer disposal facilities.

*Alternative B - Small municipal waste treatment equipment.

*Alternative C - Medium municipal waste treatment equipment.

*Alternative D - Large municipal waste treatment equipment.

In all projects, benefit exceeds cost. But in cost/benefit analysis, the marginal benefit that can be derived by advancing from a lesser pro-

6 - At the time this thesis is written, there is a hot debate on the proposed Canada Act which is designed to control pollution. The proposed bill requires the federal government and the provinces to set up joint water-quality management agencies for any region, river or lake basin and to marshal anti-pollution projects. But the provinces so far have been cool to the proposal since they consider it an infringement on provincial jurisdiction. Once the bill is passed in any form, however, the question of alternative choices among different projects becomes inevitable.

ject to a larger one should continue to exceed the marginal cost of the extra money to be expended. For example, there is an increment of \$23,000,000 in project C over project B but it will avert \$76,000,000 worth of pollution damages. However, if we go further and increase the investment to create project D, it would cost an extra \$25,000,000 while its yield in additional benefits would be only \$14,000,000. This can, of course, be explained by the economic law of diminishing return, and the best choice in alternative election in this case would obviously be project C.

All organizational objectives in government cannot depend upon a calculative process, since they are the results of a bargaining process. PPBS policy making retains its systematic quantitative nature by reviewing policy in light of only limited objectives. It offers only partial solutions, or solutions to only some segments of larger problems. Many other objectives are taken as given. In systems analysis, this process of narrowing problems by solving them in light of only one objective function is called 'suboptimization'.⁷

A good example of the process of 'suboptimization' is found in the works of DOD analysts. The DOD analyzes narrow problems by focusing on one decision level and associates a particular objective with that decisional level. A distinction is made between higher, intermediate and lower level decisions; higher level decisions being those which divide

⁷ - Roland McKean, Efficiency in Government Through Systems Analysis, (New York : John Wiley and Sons, 1958), p. 30.

funds between strategic and tactical forces; intermediate decisions the divisions of the budget into categories for say, bombers, missiles, etc.; and lower level decisions with the maintenance and location of bombers, supply of ammunition, etc. An objective often associated with lower level decisions is, for example, the efficiency objective. Systems analysts would determine which continental military bases to close in light of this. Policy makers would then receive their recommendations from the analysts and make decisions in accordance with the efficiency objective and other, primarily political goals.

Another important aspect that should be explored in PPBS policy making is the determination of costs associated with projects. The proper determination of this at the project designing stage is a cost accounting system. Cost accounting is not only determining projected costs for fulfilling a set of objectives. It is a system of linking the costs of inputs to outputs as well as a system for measuring the costs of inputs.

Cost accounting records the total costs of project accomplishments; it associates costs with single units of output or service. "Cost accounting . . . provides management promptly with the cost of producing . . . or of rendering a particular service."⁸ For example, it records the cost

8 - Detailed discussion of cost accounting techniques with reference to governmental problems are found in John Neurer, Cost Accounting: Principles and Practice (Homewood, Illinois: Richard D. Irwin, Inc., 1957), 5th Edition, particularly pp. 3-74 and pp. 901-909; and R.M. Mikesell and Leon Hay, Governmental Accounting (Homewood, Illinois: Richard E. Irwin, Inc., 1961), 3rd Edition, particularly pp. 615-645.

per mile of city street sweeping in the city of Montreal, in addition to the total costs of administering a public works department.⁹ Unit costs for, say, a mile of street sweeping are calculated for each individual unit or, most likely, on the basis of a statistical sample of total output. In PPBS cost determination, one should register both initial or capital costs and operation, maintenance and replacement or annual costs. It should categorize costs, where applicable, in the following manner:

(a) Primary costs, which are the usual costs recorded in a cost-accounting system. These costs are:

- (1) direct labour costs;
- (2) direct costs of materials;
- (3) indirect costs for equipment which can be based on an hourly or mileage basis;
- (4) indirect costs for equipment and planning which can be based on an hourly basis;
- (5) and indirect, non-administrative costs such as telephone, building rent, etc. It is very difficult to charge this cost to specific projects. One alternative is the use of pre-determined indirect costs which are calculated on estimated direct labour costs.¹⁰

9 - As explained in the first part of this study, it is to answer just such questions that the Borough of Richmond tried the cost-data experiment in the early 1910's.

10 - Neurer, op. cit., pp. 907-908.

(b) foregone costs, which are the value of a facility or a service that may be lost during construction and development;

(c) induced costs, which are estimates of permanent damages that may accrue through either construction or operation of a project,¹¹ and opportunity costs, which are the benefits that may be resulting from uses of, say, land considered for a project other than the proposed project. (For example, if an area is suitable for range rehabilitation and a recreation project, then the benefit of the former is the cost of the latter that must be foregone or vice versa.)¹²

Once objectives and costs are isolated, the next step in PPBS policy decision is to quantify the value of the projected output in terms of dollar benefits and see which project from a number of suggested projects can effectively meet the desired objective with minimal cost. This is to enable policy makers to calculate the number of dollars to be expended on a program in return for the number of dollars to be received in benefits. Thus, different projects with different time horizons have to be converted into quantified comparative alternatives by estimating project benefits and costs to the time alternative choice is being made. This enables a system to rank order projects in terms of their effectiveness. It measures effectiveness by indicating either the least cost alternative for achieving a specific objective or the most productive

11 - McKean, op. cit., pp. 38 and 134.

12 - For a similar but differently worded explanation, see also U.S. Bureau of Land Management, Manual, 9520, April 4, 1966.

alternatives within a fixed budget. Supposing that an objective function is a specific level of accomplishment, such as generating \$10,000,000 worth of benefits from investments of federal funds, then PPBS policy algorithm indicates the least cost alternatives for meeting the objective. When an objective function specifies optimizing benefits within a fixed budget, then PPBS decision algorithm designates the most productive projects. This method of making rational choices among alternative means is what is now generally known as cost/benefit, cost/effectiveness or cost/efficiency analysis.¹³

It is clear from the above description that PPBS policy making roughly corresponds to what Lindblom calls Rational Comprehensive Method,¹⁴ as against the traditional Incrementalist Method.¹⁵ It should be understood that this method is theoretically very sound. The tools of the approach are cost/effectiveness, cost/benefit, operations/research and systems/analysis. In essence, the system falls within the domain of economic policy making approach; everything is quantified and every decision is looked at in terms of allocating resources among competing alternatives. However, in Dror's words:

Systems analysis can be of only limited utility
in government unless it changes so as to be
better able to deal with quantitative and political

13 - David Novick (ed.), Program Budgeting, Program Analysis and the Federal Program, op. cit., p. 41.

14 - Charles Lindblom, The Intelligence of Democracy, (The Free Press, New York, 1965).

15 - Ibid.

phenomena. If systems analysis in its present form is applied to complex political issues, it cannot provide the hoped for benefits; indeed, a boomerang effect may follow which will inhibit necessary innovations in the future.¹⁶

To date, decision making in general as a focus of study for political and administrative process has been pursued only by those primarily interested in constructing models, particularly mathematical ones, and in theorizing about the subject. This state of the academic pursuit of decision making was recognized by a survey which gave major emphasis to the model builders because of purported novelty connected with their approach.

The Survey does not tell much about empirical study in a decision making field other than to note without explanation that it may turn out to be the most fruitful approach to decision making.¹⁷

The study reflects the general thinking of many social scientists including James G. March, a political scientist, who contends that decision making is "one of the key focal points for empirical social science."¹⁸ The empirical enquirers are engaged in studying the pro-

16 - Yehezkel Dror, "Policy Analysts : A New Professional Role in Government Service," Public Administration Review, Sept. 1967, vol. XXVII, No. 3, p. 197.

17 - H. Handy and Paul Kurtz, A Current Appraisal of the Behavioral Sciences, Great Barrington, Massachusetts : Behavioral Research Council, Bulletin, Section 7, 1964, p. 127.

18 - James G. March, "An Introduction to the Theory and Measurement of Influence," H. Erlau, S.J. Eldersveld and M. Janowitz (eds.), Political Behaviour : A reader in theory and research, Glencoe, Illinois : The Free Press, 1956, p. 385.

cess of making decisions, and alternative policy selection. Some, it should be admitted, did also study their consequences, their sources in an organization and related questions, but for PPBS decision making, the studies made to date leave many questions unanswered and raise some doubts regarding the validity of their conclusions because, except for numerous unrelated case studies, little of the research has been properly conducted.

Here is the great problem of empirically studying PPBS policy making. There are few scholars engaged in such research. Most of the harsh critics of PPBS¹⁹ base their criticism on theory rather than empirical data. This is so, perhaps, because it is an arduous, time-consuming task. It can be acknowledged that, at times, this may be useful through provocation of thought and suggestion of research topics, but the real value of such models, theories and observations may generally be questioned because in most cases, there is little, if any, empirical content. Until an empirically-based PPBS policy alternative choice theory, descriptive of reality (and this may assume too much), is available to guide policy makers, the choice of policy alternatives will be laborious, and the results may well continue to be disjointed.

19 - See, for example, Dror, op. cit.

2. THE PRACTICAL IMPLICATIONS OF ADMINISTRATIVE DECISION MAKING — PPBS, RATIONALITY AND PRAGMATIC POLITICS

From a democratic point of view, it takes no great effort to discover that budget making, far from being rational, is fraught with contention and discord that its very nature is of "conflict and tension".¹ This state of affairs can be portrayed in several ways. Is all the rationalization we talk about in PPBS at all possible, if what a Canadian Minister of Finance divulged more than two decades ago is still practiced, even in a limited degree? The minister admitted:

The staff of the Treasury Board without reference to the Minister in the first place, go at those estimates and try to have them reduced. They are successful to a considerable extent in having them reduced. But various departments demure, and some go even farther than that and vigorously and violently protest against the proposed cuts I feel as though I am against the whole world when I try to keep a lot of these expenditures down. We just do the best we can, that is all, and keep them down.²

As is well known, departments are generally based on clientele and they try their best to get the best share from government expenditure. The truth is, PPBS has not and can not change this practice.³ So how is systems analysis possible? One answer the proponents of

1 - Edwin O. Steve, "Seven Letters : A Case in Public Management," Public Administration Review, XLII (1957), pp. 83-90.

2 - L. Ilsley, House of Commons Debates, Dec. 18, 1945, King's Printer, pp. 3734-5. Also quoted in Dawson, op. cit., p. 394.

3 - Interview with Mr. Bruce McDonald and the Honourable Senator Donald Cameron.

PPBS give us is that all departments will aim at the same overriding goal — the national goal. Again, the question arises from what perspective one should look at this national goal.

In actual fact, rather than common goals, there is endless wrangling over what the goals are or what they ought to be.⁴ Objective facts are in short supply while those facts in circulation seem easy prey for the subjective use of partisan interests. It is not objective standards but ad hoc bargains arranged at the convenience of the small circle of budget makers that is in actual practice. The coordinating power of the chief executive is curbed by the disparate demands of agencies, legislators and interest groups.

The true ideals of PPBS are impractical because they leave politics out of the picture. The avoidance of politics is a traditional tactic of reform movements, the implications of which have been expertly exposed by Aaron Wildavsky, who poses the question, "how could men account for so foolish a statement? It must be that they who make it identify program budgeting with something good and beautiful and politics with another thing bad and ugly."⁵

In The Politics of the Budgetary Process,⁶ Wildavsky points out that the political sides of reform have been cultivated in fields isolated

4 - See Aaron Wildavsky, "Rescuing Policy Analysis from PPBS," op. cit., pp. 188-202.

5 - Aaron Wildavsky, "The Political Economy of Efficiency," in Lyden and Miller, op. cit., p. 394.

6 - Aaron Wildavsky, The Politics of the Budgetary Process (Boston, Little Brown and Co. 1964).

from politics, partly because reformers in most cases have an aversion for the American brand of pluralistic politics. The dilemma in this retreat from politics in order to advocate one's theoretical ideas would not help, because sooner or later, politics is brought back into the picture. In pragmatic budgetary decisions, rationality is not banished altogether just for the sake of politics. It is not permitted sole domination over the making of budget decisions either. "Most Practical budgeting," Wildavsky points out, "may take place in a twilight zone between politics and efficiency."⁷ The problems of allocating limited resources among competing users takes place within this area. Inexpedient proposals are carefully weeded out by minimum political and economic means. Even after this happens, there will still be an excess of demands over resources. Budget making, therefore, involves selection from among competing claims, all of which have fairly satisfactory cost/benefit ratios. In the realm of economics, this is a competition among equals, in the sense that all have met minimum standards. In the political realms, however, it is a competition among unequals, and it is the political inequalities — disparities in clientele support, organizational resources, strategic skills, access to positions of influence and the like — that weigh heavily in the distribution of funds among competing claimants.

Another inequality is the ability of contestants to use information in a manner that enhances their opportunities to get what they want.

7 - Ibid., p. 143.

Wildavsky's study contains a good inventory of literally dozens of tactics used by the actors to strengthen their positions. I would like to stress here that in budgeting, there are few truly objective facts, and there are few facts that are used truly objectively. Pendleton Herring reminds us that "a law of political distortion under which economic facts, as soon as they are used in political debate, lose their original form and are shaped and oversimplified to achieve some predetermined end."⁸

The so called important budget facts so cherished by systems analysis are in actuality only artifacts. Facts do not speak for themselves, nor do they follow natural laws of interpretation. What I mean here is that the facts as they appear in budget classification can be assembled from a variety of sources and arranged in a variety of ways. Distortion and manipulation of information are numerous in a situation that allows disagreement over what the facts are and how they should be evaluated. Thus, each participant improvises and creates his own criteria, in a politically advantageous way. In such a situation, how can one calculate the cost/benefit ratio of activity A versus activity B? As V.O. Key puts it, this is "a matter of value preferences between ends lacking a common denominator. As such, the question is a problem in political philosophy."⁹ Unfortunately, political philosophy cannot supply the missing common denominator either, at least not in a system

8 - Pendleton Herring, "The Politics of Fiscal Policies," Yale Law Journal, Vol. XLVII (1938), p. 729.

9 - V.O. Key, "The Lack of a Budgetary Theory," The American Political Science Review, XXXIV (1940), p. 1143.

that permits each side to advocate its own conception of the 'public weal'. How then is a choice made between action A and action B? As things stand now, the agencies are allowed to make the best case for their claims, while the central authorities, still lacking a common denominator, approve and "try to keep down some."

From the outset, the question that arises in the application of PPBS is — should the political order be accepted as it is and the budgetary process shaped in its own image, or should the relationship be reversed and the radical ideas of PPBS implemented as a means of changing the existing political order to fit the new system? This is indeed the fear of many pluralist theoreticians and Wildavsky has this to say of the introduction of PPBS into the federal government of the United States:

As presently conceived program budgeting [PPBS] contains an extreme centralizing bias. Power is to be centralized in the Presidency (through the Budget Bureau) at the national level, in super-departments rather than bureaus within the executive branch, and in the federal government as a whole instead of state or local governments

Within the great federal organizations designed to encompass the widest ramifications of basic objectives, there would have to be strong executives. Cutting across the sub-units of the organization, as is the case in the Department of Defense, the program budget could only be put together by the top executive. A more useful tool for increasing his power to control decisions vis-à-vis his subordinates would be hard to find.

Would large-scale program budgeting benefit the Chief Executive? (President Johnson's support of program budgeting could in part stem from his desire to appear frugal and also be directed at increasing his control of the executive branch by centralizing decisions in the Bureau of the Budget.)¹⁰

10 - Aaron Wildavsky, The Political Economy of Efficiency, in Lyden and Miller, op. cit., p. 390.

As portrayed by Wildavsky then, between the traditional and the proposed PPB system, there is a vast gulf in political values and horizon. Traditional budgeting is a product of pluralist political environment within which it has developed, while PPBS envisions a rational and centrally coordinated political order. To change the budget system is to change the political system as well, even if inadvertently. The debate over the adoption or non-adoption of PPBS is only one phase of a larger controversy between those who would extend the integrated rational comprehensive method of centralized planning in all spheres of government decision making, and those who prefer a system of reciprocal ad hoc adjustments negotiated by participants with diverse interests. The details of this controversy are spread on numerous pages of administrative and political literature as well as through successive chapters of reform. The Controversy has been portrayed by Wildavsky as "a-total-view-of-the-public interest (TV PI) versus a "partial-view-of-the-public-interest" (PV PI).¹¹ While the TVPI has been dominant in the reform movement, the PVPI has been dominant in practice. I have already discussed why this difference concerns the character of the political system itself. But the battle has been fought almost entirely in the academic and administrative arena over matters of technique and organization. The political questions and the normative implications stand above this academic controversy.

11 - Wildavsky, The Politics . . ., op. cit., pp. 165-67.

As stated earlier, budget reform was a product of administrative reorganization. The principles of the organization movement were ably summarized as follows:

The executive should be reorganized so that it can function as a unity. The way to get unity is to establish a clear administrative hierarchy headed by a popularly elected chief executive . . . upon whom the attention of the people can focus and from whom all administrative authority will flow.¹²

Just like the modern PPBS rationalists, earlier United States reformers advocated innovations in functional consolidation of agencies; elimination of independent boards and commissions; the short ballot; strengthening the chief executive's removal and appointive powers; equipping the chief executive with adequate staff; and the installation of the executive budget.¹³

PPBS also has an integrative characteristic. It would centralize the planning function and curb the separatist tendencies of the agencies. A great deal of the related criticism of congressional budgeting of former times was because of the disjointedness of expenditure decisions, the lack of expenditure policies and the scattering of the budget among several semi-autonomous sub-committees.¹⁴ PPBS is based on specific

12 - See A.E. Buck, The Reorganization of State Governments in the United States, (New York: The National Municipal League, 1938), pp. 14-28.

13 - See The Council of State Governments, Re-organizing State Government (Chicago, 1950), p. 3.

14 - See John S. Saloma III, The Responsible Use of Power, A Critical Analysis of the Congressional Budget Process (Washington: The American Enterprise Institute, 1964).

rationalistic norms, some of which have been selected from a list compiled by Charles E. Lindblom. Lindblom recognizes the following as typical rationalistic norms:

1. Government policies should be as clearly and explicitly defined as possible.
2. Alternative policies should be explicitly regarded as alternative means aimed toward the achievement of objectives.
3. Revenue and Expenditure decisions should be deliberately coordinated.
4. For each expenditure policy, some systematic and deliberate appraisal of benefits and costs should be made.
5. Policy making, including budgetary policy making, should achieve a unified policy.
6. All taxation and expenditure decisions should be somehow embraced in the budgetary process.
7. The legislature should undertake a comprehensive unified, rather than segmented, review of the budget.
8. Decisions should be made on the basis of a cooperative division of function between the legislature and the executive.¹⁵

In the days when it was considered revolutionary, the incrementalist model, also like the PPBS, had inspired clashes with the old mode of operation in which the budget was determined by total competition among conflicting interests, entrenched in the administrative and group structures. The condemnation of pluralist budgeting can be explicit in a critique of congressional budgeting by Banfield. Banfield, in his com-

15 - This condensed list is taken from Charles E. Lindblom, "Decision-making in Taxation and Expenditure," in National Bureau of Economic Research, Public Finances: Needs, Sources and Utilization (Princeton, Princeton University Press, 1961), pp. 297-98.

ments on congressional approach to budgeting stated that the reformists of his time called for some coordination of government spending and activities:

For it is only by seeing wholes and by seeing them in the perspective of what we wish the future to become, in short by seeing a plan that the people or the people's representatives can control and direct modern government. Congress alone as it represents local interests, will struggle against the general interest and therefore against planning.¹⁶

One of the Founders of American Public Administration, Professor Dwight Waldo, commenting on PPBS said that when he and his colleagues started to advocate Performance budgeting more than two decades ago, they were considered very revolutionary. "PPBs is indeed 'oversold'. Politically it does not change anything."¹⁷

The Pluralist opposition to this insistence on coordination and integration enshrined in the doctrine PPBS begins with the observation that, "the world of administration is pluralistic rather than monistic." Into this world, "conflict and politics are born as inseparable twins."¹⁸ Instead of the "common technical language" sought by reformers, there is "the Universal language of conflict,"¹⁹ the constant conflict of interests

16 - Edward C. Banfield, "Congress and the Budget : A Planner's Criticism," The American Political Science Review, XLIII (1949), p. 1219.

17 - Personal interview. See also Charles S. Hyneman, "Executive Administrative Power and Democracy," Public Administration Review 11, (1942), p. 335.

18 - Robert A. Dahl, Modern Political Analysis (Englewood Cliffs : Prentice-Hall Inc., 1963), p. 73.

19 - E. Schattschneider, The Semi-sovereign People, New York : Holt, Rinehart and Winston (1960), p. 2.

and pressure groups. Instead of an all embracing public interest, public policy is based on many local interests. "The task of government," as Dickinson wrote in 1930, is "to effect adjustments among the various special wills and purposes, which at any given time are pressing for realization."²⁰

Concerning the persistence of fragmentation of government budgeting in the United States on which much has been written since the introduction of PPBS into the federal government, we may mention two:

- (1) Structural fragmentation arising from such factors as separation of powers, checks and balances, federalism, and the lack of party discipline,
- (2) Social fragmentation resulting from the multiplicity and diversity of political interest groups. The budgetary condition is the availability of resources to satisfy special interests without a stringent set of priorities. "Where resources are relatively unlimited, organizations need not resolve the relative merits of subgroup claims."²¹

Fragmentation, it should be understood, diminishes the role of planning, since planning as a deliberative process is built upon a comprehensive weighing of alternatives by a centralizing organ. Planning enables one to see things whole, but at the same time also, it enables one to see parts in a harmonious relationship. Since the expenditure

20 - John Dickinson, "Democratic Realities and Democratic Dogma," The American Political Science Review, XXV (1930). See also Herring, op. cit., p. 739.

21 - James G. March and Herbert A. Simon, Organizations (New York: John Wiley and Sons, 1958), p. 126.

decisions in a fragmented policy are made in many parts of the government and ultimately aggregated into a "budget", central officials are inhibited from planning.

There is yet another reason why the strains of fragmented politics divert budgeting from an integrated course. Fragmentation is reinforced by the American system of reciprocal checks and balances, a system which enables each unit in the political system not only to protect its semi autonomous status, but also to partially control the behaviour of other units. In that sense, the substitute for planning becomes the control mechanisms mentioned previously.

As regards the political system itself, Wildavsky is correct in arguing that PPBS and its co-reforms imply a Utopia in which there are no conflicts (and hence no need for planning), or the existence of a supreme planner with the authority to impose his values and conception of "the public weal" on the political system.²² Nevertheless, the pluralist argument does not end with a description of political facts. What is malaise for the rationalist, is a virtue for the pluralist. Just like the free market in which prices are reflections of conditions of supply and demand, public policy is viewed as a reflection of the condition of countervailing interests²³ in the party. It is the pulls and

22 - Wildavsky, The Politics . . ., op. cit., p. 129.

23 - See Charles E. Lindblom, "Economics and the Administration of National Planning," Public Administration Review, XXX (1965), p. 277. But see the rejoinder by Gerhard Colm, in National Bureau of Economic Research, op. cit., pp. 334-36. Wildavsky also gives a good portrayal of this concept in his article, Saving Policy Analysis from PPBS, op. cit.

pushes of the different interests that help to keep government policy to have a balanced and stable base. The greater the competition among disparate elements, and the more self-interested they are (in making the best case for their projects), the more satisfactory will be the final outcome of the budget.

In recent years, Charles E. Lindblom and Aaron Wildavsky have become staunch advocates of the Pluralist approach in budgetary decision making. Lindblom's various works have exposed the problem of choosing among alternative policies under severe intellectual limits.²⁴ Lindblom's theory of incrementalism has become a fertile source of experimentation for Wildavsky, the down-to-earth practical academician. Thus, Wildavsky's The Politics of the Budgetary Process, is a cogent defence of traditional budgeting that is not only anchored in contemporary pluralist thought, but the practice that will stay with or without PPBS. The main argument of Lindblom and Wildavsky is: that the fragmented and uncoordinated budget system is better suited for the allocation of scarce resources than an integrated system in which a coordinator at the top of the hierarchy is required to make a comprehensive and consistent evaluation of all possible budgetary allocations; and second, that the incrementalist budget system is regarded less likely than a system governed by a centralized decision making body to neglect important

24 - In addition to the works already cited, Lindblom's theory is presented in "The Science of Muddling Through," Public Administration Review, XIX (1959), pp. 79-88; A Strategy of Decision (New York, The Free Press, 1963); The Intelligence of Democracy, op. cit.

interests on which Pluralist Political System is built. The Lindblom-Wildavsky argument is based on the idea that there is always a division of labour among partisan decision makers, partisan being "one who makes decisions calculated to serve his own goals, not goals presumably shared by all other decision makers with whom he is interdependent."²⁵ Partisans, it is pointed out, include agencies, legislators, budget examiners, the executive head, and other concerned parties. According to Dror, each partisan is to make the best case for the interest he espouses instead of being concerned with the total public will or the totality of interests.²⁶ Given this division of labour, the budget conflict is decided by means of the two interrelated sets of decisional rules mentioned above — incremental analysis and partisan-disparate-elements.

The rationalist (or Lindblom's terminology of "Synoptic") puts "comprehensiveness and rationality" beyond everything. For the rationalist, policy making requires the decision maker, "to choose among alternatives after careful and complete study of all possible courses of action and all their possible consequences, and after an evaluation of those consequences are made in the light of one's values."²⁷

25 - Lindblom, The Intelligence of Democracy, op. cit., p. 29.

26 - Dror, op. cit.

27 - Lindblom, A Strategy of Decision, op. cit., p. 40.

Concerning this point, Jesse Burkhead has this to say:

Decisions concerning the size of the budget, the distribution of revenues, and the distribution of expenditures are political decisions, which both reflect and affect the possession of power by economic groups and classes. The decisions that emerge and are called public policy are greatly influenced by the interplay and the resolution of forces which may be generally described as interest groups. There are, of course, other influences at work. The analysis of interest

This requisite of comprehensiveness, nevertheless, fails to reckon with man's limited scope — the inadequacy of information, the costliness of analysis, the lack of a clear ordering of values and objectives, or with the shortage of systems of variables which the decision maker will definitely face. If followed in practice, the rationalist ideal would induce paralysis and inaction, instead of the global rationality it promises.

Opposed to rationalist insistence on comprehensiveness, incremental analysis is adapted to man's cognitive limits. Under incremental analysis, the task of deciding is simplified in a practical manner. It does not concern itself with everything. The decision maker deals only with:

groups does not constitute an inclusive approach to political behavior. The dynamics of personal leadership, the role of organized political parties, the influence of cultural values, creeds, and dogmas, the structure of an economic system, all of these and many more will shape that which is called public policy. Interest groups are singled out here because of their particular impact on budgetary decisions.

It was noted that the public sector is characterized by the absence of readily measurable criteria to guide the allocation of resources. It is not possible to determine, beyond the possibility of controversy, that X dollars spent on A will produce more "good" for society than X dollars spent on B. However, one of the ways by which it can be determined whether it is wise to spend X dollars on A rather than on B is to ask persons interested in A and B what they think.

Jesse Burkhead, "Budgeting in a political Framework", in Government Budgeting, New York, Wiley, 1956, pp. 44-50.

- (1) that limited set of policy alternatives that are politically relevant, these typically being policies only incrementally different from existing policies; (2) analysis of only those aspects of policies with respect to which the alternatives differ; (3) a view of the policy advice as one in a succession of choices; (4) the marginal values of various social values and constraints; (5) an intermixture of evaluation and empirical analysis of the consequences of policies for objectives independently determined; and (6) only a small number out of all the important relevant values.²⁸

Through this practical approach, incremental method enormously reduces the strains on man's cognitive capacity which inhibits attempts to comprehensively evaluate policy alternatives.²⁹

The incrementalist budget approach is manifested in the acceptance of the previous year's level as a base. Instead of deciding anew a complete set of expenditure policies, incrementalist budget makers limit their analysis to the added amount above the base and to the marginal differences of various expenditure alternatives. They do not accept a hierarchy of values as a guiding principle. Nor do they attempt a comprehensive inventory of all the implications of expenditure policies. Instead, values and decisions are "muddled through" (to use Lindblom's words) on the basis of limited information, a hazy system of values, and neglect of all except the most immediate implications on the budgetary policy in question. Furthermore, problem of deciding is compartmentalized and handled in sequence. For them, an attempt to compare every alternative with every other alternative is only an illusion. The problem

28 - National Bureau of Economic Research, *op. cit.*, p. 306. The summary of the differences between Rationalists and Incrementalists has already been given in the Introductory part of this study.

29 - Lindblom, *The Intelligence of Democracy*, *op. cit.*, p. 144.

is parcelled among separate decision makers such as subcommittees or budget examiners, each of which specializes in its portion of the problem in question. Even at the higher coordination levels such as the full committee, the whole legislature, the budget director, or the executive head, problems are parcelled and handled simultaneously.

In this regard, Wildavsky posits:

... budgeting turns out to be an incremental process, proceeding from a historical base ... in which decisions are fragmented, made in sequence by specialized bodies, and coordinated through repeated attacks on problems and through multiple feedback mechanisms.³⁰

This approach perfectly fits the old democratic dictum of "agreeing to disagree", and is consequently contingent upon, partisan mutual adjustment. It is this mutual adjustment that is intended to compensate for the major deficiencies of incremental analysis ... namely, the neglect of important consequences and values and the lack of central coordination. Mutual adjustment among disparate elements is a condition in which decision makers "coordinate without anyone's coordinating them, without a dominant common purpose, and without rules that fully prescribe their relations to each other."³¹

If budgetary decision making were centralized in the manner sought by the rationalists, the final outcome would be such that certain important interests would be doomed for good. But if budgetary decision

30 - Wildavsky, The Politics . . ., op. cit., p. 62.

31 - Lindblom, The Intelligence of Democracy, op. cit., p. 3.

making were dispersed among a multiplicity of interests, each acting as an advocate of his particular interest, what is neglected by one decision maker is balanced by another. Accordingly, incrementalism "points directly to the need for a multiplicity of decision makers and more than that, to multiplicity marked by great variety of attitudes and interests, so that no line of adverse consequence fails to come to the attention of some decision makers."³²

PPBS or no PPBS, the various participants behave in such a way that there is a multiplicity of interests, each with its own spokesmen, each making the strongest claim for its projects or goals, each making the best case possible for its side, each employing an array of "strategies" to get what it wants, and each looking primarily at its own interest rather than the public interest of which little is known. All these characteristics have been severely attacked by the rationalists. And when it comes to the last point, the attack has been more than severe. The question that may be asked here, however, is, is it at all possible to consider partisanship as a virtue? On this question, Wildavsky, in his advocacy of the "Partial-View-of-the-Public Interest," writes, "The danger of omitting important values, is much greater when participants neglect the values in their immediate care in favour of what seems to them a broader view."

A question may also be asked if the partisan approach itself may produce complications of its own into decision making. How are,

32 - Ibid., p. 151; also pp. 153-57.

for example, the conflicting views of partisans co-ordinated in the absence of central coordinator? If the final outcome of success depends on the strategic skill of the disparate elements, how does the weighing of interests satisfy the basic principles of democracy? And who looks after the public interest if it is neglected by all? Lindblom raises these questions in The Intelligence of Democracy, in which the author argues that partisan mutual adjustment encourages agreement; that values are weighed according to mutually agreeable interests; and that it in fact tends to satisfy widely shared collective values.³³ I cannot explore in detail the intricate argument here except to note its application by Wildavsky to the budgetary process.

Lindblom and Wildavsky and to a lesser extent, Dror rely on some "unseen hand" to make the cues, roles, values, strategies, and calculations of the participants to mesh into a coherent set of expenditure decisions — a "budget". So far, I have avoided taking sides in the controversy between the two schools, although the argument on both sides sometimes goes beyond intellectual controversy.³⁴ My limited objective in this study has been to assess and explain the practical

33 - Lindblom, The Intelligence of Democracy, op. cit., Chapters 14-18.

34 - See for example, Wildavsky's critiques of McKean and Anshen in which he refers to their ideas as "foolish". See Wildavsky "The Political Economy of Efficiency" reproduced in Lyden, op. cit., p. 394. Boulding, on the other hand, makes a parody of Incrementalism when he says that according to the Incremental Approach, "We do stagger through history like a drunk, putting one disjointed incremental foot after another." See Kenneth E. Boulding in his review of A Strategy of Decision in the American Sociological Review, Vol. 29 (1964), p. 931.

implications of PPBS Policy making. In my view, both sides go to the extreme. PPBS as a decision making tool has neither been 'rationalistic' nor 'incremental'. True, it has initially been conceived as the former, but eventually, due to traditional political inertia, it has ended up leaning toward the latter. As of now, it seems to be suspended between the two. It may be proper to say that PPBS as a decision making technique has rather fallen on the middle ground of what Etzioni calls "The Mixed-Scanning-approach". Etzioni compares his "Mixed Scanning" with the other two approaches in the following manner:

Assume we are about to set up a worldwide weather observation system using weather satellites. The rationalistic approach would seek an exhaustive survey of weather conditions by using cameras capable of detailed observations and by scheduling reviews of the entire sky as often as possible. This would yield an avalanche of details, costly to analyze and likely to overwhelm our action capacities (e.g., "seeding" cloud formations that could develop into hurricanes or bring rain to arid areas). Incrementalism would focus on those areas in which similar patterns developed in the recent past and, perhaps, on a few nearby regions; it would thus ignore all formations which might deserve attention if they arose in unexpected areas.

A mixed-scanning strategy would include elements of both approaches by employing two cameras: a broad-angle camera that would cover all parts of the sky but not in great detail, and a second one which would zero in on those areas revealed by the first camera to require a more in-depth examination. While mixed-scanning might miss areas in which only a detailed camera could reveal trouble, it is less likely than incrementalism to miss obvious trouble spots in unfamiliar areas 35

35 - Amitai Etzioni, "Mixed Scanning — A Third Approach to Decision Making," in Public Administration Review, Vol. XXI, 1969, p. 389.

So much for academic controversy; but how does the true picture look practically? My study shows that rather than Incrementalism or Rationality, it is the middle road — the "Mixed Scanning" if you wish — that is being followed. I have found several reasons for this. First let us consider why it has become so tempting not to dispense with PPBS altogether.

The advocates of PPBS in government argue, and with great force, that PPBS is beyond the subjective influences of the agencies and departments. It adds outputs to the category of objective measurement. Through systems analysis, it goes a big step further in quantitatively linking inputs to outputs and in measuring the cost of projects and activities. Hence, it forcefully injects considerations of efficiency, cost, marginal utilities, and possible alternatives into the allocation of expenditure. Agency's interpretation of the facts become vulnerable to two challenges: the benefits are measured in line with objective measurements applied uniformly to all agencies; and the benefits are weighed against their costs, also, according to quantitative criteria. An agency that makes budget requests with PPB system may probably fall back on subjectively-estimated benefits for justification. But program evaluation would turn the spotlight on the actual accomplishments of the agencies, on what was achieved with the previous expenditure. Thus, declining productivity, shifting from projected performance, or increases in unit costs are closely scrutinized by the Central authorities.

From the point of view of the central authorities PPBS is, in a

way, indispensable since it would provide them with a mechanism for countervailing the ever escalating demands of agencies. In traditional budgeting, despite the deep cuts made by central executives, the agencies are always able to set into motion a process that almost always enables them to set increased expenditures. Annually, the central authorities cut agency estimates only to see them spring back higher next time. Despite the fact that the final approval is by the executive and the legislature, this influence is marginal by comparison with the collective influence of the departments.

PPBS techniques are intended to allow the introduction of clearly stated goals and standards into the making of estimates and the voting of expenditures. By means of policy instructions, the central executive can constrain agency pressures before they are felt. The agencies would be forced to structure their estimates in ways that facilitate interdepartmental and interprogram comparisons, thereby enabling the central authorities to evaluate competing claims of alternative policies.

I have found that generally speaking, agencies prefer traditional budgeting, but they are also not vigorously opposed to PPBS. In a major twist of logic, one of the advantages of PPBS for the agencies is that it makes it easier to rally clientele support and also to reduce the vulnerability of requests. As Kilpatrick puts it, it is true that:

In periods of economy or of great competition among programs, the legislature commonly reduces funds by a reduction of positions, miles travelled or supplies to be purchased. This could be done without a keen sense of having curtailed essential services. However, if the budget is expressed in the following terms (for

example, "Care of 1000 tuberculosis patients," "research in the early diagnosis of breast cancer", "rehabilitation of 2000 children with paralysis from poliomyelitis") . . . funds to support such a budget can be denied only when the legislature decides that only a portion — or none — of these individuals should be hospitalized. A legislature, responsible to its constituents, would find it very difficult to make this type of adverse decision in the field of public health.³⁶

There are also statesmen who see PPBS as the promise of tomorrow — an indispensable instrument to meet the challenges of a growing industrial state. Here is an extract from a letter written to me by a hopeful and well informed Senator:

My own view based on quite a number of experiences . . . and having been in the parliament of Canada since 1955, I think the Planning-Programming-Budgeting System is almost a must in long range programming I think it is a useful tool to use in making long range plans, and more and more today, we must make long range plans, otherwise we are in trouble

I am convinced that one of the great challenges facing our society today and particularly our democratic government is the challenge of technology and how it can be controlled in the interest of the people. The easy line direction of technology is for the technocrats to take over and for them to become the chief formulators of policy. I think it is inevitable that they will play an increasingly important role in the future over what they have done in the past, and the challenge to people who believe in the democratic system is to find the methods by which technology can be controlled.³⁷

The idea that PPBS may lead to a technocratic control which may let cost accountants and statisticians to take over the policy making

36 - George James, Daniel Kilpatrick and Herman E. Hilleboe, "Fiscal Research in Public Health," The American Journal of Public Health, XLV (1955), p. 913.

37 - Letter from the Honourable Senator Donald Cameron, Government of Canada, Feb. 18, 1970 (see Introduction above).

process is commented upon by Charles Chultze, former Director of the Bureau of the Budget in the following manner:

I will admit this fear of the statisticians and analysts taking over ranks about twenty-eighth on my list of fears, perhaps just below my fear of being eaten alive by Piranhas.³⁸

Nevertheless, to be practical, this does not suggest that PPBS as conceived by its advocates has a rosy future. In fact, the balance seems far more on the side of traditionalism. A question may be asked here why object-of-expenditure budgeting has been hard to unroot. There are several reasons for this. My findings show that object budgeting gives the agencies many loopholes to manipulate the facts to their advantage. The absence of objective measures allows each agency leeway in estimating the projected benefits of proposed projects. As I have described earlier, object budgeting measures only the inputs, while the outputs — the work and benefits — remain available for the special colourings of the departments. The departments and agencies are able to vent their subjective interpretations of anticipated benefits without difficulty. The agencies also are not strictly required to weigh, in a systematic and uniform manner, the cost/benefit ratios of their proposals. Hence, there is no way to obtain routine and objective measures of cost/benefit analysis. In short, this is to say that object budgeting makes the "best case" for the agencies by neglecting the questions of cost. The only thing an agency needs is to promise bene-

38 - Charles Chultze's comment, quoted in a speech by the Honourable C.M. Drury, op. cit.

fits in order to demonstrate the worthwhileness of its budgetary demands.

As always, agencies invent staffing formulas, minimum standards of performance, grading systems and similar seemingly scientific measurements in order to obtain more money for libraries, education or some 'neglected' concerns such as recreation. Their usual complaints are that they are understaffed or underfinanced by comparison with others. They develop measurements to prove how much more money is required in order to meet the desired objectives. It should not be a surprise also that their standards are raised once they get the required expenditure. Their claims are usually based on subjective devices. However, they are effective because they have the outward appearance of scientific objectivity. In their requests, what agencies do is to compile a list of the things they would like to have — bigger staffs, additional office space, new equipment, liberalized travel allowances, although they are quite aware all along that they are not likely to obtain everything they want. Agencies provide as little "hard" evidence as possible, and wrap their estimates in biased interpretations.

From the agencies' point of view, the curtailment of their free-wheeling movement is because PPBS has staunchly supported objectivity as against subjectivity. Much of the longstanding resistance to cost accounting and scientific management as well as the more recent reluctance about PPBS program evaluation rest on the preference of agencies for subjectivity. Often, in most cases, the opposition to objective measurements comes under the cover of the complaint that program

evaluation techniques measure the 'quantity' but not the 'quality' of work. Those who fear objective measurement can claim that quantification is not applicable to the operations of their agencies, since they primarily aim at the perfection of quality.

From the point of view of top policy makers, it is true that the inevitable rejection of a large portion of agency demands in object budgeting leads to frustration and discontent and thereby subjects the budget to internal conflicts. In such a case, a viable budget system must be equipped with mechanism for keeping its conflicts under control and its pressures within manageable proportions. If not, the budget system would be fragmented more and more and lead to systems stress. The fact that this did not happen under conventional object budgeting is evidence of the successful management of internal stress and strain.

Potential conflicts are held in check in a number of ways. Some are connected with techniques while others apply regardless of the machinery that operates. Three are worth noting from the latter type: (1) the budget struggle is played according to certain rules which act as brakes on systems stress. Thus, after the game has been completed, the agencies accept the allocations recommended and authorized by central authorities. (2) Because there is another game to play next year, disappointed budget claimants patiently wait for the following year, at which time they aim to have a better deal. Accordingly, there is no clear finality in budget decisions. (3) Ordinarily, there is a steady increase in available resources, both in the resources available to the system as

a whole, and in those available to those who claim for their agencies. It should be borne in mind, that object budgeting does not take the most direct and seemingly effective route to the containment of conflict-discouraging departmental pressures from the start by placing prior restraints on their demands. In spite of the free play allowed agency wants, object budgeting has developed an effective system for coping with stress. This is made possible by object-of-expenditure programming, a process which enables the central authorities to act as overseers and cutters without being compelled to make overt evaluations of the programs and goals of the departments. This avoidance of policy evaluations is traced to the making of object decisions in which policy implications are relegated to the background, enabling agency pressures to be handled with the lowest amount of conflict possible.

In object budgeting, central authorities are primarily concerned only with the increment above last year's level of expenditure. The fact that the previous year's level is accepted as a base places the major portion of agency requests beyond serious contention. Moreover, since there is no reappraisal of the performance or the raison d'être of agencies, budgetary decision making does not threaten their established position.

The struggle for budgetary allocation, therefore, is conducted under rules of mutual fulfilment of different interests confined to the portion of expenditures added incrementally. Nevertheless, even this increment can be handled without recourse to policy conflict. The

increment can be made into easily reconcilable issues such as the number of staff additions or the amount allocated to telephone expenses and other costs based on object data. In almost all cases, the controversial policy evaluations are not directly touched except when central authorities consider program expansions.

Furthermore, incremental issues are handled in financial rather than policy terms. A clash of opinion on monetary matters — for example, the difference between an agency's request and budget office's ceiling — can be compromised more readily than dispute over whose policies should prevail. Actually, it is true that monetary question can be resolved without recourse to policy analysis. The emphasis on financial decisions has been cited by Richard F. Fenno as one major factor contributing to the internal cohesion of the House Appropriations Committee.³⁹ Since financial decisions do not carry explicit policy implications, the agencies enjoy a measure of autonomy in interpreting cutbacks made by central authorities. Agencies may be frustrated by the inevitable reductions in their requests but they are not dictated to as to how what is to be invested on projects.

Object budgeting also makes it possible to treat each agency's budget by itself, divorced from the budgets of all other agencies. This allocative function is divided into millions of objects. These problems can be individually handled without resort to an overriding hierarchy

39 - Richard F. Fenno, "The House Appropriations Committee as a Political System : The Problem of Integration," The American Political Science Review, LVI (1962), p. 312.

of values and without obtaining agreement on a comprehensive set of goals. Thus, budgeting finally represents a piecemeal and temporary adjustment of partially contending groups fairly acceptable to all parties. This, in short, is why object-of-expenditure seems to be well entrenched.

I suggest that if the coordinating harmony of PPBS were reliable, and if there were an accepted set of national rules and common goals — the advantages of PPBS would be unfathomable. However, when shared values and standards are absent, the insistence on PPBS incites rather than mitigates the latent conflicts in budgeting. As can be easily surmised, agreement is even more difficult when it must be total and when the allocation of funds must be consistently and optimally related to an articulated set of values and objectives. In PPBS, at least theoretically, compromise arrangements are not good enough even if they are accepted by all. For people and interests who do not have common aspirations and wants, PPBS demands total and unconditional agreement.

As Wildavsky has suggested, "conflict is heightened by the stress on policy differences and increased still further by an in-built tendency to an all or nothing, 'yes' or 'no' response on the policy in dispute."⁴⁰ Moreover, PPBS treats old and new programs alike, thereby allowing a challenge even on the previous year's level of expenditure. Frank Sherwood reminds us that program emphasis reduces the importance of historical costs. The key to decision making in PPBS is the work to be performed in the following year. How much was spent in the previous

40 - Wildavsky, The Politics . . ., op. cit., p. 137.

year has only incidental importance.⁴¹ In this case, no longer would the sphere of conflict be confined to incremental changes in expenditures. The budget as a whole would be subject to reappraisal, with a possibility of reduction even on that, thus leading agencies to frustration.

Summary

In contrasting PPBS and traditional budgeting as they exist today side by side, we can generally summarize that there is an antithesis between the allocation of scarce resources as a "rational" or as a "political" process.

Reformers have advocated unbending rationality, while the status quo has been maintained by the political tradition of a pluralistic order. The proponents of PPBS see the world of budgeting as a harmonized and integrated system of allocation. The prevailing budget system, on the other hand adapts to the world as it is. The result is a vain aim of PPBS to change the status quo and the failure of the reformers rational budget mechanism which is obviously succumbing under the heavy weight of pluralist politics.

The partisans in pluralism use strategies which give them free rein. Departments use information subjectively to justify their requests while the Central authorities avoid too much commitment to PPBS because it makes the resolution and containment of conflict even harder.

41 - Frank Sherwood, The Management's Approach to Budgeting,
(Brussels : International Institute of Administrative Science, 1954),
p. 34.

I am far from suggesting that PPBS is doomed to oblivion. My main aim has been to point out the major criticisms levelled against it and how it is working in the governments of the United States and Canada today.

Although academics are not the real political practitioners, it will be fair to say that they can sense if something is in for trouble, and this is exactly what Professor Waldo and Wildavsky seem to sense.

"The immediate effect of 'forcing' PPBS on agencies across the spectrum in the federal government," says Professor Waldo in his letter, "no doubt resulted in the first instance in a great deal of waste effort, frustration and dishonesty. My strong impression is that what has happened is that 'two sets of books' are now kept. The motions of PPBS have now been gone through to conform to the demand for compliance. On the other hand, because of inertia, disbelief and so forth, the agency has continued in fact to make its budgetary decisions as it has always made them."⁴² Aaron Wildavsky, in his article "Rescuing Policy analysis from PPBS", also comments, "PPBS actually inhibits the prospects for obtaining good analysis that is worth translating into public policy. They should be replaced with a strong incentive to make policy analysis count in yearly budgetary decisions."⁴³ Asked if he has reconsidered this view, Wildavsky replied that the article contains his "current sentiments" and that he "can add nothing to it at the present time."⁴⁴

42 - Letter from Professor Dwight Waldo, dated Feb. 16, 1970. (See Introduction above.)

43 - Aaron Wildavsky, "Rescuing Policy Analysis from PPBS", op. cit., pp. 189-212.

44 - Letter from Professor Aaron Wildavsky, dated Feb. 25, 1970. (See Introduction above.)

II.

CONCLUSION

1. LIMITATIONS

Without exaggeration, there seems to be something amiss with the theory of PPBS as Professors Waldo and Wildavsky suggest. Beset by obstacles in innovation and diluted in adoption, PPBS has not achieved the promise of its yesteryears. Since "PPBS has been spread around the land" to use Wildavsky's words, it has not produced marked changes in budgetary behavior. Whether in the United States or Canada, itemization of expenditure along organizational lines persists under the cover of the new goal oriented system. In places where the new system had been embraced at first sight, a pallid form of hybridization has been the rule. Agencies, to a large extent, have accepted PPBS for its good technique, however, since there is a strong belief that it would lead to decisional efficiency and can even be used for strategy in some cases. They have also preserved the paramountcy of tradition. PPBS reforms in most agencies of the United States and Canada have been minimal. The hybridization process has been propelled by the rule of minimization according to which acceptability of reforms is inversely related to their impact on budgetary decisions. Consequently, the hybrids that have been developed seem to have been weighted on the side of tradition while more radical changes have been seriously modified.

The use of PPBS has been languid and slow. Progress is sporadic and piecemeal. It also does not seem to have the sustained momentum

expected of it. The fervor and enthusiasm for PPBS has been paralleled by the doubt and uncertainty it had created. On the other hand, the hybridization of practices is paralleled by the hybridization of concept. This condition is due to two sets of factors: the first pertaining to problems of innovation, the second to disparities between the established patterns of budgeting and the new ideas in PPBS. PPBS's innovation has been stifled more by disinterest than by opposition, more by ambiguity and confusion over the meaning and implications of its concept than by fear of its consequences, more by satisfaction with the status quo than by concern over the potentials of the new system.

Object-budgeting, which PPBS was supposed to replace, has served the established patterns and is indeed, a product of them; PPBS requires significant changes in the orientation of the budget system, the roles of the participants and the norms of decision making. Object-of-expenditure budgeting was conceived during a period when there was an immediate need for effective fiscal controls. That is, it has been perpetuated by a predominant 'control orientation'. PPBS, by contrast, is geared to the 'planning orientation' in which the determination of goals and priorities (controversial in many cases) takes precedence over the control of expenditures.

The use of tactical approaches excellently portrayed by Wildavsky has been sustained by the established roles and relationships of different interests. Departments use budget preparation to obtain the things they wish to purchase. They do not plan a set of activities consistent with

general values or goals.

The reason why PPBS has to be a hybrid is because it cannot wholly replace object-of-expenditure practices. The traditional object budgeting is in a pluralistic world in which the various contestants and participants adjust to one another by means of compromise. The agencies try to protect their partisanship by the use of subjective data systems, while the central authorities avoid the conflicts latent in the choice of policy alternatives.

2. PROSPECTS

Nevertheless, I do not characterize PPBS as a failure. With all its controversies, PPBS still ranks at this time as one of the 20th century's greatest administrative reforms. The fact that PPBS has introduced several meaningful changes into the democratic budgetary process cannot be contested. In the future, the growth in government and the proliferation of governmental activities will force greater attention to the long range planning of goals and activities and reduce the strenuous detailed itemization of objects. Although some may disagree that PPBS was a radical breakthrough in budgetary procedures, there is no doubt that it has made its impact felt. However, the shape of budgeting in the 1970's and beyond will rather resemble the hybrid rather than the pure object-of-expenditure or the rational.

In the wake of PPBS's inability to sustain itself alone, I suggest that too much emphasis had been placed on form and technique. Nevertheless, it is encouraging to see that as of now, there seems to be a marked turn in the spirit of reform, from procedural matters to the substance of politics and administration.

Hybrid or no hybrid, in my view, the increase in technological advancement, which injects innovations into information, and the growing use of cost/benefit analysis in the public sector, will keep the memory of PPBS afresh for a long time to come.

APPENDICES

APPENDIX A

THE PPB PROCESS AND ITS OBJECTIVES *

The concepts common to all planning-programming-budgeting systems are these:

- (a) the setting of specific objectives;
- (b) the systematic analysis to clarify objectives and to assess alternative ways of meeting them;
- (c) the framing of budgetary proposals in terms of programs directed toward the achievement of the objectives;
- (d) the projection of the costs of these programs a number of years in the future;
- (e) the formulation of plans of achievement year by year for each program; and
- (f) an information system for each program to supply data for the monitoring of achievement of program goals and to supply data for the reassessment of the program objectives and the appropriateness of the program itself.

The elements of the Canadian government PPB System have been developed in harmony with the above general concepts and within the context of total resource allocation. By the latter phrase is meant that there is an explicit recognition that the total resources are limited in terms of the individual and collective demands of departments and that there has to be a setting of priorities by the government itself in the light of which departments can plan and budget.

A Framework for Decision Making

Program budgeting is primarily concerned with resource allocation within the department. In common with much of the literature on the subject, the succeeding chapters of this guide emphasize the value of PPB to departments in making resource allocation decisions within their own spheres of responsibility.

However, in the final analysis, the resources to be allocated are those of the government as a whole — not the one million or two billion dollars with which an individual department may be concerned, but the

* From PPB Guide, op. cit. (with some omissions).

whole ten billion dollars of revenues and borrowings that the government is currently spending. The Treasury Board is adopting PPB as a means to assist in total resource allocation. It is important then for departments to have an understanding of the whole framework into which their respective programs will fit.

The Treasury Board has adopted a functional classification of government expenditures which recognizes that government activity falls into six main areas or functions — General Government; Foreign Affairs; Defence; Economic Measures; Social Measures; and Education, Culture and Recreation. The expenditures involved in Fiscal Transfer Payments to the provinces and in Public Debt are set aside under two special functions. This system has three tiers at the governmental level, function, sub-function and functional program and, to the extent that individual departmental programs fall wholly within one functional program, they form a fourth tier. The individual activities which make up departmental programs should each fall entirely within a function program and thus make up the fifth tier. . . .

Ideally there could exist a complete framework for resource allocation, one which begins at the level of the function where only the broad, intuitive, and in the truest sense "political" decisions can and must be made, and which extends down through the various levels of the hierarchy, with cost-benefit analysis exerting a progressively greater influence on resource allocation as the decisions to be taken fall within ever narrowing terms of reference. At each level there would be clearly specified needs to be met, identifiable results or outputs that could meet the needs, and measureable benefits that could be demonstrated.

Such an ideal state is, of course, not easy to achieve. At the higher levels of decision, it is not possible to rely to any great extent on cost-benefit analysis, in deciding for instance how much should be spent on defence as against social measures. And even after a decision is taken to spend a certain amount on social measures, the subsequent decisions as to what should be allocated to health and the other sub-functions are only comparatively easier.

Despite the difficulties, however, there must be at least an implicit functional allocation. A case could be made for higher levels of expenditure in almost every area in which the government operates. For example, the defence of Canada could take all the revenues of the Federal government if there were no other demands. The arts, the sciences and education could absorb many more hundreds of millions of dollars. Certain areas of the country contain pockets of poverty that only massive investments can relieve. The evergrowing concentration of the population into cities invites increasing attention to clogged transportation facilities, polluted air and water, and sub-standard housing.

The Setting of Priorities

It is axiomatic that if next year's resources are to be higher by a certain amount than this year's, expenditures for all purposes taken together can rise by no more than the same amount. And it is intuitively obvious that it would be more beneficial for the increase to be distributed unevenly among functions according to the exigencies of the period under review. In other words, expenditures should increase at a faster rate than average for some functional programs, should remain stable in others, and should actually be reduced in still others to free funds for higher priority purposes. Consequently, not only should departmental programs be viewed as competing with one another for a share of the total resources; each program should be viewed as competing with all other programs, belonging to the same or other departments.

A major element of the PPB System will therefore involve seeking the government's guidance as to priorities to be served in allocating resources. This guidance will be sought in the light of forecasts by the Department of Finance as to the magnitude of the funds likely to be available for the next few years according to specific assumptions as to the rate of growth in the economy, tax rates, and the appropriate level of borrowing for budgetary and non-budgetary expenditures — subject of course to any overriding considerations as to the fiscal stance necessary to correct any imbalance in the economy.

The recommendations as to priorities will be based on analysis made of information drawn from various sources, and in particular from departmental Program Review Submissions, since these are expected to develop in the quality of their content until they provide by far the best single picture of the needs of the country in federal areas of responsibility.

Expenditure guidelines reflecting the scale of priorities established by Cabinet will be communicated to deputy heads as soon as possible in the period during which departments prepare their Program Review Submissions. In those functional areas where the guidelines tend to be more restrictive, they should not be interpreted in any sense as ceilings that may not be breached. The Treasury Board Secretariat does not have and cannot have a sufficiently intimate knowledge of the inescapable commitments that departments must meet or the benefits a more current analysis may show are expected to result from new programs or from the expansion of existing programs. But in cases where the guidelines suggest restricted expansion or contraction in program size, the departments concerned have the advantages of an early notice that their arguments will have to be more than usually convincing and of an opportunity to reassess their own priorities and to consider internal priorities among activities.

At the same time, in those functional areas for which the guidelines suggest expansion will be favoured, no automatic acceptance by the Treasury Board of any particular budget level should be expected. Firstly, there are in many cases two or more departments responsible for operations in any one functional area and the distribution of resources among the departments concerned will depend on the relative benefits forecast. Secondly, even for those functional areas the guidelines might favour, the available new resources will certainly be inadequate to permit the realization of all plans, however meritorious.

Internal Departmental Priorities

A third element in the PPB System is an insistence that departments investigate and make explicit in their Program Review Submissions the scale of priorities they recommend for each program in the next fiscal year. That is, as explained in more detail in the Program Review and Estimates Manual, departments are requested to show what they consider most urgent or beneficial to be done within each activity and as between activities in the same program. The Treasury Board will take these priorities into account in reaching a balance between resources and demands upon these resources.

This consideration of internal priorities is expected to extend to recommending the elimination of existing activities whose continuance appears to provide a benefit insufficient to justify the funds required or whose elimination would release funds for relatively more beneficial purposes.

Support Programs and Activities

Some programs and activities of the government exist to provide service to other programs and activities and in fact some entire agencies exist for this purpose alone. Some of the literature on planning, programming and budgeting argues the thesis that only those operations providing a direct service to the public should be recognized as elements of program-activity structures, that the costs of support operations should be distributed to those programs providing a direct service and, as it were, the support operations should not appear in the budget.

The Federal government PPB System is not being developed in accordance with this thesis. Support operations, either those of entirely common service agencies or those which are found in departments or agencies having other operations providing a direct service to the public, may at this time be accepted as programs or activities and as such may appear in the budget in the usual way; i.e., the more detailed suggestions

about program-activity structures found in Chapter 2 will apply. Some methods of relating the cost of administrative and support activities to operating programs are briefly discussed (in Appendix C.) Future experience may indeed indicate that support operations should disappear from the budget but at this time the advantages of that approach do not appear to outweigh the difficulties.

The foregoing discussion is of course not intended in any way to prejudice any decisions about the merits of charging for common services; this might still be done whether or not the operations providing the common service are treated as programs and activities.

Systems Analysis

The term systems analysis is taken in this guide to include the whole analytic process of clarifying objectives, the defining of appropriate program-activity structures for the achievement of objectives and, in particular cost-benefit analysis. These three topics are covered in other chapters of the guide.

A basic assumption of the Canadian PPB System is that systems analysis is essential to the implementation and success of the System. Departments will be encouraged to set up small staff groups of analysts in a close relationship to the deputy head and his program directors. The Treasury Board will give the lead in the application of analysis. A new section in the Board's Secretariat has been staffed with a number of officers with professional qualifications and experience in the analytic disciplines. In addition to providing advice to the Secretariat of the Board, these officers will design training courses for departmental personnel and will be available for consultation with their opposite numbers in departments.

APPENDIX B

OBJECTIVES AND PROGRAM-ACTIVITY STRUCTURES*

A distinguishing characteristic of PPB is the reliance placed on analysis at all stages: at the stage of setting objectives, in evaluating alternative ways of achieving objectives, during detailed planning to put in train the selected alternative, and during implementation to maintain control over progress. The analytic techniques used are not new but are borrowed from other disciplines and employed together in a PPB system to contribute to improved decision making.

It is convenient to explain the process called systems analysis under the three topic headings: the clarifying of objectives, the design of program-activity structures, and cost-benefit analysis. These are the three steps in the analytic discipline which should precede and continue to support program budgeting implementation and they are in fact taken in the general order stated. Each "step", however, is unlikely to be taken just once but may recur a number of times. Tentative objectives are proposed and from these a set of potential programs are inferred. A first cost-benefit analysis is undertaken and this is likely to suggest the reconsideration of the potential objectives and their associated programs. These restated objectives would be expected to lead to more likely programs but further cost-benefit analysis may indicate the wisdom of a second reconsideration of objectives and programs. Since the process is intended to provide a basis for action and is not carried on for its own sake, it must, of course, be suspended at some point. The essential idea to be grasped is the iterative and integrated character of systems analysis, even though for expository reasons the three main divisions of the analysis are presented separately here.

The Clarifying of Objectives

... The government exists to discharge certain functions and each department in turn exists to contribute towards one or more of these functions. The first step in the implementation of program budgeting from a departmental point of view is the formulation of a statement of objectives which indicates which function or functions of government the department exists to support and what specific contributions the department makes or proposes to make. The statement of objectives is, therefore, fundamental in that the particular structure which evolves will be directly dependent on the objectives and the way in which they are stated. Successful planning is critically dependent on the clarity of objectives at all levels — governmental, departmental and the levels of departmental program, activities and sub-activities or projects carried

* PPB Guide, op. cit., (with some omissions).

on within the scope of each activity. In this guide departmental and program objectives only will be discussed but the considerations raised are equally applicable at lower levels of the structure.

For each departmental program it is desirable to have a statement of objectives which meets the following criteria:

- (a) the objectives of a program should be compatible with each other;
- (b) they should be directly translatable to explicit benefits, preferably to benefits that can be measured quantitatively;
- (c) they should be stated in a way to encourage the consideration of a number of different yet feasible alternative activities, i.e., the objective should not define the method;
- (d) they should be defined with enough precision to permit identification of any activity within a program which does not contribute to the objectives of that program; and
- (e) they should be consistent with the department's role as set out in the legislation governing its operations.

The Process of Defining Program Objectives

There should be a short statement of the department's objectives which describes what part of the total government responsibility the department takes to be its particular responsibility. Similarly, it is necessary to develop a series of sub-objectives leading to the division of the department's total responsibility into logically separate parts. When such a set of sub-objectives is finally decided upon, each sub-objective corresponds to a potential program.

It may be helpful to offer an illustration on the process as it has been explained to this point. The illustration is purely hypothetical and although it involves the subject matter of the Department of Agriculture, it does not necessarily represent the ideas of the Department of Agriculture. Suppose that a short statement of the Department of Agriculture's objectives ran as follows:

"To increase food production for domestic consumption and export and to promote the economic welfare of those engaged in farming in Canada." This statement appears generally consistent with the fifth criterion but it quite evidently is of too general a nature to meet the other criteria. The general departmental objective so stated might be clarified along the following lines into sub-objectives. (The names of

possible programs the sub-objectives would suggest are shown in brackets after the sub-objectives.)

- (i) To determine methods of increasing productivity (Research);
- (ii) To stimulate consumption in Canada of Canadian grown agricultural products (Domestic Marketing);
- (iii) To enlarge overseas markets (Foreign Marketing);
- (iv) To eliminate or control insects, pests and diseases (Production and Quality Protection);
- (v) To ease the farmer's disabilities arising from fluctuations in foreign markets and variations in production due to climatic conditions (Price Maintenance).

Analytic effort is then addressed to the activities of the department and the objectives of the activities are determined. Each activity is identified with the potential program the activity appears to serve and at the same time, preliminary consideration can be given to new activities, consistent with the departmental and program objectives. This could be either wholly additional new activities or new activities that would be preferable substitutes for some current activities. The consideration of new activities should proceed initially with minimum restraint in order that management may be given the opportunity to explore a wide range of alternatives.

The Purpose and Desirable Attributes of Activities

A departmental program, or more briefly in this context, a program, is a group of departmental activities, all of which are directed to the achievement of the objective or set of objectives of a departmental program. The activities grouped are usually alternative or complementary means for achieving the objective or set of objectives and, therefore, the activities concerned should be considered together when major choices are made about the allocation of resources. There are a number of considerations that should be kept in mind.

First, the activity structure within a program must be designed to assist resource allocation decisions which are made within the department on the basis of analysis as well as outside the department by Ministers collectively as members of the Treasury Board and Cabinet. In many cases, the review by Ministers as a group may not go below the program level. However, when questions cannot be resolved at that level, the greater detail offered by activity documents will have to be considered. Ideally, policy and expenditure limits against which all

submissions to the Board could be compared would be established by Ministers of the Board for each program, and by implication for each activity. Submissions clearly in accord with the agreed policy and expenditure limits would then become routine matters and be processed as such.

Secondly, the activities of a department are the headings under which the department will negotiate for funds with the Treasury Board, the headings under which requirements can be best explained and the benefits forecast. It will, of course, be necessary to show the inter-relationships of activities within a program to provide a clear picture, but when this has been clarified, most of the detailed attention will be given to the activities individually.

Thirdly, the activities of a department provide the focus for planning by the department in deciding how to achieve program objectives. If a department carries on some large operation in each of several offices across the country, these offices are responsibility centres. But, if the operation no matter where it is carried on is directed to the achievement of one objective or set of objectives, the operation forms the activity. Therefore, the parts of a single activity may be found in more than one responsibility centre, and, conversely, one responsibility centre may be concerned in more than one activity.

Fourthly, in order to avoid having too many activities, each activity should involve the largest set of projects possible as long as the objectives to be served do not become too diverse, since it is desirable that an activity serve one, rather than two or more, objectives.

Fifthly, in delineating an activity, it is important to remember that for it to be meaningful, the mix of operations should be homogeneous in character. There is a natural tendency to solve accounting problems by choosing an activity structure that is identical to the responsibility structure despite the fact that the activities thus become a heterogeneous collection of operations. If this is done, discussions between the departments and the Treasury Board will tend to fall to the level of objects of expenditure, work volumes, and like details and the true activities of the department will become obscured in the organizational network. Discussions should be about policy, the objectives to be achieved and the appropriate total resource allocation. These can only be meaningful topics when the whole activity is viewed at once in relation to the program it supports rather than in small segments carried on by various responsibility centres.

Research Activities

Many programs are supported by research — research being defined as a creative activity which produces some form of innovation. These operations, like all others of government, are encompassed within the PPB resources allocation system.

If the resources involved are small and the research forms an integral part of a particular activity or departmental program, it will not be necessary to identify the research as a separate activity. Should the research incur large fractions of a department's budget it should be treated as a separate activity or activities. When the whole of the activity of a department is devoted to research, for example the National Research Council, it will be appropriate to submit a program made up of significant research activities.

Although justification for resource allocation to research activities must be argued in terms of potential benefit related to cost, the Board appreciates that applied research has more direct potential benefits than so-called pure research. Since the support offered by pure research is more diffuse it may have to lean for its justification upon broader benefits which may be associated with the development of national prestige, education, the attraction of trained people to Canada or the counteraction of the brain drain, etc. Applied research which is aimed at supporting specific objectives should include in its justification a clear statement of the particular sector of the Canadian economy it is intended to benefit.

Treasury Board Approval

Because the programs and activities of departments are key elements in the processes of analysis and resource allocation, the program-activity structure of departments will require approval by the Treasury Board, such approval to be sought in a specific submission to the Board. A well-defined program can very much simplify the Board's task in making allocation decisions and the department's task in long-range planning. A well-defined program in this sense is one in which the objectives are clearly stated and identify measureable benefits; in which the activities comprising the program are shown to clearly serve the program objectives; and for which a reporting system has been devised to show at suitable intervals the progress being made in achieving objectives. In such a situation, it should be possible for the Board to consider a long-term commitment of resources, to be honoured in all but very abnormal budgetary situations.

While, as was said, each program-activity structure will require Board approval, that approval will not necessarily be withheld in any particular case in which the structure is not well defined in the sense of the preceding paragraph. The collection of activities a department puts together to make up a program may require a resource allocation even though the collection does not fulfill the requirements set forth for a satisfactory program-activity structure. But such allocations will tend to be made on a year-to-year basis, following searching examination and will be subject to continuing review. It would not be surprising, however, if such a department, seeking funds for expansion, should find itself at a competitive disadvantage with another department able to justify its request for funds in terms of objectives and presenting its justification in terms of a well defined program-activity structure.

Program-Activity Structure, Objectives and the Estimates

The Treasury Board has approved a new form of the Estimates to be introduced for the fiscal year 1970-71. This new form will present departmental estimates in terms of programs and activities and will record the objectives which the programs and activities are meant to serve. For this reason, as well as for their vital significance in planning and implementation, the clarity of objectives is of great importance.

In the long term, it is intended that the appropriation structure match the program structure with each departmental program being financed by one vote. Considerations of parliamentary control may sometimes dictate the necessity for sub-votes related to activities or major elements of activity (such a large scale transfer payments) but the equating of the vote structure and the program structure should make more evident to Parliament the intended relationship between appropriations and results.

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