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ABSTRACT

This document consists of three sections: a summary of the development of government budgeting, a discussion of the concepts and applicability of performance budgeting, and a critique of the techniques and usefulness of PPBS with a detailed analysis of its economic assumptions. Appendixes show that an optimum solution to the problem of allocations between the public and private sector is virtually impossible. For some merit goods such as education, a partial use of the market system may be more productive. Funds for this research project were provided by an ESEA Title III grant. (Author)

A BRIEF HISTORY AND ANALYSIS OF BUDGETING AS A TOOL OF ALLOCATION

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A BRIEF HISTORY AND ANALYSIS OF BUDGETING AS A TOOL OF ALLOCATION

The early budgetary reformers for economy and efficiency were made up of essentially two groups--conservatives who wanted to minimize the role of government and others who wanted to enlarge the quantity and improve the quality of public services. The first group felt that by eliminating waste they could retain the same level of public services at far less cost; in other words minimize the cost of a given set of outputs. The second group wanted to eliminate waste so that more output could be produced at the same cost; maximize output for a given cost. The disparate objectives were actually masked under the common banner of "Economy and Efficiency" and the abhorence of waste. The reforms which came out of the early 20th century centered mostly upon a careful listing of objects of expenditure and changes in the Civil Services System.

The Performance Budgeteers essentially added the notion of technological efficiency and fully understood that to minimize costs and to maximize output was one optimum too many. They, however, still concerned themselves with the cost side of calculations and did not worry very much about how the output was valued by society.

PPBS uses many of the same calculations as did former methods of analysis on the cost side, but in addition tries to measure the effects or value of government programs. In addition, PPBS attempts to lump output together into coherent or programmatic chunks and assess the net benefits

from producing such output over time. It is, in effect, a tool of planning. Using PPBS one can make comparisons between public and private projects and between public projects. But such comparisons are extremely tentative because of a number of uncertanties and impossibilities in gathering and analyzing data.

The development of government budgeting is summarized in Section I. Section II is a discussion of the concepts and applicability of performance budgeting. In Section III there is a critique of the techniques and usefulness of PPBS with several of its economic assumptions analyzed in some detail. Appendices I and II show that an optimum solution to the allocations problem between the public and private sector is virtually impossible and still undetermined even if achieved. Moreover, for some merit goods, such as education, a partial use of the market system might be more efficient and productive.

I. THE DEVELOPMENT OF GOVERNMENT BUDGETING IN THE UNITED STATES

Increases in the size and complexity of government and the expansion of government activities have brought about an accompanying need for budgetary reform in the United States. The roots of PPBS are in the development of budget systems and changes in the budgetary process and orientation beginning early in the 20th century.

Gross contends that, in general, " government budgeting begins with indispensable efforts to promote accountability by preventing public funds from being stolen, used for unauthorized purposes, or spent at uncontrolled rates that could lead to inflation or higher taxes."[1] Early developments in budgeting in the United States tend to support this statement. From the turn of the century to the New Deal, concern centered around the development of an executive budget and increasing control of government expenditures through budget systems.

A. Early Developments in Cities

Budget systems were developed first in municipal governments then in the federal government and finally in the governments of the states. A number of forces were at work in the cities. Muckrakers such as Lincoln Steffans, Ida Tarbell and Ray Stannard Baker exposed and drew public attention to corruption in municipal government, spurring the Good Government Movement as a response to corruption and inefficiency in city government. Good Government reformers conceived of the budget as a means toward responsibility

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[1] Bertram M. Gross, "The New Systems Budgeting," Public Administration Review, Vol. XXIX, No. 2, 1969.

and accountability in government. They proposed the development of budgeting systems along with reorganizations of municipal government which would lead to stronger and more professional executive leadership.[2] The impotency in financial matters of mayors relative to city councils was a stumbling block to the development of effective budget systems in many cities.

Finally and perhaps most important, businessmen exerted pressure for budgetary reform in response to increasingly heavy tax burdens imposed upon them. They hoped that through increasing economy and efficiency in government, public expenditures would decrease, thereby decreasing taxes. In addition, boss rule, graft and corruption had reached the point where only "insiders" were able to sell to government. There were hopes that budgeting reform would also lead to more rational and "businesslike" transactions between government and business.[3]

The budget systems proposed by the National Municipal League in

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[2]According to Dwight Waldo, Good Government Movement Reformers were " . . . sensitive to the appeals and promises of science, and put a simple trust in discovery of facts as the way of science and as a sufficient mode for solution of human problems. They accepted - they urged - a new positive conception of government and verged upon the idea of a managed society. They hated "bad" business but found in business organization and procedure an acceptable prototype for public business. They detested politicians and were firm in the belief that citizens by and large were fundamentally pure at heart, desirous of efficient and economical government and potentially rational enough to "reach up" to and support a vigorous government, wide in its scope, complex in its problems, and utilizing a multitude of professional and scientific skills. They proposed to educate citizens and assist them in this responsibility. They were ardent apostles of the "efficiency idea" and leaders in the movement for useful education . . . They caught the vision that true democracy consists of intelligent cooperation between citizens and those elected or appointed to serve . . . "

Dwight Waldo, The Administrative State, Ronald Press Co., New York, 1948 as in Jesse Burkhead, Government Budgeting, John Wiley and Sons, Inc., New York, 1956, pp. 13-14.

[3]Ibid., Burkhead, pp. 12-15.

1889 and the New York Bureau of Municipal Research in 1907 were important first steps in budget reform. The ideas of these agencies influenced reformers and cities in their efforts to change and/or develop budget systems.

During the 1920's most cities adopted general reforms in financial practices and some form of budget system. Additional pressures for reform mounted in the 20's with the passage of the 18th Amendment and the consequent loss of revenue to cities from the sale of alcoholic beverages, and with increased demands for municipal services such as paved streets to accommodate the automobile.[4]

Early budgets adopted by cities were classifications of expenditures based upon objects or items purchased each year. Detailed information was recorded on expenditures by departments and agencies for such items as salaries, equipment, supplies, rents, utilities, etc. According to Burkhead, the major purpose of an object classification is control of expenditures at the department or agency level. Adoption of object expenditure classifications limited the discretion of administrators at a time when both citizens and legislators mistrusted them. Object classification was an important technical step because it paved the way for future installation of government accounting systems.[5]

B. Early Developments in the Federal Government

Between 1880 and 1909 procedures for allocating revenue at the

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[4]Ibid., Burkhead, p. 14-15.

[5]Ibid., Burkhead, p. 128.

federal level were extremely decentralized with little executive or legislative control of expenditures. This period was characterized by congressional irresponsibility and executive profligacy including the practice of incurring coercive deficiencies. In 1888, after describing federal finance, James Bryce wrote:

> . . . America wastes millions annually. But her wealth is so great, her revenue so elastic that she is not sensible of the loss. She has the glorious privilege of youth, the privilege of committing errors without suffering from their consequences.[6]

The biggest financial problem facing Congress during Cleveland's administration was using surplus revenue form the tariff. Cleveland's tariff message in 1887 indicated concern about the inadequacies of federal financial administration. Such concern was to become more widespread in the years to come. Cleveland said:

> . . . The amoung of money annually exacted through the operation of present laws from the industries and necessities of the people largely exceeds the sum necessary to meet the expense of government.
>
> . . . This wrong inflicted upon those who bear the burden of national taxation, like other wrongs, multiplies a brood of evil consequences. The public treasury . . . becomes a hoarding place for money needlessly withdrawn from trade and the people's use, thus crippling our national energies . . . and inviting schemes of public plunder.[7]

Surpluses were less persistant after 1894. Graft and corruption in government were factors. But more important, government functions were increasing. The United States was beginning to perceive itself as a world power as a result of the Spanish American War and the

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[6]James Bryce, The American Commonwealth, Volume I, MacMillan & Co., London, 1891, p. 179, as in Burkhead, p. 11.

[7]Ibid., quoted by Burkhead, Journal of the Senate of the United States 50th Congress, 1st Session, December 6, 1887, p. 8.

expansion of U. S. enterprise abroad.

In June, 1910, President Taft appointed the Commission on Economy and Efficiency in Government. The Commission investigated the possibility of using a budget for presenting an annual program, the organization and activities of government, personnel problems, existing financial practices and the possible use of business practices in government. The Commission prepared the first organization chart of the federal government and made studies of duplication of efforts among departments and agencies. They also gathered information from departments and agencies for a budget classification based on objects of expenditure. The President then proposed a set of forms to be used by departments and agencies when submitting annual budget information.[8]

On January 17, 1912, the Taft Message on Economy and Efficiency in Government was sent to Congress. Taft conceived of the budget as an instrument of economy and efficiency, but his conception of economy and efficiency was considerably ahead of its time. He stated:

> We want economy and efficiency; we want saving and saving for a purpose. We want to save money to enable government to go into some of the beneficial projects which we are debarred from taking up now because we cannot increase our expenditures.[9]

In June, 1912, the Taft Commission report on The Need for a National Budget was sent to Congress by the President. This message incorporated a number of very important ideas on the role of budgeting for management and control of government spending by the chief

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[8] Ibid., Burkhead, p. 18.

[9] House Document No. 458, p. 16, as in Burkhead, p. 16.

executive, for administration of departments and for Congressional review and decision-making.[10] Of particular importance, the Commission recognized the need to look less at what government buys and more at what government is trying to do--a concept which would underlie the development of performance budgeting, program budgeting and PPBS.

The report stated:

> Notwithstanding the magnitude and complexity of the business which is each year conducted by the executive branch and financed by Congress, and the vital relation which each governmental activity bears to the welfare of the people, there is at present no provision for reporting revenues, expenditures and estimates for appropriations in such a manner that the executive, before submitting estimates, and each Member of Congress and the people, after estimates have been submitted, may know what has been done by the government or what the government proposes to do . . . The purpose of the report which is submitted is to suggest a method whereby the President, as the constitutional head of the Administration, may lay before Congress, and Congress may consider and act upon, a definite business and financial program, to have the expenditures, appropriations and estimates so classified and summarized that their broad significance may be readily understood; to provide each Member of Congress, as well as each citizen who is interested with data pertaining to each subject of interest that it may be considered in relation to each question of policy which should be gone into before an appropriation for expenditures is made; to have these general summaries supported by such detailed information as necessary to consider the economy and efficiency with which business has been transacted; in short, to suggest a plan whereby the President and the Congress may cooperate--the one in laying before the Congress and the Country a clearly expressed administrative program to be acted on; the other in laying before the President a definite enactment to be enacted upon by him.[11]

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[10] Ibid., Burkhead, p. 19-20.

[11] House Document No. 854, p. 4-5.

It also stated that for effective administration, the administrator "must have before him regularly statements which will reflect results in terms of quality and quantity: he must be able to measure quantity and quality of results by units of cost and units of efficiency."[12]

The budget proposed by the Commission was a classification by items of expenditure with activity schedules incorporated as subdivisions of department and agency expenditures. It would have been a vast improvement over the system which existed. Unfortunately, Congress did not accept the Commission's proposal. Taft claimed that he had the constitutional right to require the form he desired for appropriations requests. But he was not re-elected 912 and Wilson and the next Congress regarded other considerations to be more important.

The next major development at the federal level was the passage of the Budgeting and Accounting Act of 1921. This act provided for an executive budget to be sent each year by the President to Congress. It also provided for the establishment of a Bureau of the Budget to assist the President in budget preparation.

Debate in Congress centered over the need to reduce taxes. Conservatives and business interest groups believed that a budgeting system would increase economy and efficiency in government thereby making it possible to decrease taxes--particularly the excess profits tax. The assumption was that there was waste in government and that the same level of output would be possible with a decrease in expenditures.

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[12] Ibid., p. 164 as in Burkhead, p. 20.

While many reformers supported the provisions of the bill as a way of making government more responsive and responsible, some were disillusioned by conservative support and saw the budget system as a means for retrenchment. The latter were concerned with increasing economy and efficiency but in the sense of increasing the quality and quantity of services without increasing expenditures.

The budget system which was established was based on an objects of expenditure classification. As such, it centered upon the accounting aspects of government operations in terms of things bought. Since departments and agencies tend to buy the same categories of things (e.g., personnel services, supplies, equipment, etc.) it was possible to set up a uniform accounting system throughout the federal government. A problem with the objects of expenditure budget classification is that it leads to "over attention to detail at all levels of budget review, and neglects larger issues which should be considered."[13]

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[13] Op. cit., Burkhead, p. 130.

II. PERFORMANCE BUDGETING - THE DEVELOPMENT OF BUDGETING AS A TOOL FOR MANAGEMENT

The next stage in budget reform, the development of performance budgeting, is characterized, according to Gross, by a "greater emphasis on activities or outputs for which inputs are used."[14] The idea behind performance budgeting is that, " . . . any government agency should know what it has done, is doing or wants to do with the inputs it uses . . . . If such knowledge is obtained, it may then be possible to estimate the costs of doing these functions, activities or projects, or even to know when--with no increase in cost--there may be an increase in output."[15]

The development of performance budgeting was related to early developments in program budgeting and some of the literature discusses the two interchangeably. It is useful for a discussion of modern program budgeting to indicate distinctions between the two. This will be done as the paper progresses.

The incipient stage of performance budgeting was between 1913 and 1915 when the New York Bureau of Municipal Research experimented with costs on the basis of work classifications for three public works functions in the city of New York and in 1912 when the Taft Commission proposed the use of activity schedules in federal budgeting. But little was done in either performance or program budgeting until the 1930's when the Department of Agriculture developed and utilized activity schedules and the TVA developed a program budgeting system. The movement toward performance and program budgeting gained impetus during the post World War II

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[14] Op. cit., Gross, p. 8.

[15] Ibid., p. 8.

period. In 1946 the Department of Navy presented its budget proposal for FY 1948 on both the traditional objects basis and a program basis, and the appropriations structure of the department was simplified. These changes were adopted by the Department of Defense when it came into being. At the same time, the Bureau of the Budget, which had grown in stature and was now located in the executive offices, proposed a functional classification of summary accounts.[16] A functional classification of accounts is one in which expenditures are shown for broad categories of programs across agency, and even in some cases, department lines, (e.g., public safety, public welfare, education, health, etc.). Obligations and appropriations are not shown in a functional classification. A functional classification is designed to facilitate policy making at the President's level and the level of Congressional review. It can also be shortened and published for the information of interested citizens.[17]

Encouraged by these reforms and proposals and other improvements made by the General Accounting Office and the Bureau of the Budget, many departments and agencies introduced activity schedules to supplement detailed object classifications.

In 1947, the First Hoover Commission was appointed. It recommended that " . . . the whole budgetary concept be refashioned by the adoption of a budget based on functions, activities and projects."[18] They called this performance budgeting and gave some examples. The Hoover Commission

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[16] Op. cit., Burkhead, p. 134-135.

[17] Ibid., Burkhead, p. 113-118.

[18] Commission on Organization of the Executive Branch of Government, Budgeting and Accounting, Washington, D.C., 1949, p. 8.

was concerned with improving Congressional review through attempts to simplify and improve the presentation of programs.[19] The Commission also sought a non-financial measure of performance which could be related to average unit cost for improving program management and administration.

Amendments to the National Security Act (Title IV) were passed in 1949 which required the Department of Defense to prepare, present, and justify budget estimates on the basis of performance cost of readily identifiable programs and activities, making distinctions between operating and capital programs.[20-21]

The Budgeting and Accounting Procedures Act was passed in 1950. This act intended to extend performance budgeting throughout the federal government. It required that budgets be organized in such a way that the President could determine functions and activities of government. The President was given the authority to determine the contents, order and arrangement of appropriations requests, statements of expenditure and estimated expenditures.

The Second Hoover Commission was appointed in 1955. It praised progress in performance budgeting and recommended further improvements.

A. Characteristics of Performance Budgeting

Three processes are involved in performance budgeting: 1) identification of significant outputs or end products; 2) measurement of

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[19] Op. cit., Burkhead, p. 135.

[20] Ibid., Burkhead, p. 135-136.

[21] But the Federal Government still does not keep records of capital purchased, as anyone, who still has a filing cabinet used during the administration of Federal grant, can attest.

output volume and input costs (expenditures); and 3) productivity or cost accounting to relate the cost of inputs to specified outputs.

As stated earlier, "the idea behind performance budgeting is to allow a government agency to know what it has done, is doing, or wants to do with the inputs it uses."[22] Expenditures in a performance budget are organized and aggregated according to the outputs or end products for which they are used. Outputs are usually identified for projects or programs, but outputs can be identified for all components of the macro-categories used by macro-economists, down to the tasks, missions or roles of the smallest units.[23] It is important that the outputs or end products be meaningful in terms of the content and purpose of the government activities, and that they be measurable either directly or through use of indirect indicators.

In some cases, the identification of meaningful outputs is fairly straightforward, (e.g. the miles of new roads under construction or completed in a road construction program). However, the objective things that are done are frequently not meaningful indicators of accomplishments. Burkhead gives the example of using the number of labor disputes settled as an output indicator of a labor mediation board. In some years it might be easier to settle disputes than in others. In some years there may be fewer disputes than in others and the number of disputes may to some extent be indicative of the acceptability of previous settlements. In some instances where it is difficult to define and measure end products or where end products are not meaningful in terms of program content or

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[22] Op. cit., Burkhead, p. 135.

[23] Ibid., Gross, p. 7.

purpose, it may be necessary to use the work process or activity as the performance unit. An example might be long term government research projects.[24] Gross contends that budgeteers have failed to focus on the problem of intangible outputs--that is, services involving information and control rather than the processing of raw materials. He says that this failure is greatest with non-routinized, changing and controversial services.[25]

When two or more agencies undertake a joint program, or when the same manpower or equipment is used by more than one program identification of outputs is also difficult. An organization divided into units by professional skills, is an example of extreme utilization of the same manpower for more than one program.[26] In addition, if an organization or unit doing a number of activities adds another, its programs might become partially noncomparable from one year to another.

Productivity and cost accounting involve relating a measure of input (e.g. labor time, labor costs, total cost including capital) to some specified output. This is usually feasible only for outputs that are easy to identify.[27] According to Burkhead, performance budgeting requires uniform measurement of the full cost of output. The sum of performance costs should equal total budgetary costs (cost of inputs). An accounting framework based on performance starting with appropriations and continuing through obligations and disbursements is necessary.

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[24] Op. cit., Burkhead, p. 140-145.

[25] Op. cit., Gross, p. 8.

[26] Op. cit., Burkhead, p. 147.

[27] Op. cit., Gross, p. 7.

An ideal system, according to Burkhead, would be accrual accounting for measuring program costs and estimates of costs for the next year on an accrual basis. Inventory should also be maintained on an accrual basis and the portion of capital equipment used up for the following year should be included in the cost for the year. Without accrual accounting, performance budgeting is most difficult for programs in which capital expenditures are an important part of total cost and where the portion of expenditures for capital are not consistent.[28]

Gross contends that costing in government has been clumsy and incomplete. In many areas, large capital costs have been neglected (investment in computers, air safety facilities, mail sorting machines) and too much attention has been given to overhead labor time.[29]

Performance budgeting was meant as a tool for management at and below the department level. At its best, the performance approach allows the manager to determine whether costs have changed because of a change in output or because of changes in the per unit cost of outputs (or inputs).

The concept of technological efficiency is important for the management applications of performance budgeting. Technological efficiency can be explained in the following manner: The same men using the same tools can produce different outputs by varying their techniques. The technologically efficient solution is the one which produces maximum output. The work of Frederick W. Taylor and other management scientists is in this tradition. Taylor conducted studies (including time-motion studies) to learn how the productivity of laborers could be increased by manipulating the relationship

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[28] Op. cit., Burkhead, p. 149-153.

[29] Op. cit., Gross, p. 8.

between man and his environment.

Performance classification based on end products (even those which are meaningful in terms of program content and accomplishments) cannot measure accomplishment or performance in any value sense. At best performance budgeting can be used "to measure a variety of specific accomplishments which may facilitate judgments as to whether government services are improving with respect to the cost of such improvement."[30] It is useless to search for a homogenous end product unit which will measure "better education," "better defense," etc.

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[30] Op. cit., Burkhead, p. 30.

III. PROGRAM BUDGETING

Before embarking on an economic discussion of program budgeting, it may be valuable to specifically delineate the usefulness of the technique or procedure. Program budgeting introduces a framework for analyzing the potential costs and benefits which will result from the institution of a given program. It is not a method which automatically produces the "right answer." Rather, as Arthur Smithies says,

> (PPBS) is a matter of organizing discussion and marshalling evidence in a way that will lead to an effective advocacy procedure. The situation is analogous to a legal trial. One cannot tell by the application of any objective criterion whether a jury has reached the right decision. One has confidence, however, that if the rules of evidence are followed and both sides are well represented, the decision is more likely to be good than bad. This does not imply that jurors become mere mechanisms. It implies that they act as human beings with their emotions tempered by good information.[31]

We begin out discussion of program budgeting by distinguishing it from performance budgeting. We will then discuss the specific techniques used in program budgeting in terms of their economic relevance and validity.

PPBS involves a number of processes which include:

a) defining program objectives in both the long and short range with some built in flexibility for change;

b) the ability to compute the costs, outputs, and the effects of the operation of the program or system[32] of programs; and

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[31] Smithies, Arthur, "The Planning-Programming-Budgeting System," American Economist, Spring, 1968, Vol. XII, No. 1, Harper and Row, New York, p. 8.

[32] Bertram Gross distinguishes between these two uses of the word "system" in his comments on a quote by Charles Hitch, "On the one hand, Hitch uses the word to refer to 'defense systems' or, more particularly, 'weapons systems'. Thus in his path-breaking The Economics of Defense in the Nuclear Age, he reported on the problem of developing better sealift systems to fit in with better airlift systems to develop a more effective logistic supply system . . . On the other hand Hitch also uses the word 'system' to refer to a systematic method of analyzing hardward methods and procedures used in operating a concrete system."

c) some method of comparing these costs and effects; both in comparison with other public sector programs and private endeavors, as well as, comparing costs and benefits incurred tomorrow and those incurred ten years from now.

We will deal with each of these issues in turn and close by assessing some of the intrinsic weaknesses in the method if one claims that it is an automatic allocation technique. Only by knowing the technique's limitations can we avoid making misapplications in the name of rationality.

A. The Definition of Objectives and Conceptualization of Programs

One of the primary purposes of PPBS is to enable administrators, legislators, budgeteers, and other allocators of resources to conceptualize and define the output or product of the organization. Until this product or output is defined on a programmatic basis, it is difficult indeed to estimate both the costs and the benefits which will flow from providing this product over time.

Program budgeting does try to assign all activities to one specific program or another. Overhead activities and capital costs, of course, must be split up between various programs on a fairly ad hoc basis. But who is to say what portion of the President's salary or depreciation on the buildings is to go into a University's instructional budget and what portion should go into the research budget? The answer, of course, is the accountant should and does say rather arbitrarily, or possibly, he creates an administration program in which the outputs are labeled "administration." The problem with this solution, of course, is the measurement of benefits accruing from administration and who can make qualitative judgements between administrations? There are certain indivisible fixed costs

of operating which cannot be easily assigned to given programs.

Program budgeting is, in a limited sense, useful as a planning device because it forces administrators to describe their activities in a programmatic way instead of as just elements of output.[33] After these programs, chunks of output, are defined, it is necessary to determine their cost and their value. This is what distinguishes program budgeting from performance budgeting. For, with performance budgeting the value of the output is taken at cost of production and efficiency is the objective. Program budgeting does not take the composition of output for granted and tries to act as a surrogate for the market mechanism. In following sections the most common methods used in these computations are discussed and program budgeting and cost-benefit analysis as an attempt to create a surrogate market system is illustrated.

B. The Computation of Costs and Benefits

In 1940, V. O. Key deplored the "Lack of a Budgetary Theory," which would provide an automatic rule for the allocation of public expenditure.[34] Aaron Wildavsky contends that such a "normative theory

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[33]Allen Schick feels that this is the primary purpose of program budgeting. This writer would content that, on the one hand, planning involves more than this, and, on the other hand, that the justification process and control process may be little more than planning. The problem, of course, is that no one knows precisely what planning is. Some would say that is is the allocation of future resources for the purpose of achieving intended social change, while others might say that is is the process of fulfilling specific Central Guidance functions. There are probably as many definitions of planning as there are planners.

[34]Key, V. O., "The Lack of a Budgetary Theory," 34 American Political Science Review, December, 1940, p. 1137-1144.

of budgeting, therefore, is utopian in the fullest sense of the word; its accomplishment and acceptance would mean the end of conflict over the government's role in society."[35] One can agree with Mr. Wildavsky's conclusions while contending that his reason, "the necessity for conflict about the role of government," is not very illuminating. We could better ask why is there conflict about the role of government? Or better yet, how can we insure that this conflict be resolved more fairly? Appendix I to this paper shows that conflict exists over the distribution of personal income, the mix of public vs. private goods, the composition of public goods, and just what a legitimate technique for aggregating the public's preferences might be. Appendix II argues that for some goods that satisfy merit wants, notably education, that a partial use of the market system would serve to allocate resources more efficiently and leave most consumers of educational services "better off."

In a sense, those who would claim automatic allocative efficiency for program budgeting are adhering to Verne Lewis' argument that the allocations problem in the public sector is not at all difficult.[36] Lewis states that all one needs to do is equalize the marginal utilities received from producing each kind of public good with each marginal cost and then equalize these ratios with those in the private sector which are determined by the market. What program budgeting does in its use of cost benefit analysis is estimate the costs and

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[35] Wildavsky, Aaron, "Political Implications of Budgetary Reform," Public Administration Review, Autumn, 1961, pp. 183-190.

[36] Lewis, Verne, "Toward a Theory of Budgeting," Public Administration Review, Winter, 1952, pp. 42-54.

benefits which will be incurred by: providing a given program (or level of output of public goals); discounting the flow of costs and benefits estimated; and comparing the net benefit produced with the net benefit generated by other programs with a similar capital cost.

1. Costs

Once the level and quality of output is decided upon, the analyst can begin to make computations.[37] As with benefits, both direct and indirect costs must be computed. A methodological question is involved here. Should one include indirect costs in the estimate of total cost or should one subtract indirect costs from benefits as "dysbenefits"? One can easily see that if direct benefits for next year are 10, direct costs are 3, and indirect costs are 4, the decision made affects the calculation. If we count the indirect costs as "dysbenefits", we subtract it from the benefits and we find that $\frac{\text{benefits}}{\text{costs}} = \frac{10 - 4}{3} = \frac{6}{3}$. If, on the other hand, we count these indirect costs as costs, we find that $\frac{\text{benefits}}{\text{costs}} = \frac{10}{3 + 4} = \frac{10}{7}$. The first computation makes the project look more attractive than the second even though the facts of the case are identical. The lack of clarity in how to compute relative costs and benefits and then compare them was characteristic of much of the earlier work done in cost benefit analysis in the 1940's and 50's. The Corps of

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[37] The differences between the public and private sectors here is that the businessman who underestimates costs must later on either raise prices or go out of business while the public administrator gets a supplementary appropriation.

Engineers mandated the execution of only those projects whose benefits exceeded their costs, using these simple calculations in their justification process.

Currently the formulation which is generally used sums discounted costs over time, subtracts this figure from discounted Benefits over time and compares this net benefit to society to the capital cost of the project to get a rate of return for the project. In other words, we

$$(1)^{38} \sum_{+=0}^{n} \frac{\text{(Benefit in Year +)} - \text{(Operating Cost in Year)}}{(1 + r)^{+}}$$

compute the value of expression (1) and that gives us the net benefit of the project discounted to the date of initiation of the project. As can be seen this is not really a cost-benefit ratio at all. Rather, it gives us a net present value in dollars of the benefits accruing from undertaking the project. This figure is then compared to the capital cost of the project. If the resulting figure is greater than the capital cost, the project should be undertaken.

This calculation is similar to the one which the businessman makes when deciding whether or not to invest capital in the project. For, the investment will yield returns over the life of the project and if he discounts these returns back to the

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38 + = Year +; r = rate of discount; and, n = the last year in which any operating costs are incurred or benefits expected. Many analysts fail to separate out capital costs of the project from operating costs. In fact one of the greatest faults of most government budgeting is that is rarely includes returns on investment or capital in any meaningful way.

present using an appropriate rate of discount or interest rate he can compute a present value of the investment and compare it to the capital cost of his investment.

This procedure is logically equivalent to comparing the rate of return on an investment to the return which could be received by putting the same amount of money in the bank. For instance, if an investment of $1,000 will yield a net discounted present value of $1,500 if invested in a shoe store and will yield $1,200 if put in the bank at 5% then the rate of return of investing in the shoe store is significantly greater than 5%.[39]

Let us now discuss, in substantially more detail, the conceptual problems involved in measuring net costs, net benefits, and the discount rate.

Aside from the question of indirect costs, ("spillovers or dysbenefits")[40] and the indivisibilities of administration and capital investment, the computation of costs of producing given levels of output in specified programs is crucial. Computations should be made for each future year in which costs of providing output will be incurred. Such costs, if the analyst is objective (a great leap of faith), ought to

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[39] A detailed discussion of this principle may be found in, Ackley, Gardner, Macro-economic Theory, Macmillan, New York, 1961.

[40] Private businessmen do not consider these in their calculations so long as they feel sanguine about their ability to avoid responsibility for indirect costs of producing. If businessmen or municipalities had considered water pollution or air pollution as part of their internal cost calculations, one may be assured that they would have acted differently.

be appropriately inflated on the basis of experience with rising costs, and prices of nearly all goods and services. In addition, consideration ought to be given to the likelihood that some of the inputs will be scarcer and hence more expensive in the future than they are today.[40a]

The cost side does not differ too much from the calculations which budgeteers and others learned to make in carrying out "performance" budgeting; except perhaps, that all output may be lumped into program categories and the programs themselves costed out. To a certain extent there has always been concern for what the cost of "a missle system" of "a housing project" would be, even though such estimates have notoriously been on the low side of reality. It is on the benefit side that program budgeting attempts to act as a substitute for the market place, that the new budgeteers can most exercise their imagination, and that program budgeting is most differentiated from traditional techniques such as performance budgeting.

2. Benefits

Whether or not a good sells in the market depends upon whether or not people value it at or above the price which the supplier must charge if he is to cover his costs and

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[40a] In fact a subsidy to education may just increase teachers salaries and have little effect upon class size if the supply of teachers is relatively fixed. The Medicare and Medicaid programs have had the effect of raising doctors wages and hospital costs and shifting medical care to the poor from the middle class. Because of the fixed supply of doctors these programs have probably not increased the amount of medical care appreciably.

reap a profit equivalent to that which he could make either producing something else or selling his personal services for a salary. The neoclassical economist would contend that people value commodities because such commodities give them utility. But one must not immediately think that utility can be measured easily or compared between individuals. Their dollar votes for what they prefer must be cast before this measurement or comparison can be made. "Utility is a metaphysical concept of impregnable circularity; utility is the quality in commodities that make individuals want to buy them, and the fact that individuals want to buy commodities shows that they have utility."[41] Thus, measuring the "marginal utility" of public sector expenditures is not really possible[42] and it is here that Verne Lewis' arguement can most easily be attacked.

Traditionally, cost benefit analysis has been used most successfully in appraising such projects as public utilities or river and harbor projects. In fact, the Army Corps of Engineers has conducted rudimentary cost benefit analysis since 1902.[43] In developing the benefit side of the coin, one must estimate the value which would be put on the product

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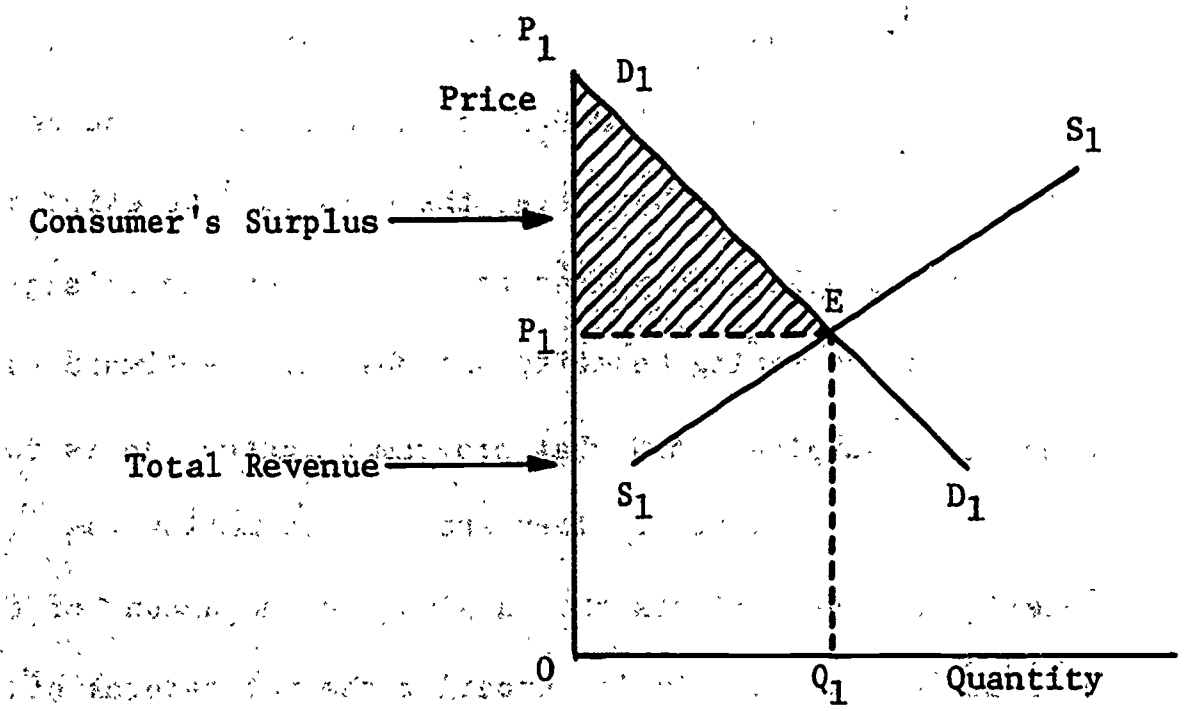
[41] Robinson, Joan, Economic Philosophy, Anchor Books, Garden City, New York, 1964, p. 48.

[42] For when the market mechanism is not used, and the shape of the demand curve not known, who can tell what the price should be?

[43] Prest, A. R., and Turvey, R., "Cost Benefit Analysis: A Survey," Surveys of Economic Theory, Volume III, St. Martins Press, New York, 1966, p. 155.

or output by all citizens who consume this output. Figure I shows the way the market solves the allocations problem.

FIGURE I



Here the industry supply curve at a point in time is given by $S_1 - S_1$ and the demand curve is given by $D_1 - D_1$. S_1 in the long run is determined by cost of supply which depends upon the price of factors of production, and the imagination and ability of managers. Demand for the commodity is determined by peoples preferences, their incomes, and the prices of other goods. It is generally assumed in elementary economics that these factors are held constant when we try to determine the equilibrium price and quantity through the interaction of the supply and demand curves which have been determined by these variables. Total revenue will be determined by the area OP_1EQ_1 which is equivalent to the product of the equilibrium price and quantity

(P_1Q_1). If some consumers are willing to pay more for the product than the equilibrium price, it is argued that they actually gain additional utility from units consumed at the equilibrium price. If the supplier could sell each unit individually at what the market would bear, he could reap total revenue equal to $P_2 0\ Q_1 E$ or the area under the demand curve from 0 to Q_1. Therefore, there is said to exist a consumer's surplus equivalent to the area of the triangle $P_1 P_2 E$. In estimating benefits one must also estimate the consumer's surplus. And what program budgeters do is to estimate total benefits. They are overestimating the benefits of the projects they analyse by the amount of the consumer's surplus. An in comparing the net returns of their project to a project in the private sector where consumers receive but do not pay for the consumers surplus, they make their project appear more attractive.

An additional problem in program budgeting is estimating externalities.[44] Education is a case in point. Society benefits from the education of its children. It means a more intelligent, competent labor force and citizenry. At the same time, education is the primary post infancy form of socialization, recruitment, and ranking which most modern societies use to mold and

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[44]The point is often made in the literature of cost-benefit analysis that pecuniary externalities should not be counted as benefits. To do so would involve double counting. An example would perhaps clarify the distinction between pecuniary and real externalities. If an irrigation project boosts farmers production by one million dollars, their land also becomes more valuable. The extra production is a real benefit to society, but the increase in value of the land is not a real benefit. It is a pecuniary externality which has already been counted in the value of the extra production.

allocate their citizens. Consequently, it would be ridiculous to say that only those who can afford to do so should be allowed to educate their children. Society's loss would perhaps be even greater than the loss to those not educated. Therefore, a pure market system of allocation would not work very well.

In Appendix II we argue that a modified market system approach to allocating educational expenditures will provide more rapid feedback and permit more accurate adjustment to the changing needs of the consumer than does the current localized rather monolithic system. This approach, however does not alleviate the need to decide upon the level of subsidy which a society should provide for education. This decision requires the computation of the stream of benefits and secondary benefits which we see flowing from investment.

3. Summary: Costs and Benefits

Program budgeting techniques enable an individual or organization to compute future costs and benefits associated both directly and indirectly with producing a given level of output. This process is similar in some ways to the computations a firm makes and approximates supply and demand curves for that output. As many observers, including Gross, Lindbloom, Wildavsky, et. al., have stated, there are great problems here both in terms of the objectivity of the agency whose interests are at stake, and the method's congruence with the political process.

a) The Objectivity of the Analysts

Since program budgeting is a tool of allocation, it is clear that many agencies will try to inflate the benefits accruing from their planned programs and minimize the costs. Wildavsky, for instance, gives the example of the Weather Bureau claiming that its reports save hundreds of millions of dollars because motorists are forewarned of inclement weather and so avoid loss of life and property.

Similarly, indirect costs or dysbenefits are often overlooked or not searched for with much enthusiasm since their existence might justify lowering the agency's budget. Consequently, without some measure of objectivity, the process may become one of "who can do the most sophisticated and quantified lying." Even with complete objectivity one is still not in a position to precisely specify "an optimum solution" to the problem of allocations in the public sector. Cost-benefit analysis may have its greatest benefit supporting the elimination of the most inferior projects from a number of similar projects.

4. Comparisons Between Now and the Future--Between Private and Public Expenditure

The rate of discount used in the cost benefit formula given above is of great importance in "washing out" or approving projects.

To compare two public projects or programs let us imagine that the facts may be summarized as presented in Table I.

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TABLE I

	Investment A	Investment B
Capital Cost[45]	100	100
Annual Net Benefits[46]	40	20
Investment Life (years)	4	20
Total Output Over Investment Life	160	400

Depending upon the interest rate, the benefit streams may be reduced to comparability by discounting. Given a rate of interest, it is possible to assign a present value to the income streams of $40 for four years and $20 for twenty years. Assuming an interest rate of 5 percent, the present values would be $142 and $249, respectively. Thus, Investment A is "worth" $142 in net benefit and Investment B is worth $249. If the interest rate equaled 20%, however, the present value of Project A would be worth about $103, while the present value of Project B would be worth about $99. Thus, the interest rate or "rate of social discount" we choose is crucial. It can alter our conclusions. In the first case we would have

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[45] Includes physical capital and labor and management costs inputed to the project. Incurred in year one.

[46] Computed in each year summing all benefits which legitimately may be ascribed to the program and subtracting all such costs. For simplicity we have assumed that this figure is constant over the life of the project.

chosen to undertake both projects; in the second we would have only undertaken project A.

Similarly, in comparing the rate of return on projects in the public sector with those in the private sector, it is necessary that one be able to compare these with a similarly appropriate interest rate. In deciding between projects in the private and the public sector, two other considerations must be taken into account--the consumers surplus and the rate of taxation of corporate profits. For, in our public sector computations, we have included the total value received by consumers in computing benefits, not just the value in the total revenue rectangle of Figure I while, when the corporation looks to its revenues, it does not consider the consumers surplus.

Similarly, the corporation invests for a rate of return after taxes, not before.[47] And if a corporation must pay a corporation income tax of 50% and a government agency must pay no tax, then the government agency's rate of return on an identical investment should be twice that of the private firm's. Or the discount rate should be doubled when applied to a government's tax-free project.

C. The Political Process and Budgeting

Wildavsky takes the Lindbloom thesis that government

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[47] Baumol in the American Economic Review, September, 1968, makes this point very clearly. He does not consider retained earnings and many other considerations which would dampen the strength of this arguement, however, and neither do we here. It is more important in this paper to make the distinctions clear.

allocations are not a process of optimization, but rather a process of "muddling through." They argue that men and institutions both in government and business constantly decide in terms of increments to some existing base. A corollary to this reasoning is that new programs tend to be assimilated by existing agencies or interests through a process of mutual adjustment, rather than working through new agencies or interests. Wildavsky also argues that agencies stimulate demand for their product by developing constituencies which are visible to the "right" congressmen. He claims that congressmen have limited and localized rationality and that complicated cost benefit analysis does not increase many appropriations. Gross points to many agencies that have effectively abandoned PPBS because it put things in optimising terms and confused the traditional process. Young mathematicians and quantifiers began to take over and established heads of budget bureaus could not function in the new system. Since government does seem to function in an incremental, protective, and traditional way there are substantial limits to the applicability of PPBS as a method of resource allocation.

First, most of the great achievements of mankind have been undertaken with a "damn the cost" orientation. The pyramids, great novels, titanic conflict, the space program and many other endeavors have been goal oriented, not profit oriented in any fiscal way. To argue that a project is bad just because it is costly or because many citizens would receive larger benefits if it were not undertaken does not always succeed in stopping the inertia of a society of an agency's momentum toward achieving that goal. It may be true in poker and business that "bygones are bygones" but government agencies

and politicians measure investments in endeavors like foreign wars and space programs differently. And if one wants to talk incrementalism, the logic of inertia must be included in the dialogue.

Secondly, government does not get instantaneous market feedback. The principle difficulty here is, of course, that government balance sheets do not show profit and loss. The President does not have to float bonds to fight most of the Vietnam war. Schools do not sell their product; it is offered compulsorily, but free. When schools have difficulty passing millage increases, it is not necessarily because voters do not like the way the schools allocate expenditures, but rather because they object to the total level of taxes, and millage increases are the only taxes over which they have direct veto power. Because the government does not get rapid or accurate feedback through the political process and because the large goals which government sets while damning the cost are often untouchable, it is very difficult to rapidly readjust the allocations process.

Finally, as government or planning become more centralized, it becomes more and more difficult to fund local experimantation on a small scale. This is especially true in the field of education. When programs are big and the allocations process to be understood is framed in terms of homogenous units, then the entrepreneurship of grantsmanship often replaces the entrepreneurship of real innovation and invention. The real problem in those areas where public programs do not seem to produce satisfaction is that some substitute for competition and rewards to successful competition may have to be instituted.

IV. CONCLUSION

The development of budgeting and planning techniques has been, nearly always, in the direction of increased comprehensiveness and increased rationality. Although many budget analysts may not approve of PPBS, they can no longer be effective without some knowledge of its techniques and applicability. For, our society appears to be persuaded by technical competance and apparent rationality where emotional or habitual arguments fail.

Unless someone analyzes and perceives the usefulness of those axioms which the rationality takes for granted, then fantastic waste may be engendered. The Pentagon, for instance, in the early 1960's acquired a substantial comparative advantage over the rest of the U. S. government in the sophistication of their budgetary techniques. With this comparative advantage, they were able to mobilize very large appropriations. With a lag of about half a decade, however, society, or society's elected representatives, have begun to protest that they did not value this product as highly as the budgets implied. The reallocation process will be long, costly and bloody indeed. It will take place only as alternative projects and programs become able to compete at a rather sophisticated level. In other words, the game will probably be the same, but the language of justification has been escalated for all time.

APPENDIX I

THE DETERMINATION OF OPTIMAL EXPENDITURE BETWEEN PUBLIC AND PRIVATE GOODS

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A major conceptual difficulty in the economics of public expenditure is the existence of "public goods." Such goods are not chosen through the market process, but rather are allocated by government at one level or another. Many "public goods" fulfill social wants while others fulfill merit wants. The distinction is that goods satisfying merit wants can be made subject to the exclusion principle, that is, people may be excluded from consuming these goods if they are unable or unwilling to pay for them. Consequently, the market system may be applied to the allocation of these goods. Social wants are satisfied by goods or programs from which no citizen may be excluded: national defense, man's walk on the moon, or even traffic lights are goods which the market system cannot allocate. Formal education could be provided completely in the market with private goods; Appendix II will survey a number of proposals which suggest that a modified market system should be allowed to allocate educational expenditures. At present, however, education expenditures are primarily made by government in most parts of the United States and do not depend upon the market and price system.[1]

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[1]This is not to say that prices are not relevant on the supply side. The managers of school systems or hospitals must, of course, consider the price and quality of inputs in their decision making. This paper is about little else. But for them to approach optimal or even satisfactory decisions, it is necessary that there should be some surrogate for profit and loss as it exists in the private sector. Fairly rapidly generated information as to profit and loss tells the private firm that it is either combining inputs inefficiently, producing too much or too little of its product, or producing a product which no longer finds favor with the consumer.

APPENDIX I

This Appendix examines the applicability of Economic Theory for determining an optimum level and composition for such public expenditure.

The principal conceptual problems are; determining how much should be spent in the public sector, how this expenditure should be allocated, and how much each individual taxpayer should pay. A number of theoretical economists have attempted to produce determinate answers to one or all these questions (Lindahl, Wicksell, Arrow, Pigou, and Samuelson). There is not space here to even attempt to summarize their arguments. It might be heuristic, though, to examine a greatly simplified model presented by Musgrave and then to discuss the limiting assumptions which are made in this model.

Musgrave assumes that true preferences of all individuals are revealed and known and simplifies his graphical analysis to a two-person situation. He asks, "How can the government arrange for an optimal allocation of resources between social and private wants?"[2]

In Figure A-1, the total output of social goods is measured on the vertical axis, and that of private goods on the horizontal axis. Musgrave says:

> The curve FE is a transformation schedule, showing what combination of social and private goods may be produced. The combination to be chosen will depend upon the preferences of our two consumers, A and B, and upon the distribution of income between them.[3]

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[2]Musgrave, Richard, A., The Theory of Public Finance, McGraw Hill, New York, 1959, p. 81.

[3]Ibid., p. 81.

OPTIMAL ALLOCATION OF SOCIAL AND PRIVATE WANTS[4]

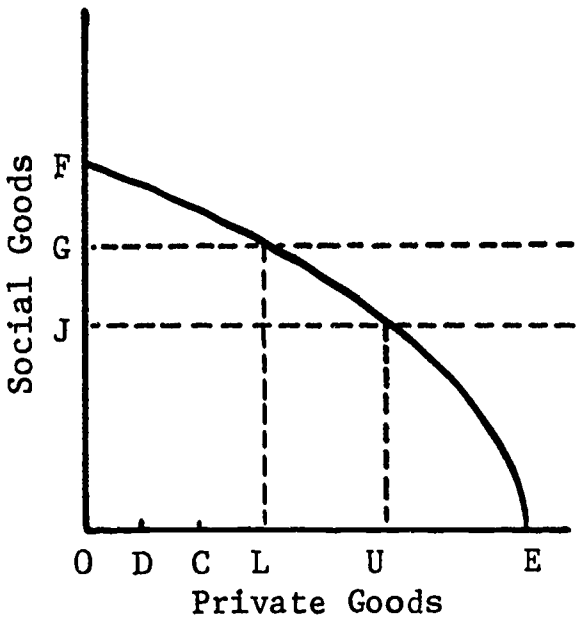

FIGURE A-1
TRANSFORMATION SCHEDULE

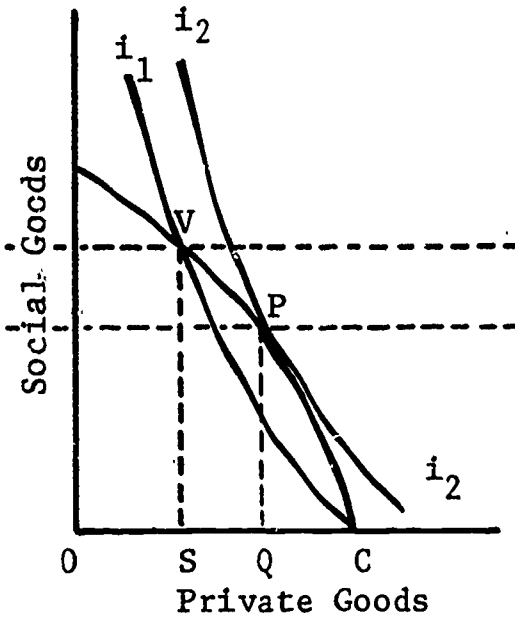

FIGURE A-2
CONSUMPTION BY A

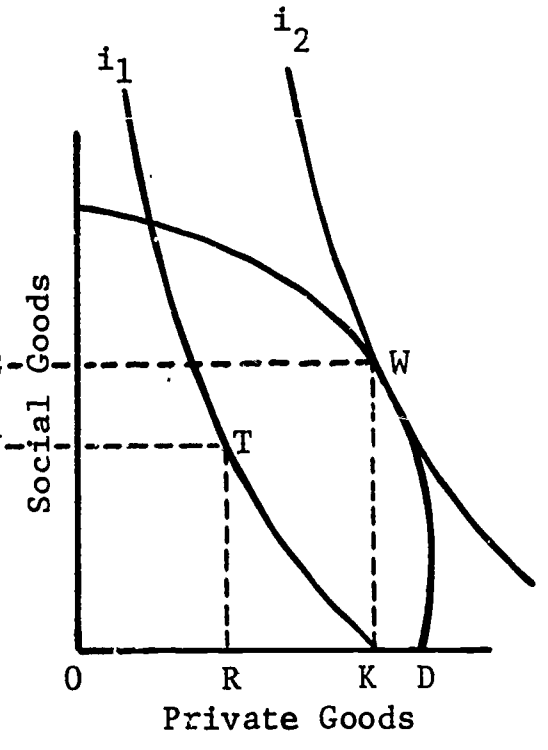

FIGURE A-3
CONSUMPTION BY B

Musgrave assumes that the satisfaction of social wants is to be determined on the basis of a given "proper" distribution of income. Just how this distribution is to be determined, he does not specify. Nonetheless, this distribution is specified by Figures A-2 and A-3. If only private goods were produced, A's income in terms of private goods equal OC, and B's income equals OD, where OC plus OD equals total output OE.

The next four paragraphs which summarize Musgrave's argument may be omitted with impunity by the general reader who would probable be better off skipping ahead to the section headed CONCLUSIONS.

Musgrave goes on to say,

> "Turning to Figure A-2, let us measure A's comsumption of social goods on the vertical axis and his consumption of private goods on the horizontal axis. Now, let OC be A's income in terms of private goods and i_1C his indifference curve through C. No

[4] Ibid.

arrangement for the satisfaction of social wants can be made that places A on an indifference curve lower than i_1C, and he will be indifferent between various points thereon. At the same time, A's position on i_1C will not be of indifference to B. The latter's consumption of social and private goods is defined by A's choice, and B will prefer certain locations on A to others.

B's consumption of social goods must be the same as A's; and B's consumption of private goods must equal the total supply of private goods (compatible with any given supply of social goods, as shown in Figure A-1) minus A's consumption thereof. The curve DW in Figure A-3 shows B's consumption of social and private goods that results as A moves along i_1C in Figure A-2. If A is located at C in Figure A-2, B is located at D in Figure A-3. Neither receives social goods. The total output of private goods equals OE in Figure A-1, of which A receives OC (Figure A-2) and B receives OD (Figure A-3) where OE - OC = OD. If A is located at V in Figure A-2, B is located at W in Figure A-3. Both receive OG of social goods. The total output of private goods equals OL in Figure A-1, of which A receives an amount equal to OS (Figure A-2), and B receives an amount equal to OK (Figure A-3), where OK = OL - OS. Applying the same procedure to each level of social goods, we obtain the path DW in Figure A-3."[5]

Of all the possible combinations on path DW between public and private goods, B prefers W, where DW is tangent to his indifference curve i_2. "At this point B consumes OK of private goods and gives up KD of potential private goods to obtain OG of social goods; while A located at V in Figure A-2, retains OS in private goods and surrenders SC of potential private goods to obtain the same OG of social goods. The cost of social goods is divided between A and B in the ratio of KD in Figure A-3 to SC in Figure A-2, with A paying the larger share. On balance, A is as well off in the absence of social goods since he has remained on i_1C, while B's position is improved since he has moved from i_1D to the higher indifference curve i_2W."[6]

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[5] Ibid., p. 82.

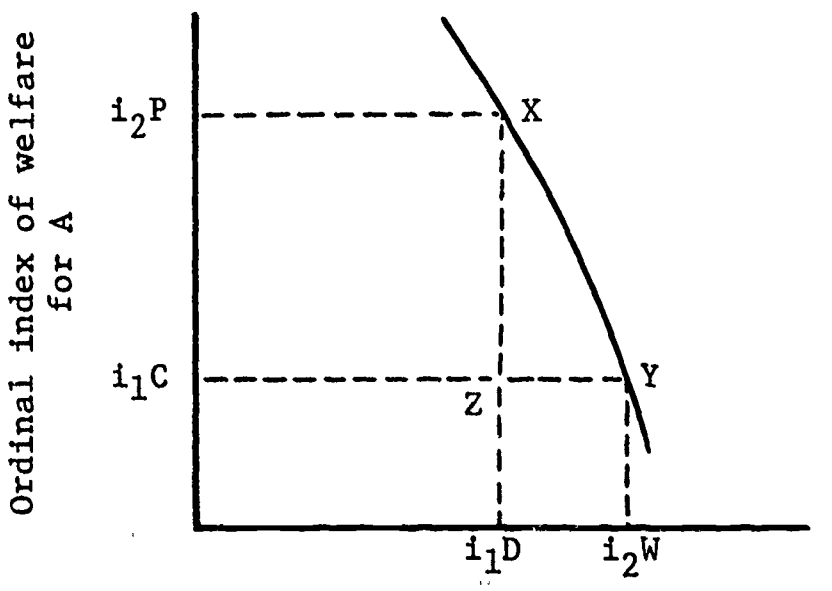
[6] Ibid., pp. 82-83.

Musgrave points out that this argument may be reversed and obtain curve CN in Figure A-2 as the path traveled by A while B moves up along i_1D in Figure A-3. P, the point of tangency of indifference curve i_2P, is A's most preferred point on CN. Thus it is possible to derive a set of points in which A may be made better off with B no worse off and conversely.

Musgrave then derives a utility surface of alternative mixes of public and private goods, all of which represent a Pareto optimum.[7] Figure A-4 represents this situation. For, one can from Figures A-1-3 obtain the

> greatest gain that A can derive from the supply of social goods, provided that B's initial position is not harmed thereby; we can also obtain the greatest gain that B can derive without harming A. Along the vertical axis of Figure A-4, we measure an ordinal

FIGURE A-4: UTILITY FRONTIER WITH GIVEN INCOME DISTRIBUTION[8]



[7] Defined as a point of distribution and production at which no one may be made better off without someone being made worse off.

[8] Ibid., p. 83.

index of welfare for A, and along the horizontal axis, a similar index for B. If no public goods are produced, A is located at C in Figure A-2, and his indifference level is given by i_1C; similarly, B is located at D in Figure A-3, and his indifference level is given by i_1D. Both are at the lower limit of their respective welfare levels, as shown by point Z in Figure A-4. If the government decides to leave B's position unchanged, an arrangement for public services may be made that raises A to indifference level i_2P, indicated by X in Figure A-4. The supply of social goods equals OJ and that of private goods equals OU in Figure A-1. If the government decides to leave A's position unchanged, an arrangement for public services can be made that raises B to indifference level i_2W. This arrangement, indicated by Y in Figure A-4, places B at W in Figure A-3, and A at V in Figure A-2. The output of social goods equals OG and that of private goods equals OL in Figure A-1. The area XYZ in Figure A-4 shows the infinite number of possible solutions that leave A, B, or both better off than at Z, where no public services are supplied. In choosing among them, the government will select a point on XY, since any point southwest thereof permits an improvement by moving towards the utility frontier.[9]

Thus, even when all public goods are assumed to be identical, when the income distribution is specified, and when individual's utility maps are known, it is still not possible to obtain a single optimum solution to the problem of "the optimum level of public expenditure."

CONCLUSION:

The exercise above is included as the strongest possible rebuttal to those who would contend that they can specify the "proper" or the optimum level of public expenditure either by formulae or by the seat of their pants. In order to achieve that, they must be able to: describe the total set of options available in terms of quantity, quality, and type of public expenditure; determine the most socially acceptable income distribution and achieve it; discover the utility maps for many possibilities for all individuals; and, finally, determine which Pareto optimum solution to implement.

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[9] Ibid., pp. 83-84.

What modern budgeting techniques and modern economic theory can do, however, is to discover bad choices and irrelevant arguments with some efficiency. They teach the intelligent observer that although "the best" is a snare and a delusion that "the better" is an always achievable goal. And, "the better" is often most achievable when some of the premises behind the activity being examined are closely analyzed.

APPENDIX II

LETTING THE MARKET SYSTEM DETERMINE EDUCATIONAL EXPENDITURE

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LETTING THE MARKET SYSTEM DETERMINE EDUCATIONAL EXPENDITURE

If education were to become a subsidized private good, many of the cost and benefit computations we have saddled upon the planner would be computed by individual citizens presumably following their best interests. Milton Friedman's recent proposals concerning implementing such a "market system" are presented below, along with some modifications suggested by other writers who circumvent criticism that such a system would encourage 1) segregation or 2) a subsidy to private education for the rich.

The Friedman plan, with modifications, suggests that tuition vouchers inverse in size to parent's income should be issued to the parents of each school age child.[1] The parents would then be permitted to spend these vouchers at the accredited school of their choice. No school which was not integrated in terms of its region would be accredited, but private and even parochial schools could receive accreditation. Parents who could afford to do so could supplement the amount of their vouchers with their own funds in order to broaden their choice.

The advantages of this arrangement would be:

1) that public resources would be concentrated on schools which poor children attend;[2]

2) a poor child might become a financial asset to a private school if money vouchers for the poorest were substantially above those

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[1]This would permit redistribution of equality of opportunity and could be modified, i.e., income/number of school aged children would be the relevant indicator of income.

[2]Sizer, Theodore, "The Case for a Free Market," Saturday Review, January 11, 1969, pp. 34-42.

received by the rich;[3] and

3) social and economic integration would be facilitated if it were to the advantage of suburban schools to admit poor children from the central city.[4]

This use of the market mechanism would also strengthen the position of the consumer of education and force the schools to be far more concerned with the needs of the respective communities they serve. If a parent becomes dissatisfied with his child's progress, he can transfer the child to another school. This would mean that successful schools would expand to an optimum size and program, as determined by the market, and that schools which did not satisfy the consumers of education would go out of business.

It is possible that residential segregation by race and income which has been increased and exacerbated by a difference in school systems could be reversed by such a plan and that people would choose to live more where they preferred to live without having to worry about the quality of the school system. Similarly, on the supply side, school administrators and teachers would be freed from the tedium and fear associated with dealing with the school board and be forced to innovate and experiment in designing education to fit the needs of the pupil. For those who did not innovate would lose pupils and in losing pupils the school could go out of business.

Thus by instituting the market system, for which planning can never be more than a pallid surrogate, the schools can achieve the society's

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[3] Ibid.

[4] Ibid.

stated goals of equality of opportunity and innovation in education. To a certain extent, of course, the G.I. Bill has operated in this way without either the redistribution of income provision or the accreditation clause.

Program Budgeting at its best should really force education planners to ask, "If I were the owner of this school system, how could I be more efficient in supplying educational services which are of real value to the consumer and how can I induce an increase in demand amongst consumers?" At present we barely know how to define the product.

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