Planning, Programming, and Budgeting Systems (PPBS) are increasingly mentioned as effective means for improving the management of educational resources in institutions of higher education. PPBS has several advantages over conventional accounting systems, which still would be needed for day to day operations. First, it relates cost to output; second, it permits an analysis of the effects of changing existing programs or launching new programs by identifying marginal costs; and third, it allows institutions to develop plans and present requests for funding in a manner which justifies financial requests in terms of outputs rather than inputs.

Some of the problems associated with PPBS are that (1) cost-benefit analysis is vital to PPBS and the benefits or quality of individual programs remains a matter of subjective judgment; (2) educational institutions could fall into the trap of technocracy in which economic analysts control decisions by virtue of the cost data they are able or willing to supply; and (3) the cost of the operation may not be justified by the magnitude or kinds of decisions made on the basis of the new information. Though no panacea, PPBS can promote better management of the scarce available resources.
We are currently witnessing a great deal of turmoil regarding the manner in which institutions of higher education are being operated. As this turmoil prompts the search for means of improving the management of educational resources, the planning, programming and budgeting concept is more and more frequently put forward as a vehicle which may take us from chaos to harmony.

Program budgeting is, at the same time, a compelling and disturbing notion. Its adoption is sure to change the style of educational planning. Many concerned educators are questioning whether all of the consequences resulting from this change will be desirable and beneficial. Is program budgeting a meaningful step forward or a menace in disguise?

If you had to make a decision today relative to the implementation of program budgeting in your institution, the first thing you would want to know is, "What are the potential rewards?" You would probably ask, "What are the payoffs? What will I be able to do as a result of having a program budget that I would not be able to do without one?" If you could not obtain satisfactory answers to these questions, you could hardly be expected to embrace these new techniques no matter how many articles or authorities presented glowing accounts of how wonderful and helpful program budgeting was going to be.

The Promise of Program Budgeting

In order to identify the potential benefits to be derived from program budgeting, we must first understand what program budgeting entails. Program budgeting is not merely cost accounting carried forward as many people seem to believe. The concept of program budgeting is often referred to by the initials PPBS which stand for Planning, Programming, and Budgeting Systems. It is important that we consider what every initial stands for in order to understand the essence of this management tool.

First, there is planning. This involves the selection and identification of long range objectives. Second, programming involves decision making on the specific courses of action to be followed in pursuit of the stated objectives. During the selection of specific courses of action from among a number of alternatives, a great deal of analysis takes place. Finally, the budgeting phase of PPB involves the allocation of funds and other resources required to conduct the selected programs.

The development of a program budget is primarily a planning activity. A program budget cannot be expected to replace the traditional accounting system which must still be used for the daily operation of the institution. If program budgeting does not replace traditional accounting but must be maintained in
addition to the traditional accounting structure, it is fair to ask what benefits will be derived from this increment of effort which will justify the undertaking. I would like to suggest that there are three basic things that you can do as a result of having a properly derived program budget which you could not do without having engaged in such an endeavor.

First, you could relate costs to outputs. This would allow you to know what you are buying with the dollars you expend. Picture a small lad in a candy store. He buys five jawbreakers for 15¢, two chocolate bars for a quarter and an ice cream cone for a dime. After having consumed the resources he has obtained, he might find that what he has really purchased for his half-dollar is a large stomach ache. This lad might be expected to suddenly perceive the value of relating inputs to outcomes during the planning process. While I would certainly not wish to indicate that all of the educational programs we are purchasing could in any way be categorized as stomach aches, I would like to suggest that when we plan budgets on a traditional line items basis we really have no idea of how much it is costing us for any of the various outputs of the institution.

A second benefit of the PPBS approach comes from the ability to analyze the effects of changing existing programs or launching new programs. Program budgeting requires analysis. Such analysis may be carried out through the use of highly sophisticated stimulation models or merely through the use of subjective judgement based on past experience. In any case, one cannot formulate a program budget for a new or altered set of programs without considering the impact, or marginal costs, on other programs. For example, if we increase the number of history majors seeking degrees, the analytical procedures which are an essential part of the PPBS approach will allow us to determine the increased load which will be induced upon all of the other participating departments. Perhaps, most of the participating departments are operating classes which are below capacity and could easily provide service courses for additional history majors without increasing the number of class sections, faculty, or resources required. If such is the case, the marginal cost of increasing the enrollment in the history degree program would be very small.

Have you ever taken a group of neighborhood children to the roller rink? If your car is not full to capacity, you can always cram one more in for little or no marginal cost. There comes a point, however, at which the number of neighborhood "small fry" simply overwhelm the capacity of your station wagon and a second car is required to also make the trip. At that point, marginal costs increase substantially. By identifying marginal costs of contemplated programs, the PPBS approach can enable institutional decision makers to determine when suggested programs will push the institution beyond the bounds of a cost plateau to an area of substantial cost escalation. Line item budgeting procedures have never been able to provide such insight.

Finally, the PPBS approach allows institutions to develop plans and present requests for funding in a manner which justifies financial requests in terms of outputs rather than inputs. Increasingly, legislatures are demanding justification for each dollar expended. Such justification is currently being given in terms of the inputs to educational processes. It would be better if accountability were related to outputs so that funding agencies could determine if the potential benefits of the education programs were worth the required dollars.

Let's go back for a moment to our lad who wanted to buy some candy. If he asked his Dad for 50¢ in order to buy 5 jawbreakers, 2 chocolate bars, and an ice cream cone, he would probably stand little chance of being funded. On the other
hand, if he were able to relate his proposed expenditure to a desirable product or outcome, he might be able to present a more viable case. If he suggested to his father that the expenditure of 50c for assorted candy would allow him to share a few moments of bliss with his friends and, at the same time, insure his absence from the home during the remainder of the televised Sunday afternoon football game, the father might very well feel that the 50c expenditure was well worth the benefits to be derived. Had the lad presented a line item budget he would have focused attention only on the inputs rather than the more appealing outputs of the proposed activity.

It is to be hoped that the information made available as a result of program budgeting procedures will help institutions present a better case for the dollars needed to maintain desirable programs. Funding agencies may find it more difficult to turn down budget requests which precisely describe the resources required to conduct specific programs with identifiable outputs than to pare budgets which request large block grants for poorly defined programs with poorly defined outputs.

The alternative to submitting budget requests in a program format is to continue to seek funding through arguments over numbers and formulae which have little relationship to the objectives or outputs we hope to achieve. Without program budgeting, we will continue to present budget requests which have little appeal to legislators who have become fully aware of the existence and promise of program budgeting.

Problems Associated with Program Budgeting

The "life blood" of successful program budgeting is cost-benefit analysis. Currently, we have the technical capability to determine the cost of programs, but the benefits or quality of individual programs remains a matter of subjective judgement. There is nothing to insure that such personal judgements will be unbiased. There is nothing to insure that inexpensive programs will not be perceived to be the best programs solely because they are cheap.

Educational institutions could fall into the trap of technocracy in which economic analysts control decisions by virtue of the cost data and analysis they are able or willing to supply. If educational decision makers fall into the trap of adopting a cult of narrow minded economic efficiency as opposed to broad minded social efficiency, the entire educational system could suffer as a result of the current propensity of program budgeting to dwell primarily on cost analysis without providing adequate measures of program benefits and quality.

Finally, it is entirely possible that many institutions will find after having tried program budgeting that the cost of the operation is simply not justified by the magnitude or kinds of decisions which are made on the basis of the new information. Especially, stable institutions which are not continually evaluating new or changing programs, may find that the PPBS management method induces no change except increased costs to the institution. If this turns out to be the case, then these institutions will find themselves in the embarrassing situation of having purchased a two-ton truck to haul a 100 pound load.

Prognosis

We have looked at the promise and the problems of PPBS adoption in their extreme forms. It is most likely that the actual consequences of implementation of these new management techniques will be somewhere between the extremes.
education needs to become more efficient in the economic sense in order to become more effective in the academic and social sense. To deny the existence of economic constraints is foolish. Colleges and universities may only serve academic and social objectives as economic constraints allow. Program budgeting is not a panacea but it can promote better management of whatever resources are made available in order that more and better outputs can be realized for each dollar expended. The final net effect of program budgeting on higher education will probably be an increase in cost-benefit analysis which will enable institutions to deal more effectively with funding sources while, at the same time, improving their ability to allocate what resources they have to those programs which are most productive in terms of the institutional objectives.

Resources for higher education will always be limited while demands for new and better programs can be expected to escalate. Society is confronted with staggering problems on all sides. Legislatures are not insensitive to the needs or merits of education but they must weigh the benefits derived from funding educational programs against the potential benefits of funding other kinds of programs. After all of the political arguments and pressures have balanced one another, the only reasonable criteria for giving one social or educational program more than another is relative advantage. Relative advantage can only be in terms of outputs and only program budgeting allows examination of budget requests in terms of outputs.

Increasingly, the agencies and organizations with which higher education must compete for funds are turning to program budgeting in order to present more appealing request for dollars. Thus, higher education must turn to program budgeting in order to remain competitive during the funding process. While the path ahead appears difficult, even with the adoption of program budgeting, it appears even more difficult without it. The question is not, "Should higher education turn to program budgeting?" The pertinent question is "When will higher education turn to program budgeting?"

Those who are vigorously opposing the implementation of program budgeting are finding themselves stranded on the beach with outstretched arms attempting to hold back the tide. They are finding that the water is already surging about their ankles. Wisdom seems to dictate that educators begin working energetically with the tide in order to insure that when they finally take the plunge they find the water warm and hospitable.