

ZERO-BASE BUDGETING: AN ANALYSIS

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Abstract

The use of Zero-Base Budgeting in the private and public sectors has increased significantly since 1970. This paper examines several government applications of ZBB. It discusses the relative strengths and weaknesses of ZBB and where ZBB can be used. It provides ten guidelines for a successful application of ZBB.

1. INTRODUCTION

The operating environment of business and government is in constant, dynamic change. To meet their respective objectives of profit maximization and public service, organizations must allocate their resources efficiently to adapt to this changing environment. A tool that has been proposed to respond to this challenge is zero-base budgeting (ZBB).

Zero-base budgeting had its beginnings at Texas Instruments in 1969. Peter Pyhrr, credited with its application, later worked on Governor Jimmy Carter's staff in the State of Georgia to introduce the management tool to governmental budgeting. The process of ZBB, in theory, departs from the traditional incremental budgeting techniques by building the budget from scratch, rather than making additions to levels established in previous periods. The technique forces managers to justify their programs by the benefits they give to the organization, being especially beneficial in non-production, staff-related activities.

The major objective of this research is to analyze the usefulness of ZBB. The analysis will explicitly consider the relative strengths and weaknesses of the ZBB technique. In addition, the specific methodology of use will be described, along with recent applications in the public sectors.

2. A DESCRIPTION OF ZERO-BASE BUDGETING

Zero-base budgeting attempts to reevaluate all programs, activities, and expenditures in terms of cost-benefit. It is not based on the last year's budget; rather, it is predicated on the belief that some obsolete programs should be eliminated. There are three basic steps in zero-base budgeting: (1) developing decision packages; (2) ranking decision packages in order of importance; (3) allocating resources accordingly.

A decision package can be developed for people, program or project, service received or provided, line item of expenditure, cost reduction, and capital expenditure. The contents of the decision package usually include: (1) objective, purpose or scope; (2) what is to be done, and how; (3) consequences of not doing the activity; (4) alternative methods; (5) alternative levels; (6) costs and benefits of recommended alternative methods and levels; (7) resources required.

In preparing decision packages, a decision unit manager begins with the specification of the decision unit's objective and purpose. Then he should describe how the unit currently operates and the resources utilized; he next develops work load and performance measurement techniques; considers alternative methods of operating; and performs incremental analysis. The final decision package will be placed in the following three categories: (1) different methods

and/or levels of effort to do each activity; (2) "business as usual" levels of effort, where there are no other alternatives, or the present method and level of effort is required; (3) new activities and programs.

Once the manager has defined all his obligatory and discretionary activities into packages, a ranking process occurs. Usually the manager ranks all packages in order of their decreasing benefit to the company on a cost/benefit basis. This ranking activity begins at the cost center level. A committee is formed by all managers in the cost center. The committee reviews all the packages presented to it and ranks them in importance by means of a voting mechanism. The packages that are considered most beneficial to the cost center as a whole receive the highest rankings, the least important the lowest. A cut-off point is now established. Given the general level of funds that are available in the coming fiscal year, all packages above a given ranking are accepted by the group and all those below a certain point are rejected.

These decisions are now passed up to the next higher management level. Here the manager reviews the rankings to determine if they fit into the organization's goals and to decide whether the rejected packages offer enough benefits to expand the level of funding. Upper managers briefly examine only a pre-established percentage of the packages so as to control volume. This process is repeated until all the accepted activities are filtered through to the top of the organization where the budget for the entire organization is now created.

Once the ranking decisions have been made, funding allocation decisions are made and detailed budgets are prepared. Managers will know both budget amount and output performance measures.

ZBB can be applied to all government agencies and activities since government is a service organization and most of the expenditures are discretionary costs. For industry applications,

ZBB can be used in administrative, technical, marketing, and manufacturing support services.

3. ZERO-BASE BUDGETING IN GOVERNMENT

Georgia was the first state government to adopt ZBB for the fiscal year 1972-1973. New Mexico and Illinois are also experimenting with ZBB.

In his Budget Address to the Joint Session of the General Assembly of Georgia on January 13, 1972, Governor Carter credited the early implementation of his reorganization study and the new zero-base budget for cutting the spending plans for the current year by \$55 million with no significant decrease in state services. Hermonson and Minnier [2] conducted a survey of all Georgia's 13 department heads and 39 budgeting analysts. Their study showed that Mr. Carter's strong support of the ZBB system was not shared by some of the department heads. For example, "Of 13 department heads interviewed during this survey, only 2 indicated strong support for the zero-base budgeting system. The other department heads expressed varying degrees of dissatisfaction with this new budgeting system." (p. 3) The study also showed that (1) 53% of the total respondents believed that the advanced planning was inadequate; (2) 68% indicated an improvement in the quality of management information; (3) only 7% perceived some shifting of financial resources as a result of the use of the new system; (4) 62.5% believed that it was not practical to prepare a decision package representing a minimum level of effort; and (5) 84% recommended the continued use of zero-base budgeting in some form.

At the city government level, Peat, Marwick, Mitchell & Co. [4] reported an application of ZBB in the Parks and Recreation Department and the Traffic and Transportation Department of the City of San Antonio, Texas for the 1976-1977 budget. The reaction of the two departments was positive and the City Manager recommended that the ZBB process be extended to the entire city for 1977-1978 budget.

Singleton [6] also reported the application of

ZBB in the city of Wilmington, Delaware. The budgeting tool was advocated by a fiscally conservative mayor desiring a systematic method of allocating limited funds in city operations. City officials went through the entire ZBB procedure and were generally satisfied with the results.

Brueningson [1] reported the use of ZBB in a Greece, New York school district to increase the creditability of the school district's budget to the voters in the area. They used a modified form of ZBB, starting from the current budget and working down to a zero level. The results were also positive, as one million was effectively pruned from the \$28 million operating budget, and the next budget was approved on the first vote by the community.

Peat, Marwick, Mitchell & Co. [4] undertook a limited survey of federal officials in 10 agencies, questioning them about their expectations regarding ZBB and about any actions they have taken to prepare for it. The results showed that most agencies and departments believed they could proceed with budget preparation using the ZBB approach immediately, if so required. However, 50% of the agencies said that guidance on procedural matters would be necessary from the Office of Management and Budget. They also stated that top management support would be necessary to the successful implementation of ZBB.

Newgarten [3] reported the first year's results of ZBB in the Federal Government. From his interviewing with Mr. George H. Strauss, Chief of Resources Systems for the Office of Management and Budget, Strauss said everyone took ZBB on with enthusiasm, and OMB didn't add on any additional personnel. The most important benefit of ZBB has been better communications among management people at every level--top, middle, and supervisory. The major problems were huge paperwork and difficulty in the identification of minimum levels and in ranking.

4. STRENGTHS AND WEAKNESSES OF ZERO-BASE BUDGETING

A. Strengths

1. The primary benefit derived from the use of ZBB is a systematic method of evaluating the non-production activities of an organization.
2. Closely related to the concept of management by objectives, ZBB allows greater participation in the budgeting process by lower level management.
3. Out-dated programs which have outlived their usefulness can be identified and changed.
4. To achieve greater flexibility in the budgeting process, ZBB can be effectively used in conjunction with the technique of variable budgeting. Variable budgeting can provide more meaningful information when budgeting production-related activities, while ZBB can improve decision making in non-production functions.

B. Weaknesses

1. The most cited argument against ZBB is the additional time requirements of the technique.
2. In conjunction with increased time demands, paperwork is also greatly expanded with ZBB.
3. The structure of public sector organizations puts additional constraints on the use of ZBB. Political pressure to maintain the status quo, and particularly, constraints against personnel cutbacks are excessive.
4. Some accuse the title Zero-base budgeting of being an illusion. When the technique is actually used, budgets are not scrutinized to a zero level, but only down to 60 to 80 percent of current budget funding.

5. CONCLUSION

The evidence of past applications of ZBB indicate the substantial value in the concept of re-evaluating budget programs and activities to determine relevant costs, benefits, and alternatives. ZBB has been successfully implemented in a growing number of firms and government units.

Obviously many of these companies and units feel the benefits of ZBB outweigh the cost of increased time and effort. The benefits include the greater understanding of how funds are being used, increased participation of lower management in budgeting, and elimination of inefficient programs. However, because the budgeting tool involves the costs of increased time, paperwork, and effort, the implementation decision must be carefully considered.

ZBB is not, and should not be considered a panacea for management's budgeting problems. The technique should not be built up to promise more than it can realistically provide. In order to apply ZBB successfully, the following guidelines should be observed carefully:

1. Analyze the need of your organization before implementing ZBB. That is, one should ask: "Is my organization ready for ZBB?"
2. Define resources required before implementation.
3. Sell high-level management on ZBB in advance of its implementation.
4. Long-range or strategic planning should always precede ZBB.
5. Develop a ZBB method, including a review procedure, tailored to your organization's environment.
6. Allow adequate time for training budget personnel and users.
7. Communicate to all levels of management the objectives and goals, and provide clearer assignment of responsibility for justifying expenditures and setting priorities.
8. Test ZBB before implementing it throughout the organization.
9. Link ZBB to existing financial control systems, providing effective and timely management reports.
10. Encourage all levels of management participation especially top management's cooperation and commitment.

*This research was supported by the Graduate School of Business Administration, University of

Southern California.

6. REFERENCES

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7. BIOGRAPHIES

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