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ABSTRACT

This is a collection of 16 articles on zero-based budgeting (ZBB), dealing primarily with the practice as it occurs in the states. Included is a lengthy report on ZBB practices in the states based on a survey conducted by the National Association of State Budget Officers and the Congressional Research Service. (IRT)

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COMPENDIUM OF MATERIALS
ON
ZERO-BASE BUDGETING IN THE STATES

PREPARED BY THE
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OF THE
COMMITTEE ON GOVERNMENT OPERATIONS
UNITED STATES SENATE



JANUARY 1977

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The Honorable Abraham Ribicoff
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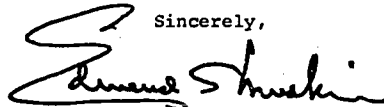
Dear Mr. Chairman:

I am herewith transmitting a compendium on the subject of zero base budgeting as it has been implemented in various states, for printing as a Committee print.

Given the widespread interest in the subject of zero base budgeting, I believe this document will be useful as a committee print for both Members of Congress and the Executive Branch.

With best wishes.

Sincerely,


Edmund S. Muskie

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INTRODUCTION

BY SENATORS EDMUND S. MUSKIE AND WILLIAM V. ROTH

Just three years ago—in December 1973—the Subcommittee on Intergovernmental Relations published the results of its survey of public attitudes toward American government conducted by the Harris organization. *Crisis and Confidence: Citizens View American Government* reported that most Americans had lost confidence in their public institutions and leaders and were disenchanted with the performance of government. Fortunately, these disquieting attitudes had a more encouraging side: most Americans still believed that governments at all levels could be made to work effectively.

The fundamental message of this survey was that the American public is less concerned with the size of government than with the quality of services which the government provides. The only government worker to get high marks from the public was the local trash collector, because at least people knew whether he was doing his job or not.

What this message says to those of us in government is clear: that the United States cannot muddle through this crisis of confidence simply by voting bigger budgets and more programs for more special groups. At this stage of the game, we cannot buy public support with programs which do not work, which are not necessary, or which waste valuable budget dollars. Unproductive programs rob American governments of the wherewithal—both in public support and financial resources—to be responsive to the expectations of the public. In an age of scarcity, we cannot squander our resources and opportunities with duplicative or second-best efforts.

The surest way to restore confidence in government, then, is to deliver more effectively on the promises made to the American people, to be more responsive to their needs, and to promise only that which is possible to achieve. Much progress has been made in the past few years in these directions, and we are proud of the initiatives taken by the Congress to create a more effective and responsive Federal Government. But public business should not be conducted behind closed doors, nor the budget decided by closed minds. The doors of the Federal Government have been opened to public scrutiny, and the books of the Federal budget have been subjected to more careful review.

Although they appear to address vastly different concerns, sunshine legislation, impoundment control, freedom of information and congressional budget reform all relate to the accountability of American political institutions to the people they are supposed to serve. All are

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attempts to lift the cloud of public disenchantment with government and foster a sense of confidence that government is doing the job.

But we need to do more.

In the course of implementing the new congressional budget process, for example, we have become aware that budget reform, while critically important, cannot be an end unto itself.

The new budget process has given Congress the tools for determining a fiscal policy and budget priorities of the nation in a more rational fashion than ever before. Although it has been in operation for less than two years, that process has had a marked impact both on the way in which Congress makes budget decisions and on the actual decisions themselves. The budget process has made Congress much more aware of and responsible for its fiscal actions, and has provided a comprehensive framework within which individual program and spending decisions can be made.

Nevertheless, the first experiences under the new budget process have convinced us that Congress must be as careful in deciding the parts of the budget as it is in determining the whole. Congress must have a method for reviewing the utility and effectiveness of *all* programs, regardless of their antiquity or political status.

Under current practices, for example, many programs can continue in operation in spite of the budget verdict rendered by Congress. Such programs have permanent status in law, so that they need not be reappraised periodically to ascertain whether they merit continuation. Even if Congress adopts a budget resolution which assumes that certain programs will be curtailed, the resolution can be effective only to the extent that Congress subsequently takes legislative action to repeal or change laws already on the books.

For this reason, we have joined with nearly 50 other Senators, in proposing a sunset process for all Federal programs and agencies. S. 2, introduced this month in Congress, would require the periodic termination of all Federal programs, with only a handful of exceptions, in accord with a statutory schedule. Programs would continue only if they had been reauthorized by Congress, pursuant to a review of their effectiveness and continuing usefulness.

In developing a review process to accompany the sunset requirement, we investigated the development of zero base budget systems by a number of State governments. We recognized that sunset and zero-base budgeting are distinct approaches. Zero-base budgeting relates primarily to executive branch budget practices, to the manner in which agencies prepare their budgets for review by the Chief Executive and his budget staff. Sunset, on the other hand, is a legislative process, linked to the congressional role in the authorization of programs and agencies. Sunset and zero-base budgeting are complementary reforms: zero-base budgeting alone cannot assure the changes in law necessary to upgrade program performance and effectiveness.

To date, State governments have taken the lead in applying zero-base budgeting, functioning once again as the laboratories of American democracy. The Federal Government can benefit from the experiences of the States. Government improvement must be a two-way

street; the Nation's Capitol does not have a monopoly on new ideas and solutions. Perhaps a dozen States now use features of zero-base budgeting though the approach differs from State to State. It is worth reviewing State experiences with zero-base budgeting if we are interested in fashioning a version of that process that is appropriate for both the scale and functions of the Federal Government.

President-elect Carter has indicated that he will introduce a zero-base budgeting system shortly after his inauguration. As Governor of Georgia, he pioneered in the development of the first, and possibly the most advanced—zero-base budgeting system in State government. The Subcommittee on Intergovernmental Relations has gathered into this volume various published and unpublished materials on zero-base budgeting. We hope that this compilation will contribute to an informed and productive implementation of zero-base budgeting by the executive branch.

The subcommittee owes a debt of gratitude to Dr. Allen Schick and Robert Keith of the Congressional Research Service for their work in the compilation of this volume. We owe particular thanks to Dr. Schick who has counseled the subcommittee in the development of the Sunset bill.

Jimmy Carter Tells Why He Will Use **Zero- Base Budgeting**

BY PRESIDENT-ELECT JIMMY CARTER

WHEN I BECAME governor of Georgia in 1970, one of my first jobs was to finalize the budget for the coming year. The departmental funding requests amounted to more than half again as much money as would be available. No one had made any attempt to arrange the requests in any sort of priority.

I saw the need for a budgeting technique in Georgia which I now see as needed for the federal government.

That technique is zero-base budgeting.

Immediately after my inauguration, I will require zero-base budgeting for all federal departments, bureaus, and boards by executive order.

Zero-base budgeting is well-known to many business people (see "One Way to Erase Needless Government Programs," *NATION'S BUSINESS*, November, 1976). Some 300 businesses and a dozen state governments are now utilizing the concept. However, allow me to define it for you.

Back to the beginning

In contrast to the traditional budgeting approach of incrementing the new on the old, zero-base budgeting demands a total rejustification of everything from zero. It means chopping up the organization into individual functions and analyzing each an-

nually, regardless of whether it is 50 years old or a brand-new proposal for a future program.

The budget is broken into units called decision packages, prepared by managers at each level. These packages cover every existing or proposed activity of each department. They include analyses of purposes, costs, measures of performance, and benefits, alternative courses of action, and consequences of disapproval.

Packages are also ranked in order of priority. After several discussions between department heads and the chief executive, the rankings are finalized, and packages up to the level of affordability are approved and funded. In the case of the federal government, of course, final approval would be up to Congress.

Zero-base budgeting has had a rather long gestation period and a brief infancy. It draws on a number of innovative techniques developed in the early 1960's in systems analysis, problem-solving, cost-benefit analysis, and program management. Budgeting applications of these disciplines were being developed and employed in various staff functions at several major companies.

Since then, dozens of public and private organizations have applied the technique, and the roster of its disciples has continued to grow. Each has shared

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a need to plan and allocate resources more rationally.

As the new governor of Georgia, I quickly moved to implement zero-base budgeting by executive order. Major benefits for the taxpayer resulted. For example:

- Previously, every major department had its own computer system. Through zero-base budgeting, we created one central computer system.
- We merged 43 print shops into one.
- Georgia patrolmen—expensively trained, uniformed, and provided individually with automobiles—often were assigned to administrative chores or radio dispatching. Through zero-base budgeting, we moved almost 100 of these troopers out to patrol the highways and replaced them with handicapped Georgians trained by vocational rehabilitation. The many benefits are obvious.

Big reduction in costs

These and other achievements resulted in a 50 percent reduction in administrative costs. I see no reason why benefits of the same magnitude can't be captured in the federal government.

There was, of course, intense opposition to zero-base budgeting from bureaucrats who thrived on confusion, from special interests that preferred to

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work in the dark, and from a few legislative leaders who did not want to see their fiefdoms endangered. But with forceful leadership and persuasiveness by our key men, the new approach was widely accepted. That acceptance was accompanied by gratitude that the state's resources were being allocated openly, decently, and free of political intrigue.

No instant miracles

I don't want to mislead you and leave the impression that implementing zero-base budgeting will create instant miracles in the federal government. In Georgia, its impact during my incumbency was quite subtle, but nevertheless real, in making basic changes in our government's operation. No doubt it will continue to generate improvements in the years ahead.

Many seasoned executives have raised specific and sometimes well-intentioned concerns about zero-base budgeting. Here are some of the most frequent ones and how I and others have handled them.

1. *Zero-base budgeting is threatening. Therefore, budget submissions will be less than candid.* This challenge is not unique to zero-base budgeting. I know of few managers who enjoy completely open

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and frank discussions during the budget cycle. Reluctant participants should be approached with a dialogue that focuses on what the process can do for them rather than to them. For unlike traditional approaches, zero-base budgeting offers them a genuine opportunity to increase their resources where they can demonstrate greater effectiveness or need.

2. *Administration and communications become more complicated as more people become involved.* In its formative years, this concern was probably valid. It is less so now that procedures and forms have been refined and tested, and a substantial number of planning executives have gained experience in the technique. But in a more fundamental sense, I have found that the best ideas for improvement have often come from the rank and file who know their operations intimately and are seriously committed to improving them. Zero-base budgeting can provide these people a channel of communications for their day in court, notwithstanding administrative difficulties. The trade-off is worth it.

3. *Zero-base budgeting requires more time.* That may be true during the learning process, but my own experience suggests that, after a year or so, the time required for budgeting is substantially lessened, often by as much as a third. More importantly, the quality of budget requests improves dramatically.

4. *Zero-base budgeting forces decision-making.* Forcing decision-making is one of zero-base budgeting's greatest strengths and an obviously healthy one for a government or other organization that uses the technique. But since forced decision-making can be a bitter pill at times, a carefully devised implementation plan, worked out well in advance and rigorously adhered to, can minimize this risk. In Georgia, we further minimized this risk by amending the state constitution to permit payment of incentive awards amounting to up to ten percent of first-year savings. These payments were to reward those employees who made cost-saving suggestions.

5. *Large volumes of decision packages place an unmanageable burden on the budget staff.* In Georgia, we managed this problem with a computer routine. Each decision package was assigned a code number to describe the kind of service being delivered, thus enabling us to detect duplication automatically. Among other things, this allowed us to identify seven agencies responsible for the education of deaf children and 22 responsible for the utilization of water resources. Even if we could claim no benefits from zero-base budgeting in the first year (which we could), the technique provided us with a massive data base that was a critical information source for a major reorganization.

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From my experience in government as well as the experiences of corporations in the business world, a number of clear-cut benefits from an effective zero-base budgeting effort can be cited. These benefits include:

- Focusing the management process on analysis and decision-making rather than simply on numbers—in other words, the what, why, and how issues as well as how much.
- Combining planning, budgeting, and operational decision-making into one process.
- Forcing managers to evaluate in detail the cost-effectiveness of their operations. This includes specific programs—both new and old—all of which are clearly identified rather than functionally buried.
- Providing a system to trade off between long-term and short-term needs during the budgeting period, as well as a follow-up tool on cost and performance during the year.
- Allowing for quick budget adjustments or resource shifts during the year, if necessary when revenue falls short. In so doing, zero-base budgeting offers the capability to quickly and rationally modify goals and expectations to correspond to a realistic and affordable plan of operation.
- Identifying similar functions among different departments for comparison and evaluation.
- And most important to me, broadly expanding management participation and training in the planning, budgeting, and decision-making process.

A need at the top

Zero-base budgeting procedures are one of the best tools for ensuring constant reassessment of staff programs, new as well as old. But no system will work unless those at the top understand the workings of a large bureaucracy, are willing to work long hours to find out what is really going on, and have the political courage to make tough decisions.

The best creative energies are needed to work out a zero-base budget. Nothing is sacred; new and innovative techniques must be conceived, assessed, and compared to traditional approaches.

However, zero-base budgeting has proved its value.

In the private sector, misdirected or redundant staff efforts never paid a dividend; provided a meaningful, rewarding job for a competent employee; launched a successful product; satisfied a demanding customer.

Similarly, in the public sector, there is no inherent conflict between careful planning, tight budgeting, and constant management reassessment on the one hand, and compassionate concern for the deprived and afflicted on the other. Waste and inefficiency never fed a hungry child, provided a job for a willing worker, or educated a deserving student.

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ZERO BASE BUDGETING IN THE STATES

By

Allen Schick
and
Robert Keith

August 31, 1976

ZERO BASE BUDGETING IN THE STATES

FOREWORD

The National Association of State Budget Officers (NASBO), in cooperation with the Congressional Research Service (CRS), has undertaken a survey of zero base budgeting practices in state governments. NASBO sent a brief questionnaire to all state budget officers in May 1976 and responses were received from 41 states and the District of Columbia. (A copy of the questionnaire is appended to this report.) CRS agreed to analyze the responses and to prepare a report for distribution to NASBO members and interested members and committees of Congress. This report is based on the survey returns and is supplemented with a review of documentary material concerning ZBB in about a dozen states. A prefatorial commentary by NASBO is also included.

Many thanks are due to the members of the NASBO Systems, Techniques and Data Committee, under the chairmanship of Leonard D. Schaeffer of Illinois, who authorized this cooperative study and assisted in developing the survey and to Dr. George A. Bell, Executive Director of NASBO, who provided expert assistance at all stages of this project. We also greatly appreciate the cooperation of the budget officers who responded to the questionnaire and sent supporting materials.

PREFATORY COMMENT

Zero base budgeting is a concept which has recently captured considerable attention in fiscal and legislative circles. It is attractive to business and government alike. The term undoubtedly has an appeal to the public far surpassing that of other budget and management terms such as planning, programming, or management by objectives. "Zero base" is easy to picture. To the ever suffering taxpayer the idea of starting from nothing lends fuel to the fervent hope that governmental expenditures can be cut.

ZBB has been around for several years. However, its increasing attraction to governmental executives and legislators in the past two years can be attributed to at least two factors. One was the fiscal crisis in many state and local governments resulting from the impact of the sharp recession of 1974-75. Any recession causes retrenchment at the state-local level, but this recession in addition triggered a threat of debt payment default by New York City and State. This led many leaders to stress more than before that government resources are limited, that we cannot afford to promulgate and expand all desirable programs, and that choices have to be made. ZBB was seen as a way to accomplish this choice-making.

Another factor was the catapulting into the national political scene of a former Governor of Georgia, who as a candidate for President announced the intention of utilizing zero base budgeting in the federal budget process. The Georgia ZBB system, installed in 1971 during the Governor's first year in office, has been institutionalized with periodic revisions as the basic budget system of

the state. The national attention now brought to the concept promises to result in further installations of ZBB or variations of it.

Like most other public administration terms, ZBB does not have a commonly accepted definition. The popularity of the term causes its use in many ways. Others use ZBB approaches without calling them such. The authors of this report have done an admirable job of sorting out the state responses and reviewing budget manuals to draw up a classification they felt was most accurate. State respondents have accepted this classification, even though in a few cases it meant transforming "yes" answers to "no," or vice versa.

The problem of classification occurs because of the catchiness of the term. For purposes of this report, a ZBB system includes more than the intent to analyze programs from the ground up; it also includes certain trappings such as dividing agency activities into "decision packages" and "priority rankings." The trappings, however, can obscure accomplishment (the "triumph of technique over purpose"). Good program analysis in any budget system will ask what happens if the program were reduced in size or abolished, no matter what the name of the system.

The spread in state government of ZBB or its variations is another indication of the continual search for improved budgetary procedures. ZBB is the current fashion, although two processes related to and sometimes tied to budgeting--Management by Objectives (MBO) and evaluation of program effectiveness--are in strong contention. Past movements--program budgeting, performance budgeting,

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planning, program and budgeting systems (PPBS), have come, made their mark, and have retreated to the rear of the stage.

Note, however, that they are still on the stage. New approaches to improved budget analysis and decision-making have usually been heralded with fanfare, resulted in redesign of forms and instructions, and frequently choked in an entanglement of paperwork. Surviving this collapse are those elements of the new approach which prove to be most useful in the long run. Thus the current emphasis on sound analysis and program effectiveness evaluation has grown at least in part from PPBS. By the same token, ZBB sometimes starts too ambitiously, and survives in more modest form as the strong elements of the system are adapted to political, fiscal and manpower realities.

Indeed, this transformation is already underway; for instance, some states apply the technique not to zero but to everything above 80 or 90 percent. In addition, states already utilizing sophisticated techniques of budget analysis are adapting some aspects of ZBB to augment their present systems. And nobody really goes to zero on everything. All states have sacrosanct special funds, programs or agencies having constitutional protection against which the zero approach would be a waste of time. Furthermore, programs such as state aid to local governments and public schools are funded according to statutory formulas and are not usually susceptible to the zero approach. Many of these limitations on "pure" ZBB are recognized and noted in this report.

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We can expect, then, that the states in applying ZBB concepts to their budget systems will sooner or later institutionalize the most usable segments of this approach, integrating them with the strong features of their current systems. In this manner ZBB will be added to the many approaches to budgeting and management which have been developed in the past and will be developed in the future in the continuing quest for greater rationality in and understanding of the budget process.

George A. Bell
Executive Director

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INTRODUCTION

The main purpose of this report is to assess the extent to which ZBB practices have been applied in the states, not to appraise either the worthwhileness of these practices or their impacts on budgetary outcomes. The limited data contained in the survey do not permit this analysis to go beyond the formal procedures of budgeting. On-the-scene observations of budgetary practices would be required before an evaluation can be conducted of ZBB's effectiveness. Yet there is some value in merely recording state-by-state use of ZBB procedures. Although there has been much talk about ZBB in recent years, no one seems to be sure whether it has spread to more than a handful of states.

A second purpose is to provide background information for Congress in its consideration of legislation to introduce ZBB-type practices in the federal government. During the 94th Congress, considerable attention has been given to various forms of sunset and ZBB legislation. Congress can benefit from an awareness of state innovations in this area.

ZBB is an attempt to come to grips with limitations on state resources. As explained by New Jersey State Treasurer Richard C. Leone, in testimony on why his State has turned to zero base budgeting,

the question is how can we deal with the increasing costs of government programs, given the limits on available resources... I think we are, at least for the present, approaching the limits of the public's will to see a larger and larger share of national income spent in the public sector.

It seems clear that at all levels of government current budgeting procedures have done little to help decision makers deal with the sources of these problems. 1/

Criteria for Zero Base Budgeting Practices

A number of difficulties complicate any attempt to determine the extent to which ZBB practices are applied in the states. For one thing, every budget process has the potential for reviewing all programs from point zero -- not just incremental requests -- even when no special ZBB techniques are used. From time to time, every state has reviewed some of its programs from top to bottom as part of its regular budget process. Thus, one budget director argues in his response that because "any total review of a budget is for the precise purpose of reviewing levels, needs, and program effectiveness of all

programs," his State has a ZBB system even though it doesn't have specific ZBB methods.

Without disputing the merits of this position, it seems appropriate for purposes of this study to reserve the designation of ZBB to special budget practices and to exclude general budget procedures from its scope. This approach enables us to identify the states which have devised specific ZBB methods to replace or supplement regular budget review procedures.

A second problem is that a few states have announced their intention to zero base their budgets but they have not followed up with any concrete changes in their budget practices. Where this is the case, the objective might be to stir agencies to conduct a more thorough review of their existing programs than might be routinely undertaken. But despite the strategic value of embracing the ZBB label, the definition applied in this report requires that the intent be realized through specific ZBB practices.

A third difficulty derives from the fact that some states have formed their views about ZBB from a famous article written by Aaron Wildavsky and Arthur Hamann almost a dozen years ago.^{2/} The two authors described and rated as a failure an attempt by the U.S. Department of Agriculture to zero base its budget for the 1964 fiscal year. But whatever the conceptual affinities of the earlier and the present efforts, they share few practical similarities. The Department of Agriculture

did not apply any special techniques; and though a great deal of additional effort was expended in behalf of ZBB, none of the distinctive methods associated with current ZBB activities were present.

A fourth complication is that a literal, across-the-board zero base review of all state programs simply is not possible in an annual or biennial budget cycle. Even when a state establishes a comprehensive ZBB system, decision makers are likely to concentrate on only a small number of issues and programs. Thus in Georgia, according to Peter Pyhrr, the Governor "concentrated his time on reviewing policy questions, major increases and decreases in existing programs, new programs and capital expenditures, and a few packages and rankings where there appeared to be problems."^{3/} This selective attention is necessary because Georgia had approximately 10,000 decision packages. Yet by any reasonable standard, Georgia and other states have viable ZBB systems even though they do not always conform to the literal criterion.

Finally, ZBB methods vary among the states that have applied it, so that there is not a common core of practices which all ZBB states share. Perhaps all use some form of priority ranking of budget requests, but some use decision packages while others do not. Some divide their budgets into incremental units while others merely have methods for examining the requests at below the base. The definition of ZBB used in the questionnaire referred to "a priority ranking of all programs and activities in successively increasing levels of performance and

funding, starting from zero." However, in this report, any systematic analysis at below the base is regarded as a ZBB application if it is combined with priority rankings.

ZBB Applications in the States

Table 1, which summarizes the basic responses from 41 states, identifies eleven states which, on the basis of their responses and a review of available documents, appear to utilize ZBB in their budget practices. This is the minimum number of states that qualify under the standards applied in this report. With more extensive documentation or closer observation, other states might be added to the list. The State of Illinois is included on the list even though it responded negatively in the questionnaire because its budget instructions show a substantial commitment to ZBB techniques. A description of ZBB in each of the eleven states is presented in later sections of this report.

However, the list does not include six states (Connecticut, Kansas, Maryland, Nebraska, Pennsylvania, and South Dakota) which responded affirmatively to one or more of the questions on whether they are using ZBB. (These are questions 1a, 1b, and 1c.) A number of these states make extensive use of program or performance budgeting which have some objectives in common with ZBB but ought to be distinguished from it. The State of Washington responded negatively and is not included even though the Governor recently instructed all agencies to justify existing programs as thoroughly and in the same manner as new ones and to rank all programs in priority order. If these gubernatorial instructions are incorporated in the budget process, the State of Washington will be among the ZBB states. Louisiana is likewise not included, although after its response was sent in the State enacted legislation requiring ZBB.

TABLE 1*
ZBB SYSTEMS IN STATES

Zero-base budgeting: a system by which state programs and activities are organized and budgeted in a detailed plan which focuses review, evaluation and analysis on all proposed expenditures rather than on increases above current expenditure levels. The purpose is to determine whether each activity warrants continuation at its current level or a different level, or should be terminated. This focus requires a priority ranking of all programs and activities in successively increasing levels of performance and funding, starting from zero.

<u>State</u>	<u>State has this or alternative ZBB system</u>	<u>Comments</u>
Alaska	No	Considered ZBB in 1972, but decided on other budget methods instead.
Arizona	No	Budget Director feels that evaluation methods and other improvements must precede ZBB.
Arkansas	Yes	A new Priority Budgeting System for base level requests at 90% of current level, and priority ranking of other requests.
California	Yes	Selective use of ZBB in combination with other methods for analysis of budgets at below the base level.
Connecticut**	No	Governor's 1972 letter to State agencies calls for ZBB as part of the overall budget process, but no formal system has been introduced.
Delaware	No	
District of Columbia	No	ZBB is being pilot tested in the largest agency.
Florida	No	

<u>State</u>	<u>State has this or alternative ZBB system</u>	<u>Comments</u>
Georgia	Yes	Comprehensive ZBB system with decision packages for minimum and base levels, workload increases, and program expansions. Priority rankings and performance data.
Hawaii	No	A comprehensive PPB system, prescribed by State law, is in operation.
Idaho	Yes	Selective use of ZBB in 5-20% of programs plus priority ranking by decision units of all programs.
Illinois**	Yes	Time constraint of annual budget cycle does not permit a total zero base effort each year. Budget submissions are done in program packages amounting to 90% of last years' base, programs at the margin between 90% and 100% of base, and those desired programs which would be funded only if appropriations exceed the base.
Indiana	No	Considered and rejected ZBB.
Iowa	No	Is considering ZBB and alternative innovations for 1977-79 budget.
Kansas**	No	Reviews all spending as part of the regular budget process.
Kentucky	No	
Louisiana	No	Act 146 of 1976 signed July 16, 1976 mandates ZBB.
Maine	No	A modified system will be used in the next budget cycle.
Maryland**	No	Reviews each program as part of the regular budget process. Annual budget instructions commence with the policy that "the budgetary base for the justification of estimated financial requirements is zero."
Minnesota	No	/no comment/
Mississippi	No	
Missouri	Yes	Comprehensive program budget with extensive use of program and performance measures, proposed increases above base are priority ranked.

<u>State</u>	<u>State has this or alternative ZBB system</u>	<u>Comments</u>
Montana	Yes	Pilot testing ZBB in 8 programs, as part of new Priority Budgeting System.
Nebraska**	No	Budget forms distinguish between funds to continue programs, workload changes, and new or expanded programs.
Nevada	No	
New Jersey	Yes	Comprehensive ZBB system since Aug. 1974 for priority ranking at various incremental levels, with extensive performance data supplied for each priority level.
New Mexico	No	Legislative Finance Committee applied ZBB in 1971-73, but it has not been used since then.
North Carolina	No	Planning-budgeting system focuses on program data and requires agencies to make separate submissions for the current program level and changes.
North Dakota	No	Legislative budget committee considered and rejected ZBB.
Ohio	No	ZBB explored, but its use is not contemplated in the near future.
Oklahoma	No	
Pennsylvania**	No	Has a comprehensive program budgeting system with zero-base analysis of selected programs.
Rhode Island	Yes	Zero-base justification and priority rankings supplement the State's evolving program budgeting system.
South Carolina	No	Exploring some form of ZBB for 1978-79 fiscal year.

<u>State</u>	<u>State has this or alternative ZBB system</u>	<u>Comments</u>
South Dakota**	No	State performance budgeting system provides for specific performance criteria and measurements at all levels of management responsibility.
Tennessee	Yes	New program budget system with priority ranking of requests and performance data.
Texas	Yes	Comprehensive ZBB with activity priorities ranked by program managers and program priorities ranked by agency administrators. Activity and agency requests are presented at various levels.
Vermont	No	
Virginia	No	New law requires program and evaluation data and separate identification of costs for current level, workload increases, and new services.
Washington	No	In May 1976, the Governor directed state agencies to review existing programs as thoroughly as new ones and to priority rank their budget proposals. But formal instructions have not yet been issued.
Wisconsin	No	Legislative Audit Bureau will recommend 3-5 year cycle for zero-base review on a staggered basis.
Wyoming	No	New method for consideration of standard, exception, and expansion levels.

* This table excludes nine states which did not respond to the questionnaire.
 ** The responses of these states were adjusted to maintain consistency of definition.

Table 2 shows the extent to which ZBB practices are employed in the eleven states. Most of these states apply ZBB to all agencies, but Arkansas does not use it for elective officers and the Highway Department, California selectively applies ZBB to targets of opportunity, Idaho intends to ZBB all programs over a 5-year cycle, and Montana is pilot testing ZBB in eight programs. About half of the ZBB state use it as their regular system for budget preparation, but several use it to supplement their pre-existing program budgeting systems or as an additional source of budgetary data. It should be recognized that funds for some programs such as state aid to schools and municipalities are based on statutory formulas, and may not be suitable for zero base treatment in the budget.

As applied in most of these states, zero base budgeting is a two step process for justifying and reviewing programs from the ground up (or from some point below the current service level). The first step is the disaggregation of all state activities into "decision packages"; the second is the ranking of these packages in order of priority. Decision packages usually are identified at the lowest level of the organization (such as a cost center) capable of formulating a budget request. Each decision package represents one of a number of alternative levels of cost and service for an activity; sometimes it also represents one of a number of ways of performing a given activity. Each decision package thus can be both an incremental budget request and an alternative to another budget request.

Decision packages are in general use in all but three of the ZBB states. In two of the exceptions (California and Rhode Island) zero base budgeting supplements the regular budget process, a use for which decision packages

TABLE 2^a

ZBB PRACTICES IN SELECTED STATES

	<u>Main system for budget requests</u>	<u>Use of ZBB System:</u>		<u>Portion of programs ZBB reviewed^{bb}</u>	<u>Decision packages</u>	<u>Components of ZBB System:</u>	
		<u>Additional source of data</u>	<u>Main format for budget presentation</u>			<u>Incremental per- centages or amounts of expenditure</u>	<u>Distinctions: continuing/ expanding/new</u>
Arkansas	X	X	X	Most	X	X	X
California		X		Some		X	
Georgia	X			All	X	X	X
Idaho		X		Some	X		X
Illinois	X				Similar	X	X
Missouri	X			All	X	X	X
Montana	For Pilot Grp.		For Pilot Grp.	Pilot Group	X	X	X
New Jersey	X	X		All	X	X	X
Rhode Island		X		All			
Tennessee	X			All		X	X
Texas	X		X	All	X	X	

^a This table includes only those states which currently employ a ZBB system consistent with the definition provided by this study and is based upon both questionnaire responses and a survey of documents

^{bb} Possible responses include: all, most, some, pilot group, and none. Illinois did not answer this question.

^{ccc} In Rhode Island, decision packages on requests for expanding programs or developing new programs are prepared by central budget staff for consideration and determination by the Governor.

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may not be suitable; however, Rhode Island uses them for expanded or new programs. In the third state (Tennessee) the ZBB forms coexist with traditional line-item budget methods. Illinois does not formally use decision packages, but its budget process has a similar effect.

Where the decision packages are based on alternative levels of effort, there is no uniformity as to the levels required for budget submission. Several states require that the first decision package for an activity be the minimum level at which it remains viable to continue the activity. This procedure is used in Georgia and Texas, two states with possibly the most developed ZBB systems. In a number of other states, the first decision package might be set at no higher than some percentage of the current funding level. New Jersey sets this lowest level at 50 percent, Montana uses an 80 percent decision package; Illinois sets 90 percent of the current level as the first decision level. New Jersey's ZBB process calls for an identification of the qualitative and quantitative effects of a zero funding level, and this may be the closest that any state comes to pure zero base budgeting. In virtually every ZBB state, the decision packages must separately identify costs and levels of effort above the current funding (or service, in some cases) level.

Priority rankings are the most pervasive ZBB element; only California, which applies ZBB selectively, does not engage in ranking of priorities. In a number of states, the decision packages are ranked at progressively higher levels of aggregation, beginning with the activity manager who ranks only the alternatives to the activity he administers, up through

the department head who must determine the priority for all activity levels within his agency. A favorite technique is to specify the cumulative costs (and in a few states, the cumulative levels of performance) of each lower ranking priority. In this way, decision makers can evaluate the alternative decision packages that can be "purchased" at different funding levels.

In practice, zero base budgeting is more a form of marginal analysis than a requirement that the budget be built up from scratch each year or two. It is a device for shifting the bulk of budget preparation from increments above the budget base to decrements below the base. The term "zero base" is somewhat misleading, but as long as its actual intent is properly understood, ZBB can be judged on its own merits.

Experiences in the ZBB States

As part of the survey, the states were asked to evaluate their experiences with ZBB and to describe any changes made in the original design. The responses of a number of states are recorded in Table 3.

Most of the ZBB states express satisfaction with their systems, though a few note some problems. California reports favorable experience (after earlier negative reactions) "with an increasing understanding of this technique as an analytical tool." Georgia retains its enthusiasm for ZBB, noting that "a search for a better way has not provided a system we could change to." Rhode Island discerns concrete impacts of ZBB on budget decisions, priorities, and program efficiency while Tennessee

TABLE 3.

- (A) EVALUATE YOUR PAST EXPERIENCE WITH ZERO-BASE BUDGETING
 (B) DESCRIBE CHANGES MADE IN THE ORIGINAL DESIGN

STATE RESPONSES

- | | |
|--------------|---|
| California | (A) In the earlier phases, the departments reacted to the negative connotations of zero-based budgeting. The tool is now being used to restructure and redirect program efforts and in some instances to increase fiscal support. Generally, our experience has been favorable, with an increasing understanding of this technique as an analytical tool. |
| Connecticut* | (A) Zero review has resulted in budget elimination of small programs which end up being retained because of "public appeal". Direct savings have been minimal but the process has "shaken up" agencies and reduced overall requests. |
| Georgia | (A) Georgia is beginning its 6th year of ZBB. We find that no other system provides us with the (1) detailed priorities of the entire operations of an agency, (2) visibility of day to day operations, (3) goal congruence, (4) interest in budget development, or (5) vehicle for clear expression of performance data that ZBB does. Our experience is such that a search for a better way has not provided a system we could change to.

(B) The original system required alternative ways to perform a function as well as incremental levels. Our current system does not require alternative ways but does still require incremental levels from 0 to total request. |
| Idaho | (A) For approximately 75% of the budgets zero-based during the last fiscal year, the results were unsatisfactory. State agencies had an inadequate understanding of the process and did not competently comply with our zero-base requirements. This was probably due to the lack of sufficient time for training and technical assistance on the part of the central budget staff. In 1977 the results were useful primarily because of the internal priority |

Note: This table includes responses of some states noted with an asterisk (*) which have had related procedures not classified as ZBB in Table 1.

setting required at the program level, even though there was no substantial difference in the resultant budget amount for the program. In 10% of the cases, the zero-base review resulted in a substantial and significantly different approach to the operation of the program and reduced the required budget.

- (B) None have been defined yet; however, we are considering ways of improving the distinction between alternative approaches to carrying out a particular program and alternative levels of effectiveness in carrying that program out on any given approach.

Montana

- (A) System being implemented this year.

Nebraska*

- (A) The detailed program budgeting system has been quite successful. The detailed information provided by the system allows decisions at the lowest level--some subprograms have one person only for example. All entities must be examined and approved before they are added to the program totals for inclusion in the recommended budget. Legislature and Governor use same documents.
- (B) With very minor changes, the basic format has stood unchanged for nearly 10 years.

New Jersey

- (A) Our experience with zero-based budgeting, like any other technique, has been mixed. When you apply it across the board to all budgeting functions, anomalies are produced. Problems have been encountered in the following areas: agency and staff resistance to the system, lack of understanding of the basic concepts, and quality of some of the information submitted. On the positive side, the process has aided decisionmakers in evaluating and comparing competing demands and thus helps to make choices. ZBB provided the information necessary to make a determination as to whether funding at a current, increased, or a lower level is justified by the benefits to be realized or lost by a particular funding level. We are beginning the third year of ZBB. Steps have been taken to overcome the problems noted.

Pennsylvania*

- (A) The Pennsylvania program budgeting system has been successful in shifting the focus of budget decision making from program inputs; i.e. personnel and other objects of expenditure, to program accomplishments, i.e. effects on people or the environment. It is proving itself to be a useful decision making tool.
- (B) The original design included the presentation of the Governor's budget on a cross agency program basis. In order to hold agencies more responsible for their programs and to provide the legislature with a document more easily compared to prior years, the Governor's budget is now presented in detail on an agency program basis as are the agency requests to the budget office along with a Commonwealth cross agency program summary.

Rhode Island

- (A) While we have yet to reach the point where we would like to be, the experience to date must be rated as favorable. This approach has been at least partially responsible for (a) the elimination of 1300 positions from the state roster; (b) maintaining the reduced employment level during the past 18 months; and (c) allowing for the reallocation of funds from institutional to community programs (the shifting of priorities within the existing resources).
- (B) We are now in the process of changing the format, but the concept remains unchanged.

South Dakota*

- (A) In implementing our performance budgeting system we were as concerned with the effects on total management process as much as the impact in terms of appropriations--so far the experience has been good--we are achieving some of the MBO type effects we desired.

Tennessee

- (A) Tennessee applied the principles of ZBB to its budget system the past fiscal year. Our system, although implemented in a short period of time, was fairly successful in developing alternatives to the traditional incremental approach. Better understanding of the system is needed.
- (B) Tennessee maintained control of the package decisions at the program level. There was considerable concern with the volume of work which would be generated at lower levels. (Staff size is a consideration.) Our system dealt with percentages of the current level (80-90%, etc.).

notes success in developing alternatives to the traditional incremental approach. New Jersey presents a balanced evaluation with a number of plusses and problems. While ZBB has aided decision makers in evaluating and comparing competing demands, it also has encountered staff resistance, lack of understanding, and poor-quality information. Idaho's experience was possibly the least favorable, with three-quarters of the initial ZBB submissions judged unsatisfactory.

Aside from adjustments in their formats and technical details, the ZBB states do not seem to be making substantial modifications in their ZBB designs. The main changes are aimed at reducing paperwork and improving the performance measures submitted by agencies.

Experiences and Intentions in Non-ZBB States

Although significant ZBB activity is underway in only 11 states, other states have or are considering its application to their budget processes. Question 5 in the survey asked states not using ZBB whether they have considered or explored the possibility of using it. The state by state responses are provided in Table 4. Five states indicate that they have considered but rejected ZBB. These are Alaska, Indiana, New Mexico, North Dakota, and Ohio. Of these, the New Mexico decision is the most significant since a zero base budget was introduced for the 1971-73 biennium, but was subsequently abandoned. In New Mexico, ZBB was used by the Legislative Finance Committee while the executive budget continued to be prepared in a traditional format. In an appraisal of the New Mexico experience, John D. LaFaver identified many problems

Table 4 *

IF YOU ARE NOT USING ZERO-BASE BUDGETING, HAVE YOU
CONSIDERED IT OR EXPLORED THE POSSIBILITY OF USING IT?

STATE RESPONSES

Alaska	In approximately 1972 we used the ZBB techniques on three state programs. Our experience at that time indicated there were other fields and methods we could explore with more return for the effort.
Arizona	Yes--first we must "program" our agencies and develop evaluation methods. This will be a several year project.
District Columbia	Over the years, we have used a modified ZBB approach in selected expense categories such as equipment, motor vehicle purchases, ADP systems, etc. The largest agency of the District Government is implementing, on a test basis, ZBB that closely parallels the "decision package" approach. (Expansion of test to whole government depends on results of the project.)
Hawaii	Since 1971, the State of Hawaii has been totally committed to the establishment and implementation of a PPB system, a system mandated by Act 184, SLH 1970, the Executive Budget Act.

* This table excludes those states which indicated they have not considered zero-base budgeting. The response of North Carolina was abbreviated.

Indiana	Considered it and rejected it!
Iowa	We are considering a Zero Plus base for 1977-79.
Louisiana	The legislature is asking us to consider it.
Maine	Yes--a modified system will be used in the next budget cycle.
Minnesota	Mere discussion in informal meetings.
New Mexico	The Legislative Finance Committee of the New Mexico Legislature also produces an annual budget in contrast to the Governor's budget. During the period 1971-73, the Committee produced a zero based budget. However, the zero base concept has not been employed since that time, primarily because the executive and the legislature prefer a more traditional approach.
North Carolina	A number of the components of ZBB were incorporated into a "home-grown" budget reform which we've had underway since 1973. These include: <ol style="list-style-type: none"> (1) Combining current services with new program requests for each program in State government. (2) Merging and reformulating the planning function--program planning has been shifted to agencies; policy planning has been merged into budget preparation. (3) Conducting program evaluations of on-going services to determine whether or not they are accomplishing their objectives and whether the objectives still need to be met.
North Dakota	A legislative committee on the budget considered it and rejected it.

Ohio	ZBB budgeting explored but its use not contemplated within near future.
Pennsylvania	Has not considered using ZBB as defined above. The ZBB concept is subsumed under the Pennsylvania program budgeting system.
South Carolina	Exploring the possibility of using some form of ZBB for fiscal year 1978-79.
Virginia	A legislative commission studied the State's budget process and issued recommendations in December, 1974. The recommendations, enacted into law to be effective not later than for the 1978-80 biennium, provide for: program definitions (and appropriations); "workload indices and other criteria to be used in both budget evaluation and post audit evaluation"; separate identification of costs for current activity levels, increased work load and changed new services; policy issue analysis. The report does not state what consideration was given to ZBB as a "system."
Washington	The operating budget instruction for the 1977-79 biennium transmitted by the Governor requests all state agencies to provide a ranking of priorities for all essential agency programs. The program proposals are to be provided in terms of their relative importance to successful accomplishment of each agency's goals and statutory requirements.
Wisconsin	It has been talked about. We do use "targeting" below the base year level of funding, which might be considered a form of modified ZBB, although I do not think it is. The Legislative Audit Bureau will be recommending that we go to ZBB on a staged basis (3-5 year cycle) in the future.
Wyoming	Yes, we have explored the idea. We operate with three budgets which are called "standard," "exception," and "expanded." The standard budget is reviewed in depth to justify its future existence or level of existence.

resulting from the way ZBB was implemented and he concluded that the improvements were "neither as great as originally anticipated nor as minimal as detractors would claim."^{4/}

At least three states (Hawaii, North Carolina, and Pennsylvania) decided not to introduce ZBB because they had only recently established program budget systems. These states appear to feel that they can achieve the benefits attributed to ZBB through their own budget innovations, though several states (such as New Jersey and Illinois) have attempted to mold ZBB with their new program budget systems.

Nine states and the District of Columbia either have decided to implement aspects of ZBB in the near future or are considering it. In a few states (such as Louisiana and Wisconsin) the initiative is coming from the State Legislature. Several states (Maine, Virginia, and Washington) appear on the threshold of ZBB activities while other states are exploring the possibility for future implementation.

Despite the turnaround on New Mexico, state interest in ZBB probably has not yet reached its peak. It is possible that as many as half of the states will be involved in some zero base budget activities before the end of this decade.

ZBB and the Legislative Process

In concept and application, ZBB is primarily an instrument of executive budgeting. In each of the ZBB states, the zero base activity

is associated with the preparation of the budget by state departments and agencies. The appropriations stage of the budget process need not be directly affected by the ZBB activities of the executive branch. Moreover, most ZBB work is done at operating and management levels and the governor's involvement is limited--as Pyhrr noted--to a review of major policy issues. The literature of ZBB and the instructions issued by practicing states focus on the responsibilities of program managers, up to and possibly including department heads, to review and evaluate all components of their budgets. To the extent that ZBB has had an effect on budget outcomes, the effect will be felt primarily at these management levels.^{5/}

But although ZBB generally is not conceived as a legislative tool, there is no reason for legislative bodies to be completely excluded. In several ZBB states, the initiative or requirement for ZBB has come from the legislature. In Arkansas, the Legislative Council has had an active role in the design of ZBB. The pilot testing of ZBB in Montana was mandated by a 1975 Act of the State Legislature while new statutory requirements with regard to budgetary data have prompted the State of Tennessee to introduce ZBB practices. In Texas, the Legislature shares responsibility for budget preparation with the Governor, and ZBB instructions are jointly issued by the Legislative Budget Office and the Governor's Budget and Planning Office. As previously reported, legislative initiatives for future ZBB applications are underway in Wisconsin.

Even where a state legislature has not actively sponsored ZBB it may be able to avail itself of the products of the new system. In more than half of the states, the legislature receives copies of agency budget submissions, either at the time they are sent to the governor or at a later date.^{6/} In these states, a legislature should be able to obtain the decision packages and priority rankings submitted by the agencies to the executive budget office.

However, there is no necessity for a state to recast its budget document or the form of appropriations to conform to ZBB methods. Once a budget decision has been made on the basis of ZBB presentations, it can be cast into any form congruent with the accounting system of the state. ZBB can coexist with program categories, standard organization classifications, line-item detail, or any other budget format. Moreover, inasmuch as decision packages usually are developed at low levels of activity, they are not likely to be suitable for publication in the budget (except, perhaps, in summary form) or as units of appropriation. A state's budget document might have to be tripled or quadrupled in size in order to accommodate its ZBB presentations. The number of appropriation accounts also would have to be multiplied if the activity level at which decision packages are evaluated becomes the level at which appropriations are made.

Zero Base Budgeting and PPB

ZBB is the latest in a series of state budget innovations stretching back to the early years of this century. It follows on the heels of efforts by a number of states to install planning-programming-budgeting

(PPB) systems during the 1960's.^{7/} The relationships and differences between these two sets of budget reforms is a source of both confusion and opportunity.

Aaron Wildavsky regards zero base budgeting as "an extreme variant" and "a precursor of" PPB, both sharing the same objectives, concepts, and failures.^{8/} Wildavsky's perspective is largely derived from the Agriculture Department experiment of the mid-1960's, though he briefly reviews the ZBB activities of two states -- Georgia and New Mexico. Peter Pyhrr, however, regards PPB and ZBB as essentially different though potentially complementary, systems:

PPB provides the macroeconomic tool for centralized decision making on major policy issues and basic fund allocations. Zero-base budgeting provides the micro-economic tool to transform these objectives into an efficient operating plan. ...^{9/}

The key difference between the two systems is that PPB focuses on top-level decision making, while ZBB focuses on decisions at various operating and management levels. Pyhrr suggested that "the top-down efforts of PPB can be coordinated with the predominantly bottom-up efforts of zero-base budgeting."^{10/} The limited evidence from this survey confirms Pyhrr's claim that the two systems can be compatible and mutually reinforcing. In at least four of the 11 ZBB states, zero-base techniques have been fused into the pre-existing program budgeting* apparatus. California, Illinois, New Jersey, and Rhode Island have implemented ZBB practices in ways which have not disturbed their program budgeting activities. In a fifth state -- Montana -- the new Priority Budgeting System is an integration of PPB and ZBB techniques. It combines PPB-type

* The term PPB is not used by states today. State variations now in use will be referred to generally as "program budgeting."

techniques of multi-year planning and cost-effectiveness analysis with the ranking of activity decision packages on a priority basis.

In the remaining ZBB states, there is a significant and growing use of program and performance measures, not merely as ancillary information but as means of evaluating the levels of effort proposed for alternative decision packages. Although the State of Georgia was the first to implement ZBB, its most recent modifications are intended to improve the reporting and use of such measures. The latest budget instructions require each agency to "submit a list of effectiveness, workload and efficiency measures for each function prior to preparation of the budget." The amount and type of program and performance data developed in the Texas system seem to be almost comparable to those in full-fledged program budget states. There is less emphasis on formal planning and analysis in the ZBB states and more on linking program and performance to specific levels of cost.

Zero Base Budget Methods in Selected States

As already noted, ZBB has various meanings and applications. This part of the report describes the ZBB approaches of the States which submitted ZBB documents (budget instructions, forms, manuals, etc.) along with their survey responses. The descriptions offered here are derived from these documents and they deal only with the formal aspects of zero base budgeting. They do not assess the impact of ZBB on budget outcomes or the extent to which the methods have been used in practice.

Arkansas

In February 1976, the Governor introduced a new Priority Budgeting System (PBS) to be used for the 1977-79 biennium.^{11/} This system, along with new budget forms and instructions, was subsequently approved by the Arkansas Legislative Council. PBS is to serve as the main system for preparing the budget and presenting it to the State Legislature. All executive branch agencies (other than elective officers and the Highway Department) are covered by it. PBS retains the line-item data requirements but adds program priority rankings to agency budget submissions.

Budget requests under the new system are to be divided into three categories: (1) The base level which (with some exceptions) cannot exceed 90 percent of the current fiscal year's budget level; (2) Priority I which together with the base level cannot exceed 101 percent of the current budget level;^{12/} and (3) Priorities 2-11 which are to include any other request not included in the first two categories. Agencies must rank their requests in a descending order of priority--BaseLevel, Priority 1, Priority 2, Priority 3, etc. Each of these requests must contain its own justification and must be budgeted as a whole unit containing all of the costs necessary for operating the unit at the requested priority level. For example, a request for a Priority 3 program is to be considered as a whole and its justification and contents therefore must be independent of the request for any other priority level.

The three categories do not apply to state aid to schools, cities, counties, or charitable institutions, nor to capital expenditures and some minor fixed expenditures.

An agency has discretion in deciding what to include in its base level request and how to rank its other priorities. With the base level set at no more than 90 percent of the current budget, an agency may opt to reduce the level of all of its programs or to eliminate low level programs or to alter existing programs or methods of delivery. It also has the option to propose program expansions and improvements in its base level. However, because the base level is most likely to be funded, an agency is advised to include its most critical programs or services in it.

The budget forms can accommodate three priority rankings in addition to the base level request. But an agency need not submit any priority requests or it can make as many as 11 such requests within a particular cost center--the lowest level at which priority rankings are made. However, each priority level has to be separately justified.

The new Priority Budgeting System currently is undergoing its first implementation so that it is too early to report any experience with it. But Arkansas is one of the few states with this type of budget system to use it both for executive and legislative review. The PBS documents are to be used by the Legislative Council in its budget hearings scheduled during October 1976.

California

The program budgeting system of the State of California focuses on proposed changes in the budget.^{13/} Through the analysis of Budget Change Proposals (BCP), State agencies and the Department of Finance selectively

consider the cost and effectiveness of possible alternatives to current program levels. This selective approach now is used for the zero base analysis of programs adjudged to be most in need of thorough review.

Three patterns for applying zero base budgeting have been developed in California. First, the Department of Finance recommends a zero level of funding for the baseline budget planning estimates issued for particular programs. Program managers and department heads then are required to justify in detail various levels of the program, starting at the basic program level and then adding other features and levels of operation. A department may prepare as many Budget Change Proposals as necessary to adjust the original level (in this case zero) to that which it considers appropriate. The major burden of analysis is on the department to show that the program should be funded at above zero level.

A second approach is for the Department of Finance to develop negative Budget Change Proposals, that is, a proposal to set the budget below the current level. A formal negative BCP is prepared by the Finance Department, and the department operating the program is given an opportunity to provide analytic support for the option it favors.

The third approach is initiated by departmental proposals for program eliminations, reductions, trade-offs, and redirections. These are assessed in Budget Change Proposal documents.

In all three types of zero base review, a decision memo is used to bring the issues in the Budget Change Proposals into an agenda for formal budget hearings. After the hearings, baseline budget planning

estimates are adjusted (if appropriate) to the new level which then becomes the basis for the presentation in the Governor's budget.

Georgia

Georgia is generally regarded as the first State to adopt ZBB as its budget-making system.^{14/} On March 15, 1971, Governor Jimmy Carter instructed State agencies to utilize zero base budgeting in their preparation of F.Y. 1973 budget requests. Detailed Budget instructions were subsequently issued for this purpose. The ZBB system has been modified slightly since its introduction but its basic features have remained intact.

Decision packages are prepared for incremental levels of effort for each function. (In Georgia, the function is the lowest program level at which a budget estimate is prepared. Functional packages are aggregated into activities; activities are aggregated into department summaries.) Within each function, separate decision packages are prepared for different levels of effort, with line-item detail and performance measurements presented for each package. (1) The minimum level is the level of effort, expressed in terms of service and cost, below which it is not realistic or feasible to operate the function at all. Although no percentage limitation is imposed, the minimum level is expected to be below the current funding level. In the decision package for a minimal level, the agency explains the effects of terminating the existing service that is excluded at this level. (2) The current level decision package generally is an estimate of the next year's cost (adjusted for wage and price increases) of providing the current level

of service. An agency may include proposals to decrease the level of service in this package. (3) A decision package for new or improved programs must be quantified and explained in terms of service and cost.

Each decision package is formatted to show cumulative costs as a percentage of current funding and to permit its priority ranking by activity. After they have been ranked by activity, the decision packages are ranked by department so as to provide a comprehensive set of priorities for all functional packages in each department's budget request.

Idaho

The State's budget system has been recast in recent years into one which is heavily grounded on program and performance data.^{15/} The system has two ZBB-type features. Though only a small fraction of State programs are zero based, the budget requests of all State agencies are structured into decision units which are ranked by priority.

No constraints are imposed on the decision units requested by agencies so that, except for capital outlay, one time expenses, and programs selected for zero base review, the budget accepts the current level as a base. Above the budget base, decision units are listed in order of priority until the full budget request is reached. The final decision unit is the sum of the current budget level and any additional decision units. The budget instructions

for fiscal year 1978 call on State agencies to strengthen the relationship between specific decision units and specific performance measures.

According to the State's budget division, ZBB was applied to approximately 5 percent of last year's budget, and it hopes to increase this to 20 percent per year, with each program being subjected to a zero base review every five years.

Illinois

The Illinois budget process has undergone far-reaching changes since 1969. Budgeting has been converted from a biennial to an annual cycle; the Bureau of the Budget has been established as the Governor's budget agency; the line-item schedules have been removed from the appropriations and main budget document and placed in the budget appendix; a program budget focused on quantitative statements of objectives and performance has been implemented; a new management by objective (MBO) system has been introduced as a means of identifying and monitoring agency and gubernatorial objectives. To this process of budget innovations, the State adopted for its 1977 budget preparation a procedure for separate consideration of programs within and above 90 percent of the current budget base.^{16/}

The guidelines for the 1977 budget provide for each agency to request the programs and activities to be proposed within 90 percent of its current funding level. Program expansions and new initiatives can be included within the 90 percent level, but only if an agency deems them of higher priority than other current activities.

Program increments above the 90 percent level are listed in priority order. Proposals to maintain or expand existing programs or to initiate new programs are separately identified, though they are ranked in the priority order determined by the agency. Decision packages are not formally used in the Illinois approach, but the forms are arranged so as to tally the cumulative cost of each add-on proposed above the 90 percent level. The process works in a manner similar to one in which decision packages are applied.

Missouri

The State has a comprehensive program budget, and the budget is prepared by programs, sub-programs, and program elements within departments.^{17/} Program statements accompanying the requests focus on the problem to be solved, the objectives of the program, and the methods used to accomplish the objectives. Quantitative measures of program service are extensively used and include effectiveness measures, benefit measures, and volume of service.

Budget requests are divided into three categories: the minimum budget, the base budget, and priority items. The minimum budget generally is the current rate of expenditure; the base budget is the minimum budget plus standard inflation factor increases to allow the current level of service in the budget year; priority items are increases requested above the base level. Priority items are ranked at both the program and departmental levels so that the Governor and the Legislature have a comprehensive ranking of such items.

A priority item consists of the package of personnel, operating, and equipment expenses associated with achieving a higher level of service. Each request for a priority item is to be justified by a significant

change in measures of service above the levels that would be achieved in the base budget. Thus, the same measures of service are to be used for both the base budget and priority items, thereby enabling State officials to assess the effectiveness associated with each proposed cost increase.

The State of Missouri has used this system for two years, and though it does not have the ZBB label, it has some features of that budget approach.

Montana

As part of a new program planning and budgeting system, the State of Montana is pilot testing a Priority Budgeting System in eight state programs. The new budgeting approach is mandated by House Bill 643, signed into law on April 16, 1975 and is being put into effect for the 1977-79 ^{18/} biennium.

The new system combines features of two contemporary budgetary innovations: planning-programming-budgeting (PPB) and zero-base budgeting. Thus it provides for a program structure, multiyear planning, and output and impact measures. These PPB-type components are part of the Priority Budgeting System that is being tested in eight programs. The test programs have been selected, in accord with House Bill 643, so as to be representative of the programs and agencies of the State Government.

The Priority Budgeting System utilizes three of the main features of zero base budgeting: decision packages, alternative cost levels, and a priority listing of alternatives. The decision packages are developed and ranked at the activity level, generally the lowest level of the program structure at which work outputs have measurable policy impacts. This ranking process is to be performed at successively higher levels of management-- up to the Governor's office--with the packages merged into increasingly comprehensive listings.

House bill 643 requires at least three alternative funding levels for each program, and this requirement also is being applied to each activity. The first funding level--which in the initial ranking is to be accorded highest priority for the activity--is not to exceed 80 percent of the current budget level. Workload, output, and impact data are to be supplied for each cost alternative; and each package is to display summary data on costs and results for alternative packages in the same activity.

It is anticipated that the Priority Budgeting data will be used in presenting the budget to the legislature. But the 1977-79 effort is thus far only "an experiment to determine if this particular approach to planning and budgeting would be most appropriate in meeting State Government's needs in these areas."^{19/}

New Jersey

ZBB was launched on July 22, 1974 with a memorandum from Governor Brendan Byrne instructing all state agencies "to question the continued need for every program and every activity within every program of our State government and assign a priority ranking to each such program and activity."^{20/} The State already was using various PPB techniques such as program categories and performance measurements and these were combined with the new ZBB approach.

Three budget forms are used for securing ZBB information from the agencies. One requires each agency to indicate program objectives, identify changes in laws, and specify the

qualitative and quantitative effects of funding of various incremental levels: 0 percent, 50 percent, 75 percent, 100 percent, 125 percent, and above 125 percent of the current funding level. The program level, inputs, and expected performance at each of these levels (or at a percentage in between the levels) represent a decision unit which assists decision makers in determining whether the benefits to be lost from budget decreases in one program outweigh the benefits in other programs.

On a second form, each agency ranks its programs at these various funding levels, thereby communicating its sense of priorities to the Governor and central budget staff. The total requested in each priority level as well as the cumulative request for all priorities are shown on the form. This ranking process assists agencies and the Governor in realigning program priorities. A third form is used for recording past and estimating future performance data for the various priority levels. A variety of performance measurements (such as output, efficiency, and effectiveness measures) are associated with each incremental spending level.

State officials believe that ZBB has assisted them in evaluating and comparing competing demands for funds and for determining the most appropriate level of program and expenditure. But they also have encountered a number of difficulties such as staff resistance and low-quality submissions. They feel these problems can be overcome as their personnel become more accustomed to ZBB concepts and processes.

Rhode Island

Over a period of years, the State has expanded its program budgeting system, with extensive measurements of objectives and performance. In July 1973, the Governor instructed State agencies to augment their program budgeting submissions with zero-base justification of their requests. Rather than replace the new Program Budgeting System, the Governor decided "to embody the concept of zero base into our considerations. This will permit us to continue the on-going development of program budgeting while particularly stressing the point that everything demands justification before any dollars are provided."^{21/}

The ZBB forms supplement the regular budget requests and require a priority ranking and analytic justification of each activity. The Rhode Island Budget Director regards the experience thus far as favorable and partly responsible for a shifting of priorities within existing resources.

Tennessee

Chapter 135 of the Public Acts of 1975 requires each State agency to establish written goals and objectives for each of its programs, including criteria for measuring the performance achieved under the stated goals and objectives.^{22/} This new requirement was incorporated into the 1976-77 budget process with agencies submitting their traditional operating budget requests and program budget statements.

The program budget statements contain several ZBB characteristics. State agencies are cautioned that because of the State's severe financial

condition, they must "avoid an incremental approach to preparing the 1976-77 budget requests." Agency activities are to be ranked in order of priority and are to identify their purpose, clientele served, goals, and objectives. The budget requests are to be classified into four levels, with priority rankings assigned to each: (1) continuation at the current level of funding; (2) continuation at the current level of service; (3) improvements for new legislative requirements and to replace lost federal aid; (4) improvements based on departmental estimates of need. On the basis of a review of the budget instructions, it is not possible to ascertain how these four categories are linked to the budget submissions.

Texas

The State of Texas initiated its ZBB system for the 1976-77 biennium and the basic system is being applied (with only slight modifications) for the 1978-79 biennium. This comprehensive system utilizes decision packages, alternative funding levels, priority rankings, and extensive needs, workload, and performance measures. ^{23/}

Each decision package provides information on objectives and their proposed means of accomplishment, costs and benefits and performance measurements at various levels of effort, and alternative means of accomplishing the objectives. Activity decision packages are prepared by activity managers and these are ranked in order of priority by program managers. The program managers prepare decision packages for their programs

and these are ranked by agency administrators. Thus, the decision packages are prepared at a lower administrative level and their priority is determined at a higher level. Each decision package is structured into a number of activity or program levels, depending on the amount of funds which are being requested. For programs, the prescribed levels are: (1) the minimum level is not to exceed 90 percent of current funding; (2) level 2 cannot exceed the current budgeted amount; (3) level 3 (if it is requested) cannot exceed 110 percent of the current amount; (4) level 4 is for requests that exceed the current amount budgeted for the program by 20 percent or more. There are no restrictions on the funding levels for the activity decision packages, though they should be consistent with those requested for programs.

Although it has a 90 percent limit, the minimum level is to be that level of effort below which the program should be discontinued because it loses its viability or effectiveness. By recommending a minimum level, a program manager is not necessarily recommending that the program be funded at this level. The minimum level merely identifies one alternative, and explains what could be accomplished at this level and, by inference from other levels, what could not be accomplished.

At the activity level, the output data is oriented to workload measures; at the program level, it concentrates on measurements of need and performance. The priority ranking of both activity and program decision packages is arranged in a manner which enables policymakers to estimate the cumulative effects of alternative levels on the budget.

Footnotes

1. Statement of Richard C. Leone, before U.S. Senate Subcommittee on Intergovernmental Relations, Hearings on Government Economy and Spending Reform Act of 1976, 94th Cong., 2d Sess. (1976), p. 293.
2. Aaron Wildavsky & Arthur Hamann, "Comprehensive Versus Incremental Budgeting in the Department of Agriculture," in Administrative Science Quarterly, vol. 10 (1965), p. 321-346.
3. Peter A. Pyhrr, Zero-Base Budgeting (New York: John Wiley & Sons, 1973), p. 97.
4. John O. LaFaver, "Zero-Base Budgeting in New Mexico," State Government (Spring, 1974), p. 112.
5. For this reason, appraisals of ZBB which focus only on gubernatorial actions miss the main story. This is one of the problems with Aaron Wildavsky's anti-ZBB critique in Budgeting: A Comparative Theory of Budgetary Processes (Boston: Little, Brown & Co., 1975), pp. 294-96.
6. Legislation to make federal agency budget estimates available to Congress has been introduced in the 93d and 94th Congress but has not passed, though particular agencies now are required (or as a matter of practice) submit their estimates to Congress.
7. For an appraisal of the PPB efforts, see Allen Schick, Budget Innovation in the States (Washington: The Brookings Institution, 1971).
8. Wildavsky, op. cit., p. 278.
9. Pyhrr, op. cit., p. 153.
10. Ibid., p. 158.
11. The description of ZBB in Arkansas is based on the State of Arkansas Budget Preparation Manual 1977-79 Biennium.
12. The limitations spelled out on p. 12 of the manual cover most uncontrollable expenditures such as AFDC and retirement costs.
13. The California description is adapted from a lengthy statement prepared by the State Department of Finance to accompany its response to the questionnaire.
14. Georgia's ZBB approach is described in its General Budget Preparation Procedures: Fiscal Year 1977 Budget Development, issued by the State's Office of Planning and Budget.

15. Idaho's budget procedures are set forth in its Program Management and Budget Development Manual issued by the Division of Budget, Policy Planning and Coordination on May 7, 1976.
16. The budget instructions for the State of Illinois are detailed in Bureau of the Budget Circular No. 3, Revised September 1, 1975.
17. For a description of the Missouri approach, see its Priority Budget and Program Manual, Fiscal Year 1977.
18. The description of Montana's pilot test is based on its Priority Budget System; 1977-79 Biennium, issued by the Office of the Governor.
19. Ibid., p. 11.
20. The New Jersey description is based on the Leone statement (see note no. 1), an unpublished paper on "Zero-Based Budgeting in New Jersey" by Michael J. Scheiring, and Circular Letter 75-26 (May 28, 1975) issued by the Division of Budget and Accounting.
21. ZBB in Rhode Island derives from a memorandum from Governor Philip W. Noel to State agencies (July 27, 1973) and related instructions issued by the Division of the Budget.
22. The Tennessee practices are derived from the State's Budget Instructions and Procedures: Preparation of 1976-77 Budget Requests, issued by the Department of Finance and Administration.
23. For the State of Texas see, Detailed Instructions for Preparing and Submitting Requests for Legislative Appropriations for the Biennium Beginning September 1, 1977, issued jointly by the Governor's Budget and Planning Office and the Legislative Budget Office.

APPENDIX

State Zero Base Budget Survey

DEFINITION:

STATE: _____

For the purposes of this survey, zero base budgeting is a system by which state programs and activities are organized and budgeted in a detailed plan which focusses review, evaluation and analysis on all proposed expenditures rather than on increases above current expenditure levels. The purpose is to determine whether each activity warrants continuation at its current level or a different level, or should be terminated. This focus requires a priority ranking of all programs and activities in successively increasing levels of performance and funding, starting from zero.

QUESTIONS:

- 1.a - Does your State have what it calls a ZBB system approximating this definition? Yes _____; No _____
- b - Do you have what you call a ZBB system, but with a different definition? Yes _____; No _____
- If yes - please give your definition: _____
- c - Do you have a system approximating the definition which is called by some other name? Yes _____; No _____
- If yes - please give the name here: _____
- (if the answers to 1 a, b, and c are "no," please go to question 5)
2. How is your ZBB system or similar system used:
- a - as the main system for budget requests? Yes _____; No _____
- b - as an additional source of data? Yes _____; No _____
- c - as the main format for the presentation in the budget document? Yes _____; No _____
- d - other (please describe) _____
3. Does your ZBB or similar system formally involve:
- a - subdivision of programs or activities into decision packages: Yes _____, No _____
- b - subdivision of programs or activities according to incremental percentages of expenditure? Yes _____; No _____
- c - distinctions between expenditures for continuing, expanding, and new programs? Yes _____; No _____
- d - annual (biennial) zero-base review of: a) all; b) most; c) some; d) pilot group of; e) no, state programs (circle appropriate response)
- Explain b, c, or d: _____

ZBB - page 2

3.e - other (please describe) _____

4. If your State has used ZBB or similar system for one year or more:
a - Please briefly evaluate your experience with it.

b - describe briefly any changes made in the original design.

5. If you are not using ZBB, have you considered it, or explored the possibility of using it? (please explain)

6. Please send any documents, manuals, forms, etc. (2 copies if possible), describing the system and how it operates.

7. A short description written here would also be appreciated. Also add any explanation which will help us compare or contrast your system with other systems.

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Peter A. Pyhrr

Zero-base budgeting

When budgeting for next year, most companies use the current budget as starting point; but one company prefers to start from scratch

Foreword

Industrial companies have two kinds of expense: (a) direct manufacturing expense, for materials, labor, and overhead, and (b) support expense, for everything else. It is the "everything else" that causes the worst headaches at budget time, when, for example, a management squeezed by rising costs must decide between decreasing the allocation for a major R&D project and cutting funds for executive training and development. Traditionally, problems like this boil down to one question: How should the company shift its allocations around? Rather than tinker endlessly with its existing budget, Texas Instruments prefers to start from base zero, view all its activities and priorities afresh, and create a new and better set of allocations for the upcoming budget year. TI has developed a procedure that gives management a firm grip on support

allocations of all kinds, a procedure for describing all support expense minutely, classifying the alternatives to each, and sorting them all by importance and priority. The technique is simple in principle and easy to apply—and TI, finding it has worked most successfully for its staff and research budgets for 1970, is currently using it for the budgets of all its divisions for 1971. And the nonmanufacturing expenditures at TI amount to about 25% of the total budget—a significant segment by any standard.

Mr. Pyhrr is Manager, Staff Control, at Texas Instruments Incorporated in Dallas, Texas. He created and developed zero-base budgeting for the company as part of his responsibility as Control Administrator, a position he held until March 1970. Formerly he was employed by Kimberly-Clark as Internal Auditor.

Two years ago Arthur F. Burns, then Counselor to the President, addressed the Annual Dinner Meeting of the Tax Foundation on "The Control of Government Expenditures." In this speech Burns identified the basic need for what we at Texas Instruments have come to call *zero-base budgeting*. He stated that:

"Customarily, the officials in charge of an established program have to justify only the increase which they seek above last year's appropriation. In other words, what they are already spending is usually accepted as necessary, without examination. Substantial savings could undoubtedly be realized if [it were required that] every agency . . . make a case for its entire appropriation request each year, just as if its

program or programs were entirely new. Such budgeting procedure may be difficult to achieve, partly because it will add heavily to the burdens of budget-making, and partly also because it will be resisted by those who fear that their pet programs would be jeopardized by a system that subjects every . . . activity to annual scrutiny of its costs and results."¹

Burns was advocating that government agencies start from ground zero, as it were, with each year's budget and present their requests for appropriations in such a fashion that all funds can be allocated on the basis of cost/benefit or some similar kind of evaluative analysis. TI is us-

¹ New York, Plaza Hotel, December 2, 1969.

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ing this approach to budgeting in its business operations, building on cost/benefit techniques, and has had a considerable measure of success with it.

The need for effective zero-base budgeting of this kind is increasingly apparent in both industry and government today, since all institutions must adapt to an environment in which the allocation of limited resources presents a constantly deepening challenge. However, as our experience at TI demonstrates, this kind of budgeting need not "add heavily to the burdens of budget-making." In fact, efficiently planned and properly managed, it can actually reduce them.

As developed at TI, this kind of budgeting separates out the basic and necessary operations from those of a more optional or discretionary character so that management can focus special attention on this second, softer group. The basic steps to effective zero-base budgeting are:

- Describe each discrete company activity in a "decision" package.
- Evaluate and rank all these packages by cost/benefit analysis.
- Allocate resources accordingly.

Naturally these steps cannot be applied quite so easily as they can be stated.

I hope the following description of TI's practices and results will help the executive who is interested in pursuing this approach to budgeting think through the problems of applying it in his own company.

Where to use it . . .

The first thing to understand about zero-base budgeting is that it is best applied to service and support areas of company activity, rather than to manufacturing operations proper.

A corporation's level of manufacturing activity is determined by its sales volume, and this production level, in turn, determines how much the company shall spend on labor, materials, and overhead. A decision to increase company expenditures for these items does not necessarily bring increased benefits in the form of increased sales, although it does tend to boost production volume. Hence there is not the same simple relation between costs and benefits here as there is in the service and support areas, where the manager can trade off a level of expenditure on a project against the direct returns his investment in the project will bring him.

Thus, cost/benefit analysis, which is crucial to zero-base budgeting, cannot be straightforwardly applied to decisions to increase or decrease expenditures in the manufacturing area.

In industry, then, zero-base budgeting finds its main use in areas where expenditures are not determined directly by manufacturing operations themselves—in areas, that is, where the manager has discretion to choose between different activities (and between different levels of activity) having different direct costs and benefits. These ordinarily include marketing, finance, quality control, maintenance, production planning, engineering, research and development, personnel, data processing, and so on.

In passing I might note that although areas such as quality control and maintenance may be heavily influenced by the manufacturing level or by changes in this level, the zero-base budgeting process can still be used in these areas because the manager's decision to fund quality-control or maintenance activities depends on the relative benefits he thinks these activities will ultimately provide to the central manufacturing operations.

. . . how to begin

When a company applies zero-base budgeting in its service and support areas, it must explain the *decision package concept* to all levels of management and then present guidelines for the individual manager to use in breaking his area's activities into workable packages of this kind. Next, it must set in motion a *ranking and consolidation process* whereby the packages sift upward toward the top in such a fashion that the decision packages of less importance are winnowed for top management's study and judgment. Let me now explain these two procedures in more detail.

The decision package concept

The decision package is a document that identifies and describes a specific activity in such a manner that management can (a) evaluate it and rank it against other activities competing for the same or similar limited resources and (b) decide whether to approve it or disapprove it. Management may use quantitative or subjective evaluation techniques in ranking each package (I shall discuss evaluation techniques and ranking procedures later), giving a higher priority

or rank to packages that satisfy minimum operating and legal requirements and a lower rank to the more discretionary packages.

The specifications in each package must provide management with the information it needs to evaluate the activity. These may include a statement of the goals of the activity, the program by which the goals are to be achieved, the benefits expected from the program, the alternatives to the program, the consequences of not approving the package, and the expenditures of funds and personnel the activity requires.

There are two basic types of decision packages:

1. *Mutually exclusive packages* identify alternative means for performing the same function. The best alternative is chosen, and the other packages are discarded.
2. *Incremental packages* reflect different levels of effort that may be expended on a specific function. One package, the "base package," may establish a minimum level of activity, and others identify higher activity or cost levels.

The following example begins with a set of three mutually exclusive decision packages formulated by a production planning manager for handling the production planning of product X. Of the three, he recommends the first, which represents the current level of activity in the area, and states the other two as alternatives to be discarded. The three mutually exclusive packages are as follows:

Recommended package A—Retain five production planners at a cost of \$60,000. This level of effort would maintain production and shipping schedules and inventory reporting at the level the manufacturing superintendent desires.

Alternative package B—Eliminate the production planners and let line foremen do their own planning. This strategy will result in zero incremental costs for foremen, but will also result in excessive inventories, inefficient production runs, and delayed shipments.

Alternative package C—Combine production planning for products X, Y, and Z. This procedure eliminates two supervisors at a total cash saving of \$30,000. However, this alternative entails a number of consequences. The foremen on each product line will fear lack of specialized service; peak workloads on all product lines will coincide, creating excessive burden on the foreman supervisor to manage operations effectively; and, although it is desirable to locate the planning function close to the production line,

the production facilities for X, Y, and Z are so widely separated that this desirable proximity would have to be sacrificed.

Once he has defined the basic alternatives and selected the one he considers best, the manager should complete his analysis by describing the incremental variations (if any) of this chosen alternative. And, specifically, for his recommended alternative A, he should describe packages that call for more or less than five production planners for product X. In this particular case, the manager believed that he could eliminate one planner from the group and still satisfy the minimum requirements for planning. Hence, he identified these base and incremental packages for his recommended alternative, A, as follows:

Base package (satisfies requirements for minimum operating level): Retain only four planners to support coordination between marketing and manufacturing and to establish production schedules and reports. Consequently, long-range planning, inventory control, and marketing support for special product modification will be reduced. The required allocation for this is \$45,000.

Incremental package 1: Add back one planner to the basic package. This will increase forward planning of production and shipping schedules from a two-week horizon to a four-week horizon, allow in-process inventory control reports to be updated daily rather than every other day, and help marketing management accommodate customers who require special product modification. The allocation increment required is \$15,000. (This incremental package represents the status quo.)

Incremental package 2: Add one OR analyst to evaluate optimal production lots versus optimal inventory levels by color and size. The allocation increment required is \$15,000. (Note that savings of 1% in production cost or 5% in inventory would offset this price tag.)

This example, summarized in *Exhibit 1*, roughly illustrates the format used to display decision packages at TI in its 1971 budgeting, although it omits a good deal of detail. Note that it shows both the total cost of the current level of activity (\$60,000) and the cost of the level of activity that the manager considers minimal (\$45,000); and that it also identifies the two discarded alternatives and another possible increment for the basic package. This kind of format encourages the manager to scrutinize each operation

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Exhibit I. Decision package format

Department:	Product X Planning	Package No.	500									
Package name:	Base package for product X planning	Manager:	John Harrison									
Goals:	1. Provide minimum level of planning activities for 199,000 units of product X. 2. Maintain in-process and finished goods at current inventory level. 3. Provide minimum marketing coordination with manufacturing foremen.											
Statement of program:	1. Maintain updated production and shipping schedules for two weeks in advance (currently maintaining schedules four weeks in advance). 2. Provide finished goods inventory reports daily, and in-process inventory reports every other day (currently being done daily). 3. Maintain perpetual inventory system on raw material to maintain a two-weeks supply on hand and a two-weeks supply on order.											
Benefits:	This is the minimal level of planning required to deliver product X on schedule. Personnel: 4 Cost: \$45,000.											
Consequences of nonapproval:	Elimination of planners would force line foremen to do their own planning with zero incremental cost; but excessive inventories, inefficient production runs, and delayed shipments would result in an excessive, constant sales loss.											
Incremental packages:	1. Add back long-range planner, at \$15,000. (Recommended package). 2. Add operations research analyst, at \$15,000.											
Alternative package:	Combine production planning for departments X, Y, and Z. A poor logistic setup would result.											
Resources required:	<table border="0"> <tr> <td>1969</td> <td>\$60,000</td> <td>(Personnel: 5)</td> </tr> <tr> <td>1970</td> <td>\$45,000</td> <td>(Personnel: 4)</td> </tr> <tr> <td>Change</td> <td>-\$15,000</td> <td>- 1</td> </tr> </table>			1969	\$60,000	(Personnel: 5)	1970	\$45,000	(Personnel: 4)	Change	-\$15,000	- 1
1969	\$60,000	(Personnel: 5)										
1970	\$45,000	(Personnel: 4)										
Change	-\$15,000	- 1										

for all possible cost reduction and operating improvements for base and incremental packages, as well as all discretionary packages.

The Appendix to this article suggests some guidelines for identifying various categories of packages and offers a number of additional, rough examples of particular packages.

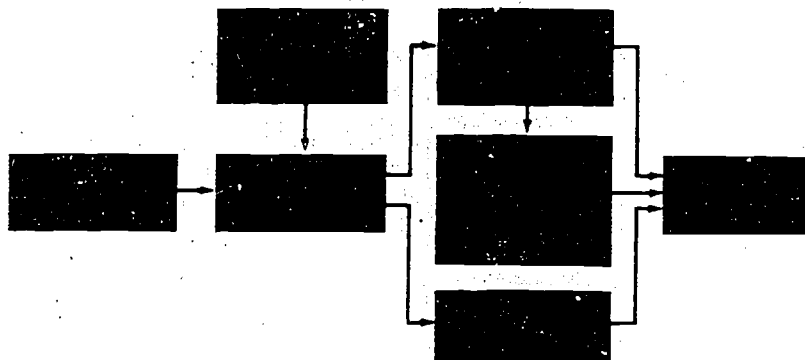
Formulating packages companywide

Decision packages are usually formulated at the "ground level." This promotes detailed identi-

fication of activities and alternatives and generates interest and participation by the managers who will be operationally responsible for the approved budget. *Exhibit II* shows the basic formulation process.

A logical starting point for determining next year's needs is the current year's operations. Each manager takes his area's forecasted expense level for the current year, identifies the activities creating this expense, and calculates the cost for each activity. At this stage, he should simply identify each activity at its current level

Exhibit II. Formulation of decision packages at the lowest operational level, or cost center



and method of operation and not try to identify alternatives or increments.

After he has broken his current operations into preliminary decision packages, the manager looks at his requirements for the upcoming year. To aid him in specifying these requirements, upper management should issue a formalized set of assumptions on the activity levels, billings, wage and salary increases, and so on, for the upcoming year. The manager needs this formalized set of assumptions primarily because it provides him and his peers with uniform benchmarks for estimating their funding requirements for next year's budget. However, it fills several other important functions as well:

- It brings inaccurate assumptions or misunderstandings to light. As a consequence, it is often easier for the manager to analyze any unusual cost variances that might have occurred during the current budget year.

- It provides a focal point for reviewing and revising assumptions and indirectly helps keep the number of such revisions under control.

- It helps everyone keep track of revisions in the list of assumptions and of the changes in activity levels and costs that these revisions entail.

Once the manager has formulated his preliminary list of decision packages and has received the formalized set of assumptions about the next year's operations, he translates the packages in his list into "business as usual" packages for the upcoming year. These packages merely cost

this year's operations in terms of next year's costs.

To determine next year's costs, each manager simply adjusts costs for changes in activity level, for salary and wage increases, and (on an annualized basis) for personnel and operations expenditures not incurred during the present budget year or which will not be incurred during the upcoming budget year.

Next comes the real starting point in determining next year's budget. The manager now develops his final set of decision packages from his business-as-usual packages by segmenting each of them into mutually exclusive and incremental packages wherever possible and noting the discarded alternatives as the final items on the decision-package document. If he should happen to decide that one of these alternatives is a more reasonable or realistic base package for a particular activity than the one he has listed for this activity in his business-as-usual group, he just swaps the two and develops a set of incremental packages around the new base package.

Finally, at the same time the manager is looking into his current and ongoing activities, he should identify all new activities in his area for the upcoming year, develop decision packages that handle them, and attach them to his final set.

At the conclusion of the formulation stage, then, the manager will have identified all his proposed activities for the upcoming year as follows:

1. Business-as-usual packages in which no vari-

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actions are possible or justifiable, so far as he can see. Here the manager merely exhibits the present level and method of activity in decision-package format.

2. Decision packages, each consisting of a base package and incremental packages (with alternatives noted at the end), for all other ongoing activities.

3. Decision packages for new activities.

The manager is now ready to rank his packages.

The ranking process

The ranking process provides management with a technique to allocate its limited resources by making management concentrate on these questions: "How much should we spend?" and "Where should we spend it?"

Management constructs its answer to these questions by listing all the packages identified in order of decreasing benefit to the company. It then identifies the benefits to be gained at each level of expenditure and studies the consequences of not approving additional decision packages ranked below that expenditure level.

Theoretically, one ranking of decision packages can be obtained for an entire company and judged by its top management. But while this one, single ranking would identify the best allocation of resources, ranking and judging the high volume of packages created by describing all the discrete activities of a large company would impose a ponderous, if not impossible, task on top management. At the other extreme, ranking only at the cost-center level is obviously unsatisfactory, since it does not offer upper management any opportunity to trade off expenditures among cost centers or other, larger divisions of the company.

One can begin to resolve this dilemma by grouping cost centers together naturally, according to types of activity, and producing consolidated rankings for each grouping. The organizational width and depth of such groupings are determined by three factors:

1. The number of packages involved, and the time and effort required to review and rank them.

2. Local management's ability and willingness to rank unfamiliar activities.

3. The need for extensive review across organizational boundaries to determine trade-offs in expense levels. (This factor is particularly im-

portant when deep cuts in expense levels are required to combat poor profits.)

The initial ranking should of course occur at the cost-center level, where the packages are developed, so that each manager can evaluate the relative importance of his own activities and rank his packages accordingly.

Then the manager at the next level up the ladder reviews these rankings with the cost-center managers themselves, and uses their rankings as guides to produce a single, consolidated ranking for all the packages presented to him from below. At lower levels of an organization, an individual can sometimes do the ranking without any consultation if he has detailed knowledge of the areas involved. In general, however, and particularly at higher levels of the organization, we have found that the expertise necessary to rank packages is best obtained by the use of a committee. At each ranking level the committee membership should consist of all the managers whose packages are being ranked and a manager from the next higher organizational level to serve as chairman.

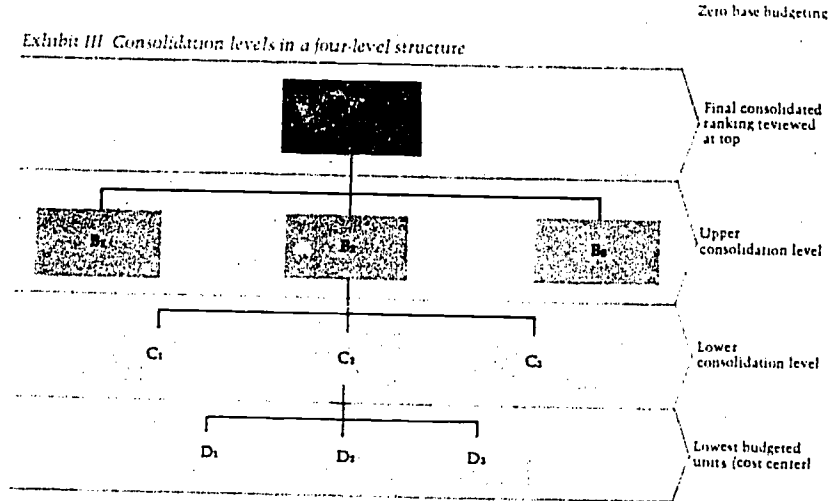
As Exhibit III indicates, the consolidated ranking for cost centers D₁, D₂, and D₃ would be worked out by a committee chaired by the manager of C₂ with the managers of D₁, D₂, and D₃ as members. The manager of C₂, together with the managers of C₁ and C₃, would then serve as a member of a committee chaired by the manager of B₂. At these sessions all three managers from Level C would present the consolidated rankings from their areas for further consolidation. This process continues to the top. (This "consolidation" hierarchy usually corresponds to the ordinary hierarchical organization of the company, but logical groupings of similar functions may be useful even where these cut across normal organizational boundaries.)

Voting mechanisms

At each committee produces its consolidated ranking by voting on the decision packages presented by its members. As at the cost-center level, the most important or most beneficial packages are ranked highest and the least important or beneficial lowest. (I should note, incidentally, that the base package is always ranked higher than the incremental packages clustered around it, so that the base can easily be retained even if the increments are rejected.)

The voting mechanism can be simple or com-

Exhibit III Consolidation levels in a four-level structure



plex, depending on the number of criteria on which the packages must be evaluated, the committee's ability to rank the packages against the criteria, the number of packages, and the time allotted for the process. Three basic voting schemes are in use:

1. Each member gets one vote on a fixed scale.
2. Each member votes on several different criteria, with even or weighted values.
3. A combination of the first two schemes is used, the first to establish a preliminary ranking and the second to establish a detailed ranking around the cutoff level after one has been established.

Exhibit IV shows a voting scale. This scale was designed for overhead and support activities, but can easily be modified from qualitative to quantitative criteria if appropriate information on the packages being ranked is available.

We have found it helpful to have a review session after the detailed ranking, in which the votes of the members are displayed, misunderstandings of package content and differences of opinion are discussed, and a final ranking is established.

Controlling the volume

We encountered three problems with the ranking process:

First, although the consolidated rankings encompassed only two small divisions, staff and research, the number of decision packages generated overwhelmed top management's ability to evaluate them thoroughly and rank them in the allotted time. The two divisions comprised 100 cost centers, in each of which 3 to 20 packages were identified.

Second, managers had conceptual difficulty in ranking packages they considered to be legally or operationally obligatory.

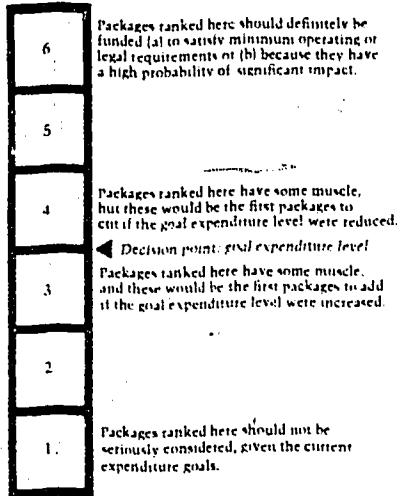
Third, they expressed concern about their own ability to judge the relative importance of dissimilar activities, especially in areas like staff, where almost all the packages required subjective evaluation and ranking.

The second and third problems caused little or no practical difficulty, for reasons that will shortly be evident. The first problem, however—that of volume—was serious because in any application of this technique the total volume of packages was bound to increase greatly with each consolidation, at each successive level.

If the problem was serious, the solution was simple. To reduce the number of packages to be reviewed in detail by successively higher levels of management and to concentrate top management's attention on the lower ranked activities, a cutoff expense line was established at each organizational level. Management at that level

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Exhibit IV. A voting ballot



then reviewed in detail and ranked only the decision packages involving expenditures below that cutoff line in any detail. This process is shown in Exhibit V.

Packages above the cutoff line were, and indeed should be, briefly reviewed at each successive level to give management a feel for the entire operation and to allow top management to verify to its own satisfaction the relative importance of the packages above the cutoff line versus the ones below it—that is, the ones being studied in detail and ranked.

Since the total number of packages to be reviewed does increase at each higher level, the cutoff line must be made more stringent at each

higher level if the volume of packages to be reviewed at successive levels is to be kept under control.

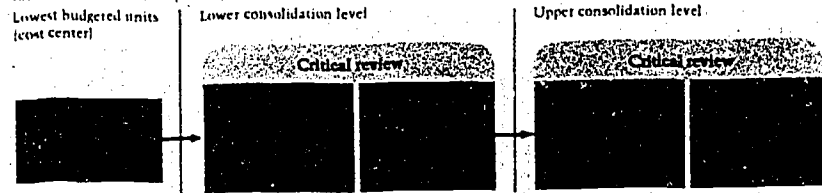
Setting the cutoffs

In practice, it is best to establish the cutoff line at the highest consolidation level first, and then establish the cutoff lines for the lower levels. The most effective way to establish this first cutoff is for management at the highest consolidation level to estimate the expense that will be approved at the top level and then set the cutoff far enough below this expected expense figure to allow the desired trading-off between the divisions whose packages are being ranked. Lower consolidation levels then set less stringent cutoffs for their own use. It is important to note that these cutoffs must be set before consolidation at any level begins.

At the highest consolidation level, for example, management might set the cutoff at 80%. This means that at this level—call it Level B—management would glance over the package rankings handed up to it from Level C, skim off the highest ranked ones until the expenditures represented by the skimmed packages added up to 80% of last year's budget for the areas in question, review these packages for reasonableness, and then seriously scrutinize and rank the remaining, low-ranked, and more discretionary packages into a consolidated series to be passed to the top.

At Level C, let us assume, a cutoff line of 50% had been set. When Level D had handed up its rankings, management at Level C would have glanced over all the packages, skimmed the top ones up to a total value of 50% of last year's expenditures in the areas in question, checked these for reasonableness, and then evaluated and consolidated the rest in its own, new ranking to be handed up to Level B. (Naturally, cutoff

Exhibit V. Decision package ranking cycle



lines can be expressed just as well in absolute dollars as in percentages.)

Thus the conceptual difficulty and concern that management initially expressed over the ranking process proved to be unfounded. Managers did not concentrate their time on packages that were legally or operationally required; rather, they concentrated on discretionary activities. Note that the relative order of "required" packages is unimportant; even if these packages fall below the cutoff at one level, they will probably fall above the cutoff at the next consolidation level.

Furthermore, managers did not spend too much time worrying whether Package 4 was more important than Package 5, but only assured themselves that Packages 4 and 5 were more important than Package 15, and that Package 15 was more important than Package 25, and so forth.

The ability to achieve a list of ranked packages at any given organizational level allows management to evaluate the desirability of various expenditure levels throughout the budgeting process. Also, this ranked list provides management with a reference point to be used during the operating year to identify activities to be reduced or expanded if allowable expenditure levels change or if the organization is over or under budget during the year.

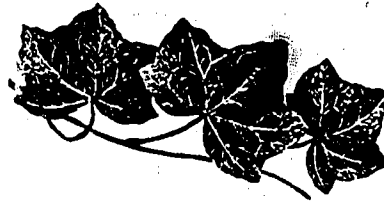
Conclusion

The decision-package ranking process is a general procedure for achieving zero-base budgeting. It provides management with an operating tool to evaluate and allocate its resources effectively and efficiently, and provides the individual manager with a mechanism for identifying,

evaluating, and communicating his activities and alternatives to higher levels of management.

As this process expanded from the staff and research divisions to the manufacturing divisions within TI, the general procedure and philosophies remained the same, although some mechanical details of implementation (such as information and analysis required on each decision package, decision criteria used to evaluate and rank the packages, the level to which the packages are ranked, and so forth) have been modified to fit the specific needs of each operation.

This process was also adopted during 1970 to identify and evaluate benefits and alternative



expenditure levels and cash flows for major facility projects, with the subordinate rankings consolidated into one ranking for the entire corporation.

Zero-base budgeting is a flexible and powerful tool. It has greatly simplified the budgeting procedures at TI, and brought about better resource allocation to boot. We believe it is potentially useful to a great many companies in a great many industries; and, if our success with it is any indicator, it will be applied widely in the future.

Appendix: Aids for identifying packages

To break down their department activities into packages, managers should think in terms of three broad categories: service and support; capital expenditures; and labor, material, and overhead expenses directly associated with manufacturing.

1. Service and support packages

These packages focus on five kinds of subjects: people, projects or programs, services received, services provided, and cost reduction.

People provide the most common subject for decision packages because they both spend money and create expenses through their wages and salaries. The subject of a package is likely to be personnel in an area where (a) costs are predominantly people-related, (b) people perform several tasks or functions and a level of personnel effort can be identified, or (c) the function of specific individuals can be condensed or eliminated. The following base package suggests a personnel reduction.

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Decision package: Combined Sales Manager for Region A and Region B.

Cost: \$45,000.

Statement: Combine sales regions A and B into one region, eliminating Sales Manager A.

Benefits: Combining regions saves expenses of Sales Manager A and secretary (\$40,000).

Consequences of nonapproval: The manager for the combined region will have less time for market surveys and problem solving for smaller customers, but negative sales impact should be minimal due to sales leveling and expected economic slump for two of the largest customers in Region A.

Alternatives:

◊ Maintain sales manager in Region A at an additional cost of \$40,000. (This might have been an incremental package.)

◊ Combine sales regions A and C.

Projects or programs are likely to be the package topic where costs are generated by personnel and services provided. The following package is an example.

Decision package: Automated Inventory System.

Cost: \$60,000.

Statement: A ready-access, perpetual inventory system for in-process and finished goods. Two man-years of programming effort are required, with \$30,000 expense for computer charges.

Benefits: This will reduce production and shipping delays due to stockouts, and reduce inventory levels by 25%. The costs will be repaid in one year.

Alternatives:

◊ Eliminate the system. However, this would eliminate the stated benefits and waste the \$30,000 already spent on development.

◊ Delay installation from September 1971 to April 1972 for a \$10,000 savings in 1971.

◊ Eliminate the ready-access capability of the system (\$5,000 reduction in package cost).

◊ Expand the system to include raw materials inventory (\$15,000 additional cost).

Services received is an appropriate subject wherever costs for services received are paid to someone's external to the manager's area of activity. The manager should identify separate decision packages or include these costs within other packages. For example, the following base package for a quality control activity represents a cutback to the minimal level in present service costs paid out by the product X production department.

Decision package: Reduced Quality Control for product X.
Cost: \$100,000.

Statement: Inspect 25% of finished goods for product X within one hour of assembly completion.

Benefits: This sample will identify repetitive process errors and ensure 90% probability of customer acceptance.

Consequences of nonapproval: Greatly increased customer rejection and probable sales losses; process errors will continue if the present level of testing is reduced.

Alternatives:

◊ Increase sample tested to 35%. This will increase the probability of customer acceptance to 95% (\$30,000 additional cost).

◊ Reduce sample to 20%. This will reduce probability of customer acceptance to 80% (\$15,000 reduction in package cost).

◊ Retain present level of testing activity, but delay inspection to four hours after assembly completion to reduce peak-testing loads and overtime (\$10,000 delayed into next budget year).

Services provided is a helpful category wherever charges can be specified or estimated. If services are directly charged to the customers, the budget should be determined from a list of packages developed in conjunction with and approved by the customer. (In some cases, of course, customers are too numerous for individual packages to be developed for each one, or perhaps customers will not assume commitment for any planned service level because of uncertainty.) If the customer is not directly charged for services received, the service packages identified will follow the normal ranking and review procedures.

Cost reduction, incidentally, is a kind of package that is useful when a cost incurred for receiving or providing a service is not recovered during the same budget period. The net cost of the package should be shown as the total cost minus savings during the budget year. (If the cost is offset in the same period, the manager should incorporate the reduction in the appropriate decision package.)

2. Capital expenditures packages

This category is chiefly useful for breaking out major expenditures not included in other packages. This frequently occurs when (a) capital projects have a long lead time, (b) benefits will not be realized during the budget year, (c) expenditure rates can vary, (d) projects are deferrable, or (e) cash flow problems require tradeoffs between expense and capital dollars budgeted. Capital packages may also conveniently identify expenditures related to cost-reduction programs.

Capital packages frequently identify variable expenditure schedules for meeting normal operating needs. The following package is an example.

Decision package: Expenditure Schedule for Expanding Dallas Chemical Facility.

Cost: \$2 million in 1971, \$7.5 million in 1972, \$0.5 million in 1973.

Benefits and consequences of nonapproval: Marketing studies justify adding capacity at this rate.

Zero-base budgeting

Alternatives:

- ◊ Delay necessary plant expansion for six months by going to full-capacity operation at existing facilities on Saturdays and Sundays.
- ◊ Slip expenditure and completion schedules.
- ◊ Compress construction schedule and incur 5% to 10% acceleration premium.
- ◊ Reduce capacity on the chemical storage tanks to minimum requirements (\$200,000 reduction in total project cost).

Once managers understand the formats they should

use, they can begin formulating packages for their areas of activity.

3. Labor, material, and overhead expenses directly associated with manufacturing

Although the zero-base concept will probably not apply here, the manufacturing area may use decision packages to identify alternatives and discretionary activities, allowing management to rank these packages with packages identified for other areas.

Reprinted from Lyden and Miller, Planning, Programming, Budgeting: a systems approach to management, Chicago Markham Publ. Co. 1967.

7.

*Comprehensive Versus Incremental Budgeting
in the Department of Agriculture**

AARON WILDAVSKY and
ARTHUR HAMMANN

In the Spring of 1962, the Department of Agriculture shunted aside traditional methods of budgeting and attempted a comprehensive and simultaneous evaluation of all departmental programs. The purpose of this paper is to describe this experiment and to evaluate its results, especially as they bear upon the controversy surrounding incremental versus comprehensive approaches to decision-making. After a brief description of the rival positions in this controversy, the procedures used by officials in the Department of Agriculture in comprehensive budgeting are described. Then we attempt to determine the extent to which the intended objectives of comprehensive budgeting were achieved, and to describe a number of unanticipated consequences of using this approach. We conclude with a series of recommendations.¹

THE CONTROVERSY

Whatever else they may be, budgets are manifestly political documents. They engage the intense concern of administrators, politicians, leaders of interest groups and citizens interested in the "who gets what and how much" of governmental allocations. Participants in budgeting use its political components as aids to calculation. They drastically sim-

*Reprinted from Aaron Wildavsky and Arthur Hammann, "Comprehensive Versus Incremental Budgeting in the Department of Agriculture," *Administrative Science Quarterly*, 10:3 (December 1965), 321-346, by permission of the author and publisher. Aaron Wildavsky is chairman of the department of political science at the University of California, Berkeley. Arthur Hammann is a teaching fellow in psychology at the University of Michigan. The name of the junior author was misspelled as Hammond in the original article.

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plify their task by concentrating on the relatively small portion of the budget that is politically feasible to change. The previous year's budget, the largest part of which is composed of continuing programs and prior commitments, is usually taken as a base needing little justification beyond that offered in the past. Attention is normally focused on a small number of incremental changes, increases and decreases, calling for significant departures from the established historical base of the agency concerned. Parts of the total budget are given to various administrative agencies, appropriations subcommittees, budget bureau divisions, and other interested parties for special attention. This fragmentation is increased because all budgetary items are not evaluated together, but are dealt with in sequence by the various participants, so that only a small number of items need be considered by any participant at any one time. Heavy reliance is placed on receiving feedback from interested parties, if a decision turns out to have adverse consequences for others. The existing budgetary process, therefore, may be described as incremental, fragmented, and sequential.²

A large part of the literature on budgeting in the United States has been devoted to a critique of the present process.³ Aids to calculation like the incremental method have been attacked as arbitrary and inefficient. The fragmented and sequential budgetary operations have been severely criticized for leading to a lack of coordination and a neglect of important values.

Failure to consider the budget as a whole, each item competing for funds with the others, has been characterized as irrational. Although many statements could be cited to show how long and how consistently these views have been held, only a few illustrations are presented here. Writing in 1924, E. Hilton Young asserted:

It must be a temptation to ~~one~~ drawing up an estimate to save himself trouble by taking last year's estimate for granted, adding something to any item for which an increased expenditure is foreseen. Nothing could be easier, or more wasteful and extravagant. It is in that way obsolete expenditure is enabled to make its appearance year after year long after reason for it has ceased to be.⁴

This often-repeated theme was echoed in 1941 by Benton Biser: "Appropriations generally are built upon the basis of the preceding year's expenditure, plus or minus any known items of increase or decrease, without considering whether or not the past year's experience is the result of efficient and economical administration."⁵ Arthur Smithies was more positive: "In general final expenditures decisions should not be

made until *all* claims on the budget can be considered"⁶ (italics supplied).

These norms are still held by participants in budgeting. Maurice Stans, who was budget director under President Eisenhower, stated: "*Every item* in a budget ought to be on trial for its life *each year* and matched against *all* the other claimants to our resources"⁷ (italics supplied). The critics would prefer a budgetary process in which coordination would be made the explicit concern of a central hierarchy, which would consider a wide range of alternative expenditures and investigate rather fully the consequences of each and the probability of their occurring. No item would be automatically included, and each would be considered anew every year in the light of its relative priority compared to other items. Instead of proceeding from a historical base, there would be no base at all; therefore, this comprehensive budget is called a "zero-base" budget.

While it is evidently possible to talk about comprehensive, zero-base budgeting, the question arises as to whether it is possible to put it into practice.⁸ This question cannot be shunted aside as unimportant, when one considers the constraints imposed by limited time and comprehension, by the lack of theory to predict consequences or means to calculate them fully, by the widespread political consensus on many programs and the statutory necessity of proceeding with others, and by inability to resolve the perennial question of the comparability of different preferences held with varying degrees of intensity. A direct test of the comprehensive approach has not previously been possible because (to the best of our knowledge) no major attempt has been made to try a zero-base budget. The effort of the Department of Agriculture to work with a zero-base budget in 1962 provides, therefore, a unique and valuable opportunity to undertake a direct test of this approach. The analysis of a "deviant case" (when compared with the usual mode of budgeting) has special advantages in highlighting features of the budgetary process that might otherwise escape notice. Despite the disadvantage of working with one case, one can obtain insights from a close view of problems of budgetary calculation.⁹

The study is based on an extended series of interviews, during the summer of 1963, with budget officers, directors or assistant directors, and staff people in nearly every agency in the Department of Agriculture, as well as department level officials. We attempted to interview every person at a high level who was intimately involved in the zero-base budget experiment, and succeeded in interviewing at least one per-

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son in all but two small agencies. Our fifty-seven interviews constitute an overwhelmingly large sample of the important men available for discussion. All of the men interviewed were given an opportunity to comment upon a draft of this paper and to amplify their remarks to the senior author. Twelve re-interviews were undertaken in order to check on disputed points. Questions in the paper represent a transcription of notes taken during interviews or, when indicated, comments in letters written in response to the first draft.

PROCEDURES

The origin of the experiment in zero-base budgeting may be traced to three circumstances: (1) The general climate of opinion favored comprehensive budgeting. (2) A letter from Director of the Budget, David Bell, to the Secretary of Agriculture, Orville Freeman, suggested that a more comprehensive approach to budgeting was in order. Dated August 16, 1961, the crucial sentence reads: "I think we should in a real sense reconsider the basic funding for each program—'justify from zero' in the budgetary phase." (3) Freeman had a strong interest in budgetary problems, which he had developed as governor of Minnesota.¹⁰ Comments like "The Secretary pushed this" or "The Secretary's interest was the motivating force" clearly indicate where department officials found the immediate impulse behind the proposal.

When the decision was made to do a zero-base budget, staff members in the department's Office of Budget and Finance made a quick survey of the literature and discovered that although much had been written criticizing the traditional methods of budgeting and advocating a comprehensive approach, there was little written about zero-base budgeting. After the staff members had consulted with leading department officials in order to get a clearer idea of the objectives, they began preparations.

In April, 1962, the Department Office of Budget and Finance sent out "Instructions for 1964 Agency Estimates," which called for radical changes.

A new concept has been adopted for the 1964 agency estimates; namely, that of zero-base budgeting. This means that all programs will be reviewed from the ground up and not merely in terms of changes proposed for the budget year. . . . The total work program of each agency must be subjected to an intensive review and evaluation. . . . Consideration must be given to the basic need for the work contemplated, the level at which the work should be carried out, the benefits to be received, and the costs to be incurred. . . .

The fact that certain activities have been carried out for a number of years will not, per se, adequately justify their continuation. Nor will the fact that programs are prescribed by statutory law necessarily be a controlling consideration. Program goals based on statutes enacted to meet problems or needs that are today of lesser priority must be re-evaluated in terms of present conditions.

It is implicit in the zero-based budget approach that the need for programs and their recommended magnitude in the fiscal year 1964 be clearly and specifically demonstrated. . . . The justifications should be prepared on the assumption that all [italics supplied] information needed for making budget decisions should be included.¹¹

The instructions for preparing a zero-base budget required the agencies to make three major types of calculations: (1) justification of the need for agency activities and programs without reference to congressional mandate or past practice; (2) justification of the requested level of expenditure (fund obligations) based on the needs; (3) justification of the costs of the needed programs from the ground up. How did agency officials react to the demands placed upon them by the zero-base budget? How did they go about putting together the huge amount of information they were required to submit?

APPLICATION OF ZERO-BASE CONCEPT

All the agencies had serious difficulty in conceptualizing circumstances in which there were no legislative mandates, no past commitments, no consideration of items to be included because other participants in the budgetary process would demand it, no programs for which support could not conceivably be expected; in a word, no history or learning based on that history. The words of one official, "Justifying the whole program is silly; it just equals rehashing the original legislation" were echoed by many others. So the agencies either assumed or quickly decided that their programs were needed. Many programs were justified at least in part by references to the language of their enabling legislation, despite the statement in the instructions that this would not be an overriding consideration. Besides pointing to statutory requirements, the agencies gave priority to showing how their program met objectives of the Kennedy-Freeman program: increasing recreation facilities, aiding low-income groups, and generally advancing rural development. This is, of course, what the agencies would usually have done in justifying their budgets, except that more detail and greater documentation were provided. Furthermore, time was precious and in short supply. "We didn't

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have time to analyze much" was a typical comment, reflecting the tendency of efforts to be channeled into the large and pressing task of compiling supporting data.

One budget officer estimated that a "real examination" of the need for the programs carried out by his agency "would take at least a year." As a result, he explained, the continuation of major programs was not re-examined.

Agency people were far more concerned with the level of their programs than with whether there was a need for them at all. One stated, "We told our program people, 'These are the areas Congress has authorized us to participate in. Which need to be implemented in your state, and at what level?'" and even here, "Mostly this was a justification of what we had." Program officials reported, apparently without realizing the implications for the theory behind the zero-base budget, that in preparing estimates, "We had to start from the previous year, then determine what increases we wanted for 1964." "Each staff officer reviewed his office. We all decided we needed what we had. Then we decided whether to ask for increases." The calculations involved in determining the precise figures were described by an agency head in terms generally applicable throughout the department: "In the matter of preparing budget estimates, the dollar emphases (priorities) are intended to represent a program which represents what the Secretary and Congress want to give emphasis to at that time. The dollar figures represent a compromise among the guidelines given by the need for the service (what the public has asked for), the wishes of the President and Secretary, and the indications given by Congress at 'Hill' hearings ('hold the line on this program next year!')." Other officials mentioned certain limiting factors—the availability of trained personnel or physical resources, which set upper limits to what they could do. It is apparent that agency people reduced their burden of calculation by actively seeking guidelines or constraints—what Congress would approve, what the statutes required, what could be done with available personnel and resources. The major calculating device was to take the budget of the past year or two and then consider increases or decreases.

Since the zero-base budget was designed to avoid this incremental procedure, we challenged the respondents to explain and defend their approach. Not all were aware at first that they were following an incremental procedure. At times the respondents became agitated: "You've got to start from where you are!" Two main grounds were advanced in support of this proposition. First, they knew most about their

present status and could make some reasonable estimate of the effect of more or less money for particular programs. But they did not know what drastic changes, such as eliminating their programs, or cutting them in half, or doubling them, would mean: "Increases or decreases are about all we can swallow." Such comments were reinforced by observing that at department budget hearings, agency representatives were typically confronted with the same kinds of increase-decrease statements as in previous years: "How many people do you have now? What did you spend for that last year? What do you propose to do with the extra funds?"

The second argument was that the whole procedure was unreal. Why such a great effort for a procedure which nobody with experience could believe would lead to any significant results? Everybody knew that certain programs were mandatory, others could not be modified, still others had to be supported at approximately their current level, unless the President and the Secretary were prepared to make many more enemies than appeared to be the case: "We knock our heads against the wall and then we know it will all turn out the same." All this "waste of time and effort" when they might have been working on programs they could really do something about.

Considerations such as these were not entirely absent in the instructions for the zero-base budget, where one statement was: "One of the department's objectives will be to reduce over-all net expenditures for the Department of Agriculture in 1964 and subsequent years below presently estimated levels for 1962 and 1963." If the agencies were expected to make a fundamental analysis of the needs for their programs, regardless of budget changes, such an admonition would seem superfluous.¹²

"My first reaction was to jump out the window," an agency budget officer revealed. As the agencies began work to justify the cost elements in their estimates, however, the initial difficulties were forgotten in the attempt to meet the requirements set down for the zero-base budget. Those agencies whose activities or experience lent themselves easily to work-load analysis reacted differently from those whose activities made this procedure impossible or inappropriate for them. An agency with a well developed and widely accepted mode of work-load measures could meet the requirement that expenditures be justified from "the ground up" by attaching an explanation to tables of work-load statistics, supporting the expenditures. As one budget officer put it, "Work-load data is great for us. We're pioneers in this area. We'd been developing this data for years." A high-ranking official was explicit in stating that in his agency,

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"the zero-base approach made no difference, because to meet rapidly changing conditions, we're always preparing our budget zero-base style. Economic assumptions lead to size of expected program (required by statute), which leads to cost on basis of previous staffing and material needs. We don't know what the estimate will be until it pops out of the calculating machine."

For the agencies which did not or could not use work-load data, calculating the expected level of expenditures (budgetary obligations) in zero-base style was much more difficult, and the responsible officials tended to react much more negatively. "I don't know of any budget officer who liked zero-base budgeting," was a typical comment. "Work-load data is inappropriate for us," they explained. "It's not like building a bridge or something—you don't have 'units,' you have subject matter, and it is very difficult to know how many technical people are needed." Unable to talk in terms of so many applications processed, operations performed, or similar measures, the agencies with no work-load statistics had to find a substitute. In some cases an explanation of the problem was made, and the proposed levels of expenditure were justified by projecting the rate of growth of the previous few years into the future. A few agencies tried to develop new ways of dividing activities, although they did not think this realistic and expected no benefits from what they called "arbitrary categories." Developing supporting data meant breaking down costs differently and engaging in many hurried calculations without the feeling that something positive would result. As a result, these agencies were overburdened with work in which they had little confidence, although they did manage to submit estimates which were as much as ten or more times longer than previous ones. Six weeks after the instructions for the zero-base budget has been sent out, twenty-five sets of binders representing agency estimates, most taking up three feet of shelf space, appeared in the Office of Budget and Finance. "It nearly created a surplus storage problem," one official remarked in a pointed bit of humor.

COMPREHENSIVENESS OF ZERO-BASE APPROACH

"Theoretically," a department official said, "a zero-base budget is a way of evaluating needs and priorities more systematically and comprehensively than usual." How did the officials at the department level¹³ analyze the voluminous material presented. Did they try to evaluate the relative merits of every item or program compared to every other? What procedures were actually used in making agency allowances?

The main problem was lack of time. "We knew we were getting into something horrendous," a respondent declared, "and it was obvious in advance that it would be impossible for all of us to analyze the material at all stages. The range of decision—the number of decisions to be made—increased almost infinitely. Although individual steps of the process at the department level were the same as always, this made such a quantitative difference as to amount to a qualitative one." Another official observed: "The stuff the agencies submitted was very complete, obviously too bulky for the Secretary himself to wade through." More direct confirmation came from an authoritative source, who said that the Secretary "didn't read a great deal of material; he only has time for summary material." But he did spend more time than before on the budget. Of the eight members of the Budget Committee of the Department—the undersecretary (chairman), six assistant secretaries, and the Director of Budget and Finance—it is doubtful that more than one or two actually had time to read all the material submitted. That the zero-base budget came up during the Billie Sol Estes episode and at a time when the appropriations bill was seriously behind schedule in Congress may have added to the time problem. The consensus, expressed by a high department official was: "There was too much material in the zero-base budget for us to digest and use. I haven't read it all." What, then, did they do with the material they could read and digest?

The crucial question centers around the degree to which comparisons were made as to the relative desirability of programs spanning several different agencies. Nothing approaching a comparison of every program with every other (or of most programs with each other) was made. On the contrary, the majority of comparisons made by department officials concerned programs and activities within individual agencies. An official explained: "Questions at department hearings were in the same categories as usual—Why this program? Why this level? What would alternatives cost?—but in more detail. In analysis, we didn't consider why sixty-five rather than sixty-four or sixty-six man-years for project X, but why three times as much for project X as project Y." Only in a few cases involving closely related programs in different agencies, where this had been the practice, were comparisons made across agency lines. In fact, most of the analysis, as in previous years, dealt with the justification of an individual program at a particular level of expenditure. "Unavoidably," a department official revealed, "we ended up talking about how much more, about increases. Budget people seem to talk about a budget request of \$5 million when actually that's just the increase."

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When we faced him with these findings a department official declared that:

The ideal of a zero-base budget is actually impossible. It would require investigating why each research lab is where it is (which is tough to trace), giving an objective measure of how much can be justified for research in a given area, etc. If you have the type of program where you can identify units of work, budgeting on zero-base is relatively simple. But in a case like the Department of Agriculture, that often doesn't work. Our activities are so varied as to make quantitative comparisons between programs impossible. I don't agree that just because we put emphasis on increases, no one pays attention to the rest of it. We are always evaluating some programs in a basic sense and always trying to make improvements in management. If we do [place emphasis on increases] it's because that's the way appropriations committees like to operate.

This official and others appear to be saying (1) that they do not know how to make the calculations required for a zero-base budget; and (2) that a comprehensive approach is not necessary, because they do, from time to time, investigate various programs intensively, within the limitations of their time and knowledge. It is clear that those who would like a zero-base budget will have to show how it can be done if they wish to see it put into practice.

THE STAFF

Those engaged in analyzing the budget at the department level did make a serious effort to avoid increase-decrease analysis. "Naturally," a staff man explained, "we were interested in the fact that a program would be a new investment; that fact might raise or lower [its] priority. But increases and decreases as such were for the Bureau of the Budget [and later for submission to Congress]; they weren't even included in the detailed justifications." This procedure raises a question of some interest. If, as we have seen, top officials manifested a preponderant interest in increases and decreases for the purpose of making recommendations on the budget, what purpose was served by providing them with different kinds of data and analysis?

When this question was posed to department people, they began to alter the rationale they had originally offered for the zero-base budget. Two major lines of thought developed. The first professed to see in the zero-base budget a combination of psychological reassurance and strategic utility: "There has been a great hue and cry about the size of the agriculture budget. The purpose of it [the zero-base budget] is to reas-

sure, if we can, the Secretary, the Director of the Budget, the members of the appropriations committees, that money is not being wasted and that it is being used to carry out only the most important projects in work that furthers the national interest." Although related to the first in its emphasis upon the psychological aspect, the second *post-hoc* rationale leans on the benefits to be derived from any radical change in habits of work and thought. "We were interested," the proponents of this view asserted, "in the zero-base budget as a therapeutic device for agency and budget people. It's easy to get into the habit of doing things the same way. Starting out with the idea that nothing is sacred is therapeutic in itself. Any device which will encourage people to give a deeper and broader consideration to operations will lead to better understanding of what is going on and of areas where improvements might be made." Note that the focus has shifted from external phenomena like comprehensive calculation from the ground up, from analyzing programs comparatively, to internal psychological states like breaking up people's habitual patterns of thinking and reassuring leaders. To what extent did "better understanding" lead to improvements? Consider the consequences of the zero-base budget for budgetary decisions within the department. What difference did it make in the kinds of decisions made?

INTENDED OBJECTIVES

The major purpose of the zero-base budget was to examine all programs at the same time and from the ground up to discover programs continuing through inertia or design that did not warrant being continued at all or at their present level of expenditure. Money released by the discovery of these "obsolete" programs could lead either to a decrease in the over-all size of the funds requested by the Department of Agriculture or to a more rapid expansion of the highest priority programs than was possible under the traditional incremental approach to budgeting. In brief, detailed information about all programs would for the first time be available in one place at one time for departmental review. As a result, relative priorities of total amounts for all programs could be considered, not merely amounts of increase and decrease for some programs.

We therefore asked each respondent to tell us whether any decision made by him or by others could in any way be attributed to the zero-base budget. Did the agency or department officials recommend different programs, different amounts for programs, or distribute funds among programs differently as a result of the zero-base approach? For the most part, the answer was negative.

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Most statements were variants of "I don't think it made a damn bit of difference," or, "I don't think anyone would honestly tell you that they changed their budget." Agency personnel continually reiterated their doubts that the department was adequately staffed to digest the vast amounts of material. Asked for evidence, the respondents usually replied that, "The figures we put in have never been referred to as far as I know" or, "It [the zero-base budget data] was sent across the street [where the department offices are located] and we never heard of it again." In a few cases the respondent hedged: "I don't know that I personally learned anything new or different, but . . . I suspect it did make some difference, but I'd hate to have to prove it." A couple of times an exceedingly small change was reported though not without qualification. Although there was "no difference in the over-all amounts requested or received from the department, analysis did lead to the transfer of \$20,000 among programs. This analysis was, however, planned before the zero-base budget. . . ." An excess expenditure for files in one agency was also mentioned. In one instance a department official asserted, "I am confident that decisions were made which would not have been made or even considered in the absence of a zero-base budget." He could, however, give only one specific change—a reduction of \$100,000 in an obsolete research program. The paucity of changes attributed to the zero-base budget is evident in the fact that this change was brought up repeatedly. (Many officials said they had heard of a change somewhere, but it always turned out to be this same change.) Another department official insisted that the zero-base budget procedure was not useful in "ferreting out all sorts of dark and sinister things that shouldn't be done, which would turn up quickly anyhow." Our general conclusion can be stated in the words of a person in a position to get a general view: "Some butterflies were caught, no elephants stopped."

There are a number of explanations for the paucity of changes. First, as an agency official put it, "Budgeting is continuous." Individual programs are constantly being evaluated. When authorizations run out, new studies are commonly undertaken and new justifications prepared. A change of party in the White House or the appearance of a new agency head often results in the re-evaluation of some programs. Interest in Congress or the Bureau of the Budget, demands by clientele groups, and changes in the economy or in technology may lead to intensive analysis of specific programs. These take place in addition to periodic reviews scheduled within the agency in order to adjust to changing circumstances. Second, some of the department's programs have always been

budgeted more or less in zero-base fashion because their operations lend themselves to quantification. These include the price support programs of the Commodity Credit Corporation, which make up the largest single item in the budget. For such programs, justifying a \$600,000 program and justifying a \$100,000 increase in a \$500,000 program amount to much the same thing: Therefore the requests coming from the agencies—certainly a major determinant of what departmental officials will approve—were quite similar to those of previous years. Third, it is the responsibility of administrators to see that resources are expended for the programs they believe have the highest priorities. The head of one of the larger agencies indicated that when he goes to Congress with a request for an increase in his agency's budget, he must always be ready to admit that the increase will finance work of lower priority than is already being done; otherwise he will be criticized because he has not already transferred funds to the higher priority activities. Nearly all agencies have many more programs than they can undertake or expand with the funds they have or are likely to get; they are not likely therefore, to allow an obsolete program to continue to drain resources from programs they deem more worth while.¹⁴ Even those interested in expanding their organizations can seek expansion of those programs they believe most worth while.

The main reason that budgetary outcomes were not very different, however, is that the process by which budgets are calculated and justified is only one—and by no means the most important—determinant of program size, distribution, and content. Budget officials, particularly at the departmental level, continually qualified their remarks by saying that, after all, "The zero-base budget didn't affect the basic economic and political facts of life." There are mandatory programs like price supports for which expenditures must be made and which cannot be easily altered. The level of programs may depend a great deal on the state of the national economy (for service programs), on the existing state of knowledge and the availability of trained personnel (for research programs), and not on how programs are analyzed or written up. As many officials pointedly remarked, "Decisions are made on criteria other than the justification of the program itself. Frequently the figures are based on judgment factors of what the environment will permit taken in total." Whether political support exists for a program depends on party alignments in Congress and the executive branch, the preferences of the President, Director of the Budget, members of appropriations committees and other officials, and the activities of clientele groups. Budget

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people are well aware, for example, that the best possible justification may have little influence against a powerful budget-cutting drive. These factors find no place in the zero-base approach; therefore in a budgetary system in which there is necessarily much emphasis on "what will go,"¹⁵ a zero-base approach will not necessarily make much difference.

Although there was widespread agreement that the zero-base budget did not significantly affect outcomes, nearly half of those interviewed commented quite favorably on the experience after it was over. Was this merely a show of bureaucratic loyalty or were there other reasons for the favorable attitude? This unexpected finding led us to ask further questions, which produced perhaps the most interesting findings in the study.

UNANTICIPATED CONSEQUENCES

Activities may have outcomes which are unanticipated, even unperceived, by the participants in the activity.¹⁶ The preparation of a zero-base budget resulted in a number of unanticipated consequences, which were probably more important (and certainly more interesting) than its expected results.

One of the difficulties faced by reflective people engaged in budgeting is that they hold implicit beliefs about desirable methods of calculations—comprehensive and simultaneous evaluation of means and ends being considered synonymous with rationality—while they practice quite different—incremental and sequential—methods. For the large minority who expressed positive feelings about zero-base budgeting, the experience appears to have satisfied a longing to believe that they were proceeding according to the canons of rational methods of calculation. When asked why they liked zero-base budgeting, they would answer by describing the method and pronouncing it good: "Considering everything from the ground up at the same time is, well, good, the right way to do it, and not just letting things grow like Topsy." "The major benefit may well have been the much more intensive, thoroughgoing review, from the bottom up." But if the zero-base budget did not lead to changes, did they perhaps learn more?

Here there was a sharp split in the responses of the large minority that approved of the zero-base budget. Some respondents claimed that they learned nothing new; they had known about all their operations before. How, then, was the zero-base budget helpful? Agency personnel answered that the department people must have benefited; department-level personnel answered that agency personnel had benefited. "The zero-base budget," said an agency man, was "enlightening to department

officials who reviewed it. To us it was just an exercise." "We knew what was going on," department officials would say. "It was helpful in the agencies. I can't prove this, but I have no doubt that things turned up in the agencies that were never passed on." A variant of this argument was taken by an agency head: "I don't know that I personally learned anything new or different. But some of my staff who prepared material for me had clearer presentations than in other years." For these officials, the zero-base budget was good because it benefited other people.

The rest of the administrators who were favorably disposed toward zero-base budgeting did feel that they learned something new. Without exception these people had been in their positions less than three years and had not yet discovered how useful participation in budgeting and perusal of budgetary material could be in adding to their store of information. "I think everyone came out of this process with a great deal more information than they'd ever had before," a new appointee declared. "I went through all of the material, spent more time on budgeting than before [the previous two years], learned more about the scope of operations." Like others in his position, he knew what programs were being undertaken, but in some cases he had not realized the full extent of the operations until he read the budgetary data.

If this was the case, why did these officials not make use of this knowledge they had gained to alter their preferences or otherwise make somewhat different decisions? An important clue was furnished by one of these "learners" who remarked: "Some of these things I wouldn't have needed to know." Indeed, further questioning revealed that much of what was learned was simply not appropriate to the kinds of choices available to these men or, at least, was not perceived by them as being relevant in the context in which they operated.

Those who disliked the zero-base budget complained that they had done a lot of extra work, yet nothing had been changed as a result of their endeavors. Far from being unhappy at the absence of significant changes in their budgets, however, those who liked the zero-base budget seemed to find positive advantage in this circumstance. One official explained, the zero-base budget was good because "it tended to confirm what you had a notion of otherwise." It felt good "to satisfy yourself that you're doing a conscientious job," said another official "instead of following the inevitable least resistance, less deep analysis, of the increases and decreases approach." The happy coincidence of making up a proper budget was a morale booster. Before they had come to the department they had heard complaints that many of its programs were

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wasteful and unnecessary. Now that it had been demonstrated in detail just what the Department of Agriculture was doing and why, they were more certain of the necessity of the programs for which they were responsible.¹⁷ The strength of this feeling may go a long way toward explaining their favorable reaction to the zero-base budget and all its extra work—even—indeed, *especially* when few changes were made as a result of it.

The zero-base budget experiment had focused attention on the budgetary process. For the first time in many years, a Secretary of Agriculture had attended department budget hearings and had made it known that he considered budgeting of primary importance. As a result, many officials informed us that, "There was a higher interest in budgeting than ever before." Much more time was spent on budgeting: "I worked ninety hours a week and still didn't have nearly enough time." "A tremendous number of man-hours were involved. I spent at least twice as much time on budgeting this year, lots of Saturdays and evenings." Budget people discovered that their function was rated more highly as program people became more involved in budgeting and were "forced . . . to sit down and justify their programs." And, as program personnel worked on budget justifications, they liked the feeling of being more involved in their activities regardless of whether they wanted to change them. They might well have learned as much (or more) in other years if they had spent as much time and energy on budgeting. The zero-base approach had value here not so much because it was necessarily a better way of planning a budget, but because it was a *different* one which prompted them to focus their attention on budgeting.

A large part of the felt benefits of engaging in zero-base budgeting may stem, therefore, from the well-known Hawthorne effect¹⁸ in which the content of the experiment is less important than the fact that the sense of importance of those engaged in the experiment is enhanced. Greater interest and attention is devoted to the activity in question and the people who engage in it. Consequently, they feel that others are more interested in them and that, perhaps, their problems are in some sense better understood, regardless of whether this understanding is objectively real or leads to specific consequences for the pattern of decisions. Thus agency people felt good at being able to educate their departmental superiors. Top departmental officials believed that the zero-base approach helped agency people see their work in perspective. Through being compelled to justify the existence of their agency's programs, they would see how it fit into the total operations carried out by the Department of Agriculture. This line of reasoning may help explain why many

officials were certain that the zero-base approach had helped people at other levels in the hierarchy, even if they were unable to suggest any way in which it had helped them.

POLITICAL USE OF BUDGET

Our analysis would not be complete without noting that the zero-base method of budgeting—whose advocates present it as a means of focusing on costs and benefits rather than on political maneuvering—was used for strategic purposes, thereby enhancing its appeal to some officials. They felt that the zero-base procedure was useful in dealing with the Bureau of the Budget and the appropriations committees. “We’ve examined these requests from the ground up,” they would say in justifying their requests as “solid” and not subject to cuts. By stating that the desirability of changes had emerged from the zero-base analysis, several officials had the opportunity to call attention to changes they had wanted in previous years. In this way one agency was able to get approval for building funds denied the previous year. In general, the zero-base experiment helped those who had previously decided they wanted to review a program by providing them with an excellent reason for not delaying the review. Resistance to providing essential information was overcome to some extent because top agency officials “were armed with weapons which forced . . . the disgorging of the information they needed to get. . . . This is often like pulling teeth.” And having proposed the change they had in mind, the responsible officials could use the belief that the zero-base approach was more rational to make their colleagues more amenable to the change.

ATTITUDE TOWARD ANNUAL ZERO-BASE BUDGET

No one suggested that the zero-base approach be followed every year. Among those who felt that the experiment should be repeated, the most common suggestions were: “not every year periodically,” “at intervals, every few years,” or “every five years or so.” Since new officials would stand to benefit the most, such officials reasoned, a zero-base budget would be useful only with changes in administration. Another view was that budgets changed little from year to year, so that an annual zero-base budget would result in “duplicating the same pages.” The authors were cautioned to “remember that the budgetary process is not the only decision-making process for setting policy. Parts of operations are considered through other channels all the time.” The general conclusion was that the zero-base method might be useful every five years “for a ref-

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erence document," or "to find out where you are now," or so "we'll have a more recent base." It is apparent that even those who found some use for the zero-base approach began to assimilate it to the more familiar incremental method. They would use it from time to time to "take inventory," as one put it, and then take their bearings for the immediate future from that date.

RECOMMENDATIONS

No one, least of all the authors, would claim that an innovation like zero-base budgeting, which was confined to a single department for a single year, can be conclusively evaluated on the basis of this experience alone. Since this was the only experiment of its kind, however, it seems desirable to attempt at least a tentative appraisal. The first conclusion would be that comprehensive budgeting vastly overestimates man's limited ability to calculate and grossly underestimates the importance of political and technological constraints. The required calculations could not be made and would not have led to substantial changes. As a result, a great deal of effort went into zero-base budgeting with few specific changes attributable to this costly method.¹⁹

Had much more time been available, it might have been possible for the department to develop work-load measures for more programs. With more time and experience, the initial confusion might also have been overcome; but the basic problem of the zero-base budget still would not have been solved. In order to compare activities on a department-wide basis under a zero-base budget, the top officials would have had to develop categories cutting across agency programs, together with methods of relating their costs and benefits. Present methods of calculation are not equal to this task.

Failure to consider the contributions of the existing budgetary process toward calculation distorts the magnitude of the problem. New programs and substantial increases and decreases in old programs do receive close attention. The political system opens up subjects to special scrutiny as interest groups, politicians, or bureaucrats, demand an investigation. What escapes scrutiny is not the whole but only certain parts, which carry on much as before. The fact that certain activities do not receive intensive scrutiny is hardly reason for repeating everything every year. Indeed, we would argue that attempts to do everything are not only self-defeating, they are inefficient in diverting resources from tasks which can be managed and give promise of some results.

We advocate following an incremental approach, making use of the

division of labor in government. Attention may be focused on those activities which do not change much from year to year, since these are the ones that may escape periodic review. Since they do not alter radically, a thorough review every four or five years ought to be sufficient. Nor need any one organization do it all. Department budget offices, the bureaus themselves, the Bureau of the Budget, and the House and Senate appropriations subcommittees and their investigating staffs, might use sampling techniques so that they review a few programs of this kind every year.²⁰ The results could then be used to see if more activity was warranted the next year. In this way a large part of the problem may be met while adding a little to the burden of calculation for any one participant.

Narrowing, fragmenting, and dispersing these budgetary reviews has considerable advantages from the viewpoint of encouraging experimentation and innovation. Because no participant is overburdened, the most thorough analysis is facilitated. More active participation by high-level officials is encouraged because the material to be considered at a given time is not overwhelming. As the knowledge and interest of top officials is fed back down the line, the significance of the activity and the importance of those who engage in it is likely to be enhanced. If these reviews can be freed from the peak periods of the formal budgetary cycle, the absence of immediate deadlines may encourage speculation and experimentation, while the increased probability of hierarchical superiors having time to listen would give promise that the efforts might lead to tangible results. The variety of organizations involved should also lead to consideration of a broad range of values and perspectives.

Although it may be useful at times to compel alterations in customary modes of analysis, there are possibilities other than comprehensive budgeting. One could move in the opposite direction and try a more radical version of incremental budgeting.²¹ Instead of doing even a minimum amount of budgeting for programs that change little from year to year, these programs might be neglected for several years and efforts of the agency might be devoted to only a few major programs at a time. By shifting the emphasis every few years, it would be possible to direct the agency's efforts toward those programs that are undergoing the greatest amount of change and in which it is feasible to effect changes. Attention would thus be directed at those parts of the agency's budget which promise the greatest results from intensive analysis.

NOTES

¹We would like to thank the many officials in the Department of Agri-

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culture whose generosity, time, and knowledge made this study possible. Thanks are also due to Rufus Browning, Jesse Burkhead, Tom Blaisdell, Richard Fennø, Irving Fox, Frederick Mosher, Nelson Polsby, Allen Schick, and Larry Wade for criticizing various drafts of the manuscript, but we alone are responsible for the work presented here. The work was done while the senior author was a research fellow at Resources for the Future in Washington, D.C. The term "agency" refers to bureaus and other sub-units in the Department of Agriculture.

²See Wildavsky, "Calculations" in *The Politics of the Budgetary Process* (Boston: Little, Brown, 1964), ch. ii, pp. 6-62.

³See, for example, W. F. Willoughby, *The Problem of a National Budget* (New York: D. Appleton, 1918); A. E. Buck, *Public Budgeting* (New York: Harper, 1925); Commission on the Organization of the Executive Branch of the Government, *Budgeting and Accounting* (Washington, D.C.: U.S. Gov't. Printing Office, 1949); Jesse Burkhead, *Government Budgeting* (New York: Wiley, 1956); Arthur Smithies, *The Budgetary Process in the United States* (New York: McGraw-Hill, 1955); and Edward A. Kolodziej, "Congressional Responsibility for the Common Defense: The Money Problem," *The Western Political Quarterly*, 16 (March 1963), p. 149-160.

⁴Quoted with evident approval by A. E. Buck in *The Budget in Governments of Today* (New York: Macmillan, 1934), p. 172.

⁵"Some Shortcomings of Present Budgetary Practice," *Toward Better Budgeting* (Detroit: Governmental Research Association, 1941), p. 6.

⁶*Op. Cit.*, p. 16.

⁷U. S. Senate, Committee on Government Operations, Subcommittee on National Policy Machinery, *Hearings Organizing for National Security: The Budget and the Policy Process*, 87th Congress, 1st. Session, 1961, p. 1107.

⁸David Braybrooke and Charles E. Lindblom, *A Strategy of Decision* (New York: The Free Press, 1963); also Lindblom's "Decision-Making in Taxation and Expenditure," in *Public Finances: Needs, Sources, Utilization* (Princeton: National Bureau of Economic Research, 1961), pp. 295-336.

⁹See Patricia L. Kendall and Katherine M. Wolf, "The Two Purposes of Deviant Case Analyses," in P. F. Lazarsfeld and Morris Rosenberg, *The Language of Social Research* (Glencoe, Ill.: The Free Press, 1955), pp. 167-170. For excellent examples of the insight to be derived from an unusual case, see Herbert A. Simon, "Birth of an Organization: The Economic Cooperation Administration," *Public Administration Review*, 13 (1953), 227-236, and S. M. Lipset, M. A. Trow, and J. S. Coleman, *Union Democracy* (Glencoe, Ill.: The Free Press, 1956).

¹⁰Thomas Flinn, *Governor Freeman and the Minnesota Budget*, Inter-University Case Program. No. 60 (University of Alabama, 1961).

¹¹It should be clearly understood that this approach was being tried only at the Department of Agriculture and not in the Budget Bureau or Congress. As the "Instructions" pointed out, "Since it is anticipated that the Department Estimates for 1964 will be submitted to the Budget Bureau in accordance with existing . . . instructions, the justifications . . . will be primarily in terms of changes from 1963." Thus a list of "Increases and Decreases, 1964, Compared with Latest Estimate, 1963," was also requested of each agency.

¹²An official at the department level writes that this "sentence . . . appears to . . . contain an erroneous conclusion. As the author of the sentence referred to, I can clearly recall that at the time we very explicitly rejected the proposition that zero-base budgeting as such necessarily . . . to take place without regard to over-all limitations on financial resources. I felt then, and still feel, that the 'ceiling' technique and zero-base budget development and justification are logically compatible. As the article points out, the zero-base budget approach that was used involved not only the question of whether or not work should be done but also the amount of work proposed and the price tags. Each of these aspects is logically a variable but can be adjusted within a program or between programs in the light of over-all available resources. The reason the sentence was included in the instructions (and in a sense it was superfluous) was merely to make it very explicit to the agencies that we were not making the assumption that the budget-decision making system would suddenly tolerate all 'justifiable' expenditures merely by virtue of a change in the technique of presenting the budget, and that the Secretary in fact had an over-all objective that he wished to attain with respect to the department as a whole. The sentence, of course, was not intended to mean, and did not mean, that the objective applied to each individual program and activity separately."

¹³The secretary and his staff, the six assistant secretaries and their staff assistants, and the Director of Budget and Finance and his staff.

¹⁴See the statement to this effect by the late William A. Jump, a noted budget officer in the Department of Agriculture, quoted in Wildavsky, *op. cit.*, pp. 23-24.

¹⁵Wildavsky, "Deciding How Much to Ask For," in *op. cit.* pp. 21-31. Despite our stress on the political aspects of budgeting, more than one official wrote: "Greater emphasis perhaps could also have been placed on the importance of the political imperative on the budgetary process."

COMPREHENSIVE VERSUS INCREMENTAL BUDGETING 161

At the point that budgeting begins, i.e., gathering of base information, there is often only meager guidance on economic and other assumptions on which to base estimates which are compatible with sound practices. This guidance consists of admonitions to be economy-minded—guidance which may become meaningless if interest in program emphasis suddenly increases.”

¹⁶See Robert K. Merton, “Manifest and Latent Functions,” in *Social Theory and Social Structure* (Glencoe, Ill.: The Free Press, 1957), pp. 19-84. We have avoided use of Merton’s “manifest and latent function” because functional analysis has some inappropriate implications for this paper.

¹⁷The reassurance function of the zero-base budget is clear from two quotations. A newcomer said:

“Coming into a big department like this you need landmarks on which to justify your own opinions of the budget. This is difficult when the budget this year is based on last year which is based on the year before. You sometimes had the feeling that they were building it like a sort of poor skyscraper, piling on more and more steel, without knowing where the building was headed. [After the zero-base budget] you had the feeling that you understood the programs better . . . and had more confidence in the value of the services being performed.”

An old-timer in the department confirmed this view and gave it a special twist in terms of the functions performed for the agencies:

“When new administrators come in, they see things they didn’t know the Department of Agriculture was doing. They figure this is just the top of the iceberg and get worried. If you take the whole iceberg out of the water and drop it on their desks, and they’re too overwhelmed to look at it, they don’t have an excuse to nag you anymore. This is the major benefit from the agency point of view: to the extent that their superiors looked at the stuff they were reassured; to the extent they didn’t, they no longer have an excuse to nag them [the agencies].”

¹⁸Elton Mayo, *The Social Problems of an Industrial Civilization* (Cambridge: Graduate School of Business Administration, Harvard University, 1945); Fritz Roethlisberger, *Management and Morale* (Cambridge: Harvard, 1941).

¹⁹If one makes the conservative estimate that at least 1,000 administrators above the level of clerk-typist and messenger were involved in bringing together parts of the zero-base budget throughout the Department of Agriculture and its many field offices, and that they spent an average of thirty hours a week for six weeks preparing the data, above

and beyond their usual budgetary work, then at least 180,000 man-hours may be charged directly to this activity. With the generous estimate that \$200,000 worth of changes (without going into their desirability) can be attributed to the zero-base budget, it appears that the government achieved a return of something more than one dollar per hour (leaving out the cost of facilities, paper, clerical help, and depreciation of human talent). Nor do we know what these officials missed in terms of opportunities foregone during the time they worked on the zero-base budget. The point is not that the reader should place too much credence in these estimates (respondents differ as to whether we are too high or too low) but rather that according to any reasonable estimate the return to the government would be very small. Had anything like the same amount of effort been devoted to studies of filing, the flow of paper, or similar operations, much greater returns might have been achieved. Since half of these men were not usually involved in budgeting, however, there might well have been important intangible benefits that we have not taken into account.

One respondent went further and wrote: "The author might find it advisable or worthwhile to really set about analyzing the present cost of budget preparation and justification throughout its entire process. While this is an important activity, there is little written evidence as [to] the resources going into the preparation and justification of agency budgets within the Department, the Bureau of the Budget, and the Congress of the United States. A careful analysis might reveal that possible shorter steps or involvement by fewer people would be in order."

²⁰"It has been my experience during 27 years of government employment," an official writes, "that what you propose is frequently and regularly taking place in Department budget offices and in the bureaus . . . whether or not [it is] recognized and with little publicity."

²¹See Wildavsky, "Toward a Radical Incrementalism: A Proposal to Aid Congress in Reform of the Budgetary Process" (Mimeo, 1965).

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Zero-Base Budgeting in New Mexico

by John D. LaFaver*

THE LEGISLATIVE FINANCE COMMITTEE (LFC), a permanent, joint, interim committee of the New Mexico Legislature, is mandated by statute to annually submit an independent state budget recommendation to the Legislature. (The committee's first legislative budget was presented in 1970.) In fulfilling this mandate, the committee begins public hearings in late September which continue to early December. Approximately 200 hours of hearings are held during this period. The resulting budget, embodying recommendations for funding all state agencies and public schools, is then submitted to the Legislature in January.

EARLY BUDGET PROBLEMS

The committee and its staff, after the initial budget presentation in 1970, were dissatisfied with the appropriating-budgeting process in several respects.

1. There was little emphasis placed on activities or programs previously funded. Most effort was expended in analyzing requests for additional appropriations.
2. Little information was available concerning the public services to be provided with given appropriations.
3. In most instances, legislative committees exerted little effort in clarifying their intent of how money should be spent and what performance results would be anticipated.
4. The system failed to elicit funding alternatives and priorities from agencies. For a variety of reasons, agencies seldom receive an

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appropriation in the amount requested. If meaningful alternatives are not presented to the Legislature, that body is handicapped in making rational appropriations.

5. When appropriations were less than requests, and when the Legislature failed to express its intent as to what programs or projects were included within appropriations, agencies often made the same requests year after year—even though legislative staff, at least, thought the requests had been funded. Agencies also sought and received federal funding for projects funded from the state general fund.

THE EARLY ZERO-BASE BUDGETING

In an attempt to address some of these concerns, the LFC requested 10 executive agencies to justify their programs and budget requests to the 1971 Legislature as though they were requesting an appropriation for the first time. Because of this "starting-from-scratch" approach, the concept was labeled "zero-base" budgeting.

The selected agencies represented a relatively insignificant portion of state government. (Appropriation to these agencies constituted about 1 percent of the total state general fund appropriation.) The agencies were not selected randomly. Those chosen were generally controversial and thought to be in need of thorough scrutiny.

The LFC recommended the abolishment of three of the 10 agencies; the programs of two were recommended to be substantially restructured; and the remaining five received "business as usual" analyses and recommendations.

The recommendations for abolishing the three agencies met with difficulty in the first legislative session of a new administration.

The inclination was to give a newly elected Governor the opportunity to improve performance records. However, one agency was abolished and another substantially reorganized.

While the initial effort was but a small and shaky first step at budget reform, several important lessons were learned.

1. It simply was not reasonable to expect an agency to routinely furnish information that might result in a lower appropriation—no matter what the justification might be.

2. Since the State's fiscal outlook was optimistic, there was little impetus to cut budgets or eliminate marginal programs. Thus, a budget system designed to locate duplication and thus reduce budgets was out of phase in a period of increasing revenues.

3. The best committee analyses were often of agencies making the least effort in their budget presentations. When agencies often failed to address the critical issues of their programs, the LFC and its staff attempted to define and research the issues. An independent research staff was essential.

4. Several agencies not submitting zero-base budgets were recommended to be significantly restructured as a result of "routine" analyses. Of course, analysts applying a "starting-from-scratch" approach to a few selected agencies found it difficult to turn that approach off when analyzing other agencies. The resultant change in viewpoint led to the challenging of several obsolete, but heretofore unquestioned, programs. The Legislature accepted many of these recommendations.

THE "70 PERCENT" ZERO-BASE

While the committee's initial experiment at budget innovation had only nominal impact on the appropriating process during the 1971 Legislature, the LFC determined to continue its efforts. What eventually evolved was a compromise between a "comprehensive" and an "incremental" budget request (i.e., between a "starting-from-scratch" budget and taking last year's budget for granted).

Essential to the new zero-base approach was the "level of effort" concept by which agency

managers would detail what could and could not be accomplished at several funding levels. The budget, which would interface to the customary line-item format (which the executive budget division continued to require), would be presented in "decision packages." These packages were determined by, first, separating each agency into several quasi-independent units that could be readily identified and analyzed and, second, establishing several levels of effort for each unit. The levels suggested were 70 percent of current budget, 95-100 percent of current budget, and separate units for each major request above current budget. The manager would state for each funding level what performance levels could be expected. Major requests for new funding that involved several units within a department (e.g., a general personnel upgrading) would be set out as separate decision packages. All decision packages then would compete against each other and would finally be ranked in priority order. In effect, an agency's legislative budget request was a "shopping list" that the Legislature could fund at its discretion based, hopefully, on certain performance criteria as well as dollars available.

Sixteen agencies were requested to submit their budget requests on the new zero-base format. Several larger agencies were chosen, but the appropriation to those selected still represented only about 4 percent of the total state general fund appropriation.

The effort in preparing for the 1972 Legislature represented a departure from the previous effort in several respects.

1. In turning away from a "starting-from-scratch" or comprehensive budget review, the LFC realized that abolishment of an agency, no matter what its performance record might be, is always difficult and usually impossible.

2. A budget addressed to justifying an agency's existence does not examine the critical issue facing a finance committee—that of how much should be allocated. Particularly in the large agencies, there is no real question but that the agencies will continue to operate. The question is, "At what level?"

3. In allocating significant portions of staff

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time to format design and in educating agency personnel in the use of the new forms, the committee believed that the agencies, to some degree, could analyze themselves—thus, making LFC staff time more productive.

4. The need for substantially more program performance information necessitated the involvement of significantly more agency personnel. No longer could the budget be the mysterious product of the accounting section.

The LFC, while realizing that the product could be improved, was optimistic in its 1972 presentation. The legislative budget stated, "When the zero-base budget is well prepared, it provides the Legislature with an excellent basis for making policy judgments. The committee is convinced that zero-base budgeting is feasible given competent administration within state agencies coupled with a willingness to undertake a new approach. Conversely, the technique quickly indicates those agencies where these qualities are lacking."

After the 1972 session, the LFC sponsored a joint meeting with the standing finance committees to evaluate the impact and determine the future of zero base. The view which emerged was that the system should be continued and expanded. Finance committee members expressed the need for more and better financial information based on services to be purchased.

THE 1973 EFFORT

Some 35 agencies were requested to submit zero base budgets prior to the 1973 Legislature. Those 35 represented a significant increase in state funding from previous years. (Total expenditures of the 35 accounted for just over 40 percent of total state expense, including federal and earmarked funds.) The major areas not included in the effort were higher education (25 percent of state spending) and public schools (26 percent of state funding). The significant increase in the number and size of agencies participating placed a tremendous load on committee staff.

The format was significantly altered from that of 1972, with the aim of reducing the narrative and increasing the volume of quantitative

performance information. The revised format also used a more sophisticated (and more complex) process for determining the levels of effort. Some terminology was changed. But the end result—that of presenting the Legislature with alternative funding levels tied to performance commitments—was unchanged.

The new system was explained to a joint meeting of the standing finance committees just prior to the session and enthusiasm was expressed for tying performance commitments to dollars appropriated. While the committees had some difficulty in fully utilizing the new system under the press of business, significant support was apparent. A joint memorial was unanimously passed which called for the implementation of an executive zero-base budget for presentation to the 1974 Legislature.

RECENT MODIFICATIONS

In preparing for the 1974 Legislature, the legislative and executive budget staffs agreed to a single budget format—thus eliminating the dual agency presentations of previous years. As a result, agency workload in budget preparation was reduced, and the debate of significant budget issues was sharpened.

The new format continued to incorporate a modified "level of effort" concept. The major modification was the abandonment of the level of effort below the present base. Thus, a rigidly defined base was the first level of effort and expansion items only were ranked in priority order. Performance commitments continued to be required of each level of effort including the base. While the new format did not require agency performance commitments at lower than the base level, some analyses concluded that base level performance commitments could, in effect, be accomplished at lower cost than requested.

While it might be argued that the 1974 modification was a further step away from true zero-base analysis, the step was taken primarily in response to the State's fiscal situation. Some were predicting a surplus as high as \$100 million or nearly 30 percent of the present general fund budget. With such opti-

istic forecasts, it was obvious that the decision range for most budgets would be between 110 and 120 percent of present appropriations. Thus, there seemed to be little point in developing a 70 percent budget. In future years, the decision range should be altered annually depending on projected revenues.

Since it was obvious that appropriations to most agencies would increase significantly, obtaining higher performance commitments was extremely important. Whether meaningful commitments were indeed made, of course, remains to be seen. Complicating the matter is the fact that a new administration will take office prior to the next legislative session, and commitments made by outgoing administrators may tend to get lost in the shuffle. An important job of the Legislature and its staff should be to insure that new executive managers are aware that certain commitments have been made and will be monitored. At the same time, a new executive should be given flexibility to seek new directions and reorder old priorities.

EVALUATION OF THE CONCEPT

Because program managers are likely to judge a new budgeting system by the increased appropriation received and legislators and staff usually evaluate on the opposite basis, no consensus is likely on the success of zero-base in New Mexico. Even though appropriations have increased significantly since the inception of zero-base, legislators continue to support budget innovation. However, agency managers often feel uncomfortable with such close legislative scrutiny.

States considering innovative techniques in budgeting—particularly where the Legislature is providing the impetus in demanding change—should expect to face some of the same problems faced in New Mexico. The problem areas presented below are compiled from agency critiques and staff observations with the aim of eliminating the plowing of already tilled ground in other States.

1. Agency preparation of two budget documents (one for the Legislature and one for the executive) should be avoided if possible.

2. The part-time nature of most Legislatures, as well as the turnover in finance committees, frustrate efforts at educating the lawmakers in the need for budget reform. Even the most conscientious members of standing finance committees have little time to understand the subtleties of a new budgeting system under the press of business. Often the most that can be hoped for is for the legislators to utilize available staff expertise. However, in 30- or 60-day legislative sessions as New Mexico has, time often does not permit the debate of even major budget issues.

3. A competent budget presentation often raises more issues than are answered. It is not reasonable to expect a set of forms to enable an agency to analyze itself to the satisfaction of a critical analyst. As such, significant portions of time need to be reserved for independent examination. New forms usually increase rather than reduce the need for such analysis.

4. Zero-base budgeting will not deter agencies from including unjustifiable cost increases in the decision package costing. The elimination of these pads through legislative scrutiny offers the agency the excuse that performance commitments no longer are applicable because the appropriation request was altered.

5. Historic cost and performance data are seldom available by the decision unit. As such, estimates usually must be used with the understanding that pertinent data will begin to be compiled for future use.

6. The idea of a 70 percent initial funding level is threatening to many agency personnel. There is a feeling that to even submit a cost figure on such a reduced operation encourages a Legislature to reduce an appropriation.

7. Small (under \$200,000 expenditure), highly specialized agencies with very specific statutory mandates are seldom good candidates for a level of effort approach. However, even these agencies should be able to make certain performance commitments.

8. Agencies may attempt to manipulate priority listings by ranking popular items lower than items that otherwise would have little chance of funding. This "stalking-horse" ap-

proach necessitates the alteration of priorities during legislative budget review which leads to agency complaints that their priorities are ignored.

9. Budget preparation time needs to be substantially lengthened during the implementation of a new system. The three months allowed in New Mexico was felt inadequate.

10. Agencies operating with several sources of earmarked funds (usually federal grants), find it difficult to rank program priorities. Federal grants requiring little or no state participation are difficult to refuse no matter what their purpose.

11. Proprietary agencies (those that earn operating income) find the level of effort approach difficult to apply to their operation. Functions such as university food services or prison industries, if not subsidized, base their operating level solely on demand for their product. This demand is expressed through direct payment for services rendered rather than through the indirect process of taxation and appropriation. However, most agencies operating on "earmarked" revenues are not proprietary and can effectively utilize the zero-base approach.

12. Without a great deal of care, performance measures often show how busy people are rather than the cost-benefit of their activity.

13. Zero base makes the decision process more explicit and open to scrutiny. Some

agencies will see this openness as a threat to manager flexibility, while others view it as a valuable managerial tool.

14. The involvement of program managers in the budget preparation process is one of the significant strengths of zero-base budgeting. The construction of a budget is too important to be left to agency accountants.

15. The involvement of legislative staff in assisting executive agencies with budget innovation risks compromising an independent analysis of executive proposals. However, the choice may be whether to have innovation or not.

CONCLUSION

The improvements to New Mexico state government occasioned by zero-base budgeting are neither as great as originally anticipated nor as minimal as detractors would claim. The concept that a previous funding level does not, in itself, justify future funding is not yet totally accepted. Several years of accelerating increases in tax revenues have scarcely encouraged a critical analysis of current spending levels.

However, without a budget system that continually forces the reevaluation of program performance, there is little incentive for governmental agencies to either improve their operation or economize in the use of public funds.

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ZERO-BASED BUDGETING: MODEST PROPOSAL FOR REFORM



Michael H. Granof & Dale A. Kinzel



Zero-Based Budgeting ("ZBB") is here. It is a new budgeting technique that is applicable to both private and public sectors. Its proponents see it as a technique that will fulfill the promises of budgetary reform; cynics see it as nothing more than a pale ghost of Program-Planning-and-Budgeting Systems (PPBS), unlikely to raise public administrators from the doldrums of traditional, object-classification budgetary systems. To other observers, including these writers, Zero-Based Budgeting represents a sensible, though certainly not revolutionary, aid to financial decision-making. If instituted prudently, it can encourage more comprehensive and meaningful budgetary analysis than is characteristic of conventional budgetary procedures.

ZBB was first utilized — or at least reported upon — by private industry. Texas Instruments applied the technique in 1970 to develop its staff and research budgets and in 1971 extended its use to include all non-manufacturing budgets.¹ The State of Georgia has implemented Zero-Based Budgeting on a full scale, and Texas is currently pushing ahead with plans to be completely "on line" with the technique by 1976. New Mexico, Illinois, and the City of Honolulu are also experimenting with ZBB. Significantly from the point of view of Federal accountants, Senate Bill 40, sponsored by Senator Bill Brock (Rep. — Tennessee), specifically requires all major Federal spending programs to be evaluated at least once every three years from a zero base.²

¹ Pyhrr, Peter A. *Zero-Base Budgeting*. (New York: John Wiley and Sons), p. ix, 1973.

² Simonetti, Gilbert Jr. "Federal Budget Reform: Congress Reasserts Itself." *The Journal of Accounting* (November, 1973), p. 34.

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The objectives of this article are to describe Zero-Based Budgeting, to set forth its advantages and limitations, to compare it with PPBS, and to identify hazards to be avoided when implementing ZBB.

Description of Zero-Based Budgeting

Zero-Based Budgeting is a system whereby each governmental program, regardless of whether it is a new or existing program, must be justified in its entirety each time a new budget is formulated.¹ ZBB requires that each governmental activity be described in terms of "decision packages." The decision packages must contain sufficient information to enable budget officers to evaluate the merits of an activity and to compare and rank it with competing proposals. They would focus both on different ways of performing the same activity and on alternative levels of effort that could be exerted in performing an activity.

A manager must take two steps with respect to each activity. First, he must identify "mutually exclusive" alternative methods of performing the minimum level of an activity. Second, after a particular minimum level alternative method is selected, he must prepare "incremental" decision packages that indicate costs and benefits associated with additional levels of effort (i.e., funding) that might be exerted in carrying out the activity at levels above the minimum level.

For example, suppose that the Air Quality Control Board of a given state is considering how best to take and analyze samples of air in order to identify the level of air pollution. Assume that the Board has decided that the minimum number of samples to be tested are 37,300. (This would include samples from the major urban areas only, a total of 70% of the state's population.) The Board might identify the following "mutually exclusive" alternative methods of performing this activity:

1. Contract sample analysis work to the state university. Cost would be \$6 per sample — a total cost of \$223,800 for analyzing 37,300 samples.
2. Conduct sample analysis work entirely in regional locations. Cost would be a total of \$506,000 the first year and \$385,000 in subsequent years. Specialized equipment would be purchased in the first year for several locations if the presently used central lab is discontinued.
3. Conduct sample analysis work in central lab for specialized pollutants only, and set up regional labs to reduce sample mailing costs. Cost would be a total of \$305,000 for analyzing 37,300 samples.
4. Use a central lab in one city to conduct all sample testing and analysis. Cost would be a total of \$140,000.

The Air Quality Control Board would identify detailed information pertaining to the anticipated costs, advantages, and disadvantages of each of the four alternative methods, and then would decide on the most cost-effective method. The Board would then prepare "incremental" decision packages above the minimum level for the alternative method selected. Assume, for example, the Board decided that alternative #4 — use of a central lab — was preferable. Alternative levels of funding above the minimum level of analyzing 37,300 samples would, of course, result in greater benefits to the state:

LEVEL 2: For an additional \$61,000 Board could analyze an additional 17,700 samples, thereby determining air quality for 5 additional problem urban areas and 8 other counties chosen on the basis of worst pollution (covering 80% of the population). Total funding

¹ Pyhrr, op. cit. p. 2.

would be \$201,000 (\$140,000 + \$61,000) for this level, resulting in 55,000 (37,300 + 17,700) samples analyzed.

LEVEL 3: For an additional \$45,000 the Board could analyze an additional 20,000 samples, thereby determining air quality for 90% of the population, and leaving only rural areas unsampled. Total funding for this level would be \$246,000 (\$140,000 + \$61,000 + \$45,000) resulting in 75,000 (37,300 + 17,700 + 20,000) analyzed.

The Air Quality Control Board would have to provide comprehensive information on the costs and benefits associated with each level of effort. The information provided should, of course, be as quantitative and specific as is feasible. On the basis of the decision packages, state budget officers should be able to select the level of funding that is most consistent with the overall objectives of, and resources available to the state.

Ordinarily, the minimum level of effort for which data must be compiled would be one that would not completely achieve the objectives of the activity, but which would nevertheless contain its essential elements. In the case of the Air Quality laboratory, for example, the minimum level of funding indicated provides for a laboratory with a staff of five — the minimum number of required personnel to take even a few samples on a continuous basis. Reductions in funding below that level would not result in reduced samples tested in proportion to decreased laboratory staff, but would render the entire sample-testing program inoperable. As a general rule, the minimum level of effort is that level below which the activity ceases to operate.

In addition to indicating the costs and benefits associated with the method selected in the "decision package," managers would also have to describe the consequences of not performing the activity. Moreover, the "decision packages" should include measures of performance that could be used to evaluate the activity, in order to determine the degree that the activity objectives will be attained.

The information provided in the decision packages should be as comprehensive as possible and must clearly spell out operational goals. Whenever feasible, benefits and costs (in addition to direct dollar costs) should be expressed quantitatively. The decision packages, taken by themselves, should enable a budget officer to compare and rank the decision packages in a manner that will ensure the greatest possible incremental benefits attributable to an expenditure.

Although Zero-Based Budgeting can be superimposed upon the traditional object-classification system of budgeting, it is more readily adaptable to a system that is program-oriented. Decision packages are by their very nature oriented toward governmental activities rather than specific budgetary line items. They require that the benefits associated with particular expenditures be identified in terms of progress toward the realization of goals. The budget officer would ordinarily decide whether to accept or reject a discrete level of effort — not whether to add funds to salary, maintenance, or equipment or other object-classification accounts.

Advantages of ZBB

ZBB requires that a budget officer be presented not only with several alternative methods of accomplishing the same objective, but with discrete levels of funding that are feasible. In traditional budgetary systems, the budgetary officer may be presented with alternative means of accomplishing a desired goal, but he seldom is given information on the specific benefits that will be sacrificed if funds are assigned at a level lower than that requested. The benefits associated with many activities can be viewed as a step function. At given levels of

expenditures, additional funds will result in but few additional benefits; at certain critical points, however, added funds will result in substantial benefits. Similarly, there are levels at which a budget can be cut with relatively little sacrifice. There are other levels at which even small cuts may result in dramatic declines in service.

In the example of the Air Quality laboratory cited earlier, for instance, an expenditure of \$140,000 would have enabled the state to sample the air breathed by 70% of the population. An additional expenditure of \$61,000 (a total of \$201,000) would have increased the coverage to 80% of the population. However, a reduction in expenditures by the same amount (to \$79,000) may have scuttled the entire program and reduced coverage to near zero. ZBB focuses on the incremental benefits to be gained or lost by changes in the level of funding. It enables administrators to make sensible budget adjustments and avoid situations in which small cost reductions result in disproportionate reductions in benefits.

ZBB is management-oriented. It combines planning, budgeting, and operational decision-making into a single process. It requires managers to quantify both the anticipated costs and the benefits associated with an activity, and thereby automatically provides the measures by which the activity can be subsequently evaluated. Because it is "program" oriented, it expedites the identification — and as a consequence, the elimination — of duplicate activities and programs.

Perhaps most significantly, ZBB facilitates budgetary reductions as well as increases. ZBB requires that each major activity be justified "from the ground up," and provides that the benefits ascribed to each subsequent discrete level of funding be explicitly spelled out. The decision maker is thereby furnished the information necessary to make a determination as to whether funding at a current level is still justified or whether greater overall incremental benefits to the organization can be obtained by cutting back funds from one activity and adding them to another.

ZBB and PPBS

ZBB is markedly similar to Program-Planning-and-Budgeting Systems (PPBS). Both ZBB and PPBS require that budgetary decisions be made on the basis of programs or activities, rather than object-classifications. They both emphasize incremental changes in costs and benefits that will result from budgetary decision, and both demand that benefits be quantified. Both systems ordinarily provide the data necessary to make use of sophisticated mathematical decision techniques, such as linear programming and probability analysis.

There are, however, significant distinctions between the two. ZBB, unlike PPBS, focuses on discrete units of both input and output. It specifically requires that each activity be separated into discrete decision packages that the chief budget officer is able to accept, reject, and rank in order of priority. He is automatically provided with the information necessary to enable him to see the consequences of a change from either current or recommended levels of funding. Moreover, ZBB specifically requires that all activities be reviewed in their entirety each budget cycle. Although there is nothing inherent in PPBS that requires duplicate budgets to be submitted, in many organizations in which PPBS was adopted, budgetary units were required to file two budget requests — a line item request and a program budget request. ZBB can readily be superimposed on line item budget systems and only a single budget request should have to be made. In Texas, for example, agencies will be required to submit one budget only.

Pitfalls to be Avoided

The obituaries of PPBS make it clear that its failure could be attributable not so much to weaknesses inherent in the system — on the contrary, many of the essential elements of PPBS are both intuitively and practically sound — but rather to the manner in which it was introduced and implemented.⁴ ZBB, like PPBS, has the potential to bring about a measure of reform to budgetary processes, but it will succeed in doing so only if the pitfalls that prevented the promises of PPBS from being fulfilled can be avoided.

One of the primary reasons for the alleged failure of PPBS to realize its full potential was simply that too much was promised for it. PPBS was proffered as a "revolutionary" budget system, one which would radically change financial decision-making in government. Obviously, it was not a "revolutionary" budget system, and at best, could be expected to result in a modicum of financial reform. PPBS often functioned as well as could have been anticipated, but it is unlikely that it greatly altered the distribution of available funds from what would have occurred under conventional budgetary procedures. As a result, both administrators and policy makers who may have hoped for dramatic changes quickly became disillusioned with the new procedures. Those who were initially skeptical of the new system readily became cynical toward it.

ZBB, like PPBS, will not be a panacea for the ills of government. It will formalize certain decision techniques, such as incremental analysis and cost-benefit analysis, and make certain that explicit consideration is given to the potential for budgetary reductions. Such techniques can, of course, be employed even in the absence of a formal Zero-Based Budgeting system, and unquestionably many administrators have long used such procedures without being aware that the theoreticians had sanctified them with quasi-scientific titles. But Zero-Based Budgeting will, at a minimum, assure that they are routinely employed.

If ZBB is to avoid the fate of PPBS, it must be introduced with quiet perseverance rather than trumpeted claims of a major fiscal breakthrough. In Texas, for example, there is already evidence of both exaggerated claims by high officials and resulting cynical negativism on the part of lower-level administrators and accountants. The lower echelon personnel involved in the budgetary process have expressed (privately, of course) reservations as to whether the system will really work and resentment toward the implications, however indirect, that previous procedures were ineffective.

Lack of Coordination

The effectiveness of PPBS was diminished by the failure of many organizational units to integrate the analysis of fiscal policy issues with the actual budgetary, accounting, and reporting system. PPBS unquestionably resulted in a more comprehensive analysis of spending decisions, but such analysis was never merged with the mainstream of budget development. Allen Schick⁵ says of some Federal departments:

They went through the motions and submitted the required documents, organized their analytic staffs, and fashioned program structures. Only after they perceived that the

⁴ Harrill, E. Reece, "A Multi-Purpose Budgeting and Accounting System for Governments," *Governmental Finance* (November, 1972), p. 21.

⁵ Schick, Allen, "A Death in the Bureaucracy: The Demise of Federal PPB," *Public Administration Review* (March/April, 1973) Volume 33, Number 2, p. 148.

Budget Bureau itself was not committed to budget change did the departments cut their losses. For all its preaching about an integrated planning and budgeting system, the Budget Bureau steadfastly kept the two apart, quarantining its tiny PPB operations from the powerful examinations and budget review staffs, and promulgating separate PPB and budget instructions.

A budget implies a plan. Essential to any system of planning is the requirement of subsequent evaluation. The accounting system must be designed so that it can generate data by which the ultimate impact of budgetary decisions can be reviewed. It makes little sense, therefore, to make initial budgetary allocations to activity classifications if the accounting system will generate data only on the basis of object-classifications. If the budgetary system is to be on an activity basis, so too must the accounting system.

At the same time, ZBB will have little impact on ultimate allocation of funds if those who make budgetary decisions are unwilling to accept the new system and make use of the information provided them. PPBS, for example, was viewed with suspicion by many members of key legislative committees in Congress, and apparently had little impact on their decisions. So long as agency heads perceive that a new budgetary system will not have an effect on the amount of funds their agency receives, they will come to view the new process as nothing more than an analytical exercise.

Zero-Based Budgeting will become a long-lived instrument of financial administrations only if it is implemented as an integrated system of analysis, planning and control. Zero-Based Budgeting cannot be viewed as a once-a-year concern of administrators. The analysis of spending decisions must be coordinated with the political processes of budget adoption and, equally important, accounting systems must be modified or even completely revamped in order that account classifications coincide with budgetary classifications.

Top Down Approach

Related to the problem of coordination is that of involvement. PPBS was instituted at the request of the executive branch. Agency administrators seldom saw the value of the analysis that they were required to perform. Zero-Based Budgeting will gain the acceptance of the "rank and-file" administrators — on whom its success will ultimately depend — only insofar as it is a useable tool in their day-to-day operations. Zero-Based Budgeting must be accepted by administrators as a management tool.

Failure to Make Organizational Changes

ZBB, like PPBS, is a program-oriented system. A budgetary system (the term being used in a broad sense to include the entire planning and control system) cannot be arbitrarily superimposed upon an organizational structure. A budgetary system that cuts across organization lines is unlikely to be a useful managerial tool for the persons in charge of the various organizational units. Responsibility for costs and associated benefits must be attributable to specific individuals. It would make little sense, for example, to create a budgetary unit for dangerous drugs if the responsibility for administering the drug program is scattered among numerous organizational units. The budgetary structure must be constructed around the organizational structure; it cannot be the other way around.

The early accomplishments of ZBB in the State of Georgia may be attributed largely to organizational changes that were instituted concurrently with budgetary changes. Under the direction of Governor Carter, the responsibilities of state agencies was reassigned so that

related activities — those that could be viewed as programs — were placed under common control.

In Texas, however, neither the executive nor the legislative branches have expressed willingness to institute significant organizational changes. Given their reluctance, the hoped-for benefits from ZBB are unlikely to be achieved.

Summary

Zero-Based Budgeting is a management-oriented system that combines planning, budgeting, and operational decision-making into a single process. It is a management tool that has the potential to bring about a measure of reform to budgetary processes. It will succeed in doing so only if the hazards that ensnared PPBS are avoided and it is clearly understood that the real benefits will be long-term and modest rather than sudden and dramatic.

State of Georgia
Office of Planning and Budget



GENERAL BUDGET
PREPARATION PROCEDURES

FISCAL YEAR 1978 BUDGET DEVELOPMENT

GEORGE BUSBEE
Governor
June 1976

F. Y. 1978 ZERO-BASE BUDGET REQUEST
Preparation Procedures

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ZERO-BASE BUDGET Procedures & Instructions

EXECUTIVE DEPARTMENT
OFFICE OF PLANNING AND BUDGET -- Budget Division
SECTION
F. Y. 1978 ZERO-BASE BUDGET INFORMATION
SUBJECT
A. BUDGET ACT PROVISIONS, B. CONCEPT AND PURPOSE, C. MODIFICATIONS, D. SUBMISSION DATA

A. Budget Act Provisions

Code Section 40-4 of Georgia Laws (Budget Act) provides for estimates of financial needs to be submitted to the Office of Planning and Budget (OPB) each year by the Head of each Budget Unit by September 1.

The Budget Division of OPB has developed the Budget Procedures for the estimation of F. Y. 1978 financial requirements by State Departments of Georgia State Government.

Considerable work has gone into the revision of forms and procedures for the F. Y. 1978 Zero-Base process. The Governor feels that the changes will be useful to the Department as well as to OPB. No standard set of forms can be devised which will meet everyone's needs. OPB is prepared to review any form changes necessary.

B. Concept and Purpose

The State of Georgia finds its budgeting responsibilities and needs best met by the budgetary process known as "Zero-Base Budgeting."

The concept of Zero-Base Budgeting is that all the financial requirements for a budget unit are justified and analyzed by decision makers and not just the increased or additional requirements. Managers are to assess benefits from ongoing operations, as well as needs for additional funds. The process identifies, to all levels of management, the cost, benefits and suggested operational levels associated to reach their objectives. The objectives, as established by management, are communicated to the program managers before the preparation of the budget begins.

The Zero-Base Budget process begins by identifying programs in the organization where cost data are maintained. The budget request for each program is developed in a series of "Decision Packages". Each Decision Package represents the funding requirement to support a particular level of the operation. The first package of a series of packages is developed at a Minimum Objective Level of operations for the function. Additional levels of effort are Current Objective Level and Improvement Objective Levels. See instructions for definitions of these levels.

The ranking of Decision Packages is completed by each Activity Manager and submitted to higher management. The final ranking is completed at the Department level. The ranking process offers each manager the opportunity to express the objectives at different funding levels. Refinements and modifications to the system are made from time to time, but the basic concept and purpose of Zero-Base remain intact.

C. Modifications

Modifications have been made to the Zero-Base Budget Preparation System and the more significant changes are as follows:

- 1. The levels of effort for each program were defined last year through 4 kinds of Decision Packages -- Minimum Level, Base Level, Workload Level, and New or Improved. The F. Y. 1978 Budget Development System will define the levels of effort as Minimum Objective Level, Current Objective Level, and Improvement Objective Levels. This change will enable the department to express each level of effort (decision package) in terms of a limited objective. The Major Objective for each program was established in the F. Y. 1977 Annual Operating Budget and should not change much from year to year. Each level of funding requested in F. Y. 1978 will represent a level of effort expressed in terms of a different limited objective for each minimum, current, and improvement package. Any Workload, if needed, will be expressed in terms of maintenance of the current objective.

DATE Rev. 6/76

PAGE 1

OPB - Budget - General



ZERO-BASE BUDGET Procedures & Instructions

EXECUTIVE DEPARTMENT OFFICE OF PLANNING AND BUDGET - Budget Division
SECTION F. Y. 1978 ZERO-BASE BUDGET INFORMATION
SUBJECT C. MODIFICATIONS (Continued), D. SUBMISSION DATA

- 2. Each decision package requires (a) The Major Objective for the Program decision package series, (b) The Limited Objective for a particular package, (c) The Evaluation Measures of effectiveness and efficiency at a particular level.

D. Submission Data

The forms to be used in the F. Y. 1978 Budget Preparation are listed as follows:

OPB - Budget - 30	-	Decision Package - Minimum Objective Level
OPB - Budget - 31	-	Decision Package - Current Objective Level
OPB - Budget - 32	-	Decision Package - Improvement Objective Level
OPS - Budget - 40	-	Schedule of Rents
OPB - Budget - 41	-	Schedule of Motor Vehicle Equipment Purchases
OPB - Budget - 42	-	Schedule of Equipment Purchases
OPB - Budget - 43	-	Schedule of Per Diem and Fees
OPB - Budget - 44	-	Schedule of Computer Charges
OPB - Budget - 45	-	Schedule of Other Contractual Expense
OPB - Budget - 46	-	Capital Outlay Detail
OPB - Budget - 47	-	Personal Services Schedule
OPB - Budget - 48	-	Detail of Fund Sources
OPB - Budget - 50	-	Decision Package Ranking
OPB - Planning - 51A	-	Activity Information Summary
OPB - Planning - 51B	-	Activity Performance Evaluation Summary
OPB - Budget - 52	-	Activity Financial Summary
OPB - Budget - 60	-	Budget Unit or Department Summary

Submission procedures for the F. Y. 1978 Budget are as follows:

- 1. Submit the F. Y. 1978 Budget Request to OPB on or before September 1, 1976, as required by law.
- 2. Submit (4) four copies of the Budget in looseleaf notebooks and tab each Activity.
- 3. Arrange the forms as shown in the assembly diagram (see next page) and place the Department Summary at the front of the notebook. The Department Head is required to sign the summary.

DATE Rev. 6/76

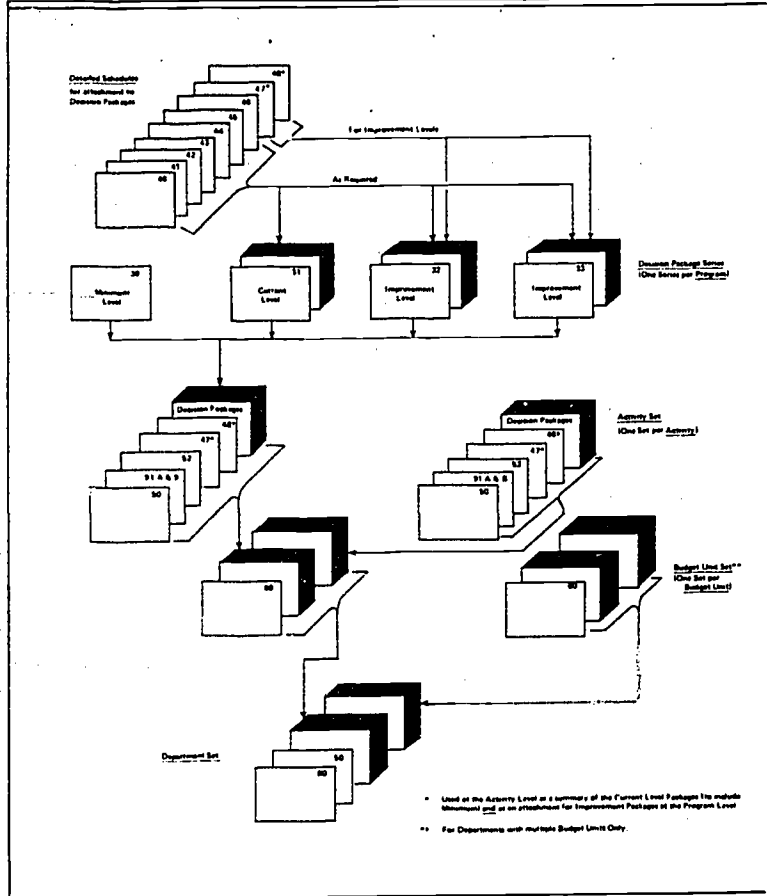
PAGE 2

OPB - Budget - General



ZERO-BASE BUDGET Procedures & Instructions

EXECUTIVE DEPARTMENT
 OFFICE OF PLANNING AND BUDGET – Budget Division
 SECTION
 ZERO-BASE ASSEMBLY FORMAT
 SUBJECT
 ASSEMBLY OF FORMS FOR SUBMISSION TO OPB



DATE Rev. 6/76

PAGE 3

OPB - Budget - General

DECISION PACKAGE -- MINIMUM OBJECTIVE LEVEL

OPB - BUDGET - 30

F. Y. 1978

ZERO-BASE BUDGET REQUEST

OPB - Budget - 30

BANKING Examination Field Audit

Describe the Program in terms of its Major Objectives	Function This Package	Program F. Y. 77	This Pkg. F. Y. 78	Cost Amount																																
To examine every State Chartered Bank and Thrift Institution in Georgia on an annual basis and to investigate promptly all requests for establishing new institutions	A TOTAL PERSONAL SERVICES	196,912	185,712																																	
	1. M. V. Expenses and Reports	2,900	2,300																																	
	2. Supplies and Materials	3,300	3,300																																	
	3. Repairs and Maintenance	500	500																																	
Describe the Program in terms of the Current Objective in F. Y. 1977 To examine 95% of all Banks and 100% of all Thrift Institutions during F. Y. 1977 and to average two weeks investigation time for new or expanded Banks or Thrift Institutions.	4. Communications	16,200	16,000																																	
	5. Power, Water, Natural Gas	2,406	2,406																																	
	6. Rent	12,216	12,208																																	
	7. Insurance and Bonding																																			
	8. Workmen's Comp. and Indemn.																																			
	9. Direct Benefits																																			
Expand the Minimum Level Limited Objective this Package provides To examine 50% of all Banks and 84% of all Thrift Institutions during F. Y. 1978 and to average four weeks investigating time per request for new or expanded Banks or Thrift Institutions. Ten Examiners and four Secretaries will be employed	10. Tuition and Scholarships																																			
	11. Grants to Colleges or Cities																																			
	12. Assessments by Motor System	864	756																																	
Expand the service now provided that the Minimum Objective Level includes 5% of the State Chartered Banks and 13% of the Thrift Institutions examined in F. Y. 1977 will not be examined in F. Y. 1978. New Banks and Thrift Institutions will be investigated over a four week period rather than two weeks. Delete 2 Bank Examiners and related operating expenses	13. Other Operating Expenses	1,000	750																																	
	14. Extraordinary Expenses																																			
	B. REG OPER EXP (Incl 1-14)	40,486	37,270																																	
	C. TRAVEL	26,912	20,880																																	
	D. MOTOR VEH EQUIP PURCH	10,962	4,880																																	
	E. PUBLICATIONS AND PRINTING	9,450	6,800																																	
	F. EQUIPMENT PURCHASES	5,000	4,000																																	
	G. PER DIEM AND FEES	2,000	2,000																																	
	H. COMPUTER CHARGES	18,500	16,400																																	
	I. OTHER CONTRACT EXP	1,600	1,600																																	
<table border="1"> <thead> <tr> <th>Program</th> <th>Percent</th> <th>F. Y. 1977</th> <th>F. Y. 1978</th> </tr> <tr> <th>Investment (Productivity and Efficiency)</th> <th>Current Objective</th> <th>Minimum Object</th> <th>Minimum Object</th> </tr> </thead> <tbody> <tr> <td>% of Banks Examined</td> <td>55%</td> <td>50%</td> <td></td> </tr> <tr> <td>% of Thrift Institutions Examined</td> <td>100%</td> <td>84%</td> <td></td> </tr> <tr> <td>Average time to investigate new institutions</td> <td>2 weeks</td> <td>4 weeks</td> <td></td> </tr> <tr> <td>Average Cost per Bank examination</td> <td>\$2,745</td> <td>\$2,850</td> <td></td> </tr> <tr> <td>Average cost per Thrift Institution examination</td> <td>\$348</td> <td>\$367</td> <td></td> </tr> <tr> <td>Average cost per New institution</td> <td>\$600</td> <td>\$550</td> <td></td> </tr> </tbody> </table>					Program	Percent	F. Y. 1977	F. Y. 1978	Investment (Productivity and Efficiency)	Current Objective	Minimum Object	Minimum Object	% of Banks Examined	55%	50%		% of Thrift Institutions Examined	100%	84%		Average time to investigate new institutions	2 weeks	4 weeks		Average Cost per Bank examination	\$2,745	\$2,850		Average cost per Thrift Institution examination	\$348	\$367		Average cost per New institution	\$600	\$550	
Program	Percent	F. Y. 1977	F. Y. 1978																																	
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J. AUTHORITY LEASE RENTALS																																				
K. GENERAL OBLIGATION BONDS																																				
L. CAPITAL OUTLAY																																				
M. LIST OTHER OBJECTS																																				
TOTAL EXPEND (Incl A - M)		311,822	261,497																																	
FEDERAL FUNDS		16,000	16,000																																	
OTHER FUNDS		4,000	4,000																																	
STATE GENERAL FUNDS		291,822	241,497																																	

Package Name: Field Audit
Prepared by: John Doe
Package 1 of 3
Activity Rank 4



ZERO-BASE BUDGET Procedures & Instructions

EXECUTIVE DEPARTMENT
OFFICE OF PLANNING AND BUDGET -- Budget Division
SECTION
DECISION PACKAGE PREPARATION -- MINIMUM OBJECTIVE LEVEL
SUBJECT
INSTRUCTIONS FOR FORM OPB - BUDGET - 30

Form Purpose

A Decision Package Series identifies a program below the Activity Level where costs are recorded. You should generate a package or series of packages at the program level approved by OPB. Each program you want to continue should have one or more Decision Packages, depending on how many levels of funding are requested for the program. The form OPB - Budget - 30 is a Minimum Objective Level Decision Package. For every program you will develop at least one minimum level below the F. Y. 1977 Budget for that program. The Minimum Objective Level is a level of effort, expressed in terms of an objective and cost below which it is not realistic or feasible to operate the program at all.

1. Describe the Program in terms of its Major Objective

- The ultimate but realistic outcome expected from the Program (as defined in the Annual Operating Budget) expressed in measurable terms, assuming unlimited resources. To achieve a Major Objective, more than one budget year is generally required. (The Major Objective is not a statement of workload.)

2. Describe the Program in terms of the Current Objective in F. Y. 1977

- Given the F. Y. 1977 level of appropriation, what is the limited objective expected from the Program during F. Y. 1977, using the same measurable terms as used for the Major Objective, established in light of budget constraints. (Same as the Annual Operating Budget Limited Objective.)

3. Explain the Minimum Level Limited Objective this Package provides

- Given a level of funding less than F. Y. 1977, using the same measurable term as used for the Major Objective, define the lessened limited objective provided by this package for F. Y. 1978.

4. Explain the service now provided that this Minimum Objective Level excludes

- Explain the impact of funding only this minimum objective assuming non-funding of the F. Y. 1977 current limited objective above the minimum level.

Evaluation Measures (required on each package)

- Program Effectiveness Measure(s) (objective accountability) are key indicators of the degree to which the Program will achieve the limited objective for both F. Y. 1977 and for the Minimum Objective Level for F. Y. 1978.
- Workload Efficiency Measure(s) (resource accountability) are key indicators of the degree to which the Program economically manages the workload associated with meeting the limited objective, usually expressed in terms of cost per unit of workload or output for both F. Y. 1977 and for the Minimum Objective Level for F. Y. 1978.

Financial Information

- Enter amounts budgeted for the Program in F. Y. 1977.
- Enter amounts requested for the Minimum Objective Level under "This Pkg. F. Y. 1978".
- Cumulative Amount Column should be used only if more than one minimum level in a series is developed, otherwise leave blank.

Note: Detailed forms 40-48 are not required on the Minimum Level Package.

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OPB - Budget - 30



ZERO-BASE BUDGET Procedures & Instructions

EXECUTIVE DEPARTMENT OFFICE OF PLANNING AND BUDGET — Budget Division
SECTION DECISION PACKAGE PREPARATION — CURRENT OBJECTIVE LEVEL
SUBJECT INSTRUCTIONS FOR FORM OPB - BUDGET - 31

Form Purpose

The Current Objective Level Decision Package is the next kind of package developed after the Minimum Level Decision Package(s) for a program below the Activity. The Current Objective Level is a level of effort expressed in terms of cost, that represents a continuance of the F.Y. 1977 limited objective and no more. Funds for a greater limited objective should be requested only on an Improvement Decision Package. The Current Objective Level Package costs will vary by program. Non-recurring expenditures should be excluded from cost as well as funds budgeted in F. Y. 1977 but not needed in F. Y. 1978 to deliver the same objective. Include increased costs for F. Y. 1978 (to deliver the same objective delivered in F. Y. 1977) such as workload costs, within-grade increases, postage increases, etc. The Current Objective Level Package, then, will express only cost increases and decreases associated with the same limited objective provided in F. Y. 1977. Decreased service and corresponding decreased cost can be outlined in this package but not an increased objective.

1. Describe the Program in terms of its Major Objective
 - Repeat information displayed on the Minimum Level Package.
2. Describe the Program in terms of the Current Objective in F. Y. 1977
 - Repeat information displayed on the Minimum Level Package.
3. Explain the cost increase or decrease in the Current Level over F. Y. 1977
 - Assuming the same limited objective as provided in F. Y. 1977, outline the financial reasons why this package, added to the Minimum Objective Level Package, costs less or more than was budgeted for the program in F. Y. 1977. Increases or decreases for the various object classes should be explained. Attach additional pages if more space is needed. Do not include workload cost increases under this heading.
4. Explain any workload change in the Current Level over F. Y. 1977
 - Assuming the same limited objective as provided in F. Y. 1977, outline the workload increase or decrease, if any, that is required to maintain the current objective.

Evaluation Measures (required on the Decision Packages)

- Program Effectiveness Measure(s) (objective accountability) are key indicators of the degree to which the program will achieve the limited objective for both F. Y. 1977 and for F. Y. 1978.
- Workload Efficiency Measure(s) (resource accountability) are key indicators of the degree to which the program economically manages the workload associated with meeting the limited objective, usually expressed in terms of cost per unit of workload or output for both F. Y. 1977 and F. Y. 1978.

Financial Information

- Enter amounts budgeted for the program in F. Y. 1977.
- In the column headed "This Pkg. F. Y. 1978" enter incremental amounts requested above the Minimum Level and not the total requested through the Current Level.
- Cumulative Amount equals the sum of this package plus the minimum level package(s).

NOTE: Detailed form 47 and 48 are not required at the Current Objective Level but are required at the Activity Level.
Detailed forms 40-46 are required to be attached to the Current Objective Level Package for amounts requested in F. Y. 1978 where an asterisk appears on the form.

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OPB - Budget - 31

DECISION PACKAGE - IMPROVEMENT OBJECTIVE LEVEL

OPB - BUDGET - 32

F. Y. 1978

7200-BASE BUDGET REQUEST
DECISION PACKAGE - IMPROVEMENT OBJECTIVE LEVEL

OPB - Budget - 32

BANKING		Examination		Field Audit																																									
Description		Positions This Package	Program F. Y. 77	This Prog. F. Y. 78	Cost Amount																																								
Describe the Program in terms of its Major Objectives To examine every State Chartered Bank and Thrift Institution in Georgia on an annual basis and to investigate promptly all requests for establishing new institutions		A. TOTAL PERSONAL SERVICES *	196,912	24,499	221,311																																								
		1. M. V. Expenses and Repairs	2,300	300	3,400																																								
		2. Supplies and Materials	3,300	400	5,000																																								
		3. Repairs and Maintenance	500		500																																								
		4. Communications	16,000	800	17,600																																								
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		6. Rent *	17,818	150	14,650																																								
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		H. COMPUTER CHARGES *	18,500		18,400																																								
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		J. AUTHORITY LEASE RENTALS																																											
		K. GENERAL OBLIGATION BONDS																																											
		L. CAPITAL OUTLAY *		2,000	2,000																																								
		M. LIST OTHER OBJECTS																																											
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Examination Method (Efficiency and Economy)	Program	Modified	F. Y. 1977	F. Y. 1978																																									
		Current Objective	Investment Obj.	Investment Obj.																																									
% of Banks examined		95%		98%																																									
% of Thrift Institutions examined		100%		100%																																									
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Average cost per Thrift Institution examination		\$348		\$377																																									
Average cost per new institution		\$600		\$620																																									



ZERO-BASE BUDGET Procedures & Instructions

EXECUTIVE DEPARTMENT
OFFICE OF PLANNING AND BUDGET – Budget Division
SECTION
DECISION PACKAGE PREPARATION – IMPROVEMENT OBJECTIVE LEVEL
SUBJECT
INSTRUCTIONS FOR FORM OPB - BUDGET - 32

Form Purpose

The Improvement Objective Level Decision Package is developed for a requested greater objective level of an ongoing program. The Improvement Objective must be quantified and explained fully in terms of service and cost. Any complete new program under an Activity would be requested on a separate series of Decision Packages and not on the Improvement Decision Package.

1. Describe the Program in terms of its Major Objective
 - Repeat information displayed on the Minimum Level Package.
2. Describe the Program in terms of the Current Objective in F. Y. 1977
 - Repeat information displayed on the Minimum Level Package.
3. Explain the Improvement Level Limited Objective this package provides
 - State the greater objective provided which helps the program better meet its Major Objective. An Improvement is an expansion of the Current Objective of the program while a New operation is, by definition, an operation not conducted in F. Y. 1977.
4. Explain this Package in terms of cost
 - Point out reasons why the Improvement Objective will require additional funds. The explanation should be expressed in terms of what the funds will be expended for to accommodate the Improvement Objective.

Evaluation Measures (required on the Decision Packages)

- Program Effectiveness Measure(s) (objective accountability) are key indicators of the degree to which the program will achieve the limited objective for both F. Y. 1977 Current Objective Level and F. Y. 1978 Improvement Objective Level Cumulative.
- Workload Efficiency Measure(s) (resource accountability) are key indicators of the degree to which the Program economically manages the workload associated with the limited objective, usually expressed in terms of cost per unit of workload or output for both F. Y. 1977 and F. Y. 1978 cumulative through this package.

Financial Information

- Enter amounts budgeted for the program in F. Y. 1977.
- "This Pkg. F. Y. 1978" enter incremental amounts requested above the previous level for the program and not the total requested through this Package.
- Cumulative Amount equals this package plus minimum and current packages.

NOTE: Detailed forms 40-48 are required to be attached to the Improvement Package for amounts requested in F. Y. 1978 where an asterisk appears on the form.

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OPB - Budget - 32

SUPPLEMENTAL SCHEDULES

On the following pages are Supplemental Schedules to substantiate your request for funds in the following objects:

<u>Object</u>	<u>Form Schedule Number</u>
Rents	OPB-Budget-40
Motor Vehicle Equipment Purchases	OPB-Budget-41
Equipment Purchases	OPB-Budget-42
Per Diem and Fees	OPB-Budget-43
Computer Charges	OPB-Budget-44
Other Contractual Expenses	OPB-Budget-45
Capital Outlay	OPB-Budget-46
Personal Services	OPB-Budget-47
Detail of Fund Sources	OPB-Budget-48

Forms 40 through 46 are to be prepared as needed and attached to each decision package for a program. Forms 47 and 48 must be prepared for the entire Activity as a summary of the Current Level Package and the Minimum Level Package; however, forms 47 and 48 should be prepared as needed and attached to each Improvement Package for a program.



ZERO-BASE BUDGET Procedures & Instructions

EXECUTIVE DEPARTMENT OFFICE OF PLANNING AND BUDGET – Budget Division
SECTION SCHEDULE OF RENTS
SUBJECT INSTRUCTIONS FOR FORM OPB • BUDGET • 40

Form Purpose

This form is a detailed schedule of Rents for the program which will be attached to each decision package, except for a Minimum Objective Level Package, where an amount is requested for Rents in F. Y. 1978. The schedule, upon completion, should be copied and attached to each decision package, except Minimum, as a fully completed display.

- List type of Rents.
Examples – Xerox Rental, Postage Machine Rental, Office Equipment Rental, Office Space Rental, Post Office Box Rental.
- Identify the need for the Rents.
- Show funds budgeted for each type of Rents for F. Y. 1977.
- Show funds requested for Rents for F. Y. 1978 divided into the funding levels as requested on the decision packages.
- The F. Y. 1978 Rents request will be listed on this form from the individual Decision Packages where funds are requested for this particular sub-object, with the exception of the Minimum Level which will be included in the Current Level for schedule purposes.

F. Y. 1978 ZERO-BASE BUDGET REQUEST Page 1 of 1 OPB - Budget • 40
SCHEDULE OF RENTS

Type of Rents	Request Service Number	Field Audit		
		F. Y. 1977 Budgeted	F. Y. 1978 REQUESTED Minimum and Current Level	Improvement
Office Space	1,540 square feet @ \$8 per square foot (renting for Field Auditors and their support personnel). Rental rate is scheduled to increase to \$8 per square foot July 1, 1977.	12,400	13,250	
Office Machine	Primary Space Postage Meter	516	560	
Office Machine	IBM Portable Copier for new Financial Executive (1)			150
Total Rents		12,916	14,260	150





ZERO-BASE BUDGET Procedures & Instructions

EXECUTIVE DEPARTMENT
OFFICE OF PLANNING AND BUDGET - Budget Division
SECTION
SCHEDULE OF MOTOR VEHICLE EQUIPMENT PURCHASES
SUBJECT
INSTRUCTIONS FOR FORM OPB - BUDGET - 41

Form Purpose

This form is a detailed schedule of Motor Vehicle Equipment for the program which will be attached to each decision package, except for a Minimum Objective Level Package, where an amount is requested for Motor Vehicle Equipment in F. Y. 1978. The schedule, upon completion, should be copied and attached to each decision package, except Minimum, as a fully completed display.

- List type of Motor Vehicle Equipment.
- List, first, the Motor Vehicle Equipment requested to replace existing equipment.
- List second, Motor Vehicle Equipment additions to your present equipment fleet.
- Describe the purpose for which the Motor Vehicle Equipment is needed.
- Show funds requested for Motor Vehicle Equipment for F. Y. 1978 divided into the funding levels as requested on the decision packages.
- The F. Y. 1978 Motor Vehicle Equipment requests will be listed on this form from the individual decision packages where funds are requested for this particular object with the exception of the Minimum Level which will be included in the Current Level for schedule purposes.

F. Y. 1978 ZERO BASE BUDGET REQUEST SCHEDULE OF MOTOR VEHICLE EQUIPMENT PURCHASES Page 1 of 1 OPB - Budget - 41

Type of Motor Vehicle (List Replacement then Addition)	Use of Vehicle	F. Y. 1978 REQUESTED	
		Minimum Level	Improvement
(Replacement) Four Door Sedan	Field Examinations	6,000	
Total Motor Vehicle Equipment Purchase		6,000	



ZERO-BASE BUDGET Procedures & Instructions

EXECUTIVE DEPARTMENT	OFFICE OF PLANNING AND BUDGET - Budget Division
SECTION	SCHEDULE OF EQUIPMENT PURCHASES
SUBJECT	INSTRUCTIONS FOR FORM OPB - BUDGET - 42

Form Purpose

This form is a detailed schedule of Equipment for the program which will be attached to each decision package, except for a Minimum Objective Level Package, where an amount is requested for Equipment in F. Y. 1978. The schedule, upon completion, should be copied and attached to each decision package, except Minimum, as a fully completed display.

- List the type of Equipment.

Example: Office Equipment - Typewriters
 Office Equipment - Adding Machines and Calculators
 Office Equipment - Furniture
 Lab and Medical Equipment
 General Equipment Furnishings

NOTE: Any one piece of equipment which costs over \$500 must be separately aggregated.

- Show funds requested for Equipment Purchases for F. Y. 1978 divided into the funding levels as requested on the decision packages.

- The F. Y. 1978 Equipment requests will be listed on this form from the individual decision packages where funds are requested for this particular object, with the exception of the Minimum Level which will be included in the Current Level for schedule purposes.

F. Y. 1978 ZERO-BASE BUDGET REQUEST SCHEDULE OF EQUIPMENT PURCHASES Page 1 of 1 OPB - Budget - 42

BANKING Department	ESTIMATION Agency	PROGRAM Program	F. Y. 1978 REQUESTED	
			Minimum and Current Level	Incremental
Type of Equipment (List Replacement then Addition)				
(Replacement)				
	1	Air Conditioner - Window Unit	411	
	3	IBM Typewriter 18.75 each	2,250	
	4	Calculators 15.00 each	1,274	
(Addition)				
	2	Dictaphones (Portable pack H size)		900
Total Equipment Purchases			4,000	900





ZERO-BASE BUDGET Procedures & Instructions

EXECUTIVE DEPARTMENT
 OFFICE OF PLANNING AND BUDGET -- Budget Division
 SECTION
 SCHEDULE OF PER DIEM AND FEES
 SUBJECT
 INSTRUCTIONS FOR FORM OPB - BUDGET - 43

Form Purpose

This form is a detailed schedule of Per Diem and Fees for the program which will be attached to each decision package, except for a Minimum Objective Level Package, where an amount is requested for Per Diem and Fees in F. Y. 1978. The schedule, upon completion, should be copied and attached to each decision package, except Minimum, as a fully completed display.

- Categories for type of Per Diem is provided. List Per Diem not categorized under the caption "List Other."
- Identify the need for the Per Diem and Fee Categorized.
- Show funds budgeted for each type of Per Diem or Fee for F. Y. 1977.
- Show funds requested for Per Diem or Fees for F. Y. 1978 divided into the funding levels as requested on the decision packages.
- The F. Y. 1978 Per Diem and Fees requests will be listed on this form from the individual decision packages where funds are requested for this particular object, with the exception of the Minimum Level which will be included in the Current Level for schedule purposes.

F. Y. 1978 ZERO-BASE BUDGET REQUEST SCHEDULE OF PER DIEM AND FEES Page 9 of 1 OPB - Budget - 43

Form of Per Diem	Reason Requested	F. Y. 1977		F. Y. 1978 REQUESTED		TOTAL
		Budgeted	Requested	Requested	Requested	
Board/Commission Members						
Accounting/Audit						
Management Consulting						
Engineer/Architect						
Legal	Legal Expenses/Court Reporter used in connection with suits brought against Department	2,000		2,000		2,000
Education						
Medical						
Research						
List Other						
Total Per Diem and Fees		2,000		2,000		2,000





ZERO-BASE BUDGET Procedures & Instructions

EXECUTIVE DEPARTMENT
OFFICE OF PLANNING AND BUDGET -- Budget Division
SECTION
SCHEDULE OF COMPUTER CHARGES
SUBJECT
INSTRUCTIONS FOR FORM OPB - BUDGET - 44

Form Purpose

This form is a detailed schedule of Computer Charges for the program which will be attached to each decision package, except for a Minimum Objective Level Package, where an amount is requested for Computer Charges in F. Y. 1978. The schedule, upon completion, should be copied and attached to each decision package, except Minimum, as a fully completed display.

- Show the account number of the system (assigned by DOAS).
- Show the narrative description of the system.
- Show the funds budgeted, by program, for F. Y. 1977 for each system and the funds requested for F. Y. 1978 as divided into the funding levels.
- List new systems development separately.
- The F. Y. 1978 Computer Charges requests will be listed on this form from the individual decision packages where funds are requested for this particular object, with the exception of the Minimum Level which will be included in the Current Level for schedule purposes.

NOTE: DOAS can help provide the information you need to prepare this form.

ZERO-BASE BUDGET REQUEST
SCHEDULE OF COMPUTER CHARGES

Page 1 of 1 OPB - Budget - 44

Account Number	SYSTEM DESCRIPTION	FUND AMOUNT	
		F. Y. 1977 Budgeted	F. Y. 1978 REQUESTED (Minimum and Current Level)
408-01 02	Sales Reporting System	10,100	11,000
408-02 01	Control Inventory Data Entry	8,400	8,600
Total Computer Charges		18,500	19,600



ZERO-BASE BUDGET Procedures & Instructions

EXECUTIVE DEPARTMENT
OFFICE OF PLANNING AND BUDGET — Budget Division
SECTION
SCHEDULE OF OTHER CONTRACTUAL EXPENSE
SUBJECT
INSTRUCTIONS FOR FORM OPB - BUDGET - 45

Form Purpose

This form is a detailed schedule of Other Contractual Expense for the program which will be attached to each decision package, except for a Minimum Objective Level Package, where an amount is requested for Other Contractual Expense in F. Y. 1978. The schedule, upon completion, should be copied and attached to each decision package, except Minimum, as a fully completed display.

- List type of contract.
- Identify the need for the contract.
- For each contract, show the amount budgeted for F. Y. 1977.
- Show funds requested for F. Y. 1978 for each contract, divided into the funding levels as taken from the decision packages.
- The F. Y. 1978 Other Contractual Expense requests will be listed on this form from the individual decision packages where funds are requested for this particular object, with the exception of the Minimum Level which will be included in the Current Level for schedule purposes.

F. Y. 1978 ZERO-BASE BUDGET REQUEST SCHEDULE OF OTHER CONTRACTUAL EXPENSES Page 1 of 1 OPB - Budget - 45

Type of Contract	Reason Service Requested	Field Audit Program		
		F. Y. 1977 Budgeted	F. Y. 1978 REQUESTED Minimum and Current Level	Improvement
Audit A New Personnel Training	Average review of latest audit for auditing techniques by members of professional audit staff	1,800	1,800	
Total Other Contractual Expenses		1,800	1,800	



ZERO-BASE BUDGET Procedures & Instructions

EXECUTIVE DEPARTMENT OFFICE OF PLANNING AND BUDGET - Budget Division
SECTION ACTIVITY PERSONAL SERVICES SCHEDULE PREPARATION
SUBJECT INSTRUCTIONS FOR FORM OPB - BUDGET - 47

Form Purpose

This form serves two purposes: 1) Summarizes and details Personal Services from the Minimum and Current level program packages for an entire Activity, 2) Details Personal Services for a program Improvement package and is attached to the package.

Column 1 - Number of Budgeted Positions

- Enter the number of positions for each position title on the same grade and step and anniversary date.

Column 2 - Position Title

- Enter position titles alphabetically per Merit System Classification.

Column 3 - Grade, Step, Anniversary

- Use Merit System pay grade assigned to the position title and pay step as it applies to each position.
- ANNIV. (Month and Year) are listed to facilitate the calculations across the form for each position.

Column 4 - Payroll June 30, 1978, Annual Rate

- Enter position cost from the pay roll listing at the annualized rate of gross pay as of June 30, 1978. Do not include salary increases effective July 1, 1978.

Column 5 - F. Y. 1977 July 1 Raise and Within-grade Increases at Annual Rate

- Enter combined amounts for full-year costs of any F. Y. 1977 within-grade increases and the 12-month cost associated with the July 1 pay adjustment. Include also any promotions at annualized rates.

Column 6 - Annual Salary Rate June 30, 1977

- Enter the sum of column 4 and 5. These gross salary amounts should represent the gross F. Y. 1977 ending salary for each position. Do not include salary increases requested to be effective July 1, 1977.

Column 7 - All or Part-Year Within-grade Increases F. Y. 1978

- Enter amounts for within-grade increases which will occur in F. Y. 1978. This amount will vary, depending on the number of months the raise is in effect.

Column 8 - Personal Services Budget

- Enter the sum of columns 6 and 7. These amounts represent the cost of the position for F. Y. 1978 and not the annual salary rate.

A. F. Y. 1978 Current Positions

- List positions alphabetically and group by filled or vacant positions.
- Group positions with same position title, grade and step, and anniversary date.
- Position titles listed should be taken from the Annual Operating Budget.
- Enter correct position cost in column 4 from the June 30 payroll.
- Show beside position title the percentage of Federal funds which apply to the funding of a particular position. Example: A 50% Federally funded position would be - Clerk II (50% Federal).
- Show additional positions appropriated in F. Y. 1977 separate under both filled and vacant positions.
- Enter Total Current Positions by adding items under A. See sample.

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EXECUTIVE DEPARTMENT
OFFICE OF PLANNING AND BUDGET — Budget Division
SECTION
ACTIVITY PERSONAL SERVICES SCHEDULE PREPARATION
SUBJECT
INSTRUCTIONS FOR FORM OPB-BUDGET-47 (Continued)

B. F. Y. 1978 Requested Position Changes

- List positions which have been deleted or added in the entire activity for the Minimum and Current Level functional packages.
- Delete positions on the grade and step they currently are on.
- List any new positions on step 1.
- Enter Total Position Changes by adding items under B. See sample.

C. F. Y. 1978 Other Salary Cost

- Enter amounts in column 8 for Other Salary Cost:
- NDTE: Separate Decision Packages are made for upgrading a class of personnel. Do not list here.
- Stipends
 - Overtime
 - Night Pay Differential
 - Enter Total Other Salary Cost by adding items under C. See sample.
 - Enter Total Salaries, after item C, by adding A, B, and C. See sample.

D. F. Y. 1978 Requested Fringe Benefits

- Enter amounts for fringe benefits in column 8.
- F. Y. 1978 Rates:
 - F.I.C.A. rate is 5.85% on a base of \$15,300.
 - Retirement rate is 8% on Total Salaries.
 - Health Insurance rate is 3.75% on Total Salaries.
- Enter Total Fringe Benefits by adding items under D. See sample.

E. F. Y. 1978 Temporary Help

- Enter amounts for temporary help in column 8.
- Include fringe benefits for temporary help.

F. F. Y. 1978 Requested Lapse Factors

- Enter negative amounts for Delayed Hiring and Turnover in column 8 as applicable.
- Delayed Hiring can only exist where new positions are requested or where new institutions are phasing into operation.
- Enter Total Lapse Factors by adding items under F. See sample.

G. F. Y. 1978 Total Personal Services

- Add amounts in column 8 to get Personal Services Total for F. Y. 1978.

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PERSONAL SERVICES SCHEDULE – IMPROVEMENT OBJECTIVE LEVEL

OPB - BUDGET - 47

F. Y. 1978

ZERO BASE BUDGET REQUEST
PERSONAL SERVICES SCHEDULE

Page 1 of 1

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Position (1)	Position Title (2)	BANKING Department			Examination Activity (Current Level or (Indicate Minimum Level))			Field Audit Program (Only for Improvement)		
		G R A D E	S T E P	A L T E R N A T I V E	Payroll June 30, 1976 Annual Rate (4)	F. Y. 1977 July 1 Rate & Within Grade Increase at Annual Rate (5)	Projected Annual Salary Rate June 30, 1977 (6)	All or Part Year Within- Grade Increases F. Y. 1978 (7)	Personal Services Budgeted F. Y. 1979 (8)	
2	Financial Examiner FRINGES. FICA (5.85% = \$20,832) RETIREMENT (8% = \$20,832) HEALTH INSURANCE (2.75% = \$20,832)	16	1	1/78				468	20,832	
2	TOTAL PERSONAL SERVICES REQUESTED FOR "FIELD AUDITS" IMPROVEMENTS								24,499	



ZERO-BASE BUDGET Procedures & Instructions

EXECUTIVE DEPARTMENT OFFICE OF PLANNING AND BUDGET - Budget Division
SECTION SCHEDULE OF FUND SOURCES
SUBJECT INSTRUCTIONS FOR FORM OPB - BUDGET - 48

Form Purpose

This form is a detailed schedule of Federal and Other funds by itemized source of the funds.

- List Federal Funds by Federal Domestic Assistance Catalog (F.D.A.C.) number and Federal Agency granting the funds.
- List Other Funds by source identification, example; Student Fees, Park Receipts, Patient Fees.
- Show funds budgeted for each source of funds for F. Y. 1976 Actual and F. Y. 1977 budgeted per the latest approved amendment to the Annual Operating Budget.
- Show funds requested for F. Y. 1978 divided into the funding levels as requested on the decision packages.

NOTE: This form is prepared at the Activity Level as a summary of the Current Level Package and the Minimum Level package with the exception of the Improvement Package where you attach a separate schedule to each Improvement Package if increases in fund sources occur in them. Do not include Improvement amounts in the Current Level summary for the Activity.

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**ZERO-BASE
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EXECUTIVE DEPARTMENT
OFFICE OF PLANNING AND BUDGET — Budget Division
SECTION ACTIVITY OR DEPARTMENT
DECISION PACKAGE RANKING PREPARATION
SUBJECT
INSTRUCTIONS FOR FORM OPB-BUDGET-50

Form Purpose

This form displays the Activity or the Departmental State Fund priorities for F. Y. 1978 for each decision package and the State fund program cost for F. Y. 1977 for each first package in a series.

Rank

— Enter priority number of each package, starting with number 1 as the highest priority and ending with a number which equals the total number of packages. In any program series of packages: e.g., 1 of 3, 2 of 3, and 3 of 3, Package 1 of 3 is always ranked higher than 2 of 3 or 3 of 3. However, Package 1 of 3 or 2 of 3 or 3 of 3 in one program series can be ranked higher or lower than Packages in another program series.

Package Name

— Enter package name of each Decision Package ranked and note the series number by it. Names of Decision Packages should be as descriptive of the program as possible, preferably the name of the program.

F. Y. 1977 Budgeted by Program

— Enter the F. Y. 1976 Amount for State funds budgeted for the program and number of positions for each first package of a series; i.e., Package 1 of — will always show the F. Y. 1977 State funds and positions for the entire program. Package 2 of — or 3 of —, etc., will show a blank in the F. Y. 1977 amount column since the F. Y. 1977 amount was already shown by the first package of the series.

F. Y. 1978 Requested by Package

— Enter the F. Y. 1978 amount for State funds requested and number of positions for each Decision Package ranked.

Cumulative Requested

— Enter the Cumulative State funds, the percentage the cumulative amount represents to the Total F. Y. 1977 State fund total, and the cumulative number of positions.

Ranking Packages

- All Decision Packages are ranked even if Federal or Other funds finance the package.
- State fund amounts will be the only funds listed on the ranking sheet even if package is funded partially or fully by Federal or Other funds.
- Show positions for all ranked packages.
- Rank Decision Packages as to how effectively and efficiently each one contributes to the Departmental goals and objectives.
- Decision Packages are ranked for each Activity and for the Department as well.

Debt Service Ranking

- Existing Authority Lease Rentals (A.L.R.'s) and General Obligation Bond (G. O. Bond) payments should be ranked with a high priority.
- DO NOT request new A.L.R.'s or G. O. Bond payments for construction in F. Y. 1978, rather, any request for construction in F. Y. 1978 should be requested as Capital Outlay.

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ACTIVITY RANKING
OPB - BUDGET - 50

F. Y. 1978 ZERO-BASE BUDGET REQUEST DECISION PACKAGE RANKING OPB - Budget - 50

R N D	PACKAGE NAME	F. Y. 1977 SUGGESTED BY PROGRAM		F. Y. 1978 REQUESTED BY PACKAGE		CUMULATIVE REQUESTED		
		Excess Funds	Priority	Excess Funds	Priority	Excess Funds	% 1977	Priority
1	Major Busk Reg. 11 of 41	186,170	5	175,000	3	175,000	16	3
2	Administration 11 of 31	200,000	16	275,000	6	480,000	32	11
3	Threat Comp. Reg. 11 of 41	500,000	70	275,000	16	755,000	54	21
4	Food Audit 11 of 31	251,822	18	241,487	18	1,016,487	72	26
5	Major Busk Reg. 12 of 41			70,000	3	886,487	78	30
6	Threat Comp. Reg. 12 of 41			54,979	7	1,041,466	83	40
7	Food Audit 12 of 31			89,777	4	1,131,243	87	44
8	Major Busk Reg. 13 of 41			170,000	3	1,301,243	100	47
9	Threat Comp. Reg. 13 of 41			62,000	3	1,363,243	106	50
10	Food Audit 13 of 31			22,717	7	1,385,960	108	52
11	Threat Comp. Reg. 14 of 41			18,000	7	1,403,960	112	54
12	Administration 12 of 31			22,000	7	1,425,960	114	56
13	Major Busk Reg. 14 of 41			60,000	3	1,485,960	120	58
ACTIVITY TOTALS		1,250,000	51	1,500,000	54	1,600,000	120	58
				1,250,000		1,250,000		

F. Y. 1978 August 15, 1978 Page 3 of 1

DEPARTMENT RANKING
OPB - BUDGET - 50

F. Y. 1978 ZERO-BASE BUDGET REQUEST DECISION PACKAGE RANKING OPB - Budget - 50

R N D	PACKAGE NAME	F. Y. 1977 SUGGESTED BY PROGRAM		F. Y. 1978 REQUESTED BY PACKAGE		CUMULATIVE REQUESTED		
		Excess Funds	Priority	Excess Funds	Priority	Excess Funds	% 1977	Priority
1	Administration 11 of 31	600,000	24	275,000	16	275,000	14	14
2	Major Busk Reg. 11 of 41	150,170	5	175,000	3	450,000	22	17
3	Administration 12 of 31	200,000	16	275,000	6	725,000	38	23
4	Threat Comp. Reg. 11 of 41	500,000	70	275,000	16	1,000,000	54	29
5	Administration 13 of 31			200,000	17	1,200,000	61	31
6	Food Audit 11 of 31	251,822	18	241,487	18	1,441,487	67	33
7	Major Busk Reg. 12 of 41			70,000	3	1,511,487	68	34
8	Threat Comp. Reg. 12 of 41			54,979	7	1,566,466	70	35
9	Food Audit 12 of 31			89,777	4	1,656,243	75	37
10	Administration 14 of 31			30,000	3	1,686,243	77	38
11	Major Busk Reg. 13 of 41			120,000	3	1,806,243	82	40
12	Threat Comp. Reg. 13 of 41			62,000	3	1,868,243	84	41
13	Food Audit 13 of 31			22,717	7	1,890,960	85	42
14	Threat Comp. Reg. 14 of 41			18,000	7	1,908,960	86	43
15	Administration 15 of 31			22,000	7	1,930,960	87	44
16	Major Busk Reg. 14 of 41			60,000	3	1,990,960	90	45
17	Administration 16 of 31			77,000	7	2,067,960	93	46
DEPARTMENT TOTALS		1,950,000	79	2,000,000	66	2,000,000	121	50

F. Y. 1978 August 21, 1978 Page 3 of 1



ZERO-BASE BUDGET Procedures & Instructions

EXECUTIVE DEPARTMENT OFFICE OF PLANNING AND BUDGET - Planning Division
SECTION ACTIVITY INFORMATION SUMMARY
SUBJECT INSTRUCTIONS FOR FORM OPB - PLANNING - 51A

Form Purpose

This form displays description information about an Activity necessary to provide a basic understanding of the activity's operations.

1. Activity Purpose

- Review and revise, if necessary, the statement of purpose for this activity found in Volume II, Program Display, of the Governor's Recommended Budget for F. Y. 1977. The Activity Purpose should be a clear and concise statement of why the activity is being conducted.

2. Activity Description

- Review and revise, if necessary, the description of this activity found in Volume II of the Governor's Recommended Budget for F. Y. 1977. Identify the service(s) being provided and categorize the recipients by service used.

3. Basis of Authorization

- Identify the legal and administrative mandates which form the basis for operation of this activity.

4. Enumerate Programs of this Activity

- List the programs which are contained within this Activity. The listing should be the same as used for preparation of the individual decision packages.

5. Forecast of Substantial Changes in Scope of Activity

- Identify any expected (within the next five years) changes in the scope of activity purpose or the programs performed. Identify the expected source of initiative for these changes and explain the expected effects on services being provided and on categories of recipients (example: changing Federal program regulations).

6. Enumerate Sources of Funding

- List the sources which provide funds for this activity. In the case of Federal funds, identify source by program name (example: HUD 70%).

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ACTIVITY INFORMATION SUMMARY
OPB - PLANNING - 51A

F. Y. 1978 27th BASE BUDGET REQUEST OPB - Planning - 51A
ACTIVITY INFORMATION SUMMARY

BANKING		Examination	
Department		Agency	
1 Activity Purpose			
To determine the true financial status of banks and thrift institutions and to approve or deny requests for new or expanded facilities			
2 Activity Description			
To determine through on site examinations the true financial condition of banks and thrift institutions, write comprehensive reports which analyze their financial status, make recommendations to correct problems in both written and oral form, interview applicants for new or expanded facilities, and make recommendations to the Commission of Banking and Finance for approval or disapproval.			
3 Basis of Authorization			
Title 41A Georgia Code Annotated			
4 Numerous Programs of this Activity			
a. Administration - Administrative Offices of Director		c. Field Audits - Examination and analysis of State Chartered Banks and Thrift Institutions	
d. Supervision - Financial and Personnel Support Section		d. Major Banking Regulations - Review, analysis and update of Banking Regulations	
		e. Thrift Institution Regulations - Review, analysis and update of Thrift Institution Regulations	
5 Forecast of Substantial Changes in Scope of Activity			
With the advent of new Federal Regulations governing Banks and Thrift Institutions a complete revision of the State regulations governing those agencies is mandated. This will require substantial additions to the major banking and thrift institution regulations staffs to rewrite the law and to monitor enforcement.			
6 Numerous Sources of Funding			
STATE FUNDS - USRIFILS - U. S. TREASURY			
7 Financial Summary		BUDGETED	
	F. Y. 1977	DEPARTMENTAL	
		F. Y. 1978	F. Y. 1980
			ACTIVITY PROJECTIONS
		F. Y. 1981	F. Y. 1982
			F. Y. 1983
Number of Personnel	51	93	30
Federal Funds	\$ 144,000	\$ 209,000	\$ 230,000
Other Funds	40,000	70,000	84,000
State Funds	1,250,000	2,740,000	2,650,000
TOTAL FUNDS	\$7,434,000	\$2,921,000	\$2,724,000
		\$1,055,000	\$3,360,000
			\$3,812,000



ZERO-BASE BUDGET Procedures & Instructions

EXECUTIVE DEPARTMENT OFFICE OF PLANNING AND BUDGET -- Planning Division
SECTION ACTIVITY PERFORMANCE EVALUATION SUMMARY
SUBJECT INSTRUCTIONS FOR FORM OPB - PLANNING - 51B

Form Purpose

This form summarizes, at the activity level, the program evaluation information contained in the program decision packages. It is important to note that, where possible, the most important or major items should be selected for listing rather than simply listing all previously identified items.

1. Major Objectives)

- List the Major Objectives of the programs contained within this activity as set forth in the program decision packages.

2. Limited Objectives

- Select only the best or most illustrative Limited Objectives of the programs contained within this activity for each of the levels of effort contained in the decision packages. At least one Limited Objective should be selected for each program contained within the activity.

3. Evaluation Measures

- Select the evaluation measures corresponding to the above selected Limited Objectives for each of the programs contained within this activity.
- Project the expected outcome of each measure for F. Y. 1977 and each of the levels of funding contained in the F. Y. 1978 decision packages.

(Attach additional sheets if necessary)

DATE Rev. 6/76

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OPB - Planning - 51B

ACTIVITY PERFORMANCE EVALUATION SUMMARY

OPB - PLANNING - 51B

F. Y. 1978

ZERO-BASE BUDGET REQUEST
ACTIVITY PERFORMANCE EVALUATION SUMMARY

OPB - Planning - 51B

BANKING		Examination				
Department		Agency				
1. MAJOR OBJECTIVE(S)						
To examine every State Chartered Bank and Thrift Institution in Georgia on an annual basis and to promptly investigate all requests for establishing new institutions. To update regulations governing major banks and thrift institutions.						
2. LIMITED OBJECTIVE(S)						
A. Minimum Objective Level(s)						
To examine 90% of all banks and 84% of all thrift institutions during F. Y. 1977 and to average four weeks investigation time per request for new or expanded institutions. To review and update 90% of the regulations governing banks and thrift institutions.						
B. Current Objective Level(s)						
To examine 95% of all banks and 100% of all thrift institutions during F. Y. 1977 and to average two weeks investigation time per request for new or expanded institutions. To review and update 90% of the regulations governing banks and thrift institutions.						
C. Improved Objective Level(s)						
To examine 98% of all banks and 100% of all thrift institutions during F. Y. 1977 and to average one week investigation time per request for new or expanded facilities. To review and to update 100% of the regulations governing banks and thrift institutions.						
3. EVALUATION MEASURES						
A. Program Effectiveness Measures:		F. Y. 1977	F. Y. 1978	F. Y. 1978	F. Y. 1978	F. Y. 1978
		Current Objective	Minimum Objective	Current Objective	Improved Objective	Additional Imp. Objps
% of Banks Examined		95	80	95	98	
% of Thrift Institutions Examined		100	84	100	100	
% of Bank Regulations Reviewed and Updated		90	90	90	95	100
% of Thrift Institution Regulations Reviewed and Updated		90	90	90	95	100
B. Related Efficiency Measures						
Average Cost per Bank Examination		\$2,745	\$2,890	\$2,910	\$2,900	
Average Cost per Thrift Institution Examination		\$348	\$362	\$316	\$372	
Man Hour Cost to Update Bank Regulations		\$15.20	\$20.42	\$15.60	\$11.32	\$11.20
Man Hour Cost to Update Thrift Institution Regulations		\$12.20	\$13.72	\$13.20	\$15.86	\$12.48



ZERO-BASE BUDGET Procedures & Instructions

EXECUTIVE DEPARTMENT
 OFFICE OF PLANNING AND BUDGET - Budget Division
 SECTION
 BUDGET UNIT OR DEPARTMENT SUMMARY
 SUBJECT
 INSTRUCTIONS FOR FORM OPB - BUDGET - 60

Form Purpose

This form is a summary of objects and fund sources of the Activity Financial Summaries for each Budget Unit, if an agency has more than one Budget Unit, and for the entire Department. The F. Y. 1975 Actual Column should be per the Audit Report.

- Show amounts by categories listed for F. Y. 1975 Actual, F. Y. 1976 Actual, F. Y. 1977 Budget, and F. Y. 1978 requested. F. Y. 1978 Requested is divided into three funding levels summarized from the Activity Financial Summaries.
- Amounts for F. Y. 1977 should be identical to the Annual Operating Budget to include amendments thereto approved by OPB since the beginning of the Fiscal Year.

F. Y. 1978 ZER0 BASE BUDGET REQUEST BUDGET UNIT OR DEPARTMENT SUMMARY OPB - Budget 60

BANKING

OBJECTS/FUNDS	F. Y. 1975		F. Y. 1976	F. Y. 1977	F. Y. 1978 REQUESTED			TOTAL All Packages
	Actual	Actual	Budgeted	Minimum Level Package	Current Level Package	Programmed Package		
Number of Positions	58	60	75	49	30	11		90
A. TOTAL PERSONNEL SERVICES	889,000	927,000	1,075,000	815,000	400,000	135,000		1,350,000
B. RECURRING OPERATING EXPENSES	728,300	318,000	340,000	286,890	93,310	20,000		400,000
C. TRAVEL	192,000	207,000	225,000	172,743	85,000	25,257		283,000
D. MOTOR VEHICLES & EQUIPMENT PURCHASES	70,000	58,000	82,000	20,059	9,541			30,000
E. PUBLICATIONS AND PRINTING	48,000	71,000	82,000	82,000	27,000	18,000		100,000
F. EQUIPMENT PURCHASES	10,000	15,000	19,000	10,000	5,000	15,000		30,000
G. REPAIRS AND MAINT.			18,000	18,000	5,000			18,000
H. COMPUTER CHARGES	20,000	35,000	25,000	25,000	10,000			35,000
I. OTHER CONTRACTUAL EXPENSES	10,000	3,000	3,000	5,000	5,000			10,000
J. AUTHORITY LEASE RENTALS								
K. GENERAL OBLIGATION BONDS								
L. CAPITAL OUTLAY						2,000		2,000
M. LIST OTHER OBJECTS								
TOTAL EXPENDITURES FROM ALL FUNDS	1,887,000	1,630,000	1,850,000	1,401,437	835,251	212,257		2,250,000
FEDERAL FUNDS	100,000	150,000	150,000	175,000				175,000
STATE FUNDS	80,000	80,000	50,000	75,000				75,000
STATE GENERAL FUNDS	1,907,000	1,400,000	1,650,000	1,151,437	835,251	212,257		2,000,000

John B. Nixon
 Commissioner

August 31, 1978



AN EXCERPT--PAGES 107-185

AN EVALUATION OF
THE ZERO-BASE BUDGETING
SYSTEM IN GOVERNMENTAL
INSTITUTIONS

GEORGE SAMUEL MINMIER
Department of Accounting
School of Business Administration
Georgia State University

Research Monograph No. 68

Publishing Services Division
School of Business Administration
Georgia State University
Atlanta, Georgia

1975



CHAPTER V

ANALYSIS OF THE ZERO-BASE BUDGETING SYSTEM
EMPLOYED BY THE STATE OF GEORGIAIntroduction

The purpose of this chapter is to analyze and evaluate the zero-base budgeting system presently employed by the State of Georgia. This investigation of the merits of zero-base budgeting is divided into three principal sections:

1. A measurement of the acceptance of the zero-base budgeting system by all budget participants.
2. An analysis of the zero-base budgeting system's contribution toward a greater degree of management control than the previous incremental budgeting system.
3. An analysis and evaluation of other problems or factors relevant to the effectiveness of the zero-base budgeting system.

Description of the System Analysis

The following investigation techniques were employed during the analysis phase of this study:

1. Conduct preliminary interviews with selected departmental budget analysts;

2. Develop a system questionnaire and distribute it to all zero-base budgeting analysts;
3. Conduct follow-up interviews with selected departmental budget analysts, department heads, and Governor Jimmy Carter;
4. Conduct a detailed examination of the zero-base budgeting procedures and techniques presently employed; and
5. Review the executive budgets for the State of Georgia for fiscal years 1972, 1973, and 1974.

Interviews were conducted with selected budget analysts prior to the preparation of the system questionnaire. The purpose of these interviews was to determine the problem areas in the budgeting process which should be investigated. In addition, preliminary drafts of the system questionnaire were reviewed by these analysts prior to the preparation and distribution of the system questionnaire. A copy of the system questionnaire is presented in Appendix D.

The system questionnaires were sent to the budget analysts in the twenty-seven departments employing the zero-base budgeting system. Also, system questionnaires were distributed to the twelve budget analysts in the Office of Planning and Budget. Telephone calls were made to each recipient of the questionnaire prior to or immediately preceding the initial mailing of the questionnaire. These calls were made to stress the importance and confidentiality of the survey. In addition, a follow-up letter with an additional copy of the system questionnaire was sent to all budget analysts

approximately five weeks after the initial mailing in an effort to improve the response to the survey. Samples of the original transmittal letter and the follow-up letter are presented in Appendix E and Appendix F, respectively.

Thirty-two system questionnaires were completed and returned by the budget analysts. This represents a response rate of 82%.

The survey compares the responses of the budget analysts in three ways. The first comparison separates responses of budget analysts in the operating departments from those of budget analysts in the Office of Planning and Budget. This separation was accomplished by marking "OPB" on the questionnaires sent to the budget analysts in the Office of Planning and Budget. The purpose of this comparison was to evaluate the views of both types of budget analysts in regard to the zero-base budgeting system. A summary of the responses arranged in this manner is presented in Appendix G.

The second comparison differentiates between the responses of the departmental budget analysts present during the implementation of zero-base budgeting and the responses of the budget analysts who were not. The differentiation was accomplished by asking each participant to mark the appropriate box on the top portion of the questionnaire. This separation was done in order to compare and evaluate the views of (1) those budget analysts experienced in both the incremental and zero-base budgeting systems employed in the State of Georgia, and (2) budget analysts who have worked

only with the zero-base budgeting system. A summary of the responses arranged in this manner is presented in Appendix H.

The final comparison separates the responses of the departmental budget analysts based on the relative size of the department. This was accomplished by asking the budget analysts to check the appropriate box representing the amount of state funds allocated to his department in the previous fiscal year budget. The options given were (1) greater than \$100,000,000, (2) greater than \$10,000,000, (3) greater than \$5,000,000, or (4) less than \$5,000,000. This separation was made to determine whether the effectiveness of the zero-base budgeting system is affected by the size of the department. A summary of the responses according to relative size of the departments is presented in Appendix I.

The overall results obtained from the system questionnaire are contained in Appendix J. In addition to merely answering the multiple-choice questions in the system questionnaire, many budget analysts volunteered comments of their own. These comments appear in Appendix K.

After the results of the survey were tabulated and summarized, follow-up interviews were conducted with selected budget analysts and department heads. The purpose of these interviews was to review the findings of the survey with the participants and their superiors in an effort to get a better understanding of the survey results. Also, a meeting was held on January 7, 1974 with Governor Jimmy Carter and Mr. Clark Stevens, Head of the Budget Bureau of the Office

of Planning and Budget, to discuss the findings of the survey.

In addition to the system questionnaire and personal interviews, a detailed examination was made of the zero-base budgeting procedures and techniques presently being employed. This involved not only a thorough inspection of zero-base budgeting manuals and instructions distributed statewide, but also an examination of the various departmental instructions and techniques as well.

The final investigative technique employed was a review of the executive budgets for fiscal years 1972, 1973, and 1974. Executive budgets are the proposed budgets submitted by the Governor to the General Assembly of Georgia for their consideration and approval. This was done in an effort to determine quantitatively whether there had been a shifting of financial resources as a direct result of the implementation of zero-base budgeting. The executive budget for fiscal year 1972 represents the last executive budget prepared under the incremental budgeting system. Executive budgets for fiscal years 1973 and 1974 reflect the allocation of resources under the new zero-base budgeting system.

Personnel Acceptance of Zero-Base Budgeting

This phase of the analysis is concerned with the degree of acceptance of the zero-base budgeting system by budgeting personnel in the State of Georgia. In order for any new system to be successful, it must have the acceptance and

confidence of the personnel who are responsible for administering the system. Acceptance will, in turn, depend upon the consideration given to human factors during the planning and implementation stages of the new system.

In their book, Financial Information Systems: Theory and Practice, James B. Bower, Robert E. Schlosser, and Charles T. Zlatkovich introduced the human factors principle of system design. This principle states that the design of a system should be consistent with the applicable human factors since people are responsible for the effectiveness of the system.¹ The term human factors includes all those personality traits that consciously or unconsciously shape the system as finally designed.²

For convenience in examining the effect of those human factors affecting the acceptability or unacceptability of the zero-base budgeting system, two levels of management are distinguished: top management and middle management. Top management consists of the Governor and department heads. The term, middle management, is used in referring to budgeting personnel at lower organizational levels within the departments. In addition to the two levels of management mentioned, the attitudes of the budget analysts in the Department of

¹James B. Bower, Robert E. Schlosser, and Charles T. Zlatkovich, Financial Information Systems (Boston: Allyn & Bacon, Inc., 1970), p. 152.

²Ibid., p. 153.

Planning and Budget concerning the zero-base budgeting system are presented.

Top Management's Acceptance of
Zero-Base Budgeting

The purpose of this section is to examine top management's attitudes concerning the zero-base budgeting system. "It is axiomatic that the wholehearted support of top management is required for system acceptance and success. Middle management and non-supervisory employees are quick to take their cue from the attitudes that flow downward."³

The zero-base budgeting system does have the full support of Governor Carter. This is evidenced by a statement made by the Governor during an interview: "I think our zero-base budgeting system is great for management's decision-making. . . . Zero-base budgeting, in itself, has given me an extremely valuable method by which I can understand what happens deep in a department."⁴

However, the Governor's strong support of zero-base budgeting is not shared by many of his department heads. Of thirteen department heads interviewed during this survey, only two indicated strong support for the zero-base budgeting

³James B. Bower and J. Bruce Sefert, "Human Factors in System Design," Management Services, II, No. 6 (November-December, 1965), p. 41.

⁴Governor Jimmy Carter, interview held in the Governor's Office, State Capital Building, Atlanta, Georgia, January 7, 1974.

system. The other department heads expressed varying degrees of dissatisfaction with the new budgeting system.

Much of this dissatisfaction with zero-base budgeting stems from the way in which it was originally presented and later implemented. Governor Carter was interested in a budgeting system which would enable him to examine the state's expenditures in detail. After hearing of Peter Phyrre's article concerning zero-base budgeting, Governor Carter invited Mr. Phyrre to Atlanta to discuss the budgeting system. Mr. Phyrre was later employed as a consultant to implement the zero-base budgeting system in the State of Georgia.

After the decision was made to implement the new budgeting system, Governor Carter held a series of meetings with his department heads to explain the system and the reasons for its adoption. Although Governor Carter is to be commended for his effort to gain the full support of his department heads, the fact that they had no input into the original decision to adopt the zero-base budgeting system most certainly had a detrimental effect on their attitudes.

Another factor contributing to less than full support of zero-base budgeting by department heads concerns the political framework existing in the executive branch of the government of the State of Georgia. Individuals can become department heads in one of three ways: (1) appointment by the Governor, (2) appointment by a state committee or board, and (3) selection by the electorate of the State of Georgia in a statewide election. In a situation such as this, it is

extremely difficult for a Governor to receive the wholehearted support of his department heads for his programs. Some evidence of a breakdown in support is evidenced by the fact that several department heads went directly to the budgeting session of the legislative branch to request more funds than allotted to their departments in the executive budget.

The method of selecting department heads created many problems during the implementation stage of zero-base budgeting. All of Mr. Phyrre's budgeting experience was with Texas Instruments, Inc. There, department heads either conform to the directives of top management or take the risk of being replaced.

This management environment can be illustrated by a situation that occurred at Texas Instruments, Inc. during the first few weeks of zero-base budgeting. During the preparation of decision packages, many department heads complained that it was virtually impossible to prepare decision packages for each function which reflected a level of effort below the current level. In view of these complaints, higher management met with the disgruntled department heads to explain that the preparation of decision packages representing a minimum level of effort does not necessarily result in a reduction in their budget. The department heads were then informed that if they still felt they were unable to prepare these decision packages, then a replacement would be found who could do the job. Consequently, decision packages

representing a minimum level of effort were prepared for each function participating in the zero-base budgeting process.⁵

However, when Mr. Phyrre encountered this type of resistance by department heads in the State of Georgia, he was often unable to change their views regarding the new system. This should not be considered a criticism of Governor Carter, Mr. Phyrre, or any other individual; rather, it was a result of the political framework existing in the executive branch of the government. Consequently, much of Mr. Phyrre's efforts to establish a budgeting system similar to that at Texas Instruments, Inc. were thwarted by the department heads.

Departmental Budget Analysts' Acceptance of Zero-Base Budgeting

This section examines the degree of acceptance of the zero-base budgeting system by departmental budget analysts. This analysis is based on results obtained from the system questionnaire and personal interviews with departmental budget analysts both before and after the distribution of the system questionnaire.

It is the premise of this analysis that the views of middle management regarding the new budgeting system can be adequately represented by the responses of the departmental budget analysts. These analysts assist each activity within the departments with their budget preparation. In fact, many

⁵Peter Phyrre, interview held during meeting of the International Conference of the Planning Executives Institute, New York Hilton Hotel, May 15, 1972.

activities depend on their departmental budget analysts to perform all the detailed work in preparing decision packages. Also, the actual rankings of decision packages are greatly influenced by the departmental budget analysts. Therefore, it is concluded that the degree of acceptance by departmental budget analysts is a key variable to the success or failure of the zero-base budgeting system.

Summaries of the responses to the system questionnaire are presented in the Appendices. This phase of the analysis is particularly concerned with the responses of departmental budget analysts regarding questions pertaining to their perception of:

1. The involvement of department heads in the zero-base budgeting process.
2. The involvement of first-line supervisors in the zero-base budgeting process.
3. The adequacy of the planning phase prior to the implementation of the zero-base budgeting system.
4. The adequacy of the instructions pertaining to the zero-base budgeting system.
5. The availability of cost data necessary to properly prepare decision packages.
6. The degree of feedback regarding changes in departmental and activity decision package rankings.
7. The effect of zero-base budgeting on the quality of management information.

8. The reallocation of financial resources as a result of implementing the zero-base budgeting system.

9. Opinions of the zero-base budgeting system and its future applicability in the State of Georgia.

Involvement of Department Heads. The involvement of department heads in the zero-base budgeting system as perceived by departmental budget analysts is the subject of this first section. Table 1 presents a summary of the responses by departmental budget analysts regarding this question.

Over half (56%) of the respondents indicated there had been no increase in the involvement of department heads in budget formulation as a result of implementing the zero-base budgeting system. While it is encouraging to note that no respondent indicated a decrease in the involvement by department heads in the new budgeting system, it is equally discouraging that such a high proportion felt there had been no increase in their involvement. In view of the increased efforts required of budget analysts in preparing the budget, any feelings they may have regarding a lack of support from their department heads would have a detrimental effect on the effectiveness of the new zero-base budgeting system.

The findings do indicate greater involvement on the part of department heads in a number of departments. It can therefore be concluded that while the budget analysts' perception of department head involvement in the zero-base budgeting process is less than had been originally expected;

there has been an improvement in the degree of involvement of department heads as a result of the zero-base budgeting system.

TABLE 1
INVOLVEMENT OF DEPARTMENT HEADS AS PERCEIVED
BY DEPARTMENTAL BUDGET ANALYSTS

Did the agency head become more involved in budget formulation after the implementation of zero-base budgeting?			
	Percentage of Respondents		
	Total	Present During Implementation	Not Present During Implementation
a. Much more involved	22%	18%	33%
b. Slightly more involved	22	23	17
c. About the same	56	59	50
d. Slightly less involved	0	0	0
e. Much less involved	0	0	0
	100%	100%	100%
Total Number of Respondents	(23)	(17)	(6)

Involvement of First-Line Supervisors. The degree of involvement in the budgeting process by first-line supervisors as perceived by departmental budget analysts is given

in Table 2. The term "first-line supervisors" pertains to all supervisory personnel below the department head level actively engaged in the budgeting process. This would include all activity managers and in some cases would include the supervisor of a large function.

TABLE 2
INVOLVEMENT OF FIRST-LINE SUPERVISORS AS PERCEIVED
BY DEPARTMENTAL BUDGET ANALYSTS

Did first-line supervisors become more involved in budget formulation after the implementation of zero-base budgeting?

	Percentage of Respondents		
	Total	Present During Implementation	Not Present During Implementation
a. Much more involved	44%	47%	33%
b. Slightly more involved	17	12	33
c. About the same	39	41	34
d. Slightly less involved	0	0	0
e. Much less involved	0	0	0
	100%	100%	100%
Total Number of Respondents	(25)	(17)	(6)

In general, it can be concluded that most departmental budget analysts believe there has been a greater degree of involvement in budget formulation by first-line supervisors under the zero-base budgeting system. All departmental participants in the survey agreed there has been no decrease in the involvement of first-line supervisors in the budgeting process. While a number of the respondents (39%) expressed the opinion that there has not been an increase in the involvement of first-line supervisors, the majority of the respondents (61%) indicated more involvement as a result of the zero-base budgeting system.

Adequacy of the Advanced Planning Phase. In order to insure the success of any new system, there must be adequate planning prior to its implementation. The adequacy of the advanced planning phase of zero-base budgeting as perceived by departmental budget analysts is given in Table 3.

These findings indicate considerable doubt on the part of those individuals responsible for preparing the budget as to the adequacy of the planning phase prior to the implementation of the new budgeting system. Typical comments from survey participants were: "The system was designed for industry and not state government." "Each agency should have had time to work with the system to test it before it was implemented." (Appendix K).

The adequacy of the planning prior to the implementation of the zero-base budgeting system is examined in a later

section of this study. The important point to note here is that most of the budgeting personnel in the lower organizational levels believe the advanced planning phase was inadequate. This would most certainly have a detrimental effect on their performance during the first year of the new system.

TABLE 3

THE ADEQUACY OF THE ADVANCED PLANNING PHASE
OF ZERO-BASE BUDGETING AS PERCEIVED BY
DEPARTMENTAL BUDGET ANALYSTS

	Percentage of Respondents		
	Total	Present During Implementation	Not Present During Implementation
a. Yes	17%	18%	17%
b. No	65	64	66
c. Uncertain	18	18	17
	100%	100%	100%
Total Number of Respondents	(23)	(17)	(6)

Adequacy of the Budget Instructions. A prerequisite for an effective and efficient budgeting system is the preparation of adequate instructions regarding how the job

should be performed. An excellent budgeting system can fail because individuals charged with the responsibility of preparing the budget are given inadequate instructions. The opinions of departmental budget analysts regarding the adequacy of budget instructions during the first year of zero-base budgeting and the adequacy of the present budget instructions are presented in Table 4.

It is evident that there was some dissatisfaction with the original zero-base budgeting instructions. Of those departmental budget analysts who were present during the first year of zero-base budgeting, over half (53%) indicated that instructions were inadequate. This dissatisfaction with the original budget instructions is illustrated by this comment from a departmental budget analyst:

Instructions were poorly prepared. There were contradictions in information given by the Budget Bureau during preparation and final analysis. There was a lack of knowledge as to requirements by the Budget Bureau. (Appendix K).

It is also evident that there presently exists general satisfaction with the current budget instructions. Eighty-three percent of all departmental budgeting analysts participating in the survey indicated they now have adequate instructions to prepare a zero-base budget.

The Availability of Cost Data. The availability of cost data necessary for proper preparation of a budget is essential to any budgeting system. The opinions of departmental budget analysts regarding the adequacy of cost data for decision

package preparation both in the first year of zero-base budgeting, and presently are given in Table 5.

TABLE 4

ADEQUACY OF THE ZERO-BASE BUDGETING INSTRUCTIONS
AS PERCEIVED BY DEPARTMENTAL BUDGET ANALYSTS

Do you feel you received adequate instructions during the first year of zero-base budgeting to properly prepare your budget requests?

	Percentage of Respondents		
	Total	Present During Implementation	Not Present During Implementation
a. Yes	48%	41%	66%
b. No	43	53	17
c. Uncertain	9	6	17
	100%	100%	100%
Total Number of Respondents	(23)	(17)	(6)

Do you feel you presently have adequate instructions as to how to properly prepare a decision package?

	Percentage of Respondents		
	Total	Present During Implementation	Not Present During Implementation
a. Yes	83%	82%	83%
b. No	13	12	17
c. Uncertain	4	6	0
	100%	100%	100%
Total Number of Respondents	(23)	(17)	(6)

TABLE 5
 AVAILABILITY OF ADEQUATE COST DATA FOR
 DECISION PACKAGE PREPARATION AS
 PERCEIVED BY DEPARTMENTAL
 BUDGET ANALYSTS

During the first year of operating with the zero-base budgeting system, did you have adequate cost data available to properly prepare a decision package?

	Percentage of Respondents		
	Total	Present During Implementation	Not Present During Implementation
a. Yes	30%	29%	33%
b. No	65	71	50
c. Uncertain	5	0	17
	100%	100%	100%
Total Number of Respondents	(23)	(17)	(6)

Do you feel you presently have adequate cost data necessary to properly prepare a decision package?

	Percentage of Respondents		
	Total	Present During Implementation	Not Present During Implementation
a. Yes	65%	53%	100%
b. No	30	41	0
c. Uncertain	9	6	0
	100%	100%	100%
Total Number of Respondents	(23)	(17)	(6)

One conclusion to be derived from these findings is that a high proportion (71%) of those departmental budget.

analysts present during the first year of zero-base budgeting felt the cost data available for budget preparation was inadequate. As a result, a large amount of cost allocation occurred which adversely affected the operations of the new budgeting system.

It can be concluded that there has been a substantial increase in the availability of cost data since the first year of zero-base budgeting. Sixty-five percent of the respondents indicated they presently have adequate cost data for preparing decision packages.

However, many departmental budget analysts (30%) are still dissatisfied with the availability of adequate cost data for decision package preparation. This problem is examined in greater detail in a later section of this chapter.

Feedback Regarding Changes in Decision Package Preparation. This section of the analysis is concerned with the opinions of departmental budget analysts regarding the amount of feedback they receive when decision package rankings are changed at higher organizational levels. A more comprehensive examination concerning the degree of feedback existing in the zero-base budgeting system is presented in a subsequent section of this chapter. Table 6 presents the opinions of departmental budget analysts regarding the adequacy of feedback pertaining to changes in decision package rankings.

It is interesting to note that all the unfavorable responses (36%) came from those budget analysts who were

present during the original implementation of zero-base budgeting. This might well indicate that much of the dissatisfaction with the degree of feedback results from experiences in the new system's first year. In any case, there still exists some dissatisfaction with the degree of feedback regarding changes in decision package rankings. Certainly this is not an insurmountable problem and an effort should be made to improve the feedback at every organizational level.

TABLE 6

ADEQUACY OF FEEDBACK REGARDING CHANGES IN
DECISION PACKAGE RANKINGS AS PERCEIVED
BY DEPARTMENTAL BUDGET ANALYSTS

After your agency has submitted its decision package rankings for executive review, were you notified of any changes in these rankings and the reasons for the change?

	Percentage of Respondents		
	Total	Present During Implementation	Not Present During Implementation
a. Always	35%	29%	50%
b. Most of the time	39	35	50
c. Seldom	9	12	0
d. Never	17	24	0
	100%	100%	100%
Total Number of Respondents	(23)	(17)	(6)

Quality of Management Information. One of the proposed benefits accruing from the use of a zero-base budgeting system is an increase in the quality of management information. The purpose of this section of the analysis is to examine the opinions of departmental budget analysts as to the success or failure of zero-base budgeting in fulfilling this objective. The quality of management information under the new budgeting system as perceived by departmental budget analysts is presented in Table 7.

Many respondents (39%) indicated no improvement in management information as a result of using zero-base budgeting. However, it is equally important to observe that over half (61%) indicated an improvement in the quality of management information.

In addition, there is apparently a great deal of disagreement between the two classes of departmental budget analysts participating in the survey. Those analysts present during the first year of zero-base budgeting indicated a much greater degree of dissatisfaction (47%) with the quality of management information than did the analysts who did not participate in both budgeting processes (17%).

It can be concluded that the zero-base budgeting system has had limited success in improving the quality of management information as perceived by departmental budget analysts. This problem is examined in more detail in a subsequent section of this chapter.

TABLE 7

QUALITY OF MANAGEMENT INFORMATION AS PERCEIVED
BY DEPARTMENTAL BUDGET ANALYSTS

All good budgeting systems generate information for management planning and control. What effect did the zero-base budgeting system have on the quality of management information as compared to the previous incremental budgeting system.

	Percentage of Respondents		
	Total	Present During Implementation	Not Present During Implementation
a. Quality of management information substantially improved	13%	12%	17%
b. Quality of management information slightly improved	48	41	66
c. About the same as before	39	47	17
d. Quality of management information decreased slightly	0	0	0
e. Quality of management information substantially decreased	0	0	0
	100%	100%	100%
Total Number of Respondents	(23)	(17)	(6)

The Reallocation of Financial Resources. Another proposed benefit accruing from the installation of a zero-base budgeting system is a more efficient allocation of the State's financial resources. The purpose of this section of the analysis is to present the opinions of budgeting personnel regarding the capability of the zero-base budgeting system

to reallocate funds among functions within the departments. An analysis as to whether there has actually been a more efficient allocation of financial resources as a direct result of implementing zero-base budgeting is presented in a subsequent section of this chapter. The effectiveness of zero-base budgeting to reallocate financial resources as perceived by departmental budget analysts is shown in Table 8.

TABLE 8
THE EFFECTS OF ZERO-BASE BUDGETING ON THE REALLOCATION OF THE STATE'S FINANCIAL RESOURCES AS PERCEIVED BY DEPARTMENTAL BUDGET ANALYSTS

Did the implementation of the zero-base budgeting system cause a shifting of financial resources among functions in your agency?

	Percentage of Respondents		
	Total	Present During Implementation	Not Present During Implementation
a. Large shifting of financial resources	0%	0%	0%
b. Some shifting of financial resources	17	0	67
c. No apparent shifting of financial resources	83	100	33
d. Uncertain	0	0	0
	100%	100%	100%
Total Number of Respondents	(23)	(17)	(6)

The most surprising finding of this survey concerns the responses from those departmental budget analysts present

during the original implementation of the zero-base budgeting system. Seventeen out of seventeen respondents (100%) indicated there had been no apparent shifting of financial resources between functions as a direct result of the new budgeting system.

One of the major selling points of zero-base budgeting is its presumed ability to shift resources to those areas where they are most needed. It is evident that most survey participants believe that a shifting of resources has not occurred, much less a more efficient shifting of financial resources. In view of the increased effort required in preparing a zero-base budget, it is understandable why many budget analysts feel they are conducting "an exercise in futility."

Opinions Regarding Future Use of Zero-Base Budgeting System. The purpose of this section is to examine the views of departmental budget analysts regarding the zero-base budgeting system and the feasibility of its future use. Table 9 presents a summary of the responses of departmental budget analysts regarding the advisability of continuing the zero-base budgeting system in the State of Georgia.

There are three major conclusions that can be made from the analysis. The first concerns the relatively high percentage (78%) of respondents recommending the continued use of zero-base budgeting in some form. This is somewhat surprising as most of the preliminary interviews with budget analysts indicated a great deal of dissatisfaction with the new

TABLE 9

OPINIONS OF DEPARTMENTAL BUDGET ANALYSTS REGARDING
THE FUTURE USE OF ZERO-BASE BUDGETING

This study is very interested in your opinion of the zero-base budgeting system. Which of the following alternatives do you feel is in the best interest of the State of Georgia?

	Percentage of Respondents		
	Total	Present During Implementation	Not Present During Implementation
a. Continue the zero-base budgeting system substantially as it operates today	22%	18%	33%
b. Continue the zero-base budgeting system with some major modifications	43	35	67
c. Continue the zero-base budgeting system except that it not be employed every year	13	18	0
d. Discontinue the zero-base budgeting system	22	29	0
	100%	100%	100%
Total Number of Respondents	(23)	(17)	(6)

budgeting system. This dissatisfaction was also reflected, to a lesser degree, by the responses to various questions in the system questionnaire.

There appear to be two reasons for this apparent inconsistency. The first is that many budget analysts have

recognized improvement in the budgeting process. While expressing dissatisfaction with many parts of the zero-base budgeting system, most analysts concede that there has been a basic improvement in the budgeting process as a result of implementing the new budgeting system. The other reason concerns a desire on the part of most budget analysts to continue the present system rather than having to learn or relearn the incremental budgeting system.

The second conclusion concerns the degree of departmental budget analysts' dissatisfaction with the zero-base budgeting process as it is presently employed. Less than one-fourth of the respondents (22%) felt the zero-base budgeting system should be continued substantially as it presently operates. Appendix K contains comments and suggestions by survey participants pertaining to improvements to the present system. The recommendations of this study regarding improvements to the zero-base budgeting system are presented in Chapter VI.

The third conclusion concerns the disparity of opinions between those departmental budget analysts who were present during the original implementation of zero-base budgeting and those who were not. The high level of dissatisfaction with the new budgeting system as reflected in the responses of those analysts present during the first year of zero-base budgeting can partially be attributed to the multitude of problems that occurred during the system's first year of operations. It was during this period that the effort

required to prepare the budget was greatest. The more favorable responses given by the analysts not present during the first year of the new budgeting system implies that the system is presently operating more efficiently and much of the dissatisfaction with zero-base budgeting can be attributed to the unpleasant experiences in the system's first year.

Acceptance of Zero-Base Budgeting
by Budget Analysts in the Office
of Planning and Budget

The purpose of this section of the analysis is to examine the attitudes and opinions of budget analysts in the Office of Planning and Budget concerning the zero-base budgeting system. The Office of Planning and Budget is the staff department charged with the responsibility of insuring that departments comply with the State's budget directives. In addition, staff budget analysts assist the departments with their budget preparation.

The responses to the system questionnaire by staff budget analysts were generally more favorable regarding the operations of the new system than were those of departmental budget analysts. A summary of responses to the system questionnaire separated as to staff budget analysts and departmental budget analysts is presented in Appendix G.

The only part of the new budgeting system in which the staff budget analysts indicated a greater degree of dissatisfaction than did departmental budget analysts concerned the adequacy of cost data. This is due to the large portion of

indirect costs appearing in the decision packages. Much of an activity's costs are indirect in that they are not traceable to a given function. This gives departmental budget analysts the opportunity to allocate these costs to decision packages in such a way as to be advantageous to their activity and department. However, it is their method of allocating indirect costs that causes additional auditing by staff budget analysts.

Although it is evident from the results of the system questionnaire that zero-base budgeting does not have the wholehearted support of staff budget analysts, it is equally evident that a good deal of support does exist for the new budgeting system. Fifty-six percent recommended continuing the system substantially as it operates today, 22% recommended continuing the system with some major modifications, and 22% felt the system should be continued but not employed every year.

The findings indicate that budget analysts in the Office of Planning and Budget generally believe the zero-base budgeting system to be an improvement over the incremental budgeting system previously employed. Note that not a single staff budget analyst recommended discontinuing the present budgeting system.

Management Control

This section of the analysis is concerned with an evaluation of the effectiveness of the zero-base budgeting

system as a contribution to increased management control in the State of Georgia. "Management control is the process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of the organization's objectives."⁶ Thus, the intent of the management control process is the achievement of planned objectives as effectively and efficiently as possible within the broad constraints imposed by strategic planning.

Management control is a total system in the sense that it includes all aspects of an organization's operations. In profit-oriented companies, it is concerned with the control and measurement of the value of outputs equally with the control and measurement of the costs of inputs. Included in the management control system of profit-oriented organizations would be such operations as sales forecasts and production planning and control.

State governments also have management control systems that are similar in many respects to those of profit-oriented companies. However, the two systems differ in some fundamental areas. Clearly the principle difference between the two systems is the absence of the profit motive in non-profit organizations. Whereas the primary consideration for decision making for a profit-oriented organization is the effect the alternatives will have on the profits of the organization,

⁶Robert N. Anthony, Management Accounting: Text and Cases, 4th ed. (Homewood, Illinois: Richard D. Irwin, Inc., 1970), p. 414.

the consideration under review by a state government will have less precise guidelines and will more likely be determined by the opinions or preferences of the decision makers.

Another major difference between the two types of organizations relates to the measurement of outputs. The market will evaluate the output of the profit-oriented organization through the price people are willing to pay for its final product. State governments do not have such a market to evaluate the value of its output. While there have been many models of input/output analysis for various non-profit organizations advanced in recent years, there is still no method of evaluating the values of these outputs that performs as well as the pricing mechanism in the open market.

The lack of competition is another principle difference between the two systems. Without the pressures experienced in the competitive market-place, state governments do not have the same incentive to use resources wisely.

Other differences arise due to the political framework of state governments. Certainly, restrictions imposed by the state legislature often hamper the development of a good management control system. In addition, many of the grants received by states from federal agencies have certain restrictions as to their use.

Finally, there are external pressures which will often adversely affect the state's management control system. These pressures come from public review by the news media, opposing political parties, and the politician's constituency.

Elected state officials are generally in the public spotlight and their actions are subject to a much closer scrutiny than are those of managers in business.

Despite the problems state governments experience in establishing a management control system, such a system is essential to the effective operations of its activities. State governments must be aware of every managerial technique available to insure an optimum management control system.

The purpose of this section is to evaluate the contribution of zero-base budgeting toward a more effective management control system in the State of Georgia. This evaluation is directed toward the ability of this budgeting technique to satisfy four basic criteria necessary for effective managerial control:

1. Does the zero-base budgeting system contribute toward a greater degree of control budgeting?
2. Has the zero-base budgeting system increased the availability of cost data necessary for budget preparation?
3. Does the zero-base budgeting system provide more relevant management information for planning and decision making?
4. Has there been an improvement in the planning phase of budgeting as a result of implementing the zero-base budgeting system?

Zero-Base Budgeting and Control Budgeting

This section of the analysis is concerned with the effectiveness of the zero-base budgeting system in providing for a control budget in the State of Georgia. Robert N. Anthony, in his book Management Accounting, defined a control budget as "primarily a control device, since it is a statement of expected or standard performance against which actual performance can later be compared."⁷

For any budgeting system to be totally effective, it must provide a method whereby the actual results (output) obtained during the period can be compared to the planned objectives of the organization. Corollary to the comparison of actual output versus the planned objectives is an evaluation of the planned (or budgeted) amount of expenditures as compared against the actual expenditures incurred during the period.

Output Measurement and Evaluation. The State of Georgia presently has no effective method of accurately measuring and evaluating the value of its output against its planned objectives. This situation is neither unusual nor unexpected as most functions of state government (or other nonprofit institutions, for that matter) fall in the category of discretionary, or managed, cost areas. In discretionary cost areas, "it is not usually practicable to set financial

⁷ibid., p. 492.

standards and measure performance against these standards because the output of these activities cannot usually be measured in financial terms."⁸

This should not be interpreted as meaning the State has no quantitative measurement of its output. To the contrary, many functions of government are susceptible to very accurate measurement. Examples of this would be the number of miles of new highways built, the number of people receiving welfare payments, and the number of state income tax forms processed. However, without the valuation techniques available in the open market-place, the value of these outputs is virtually impossible to determine. Who is to judge whether the resources applied in building a new highway are more or less "valuable" to the people of the state than resources directed toward increased welfare payments?

In the State of Georgia, the decision regarding the allocation of state financial resources originates from meetings between the governor and his department heads. The decisions reached in these meetings are submitted to the state legislature in the form of an executive budget for its consideration and approval. After the budget is approved, it then represents the annual goal of the various departments and activities within state government.

⁸Robert N. Anthony, John Dearden, and Richard F. Vancil, Management Control Systems: Text, Cases, and Readings, Revised ed. (Homewood, Illinois: Richard D. Irwin, Inc., 1972), p. 205.

Therefore, the "effectiveness" of the state departments and activities must be measured by the degree to which the goals of the governor and the legislature have been satisfied. Effectiveness is a measurement predicated on the accomplishment of established goals and is generally concerned with some form of output. Robert N. Anthony referred to the effectiveness of a manager as ". . . the extent to which he produces the intended or expected results."⁹ This measurement is conducted at the end of the fiscal year when the governor meets with each department head and evaluates the effectiveness of his agency.

The zero-base budgeting system has made no direct contribution toward the measurement of effectiveness in state government. There are two reasons for this. First, there is no financial measurement of output in either the budget document or the reports reflecting the results of operations for the fiscal year. Without such information, a financial analysis of deviations of actual operations from planned operations is impossible. Secondly, the present practice of comparing actual results against the established goals appearing in the budget is neither new nor a result of zero-base budgeting. To the contrary, executive review of the operations of state departments has been in effect for many years.

⁹Robert N. Anthony, John Dearden, and Richard F. Vancil, Management Control Systems: Cases and Readings, (Homewood, Illinois: Richard D. Irwin, Inc., 1965), p. 168.

The zero-base budgeting system has made an indirect contribution to the process of measuring the effectiveness of state operations. Although the evaluation process has not changed, the method by which goals are established has been improved with the adoption of the zero-base budgeting system.

Under the old incremental budgeting system, department and activity goals were very broadly defined. This was a result of the emphasis placed on costs during the preparation of the incremental budget. Under this budgeting system, the primary emphasis was directed toward costs by expenditure category rather than on the functions to be performed.

The new zero-base budgeting system places more of its emphasis on functions rather than on costs by expenditure category. Individual budgets continue to be prepared at the activity level, but the new system now requires each activity to identify its primary functions. Decision packages are required for each function performed. Activity managers discovered that, for the first time, they had to justify in writing to top management what they were doing and the applicable cost of doing it.

This new system also had its effect on the department managers. In order to rank the decision packages from the activities, they had to examine each decision package and decide upon its relative contribution to the goals of the department and the state. It was this process of evaluation and ranking by both the activity manager and the department head that brought about a more precise understanding of the

functions presently being performed and helped determine the goals for the next fiscal year.

Input Measurement and Evaluation. In contrast to the difficulties in attempting to measure the value of outputs produced by the state, the measurement of input costs is both practical and necessary to the state's management control system. Unlike outputs, financial inputs utilized during a period are subject to measurement much as are inputs in profit-oriented organizations.

However, there remains a significant difference between the two types of organizations regarding ways input cost data can be employed in the management control system. Profit-oriented institutions use input cost data to determine the "efficiency" of their operations--that is, the relationship of the amount of output per unit of input. This measurement of efficiency is not related to the goals of an organization but is concerned with the amount of output obtained from a given amount of input.

State government cannot utilize an efficiency measurement in its management control system because of the lack of an adequate value measurement of its output. Input cost data, as it applies to control budgeting, is used primarily to determine if a manager has stayed within his allotted budget.

Inability to measure efficiency creates a serious lack of goal congruence in the state's management control system.

Since managers are usually judged on the excellence of their organization, it is to their advantage to build the best organization possible. The problem that arises is that what is best for a particular department or activity may not necessarily be best for the state as a whole. For example: the manager of the state's legal department would prefer to have the best and most expensive lawyers on his staff, excellent support facilities (such as legal libraries, legal secretaries, etc.), and have these lawyers and facilities in such quantities as to achieve the maximum results in all their legal activities. While such a situation would be advantageous to the legal department, it would divert resources from other activities within state government.

A comparison of the actual costs incurred with the budgeted costs is not an adequate measure of the efficiency of an activity. If this were not true, all an activity manager would have to do to be efficient would be to keep actual costs below budgeted costs. Output could be disregarded in determining efficiency. However, it is possible for an activity manager to be very efficient while exceeding his budget whereas another manager could spend within his budget but be highly inefficient in the utilization of his resources.

Because the traditional measurement of efficiency is impractical for state government, an alternate method of measuring efficiency must be used. The State of Georgia evaluates the efficiency of its managers by determining

whether the established goals were accomplished within the financial limitations imposed by the annual budget. This evaluation is primarily subjective in nature and is not as precise as is the measure of efficiency in industry.

As was the case in measuring effectiveness, the zero-base budgeting system makes no direct contribution to the measurement of efficiency. However, it does contribute indirectly by giving a more precise definition of the goals of each activity.

Summary. The zero-base budgeting system has made only a minor contribution toward the establishment of a control budgeting system in the State of Georgia. This contribution is a result of improvements in the manner in which governmental goals are defined and established. Prior to the adoption of the zero-base budgeting system, goals were generally established at the departmental level (although, in exceptional situations goals were set for some activities). Goals are now established at a functional organizational level which enables a more thorough measurement of an activity's effectiveness in satisfying the functional goals under its control.

Zero-base budgeting does not solve the lingering problem of an inability to measure output in a nonprofit organization. This prohibits the formal evaluation of the efficiency of an organization which is necessary for an adequate management control system.

Another shortcoming of the zero-base budgeting system as it is presently employed regards the organizational level at which costs are budgeted and controlled. Costs are presently being budgeted at the functional level whereas actual costs are accumulated at the activity level. While this system does provide for a comparison of actual costs with budgeted cost at the activity level, it does not provide for a similar comparison at the functional level where the budgeted costs were originally formulated. As a consequence, the budget analysts in the Office of Planning and Budget have had to assume the additional responsibility of acting as "watchdog" over the expenditures of their assigned activities.

A final shortcoming of zero-base budgeting in this area of responsibility budgeting concerns the "watchdog" duties assumed by the budget analysts. This goes beyond the traditional role of a staff budget analyst and seemingly encroaches upon the duties normally assigned to the Audit Division. Also the analyst's ability to withhold budgeted funds from state departments appears to be an excessive amount of staff control over line activities.

In fairness to the zero-base budgeting system, it should be noted that the above shortcomings are not directly attributable to zero-base budgeting; rather they are a result of the overall financial control system of which zero-base budgeting is merely a part. Nonetheless, an adequate system of control budgeting cannot be implemented until these system problems are corrected.

Availability of Adequate Cost Data Under
the Zero-Base Budgeting System

The purposes of this section of the analysis are two-fold: (1) to evaluate the availability of adequate cost data necessary to properly prepare a zero-base budget; and (2) to determine any possible contributions made by the zero-base budgeting system in increasing the availability of adequate cost data.

It is the conclusion of this study that the cost data necessary for the proper operation of the zero-base budgeting process do not exist at the present time. This conclusion is based primarily on the fact that budgeted costs and actual costs cannot be compared. The present accounting system accumulates costs at the activity organizational level. No formal attempt has been made by the State of Georgia to break down the activity's actual costs at a functional organizational level so that they can be compared with budgeted amounts.

The zero-base budgeting system requires that costs be budgeted at the functional organizational level because decision packages are prepared for each function within an activity. Since actual costs by functions are not available from the general accounting system, many of the costs assigned to decision packages are determined by some allocation process. This adversely affects the accuracy of the cost data appearing in the decision package. In addition, as mentioned above, there is no effective way of comparing

actual expenditures with budgeted costs at the functional organizational level.

It is also the conclusion of this study that there has been an improvement in the availability of cost data for budget preparation as a direct result of implementing the zero-base budgeting system. Responses to the system questionnaire clearly indicate that both departmental and staff budget analysts feel there has been an improvement in the adequacy and availability of cost data for budget preparation since the first year of zero-base budgeting (Appendix G).

This improvement was not a result of any changes made to the State's general accounting system. Instead, any improvement in the availability of cost data was a result of actions taken at the activity organizational level. Personnel at this organizational level realized that additional cost data were needed for their budget preparation. As a result, manual accounting systems were established in many activities in an effort to capture this needed information.

Contribution of Zero-Base Budgeting to
Relevant Management Information

One of the proposed benefits resulting from the implementation of a zero-base budgeting system was an improvement in the quality of management information. The purpose of this section of the analysis is to evaluate the contribution of zero-base budgeting toward achieving a greater degree of relevant management information for planning and decision making in the State of Georgia.

Governor Jimmy Carter has been very pleased with the ability of the zero-base budgeting system to provide relevant management information. In fact, he has expressed the opinion that the new budget system's greatest contribution has been in the area of improved management information.¹⁰ An example of the contribution of zero-base budgeting in this area was given by the Governor during an interview for this analysis:

Because of zero-base budgeting we were able to determine that seven different agencies had the responsibility for the education of deaf children. When we broke down the 11,000 or so decision packages and put a computer number on each kind of function, those functions were very quickly identified as being duplicated. . . .¹¹

It is also apparent that the quality of management information by the Office of Planning and Budget has improved. This is evidenced both from responses to the system questionnaire and personal interviews with staff budget analysts. The majority (87-1/2%) of the staff budget analysts participating in the survey indicated an improvement in the quality of management information as a result of implementing zero-base budgeting (Appendix G). This view is further evidenced by the comment of a staff budget analyst during an interview for this analysis: "The budget analysts' ability to look at the operations of a department which has real complications . . .

¹⁰ Interview with Governor Jimmy Carter.

¹¹ Ibid.

in its operations is much improved because of zero-base budgeting."

However, there appears to be a division of opinion among the department heads as to the improvement of management information as a result of implementing zero-base budgeting. Of the thirteen department heads interviewed during the analysis, four (31%) indicated substantial improvement in the quality of management information, five (38%) felt there had been a slight improvement, while three (31%) expressed the opinion that the quality of management information had not improved.

This same division of opinion regarding zero-base budgeting's contribution to better management information exists among departmental budget analysts. Thirty-nine percent of the departmental budget analysts indicated no improvement in the quality of management information as a result of zero-base budgeting (Appendix G).

There appears to be a relationship between the attitudes toward the contribution of zero-base budgeting to improved management information and the relative size of the operation involved. The most favorable responses came from Governor Carter and his staff budget analysts. As the size of the operation tested became smaller, the proportion of favorable responses also became smaller. In addition, of the thirteen department heads interviewed, the more favorable responses concerning zero-base budgeting's contribution to

improved management information came from the heads of larger departments.

It is the conclusion based on this section of the study that the zero-base budgeting system has contributed to the quality of management information. While it is evident that not all departments participated in the management information obtained from the new system, it is equally evident that there has been some improvement at all organizational levels. There also appears to be a direct relationship between the size of the operation and the benefit obtained from the management information created.

Zero-Base Budgeting and Planning

The purpose of this section of the analysis is to evaluate the contributions of zero-base budgeting in providing improvements in the planning phase of budgeting in the State of Georgia. The planning phase is not a part of the zero-base budgeting system; however, it is a necessary prerequisite for the proper functioning of the new budgeting system.

Before zero-base budgeting was implemented in the State of Georgia, the planning phase was an integral part of the budgeting process. In many respects, planning was a result of the budgeting process since it was only after the budget was completed that departments knew the amount of funds available for the next fiscal year.

During the first year of zero-base budgeting, the practice of budgeting and planning simultaneously was

continued. There was a definite lack of planning prior to the preparation of the 1973 fiscal year budget. Departmental budgetary guidelines were established but were the same for every department throughout state government. These guidelines did not provide for increased responsibilities on the part of some of the departments. As a result of this lack of planning coupled with the demands of the new budgeting system, many problems were encountered during the budgeting process.

In order to alleviate many of the problems experienced during the 1973 fiscal year budgeting process, the system was divided into a planning phase and a budgeting phase for fiscal year 1974. Prior to preparing the budget, Governor Carter held a series of meetings with department heads and budget analysts to establish goals and objectives for each department. In addition, flexible departmental budgetary guidelines were established based on the relative contribution of each department to the goals and objectives of the State of Georgia.

While the 1974 fiscal year budgeting process was more efficient than in previous years, there were problems associated with the advanced planning phase. The primary problem resulted from the establishment of very low departmental budgetary guidelines coupled with revenues in excess of those originally planned. As a result, the zero-base budgeting system was unable to provide needed information regarding the disposition of the excess revenues.

Therefore, it was determined that the 1975 fiscal year budgeting would be conducted without the use of any departmental guidelines. Unfortunately, this change created a multitude of problems. Departments submitted budget requests much in excess of what could be funded. When the budget requests were reduced to more reasonable levels, departments discovered that the priorities reflected by decision package rankings for high levels of funding were not the same priorities as for lower levels of funding. As a result, many departments had to rank their decision packages again to reflect their priorities at the lower level of funding.

It is the conclusion based on this analysis that there has been a definite improvement in the level of budgetary planning as a result of zero-base budgeting. In as much as there was an absence of planning prior to the adoption of zero-base budgeting, it is evident that the changes made to permit a planning phase before beginning the budgeting process increased the effectiveness of both the planning and budgeting processes.

It is also evident that the decision to discontinue the departmental budgetary guidelines for fiscal year 1975 was a mistake. This change increased the budgeting effort of most departments without any benefits occurring from its discontinuance. Recommendations regarding improvements to the present planning phase are given in Chapter VI.

Reallocation of Financial Resources

The purpose of this section of the analysis is to evaluate the ability of the zero-base budgeting system to reallocate financial resources in the State of Georgia. In Peter Phyrre's book, Zero-Base Budgeting, the first proposed benefit resulting from the use of zero-base budgeting was the ability to ". . . promote a more efficient allocation of resources because managers have evaluated the need for each function and have considered different ways of . . . performing each activity."¹²

Before an investigation can be made as to the new budgeting system's ability to allocate resources more efficiently, it must first be determined that a shifting of financial resources has, in fact, occurred. There is substantial evidence that there has been no appreciable reallocation of financial resources as a direct result of employing zero-base budgeting.

The first evidence supporting this contention comes ~~from the responses to the system questionnaire by departmental~~ budget analysts concerning the ability of the new budgeting system to shift financial resources between activities in their departments. The responses of these analysts are of particular importance as they had the opportunity to compare the effectiveness of both the old and new budgeting systems in allocating financial resources. The responses of the

¹²Peter A. Phyrre, Zero-Base Budgeting (New York: John Wiley and Sons, 1973), pp. 32-33.

seventeen budget analysts present during the original implementation of zero-base budgeting were unanimous in expressing the opinion that there had been no apparent shifting of financial resources as a result of employing the zero-base budgeting system (Appendix H, Column 1, Question 10). Therefore, it is concluded that if there has been an appreciable reallocation of financial resources as a result of employing zero-base budgeting, it most certainly is not apparent at the lower organizational levels.

Additional evidence supporting this conclusion comes from personal interviews with thirteen department heads in the State of Georgia. Two of the thirteen (15%) expressed the opinion that there may have been some reallocation of financial resources as a result of information supplied to Governor Carter by the new budgeting system during the reorganization of the Executive Branch of the State of Georgia. However, they were unable to give a single instance where the new budgeting system had reallocated resources in their own departments. The other eleven department heads (85%) indicated there had been no apparent reallocation of financial resources in their departments as a result of implementing zero-base budgeting.

Governor Jimmy Carter expressed a different opinion regarding the contribution of zero-base budgeting in reallocating financial resources in the State of Georgia. In doing so, he said that he understood the negative responses of the department heads and departmental budget analysts on

this issue since the contribution of the new budgeting system in this particular area would not be apparent to them. This was because the reallocation of financial resources was a result of a combination of two factors: (1) the reorganization of the Executive Branch of State Government, and (2) the adoption and implementation of the zero-base budgeting system.¹⁵

It is public knowledge in the State of Georgia that there has been a substantial reallocation of financial resources within state government during Governor Carter's administration especially during his first year in office. However, it was the Executive Reorganization Act of 1972 that has been credited with reallocating the state's financial resources during this period. The purpose of this act was to consolidate under a single authority similar state functions and programs that were previously controlled by different departments and activities throughout state government.

Governor Carter agrees that it was the Executive Reorganization Act of 1972 that was the primary force in reallocating financial resources within the State of Georgia. However, he also stated that:

. . . the detection of need for consolidating similar functions within state government is made from the zero-base budgeting technique. It would have been virtually impossible to have made the change we did under the old incremental budgeting system. We have had such a profound change in the structure of government that most people attribute this shifting

¹⁵ Interview with Governor Jimmy Carter.

of roles and also shifting of resources to the reorganization itself which has been so much more present in our mind than to zero-base budgeting.¹⁴

In addition to the system questionnaire and personal interviews, an attempt was made to analyze the changes in the allocation of financial resources by examining the executive budgets for fiscal year 1972, 1973, and 1974. However, it was impossible to correlate any such changes directly to the use of zero-base budgeting.

It is the conclusion based on this analysis that the zero-base budgeting system has made an indirect contribution to a reallocation of financial resources in the State of Georgia. However, the majority of this contribution occurred during its first year of implementation in connection with the reorganization of the Executive Branch of State Government.

It is further concluded that the zero-base budgeting system has not made a direct contribution to the reallocation of the state's financial resources. Throughout this investigation, there has not been a single verifiable instance where the new budgeting system has caused a shifting of financial resources other than during reorganization.

Changes in Budgetary Procedure and the Degree
of Effort Required by Budget Participants

There have been numerous changes made to the zero-base budgeting procedures in an effort to lessen the degree of

¹⁴ ibid.

effort required by budget participants in preparing the budget. Two changes, in particular, were made expressly for this purpose: (1) to prepare decision packages at higher organizational levels, and (2) to rank decision packages at the activity level rather than at the department level. It is the purpose of this section of the analysis to evaluate these changes as to their impact on reducing the amount of effort required in the zero-base budgeting process.

One of the principal problems associated with the zero-base budgeting system has been the increased effort required in preparing the budget. Table 10 presents the opinions of the departmental budget analysts regarding the effect of the new budgeting system on the time and effort required to prepare the budget both during the first year of its implementation and at the present time.

The responses of departmental budget analysts indicate that there has been a decrease in the amount of time and effort required for budget preparation in many departments. Whereas 100% of the respondents indicated some increase in the time and effort required to prepare the budget during the first year of zero-base budgeting, this percentage fell to 74% when comparing the present system with the incremental budgeting system. In addition, the percentage indicating much greater time and effort required under zero-base budgeting fell from 78% during the first year of its operations to 44% at the present time.

TABLE 10
EFFECT OF THE ZERO-BASE BUDGETING SYSTEM ON
THE TIME AND EFFORT REQUIRED FOR
BUDGET PREPARATION

What effect did the zero-base budgeting system have on the time and effort spent in budget preparation during the first year of its implementation?

	Percentage of Respondents		
	Total	Present During Implementation	Not Present During Implementation
a. Increased considerably	78%	82%	67%
b. Increased slightly	22	18	33
c. Remained the same	0	0	0
d. Decreased slightly	0	0	0
e. Decreased considerably	0	0	0
	100%	100%	100%
Total Number of Respondents	(23)	(17)	(6)

Now that the zero-base budgeting system has been implemented, how great is the time and effort spent in budget preparation in comparison to the previous incremental budgeting system?

	Percentage of Respondents		
	Total	Present During Implementation	Not Present During Implementation
a. Much greater	44%	47%	33%
b. Slightly more	30	35	17
c. About the same	22	12	50
d. Slightly less	4	6	0
e. Much less	0	0	0
	100%	100%	100%
Total Number of Respondents	(23)	(17)	(6)

It is apparent that, while there has been some decrease in the amount of time and effort required for budget preparation, this problem has not been alleviated. Recommendations concerning additional changes which should be made to further alleviate this problem are presented in Chapter VI.

Since it has been concluded that there has been some decrease in the amount of time and effort required in budget preparation, the next step in this analysis is to examine the causes for this improvement. Particular emphasis is directed to the two procedural changes made in the zero-base budgeting system directed toward reducing the time and effort required by budget participants in preparing the budget.

The first such procedural change was that of preparing decision packages at higher organizational levels. Table 11 summarizes the responses of the departmental budget analysts regarding the significance of this change.

There does not appear to be a consensus regarding the significance of this procedural change. The majority of the respondents (78%) indicated that the time and effort required for budget preparation had remained about the same or that they were unaware of any such change. The remaining respondents were almost evenly divided, with 9 percent indicating their time and effort had increased and 13 percent indicating that it had decreased. It is the conclusion based on this analysis that the decision to rank decision packages at higher organizational levels did not have an appreciable

effect on the time and effort required for preparing a zero-base budget.

TABLE 11
EFFECT OF PREPARING DECISION PACKAGES AT
HIGHER ORGANIZATIONAL LEVELS

After the first year of implementation, a decision was made to prepare decision packages at higher organizational levels. What effect did this have on the time and effort spent in budget preparation?

	Percentage of Respondents		
	Total	Present During Implementation	Not Present During Implementation
a. Increased	9%	6%	17%
b. Remained about the same	48	47	50
c. Decreased	13	18	0
d. Was unaware of any change	30	29	33
	100%	100%	100%
Total Number of Respondents	(23)	(17)	(6)

The second procedural change initiated in an effort to reduce the effort required for budget preparation was to move the task of ranking the decision packages from the department level to the activity level. It was expected that this would remove one very time-consuming operation by eliminating a major step in the ranking operation. The responses of the

departmental budget analysts concerning the effect of this change are presented in Table 12.

TABLE 12
EFFECT OF RANKING DECISION PACKAGES AT
LOWER ORGANIZATIONAL LEVELS

In the second year of zero-base budgeting, the budgeting procedure was changed from ranking decision packages by departments to ranking decision packages by activity. What effect did this have on your effort in preparing the budget?

	Percentage of Respondents		
	Total	Present During Implementation	Not Present During Implementation
a. Increased effort	9%	0%	33%
b. Effort remained about the same	47	53	34
c. Decreased effort	35	35	33
d. Was unaware of any change	9	12	0
	100%	100%	100%
Total Number of Respondents	(23)	(17)	(6)

It is apparent that the second procedural change was somewhat more successful in reducing the time and effort required in budget preparation. Thirty-five percent indicated a reduction of effort as a result of ranking the decision packages at the activity level. Nine percent expressed the opinion that it had increased their effort.

A possible reason for this negative response was that some departments were required to go back and rank at the departmental level. This is reflected in a comment to the system questionnaire (Appendix K): "Required to rank by activity, but after submission of budget to Budget Bureau, we were then asked to go back and prepare a departmental ranking." In addition, many of the smaller departments were directed to continue to rank decision packages at the department level.

It is the conclusion based on this analysis that the decision to rank decision packages at the activity level did have a positive effect on reducing the amount of effort required to prepare a zero-base budget in some departments. However, the reduction in effort appears to be less than had originally been anticipated.

In addition to the two procedural changes mentioned, other factors also contributed to a reduction of effort in budget preparation. Possibly the factor having the greatest influence in this area was the functioning of a "learning-curve." Many of the budget analysts interviewed during this survey indicated that the job of preparing the budget was much easier in the second year because "they knew what to do."

Summary

The purpose of this chapter was to analyze the effectiveness of the zero-base budgeting system presently employed by the State of Georgia. This analysis evaluated the

zero-base budgeting system on its ability to: (1) generate acceptance by budget participants, (2) contribute toward a greater degree of management control, and (3) allocate financial resources more effectively. In addition, an examination was conducted concerning the effectiveness of procedural changes made to the system to reduce the effort required for budget preparation.

A system synthesis of the zero-base budgeting system is presented in the next chapter. Recommendations are presented regarding improvements to the zero-base budgeting system presently in use by the State of Georgia.

CHAPTER VI

SYNTHESIS OF THE ZERO-BASE BUDGETING SYSTEM
EMPLOYED BY THE STATE OF GEORGIAIntroduction

This chapter presents the synthesis phase of the study. The synthesis phase is divided into four principal sections:

1. The conclusions of the study as to the effectiveness of the zero-base budgeting system in the State of Georgia;
2. Recommendations regarding procedural changes needed to improve the effectiveness of the zero-base budgeting system presently employed by the State of Georgia;
3. Recommendations pertaining to future implementations of the zero-base budgeting system by governmental units; and
4. The need for further research and study of the zero-base budgeting system.

Conclusions of the Study

The purpose of this phase of the system synthesis is to present the conclusions of the study regarding the effectiveness of the zero-base budgeting system in the State of Georgia. Based on the results of the study, it is difficult

to label the zero-base budgeting system as being either a success or failure regarding its influence upon the effectiveness of the budgeting process in the State of Georgia. Clearly there have been elements of both success and failure associated with its use. This section presents first an examination of the advantages and disadvantages associated with the use of zero-base budgeting in the State of Georgia, and then presents the general conclusion of the study.

Advantages of the Zero-Base Budgeting System

It is the conclusion based on this study that there are three primary advantages associated with the employment of the zero-base budgeting system in the State of Georgia. These advantages are: (1) the establishment of a financial planning phase prior to the preparation of the budget; (2) an improvement in the quality of management information; and (3) greater involvement in the budgeting process by personnel in the lower organizational levels of State Government.

The first advantage concerns the establishment of a financial planning phase prior to the preparation of the fiscal year budget. Before the implementation of zero-base budgeting, the planning phase was conducted concurrently with the budgeting phase. As a result, there were no budgetary guidelines available during the budget preparation. After the implementation of zero-base budgeting, it became apparent that some budgetary guidelines were necessary to properly allocate the State's limited financial resources in such a

way as to best satisfy the goals and objectives of the State of Georgia.

The second advantage concerns an improvement in the quality of management information resulting from the employment of the zero-base budgeting system. The use of this new budgeting system has enabled the Governor, department heads, departmental budget analysts, and budget analysts in the Office of Planning and Budget to have a much greater insight into the functions of State Government. Unfortunately, it is also the conclusion based on this study that many of the department heads have not utilized this new management information.

The third advantage of employing the zero-base budgeting system has been an increase in the involvement of personnel at the activity level in the State's⁶ budgeting process. Before zero-base budgeting, most of the input into the budgeting process came from the departmental budget analysts. After the new budgeting system was implemented, activity managers were required to prepare and rank decision packages-- thus, providing input into the budgeting process.

Disadvantages of the Zero-Base Budgeting System

It is the conclusion based on this study that the major disadvantage associated with the employment of the zero-base budgeting system in the State of Georgia is the increased time and effort required for budget preparation. This is a very serious problem and has contributed toward a great deal

of dissatisfaction with the new system, particularly among personnel at the department and activity level. This dissatisfaction has, in turn, had a detrimental effect on the effectiveness of the zero-base budgeting system.

In addition, the study indicates that there are two significant failures associated with the employment of zero-base budgeting in the State of Georgia. These failures are: (1) the inability of the new budgeting system to significantly affect the efficient allocation of the State's financial resources; and (2) the ineffectiveness of the decision package ranking in meeting changes in the level of funding.

One of the major selling points of zero-base budgeting is its proposed ability to allocate financial resources more efficiently. However, there is no evidence that any shifting of resources has occurred as a direct result of employing the zero-base budgeting system. The study recognizes the contribution made by the new budgeting system in Governor Jimmy Carter's reorganization plan. However, it is contended that this was a special situation and any shifting of financial resources associated with this reorganization is not indicative of the normal contributions of the zero-base budgeting system in reallocating financial resources.

Another selling point of zero-base budgeting is its proposed ability to immediately adjust the budget to changes in the level of funding. This is accomplished by preparing a decision package ranking which lists all decision packages in order of their priority. After a level of funding is

established, a cutoff line is employed to divide the decision packages between those to be approved and those to be disapproved. Any subsequent change in the level of funding should require only a shift in the position of the cutoff line.

However, the actual results obtained from this system have been disappointing. During fiscal year 1974, there was an increase in the availability of funds in the State of Georgia. Instead of shifting the cutoff line downward to include more marginal decision packages, the Governor requested new decision packages from some of his departments to help him allocate additional funds.

In fiscal year 1975, there was a reduction in the availability of funds originally projected for that year. Again, the decision package ranking proved ineffective. Instead of raising the cutoff line to eliminate the lower priority decision packages, almost all departments had to resubmit a new decision package ranking based on the lower level of funding. One departmental budget analyst summed up the problem by stating: "The priority ranking of our decision packages when we expect 140% funding simply is not the same as when we expect 115% funding."

General Conclusion of the Study

It is the general conclusion based on this study that the implementation of the zero-base budgeting system has improved the effectiveness of the budgeting process in the

State of Georgia. There has been sufficient evidence presented to conclude that there have been improvements in many vital areas of budgeting in the State of Georgia. In addition, there has been little evidence discovered indicating any reduction in the efficiency of the State's budgeting process as a result of employing the zero-base budgeting system.

This conclusion should not be interpreted as meaning the zero-base budgeting system has been an unqualified success in the State of Georgia. To the contrary, there is ample evidence that there are still many problems associated with the new budgeting system. Recommendations concerning possible solutions to these problems are presented in a later section of this chapter.

Recommendations Concerning Present System

The purpose of this part of the synthesis is to recommend procedural changes to the zero-base budgeting system presently employed in the State of Georgia. Two major changes, intended to improve the effectiveness of the budgeting system, were considered during the investigation:

1. Discontinuing the use of minimum level of effort decision packages;
2. Reestablishing budgetary guidelines for each department.

Discontinuing the Minimum Level
of Effort Decision Package

Overview. This section of the system synthesis concerns the feasibility of discontinuing the use of the minimum level of effort decision package. This package is presently used to show only the most important duties of a function. It seldom includes all duties being performed by the function. Instead, it includes only those duties necessary to accomplish the function's primary objectives. In addition, the funds requested in the minimum level of effort decision package generally fall below the function's current level of expenditures.

In order to obtain the funds necessary to bring the function up to its present level of operations, an incremental decision package is prepared. Additional incremental decision packages must be prepared to request funds needed to increase the function's operations.

The majority of those participating in the system questionnaire favored discontinuing the minimum level of effort decision package. Table 13 presents a summary of the responses of all respondents regarding the discontinuance of these packages.

There appeared to be a difference of opinion between the departmental budget analysts and the analysts in the Office of Planning and Budget concerning the practicality of preparing minimum level of effort decision packages. A majority (74%) of the departmental budget analysts felt the

packages should be discontinued. However, responses of staff budget analysts indicated a majority (56%) believed that preparation of the minimum level of effort decision package should be continued.

TABLE 13

OPINIONS OF THE SURVEY PARTICIPANTS REGARDING
THE DISCONTINUANCE OF THE MINIMUM LEVEL
OF EFFORT DECISION PACKAGE

Presently you are required to prepare decision packages representing different levels of effort for each function. Do you feel it is practical to prepare a decision package representing a minimum level of effort?

	Percentage of Respondents		
	Total	Departmental Budget Analysts	OPB Budget Analysts
a. Yes	34%	26%	56%
b. No	65	74	33
c. No opinion	3	0	11
	100%	100%	100%
Total Number of Respondents	(32)	(23)	(9)

After the results of the system questionnaire were tabulated, personal interviews were held with budget analysts in the Office of Planning and Budget concerning their responses to the questionnaire. When asked about the response to the question pertaining to this point, the

consensus was that the examination of minimum level of effort decision packages enabled them to gain a deeper insight into the primary responsibilities of each function. However, they agreed that the primary responsibilities of most functions do not change substantially from one year to the next, and that most minimum level of effort decision packages are merely duplicated each year after allowing for inflationary increases and increased workload.

Also, an examination was made of the executive budgets for fiscal year 1973, fiscal year 1974, and fiscal year 1975 to determine what contribution the minimum level of effort decision package made in the formulation of the final budget. Not a single instance was found where a function received less funds than it had in the previous fiscal year budget.

In addition, both departmental and staff budget analysts were asked if they knew of any function that had received only those funds requested in the minimum level of effort decision package. They were unanimous in stating that not only were they unaware of a function receiving only those funds requested in the minimum level of effort decision package, but that all functions received the funds requested in the first incremental decision package to bring them to their current level of operations.

Recommendations. It is recommended that minimum level of effort decision packages be prepared only every fourth year in the State of Georgia. The findings of the investigation support the contention that preparing minimum level of

effort decision packages every year is impractical because its use will become necessary only in periods of severe economic conditions.

The study also recognizes the value of decision packages which reflect a minimum level of effort. The detailed information contained in these decision packages should be of immense value to new administrations in the State of Georgia. Since a new Governor is elected every four years in the State of Georgia, this fact was considered in recommending the preparation of decision packages every four years. In addition, some of the basic responsibilities and duties of functions will change during this four-year period. The minimum level of effort decision packages would help point out these changes.

In those years when a minimum level of effort decision package is not prepared, a minimum decision package should be developed which reflects the funds required to continue the present level of operations for each function. Additional incremental decision packages could be prepared to request funds necessary to increase the duties or operations of a function.

In the event a decrease in the current level of operations is desired for a particular function, a minimum level of effort decision package could be requested from that function. This procedure appears preferable to the current practice of requiring a minimum level of effort decision package from every function when it is evident that the vast

majority will eventually be funded at their current level of operations.

It is further recommended that minimum level of effort decision packages be prepared in any fiscal year in which a reduction in funding is expected. The Governor should exercise the option of requiring the preparation of minimum level of effort decision packages from all departments or only from selected departments.

Although exact figures are not tabulated regarding the number of decision packages submitted each year, Mr. Clark Stevens, Head of the Budget Bureau of the Office of Planning and Budget, has estimated that 5,000 decision packages were submitted for fiscal year 1975. Of these, approximately one-third were minimum level of effort decision packages. Therefore, the implementation of this recommendation would result in a decrease of approximately 1,600 decision packages in those years when minimum level of effort decision packages were not required. This reduction in the volume of decision packages should have no appreciable effect on the operations of the zero-base budgeting system.

It may be argued that these recommendations represent a departure from zero-base budgeting theory. It is the contention of this study that this argument is not valid for two reasons. First, minimum level of effort decision packages will continue to be made. Only the frequency of their preparation will be changed. Second, even in those years when minimum level of decision packages are not prepared,

every decision package must still compete for funds necessary to maintain their present level of operations as well as for funds needed to expand their operations. The only change suggested is in the funding level where this competition takes place.

Reestablishing Budgetary Guidelines for Departments

Overview. As discussed in the previous chapter, policies regarding the establishment of budgetary guidelines for departments have changed each year since the implementation of the zero-base budgeting system in the State of Georgia. During the preparation of the 1974 fiscal year budget, identical budgetary guidelines were established for each department. These guidelines stated that no department should request more than 115% of its previous allotment of funds. This policy was changed during the 1974 fiscal year budgeting process to permit different budgetary guidelines for each department in accordance with the criteria established in meetings between Governor Carter and each department head. The policy of using departmental guidelines was discontinued for the 1975 fiscal year budgeting process.

The problems associated with each of these policies have been discussed in some detail in Chapter IV and Chapter V of this study. It is the conclusion based on this study that serious problems were encountered when departmental guidelines were not employed.

Recommendations. It is recommended that the policy of employing budgetary guidelines be reestablished for each department based on its expected contribution to the goals and objectives of the State of Georgia. In addition, these guidelines should be established in joint meetings with the Governor and each department head.

Another recommendation of the study concerns the establishment of budgetary guidelines for the larger activities in state government. Some activities are much larger than many departments and they experience the same problems as do departments. Budgetary guidelines would be of great value to these activities in planning their budget requests. These budgetary guidelines should be established in meetings between the Governor, the department head, and the activity manager.

Recommendations Concerning Future Implementation of
Zero-Base Budgeting by Other Governmental Units

The purpose of this phase of the system synthesis is to present recommendations concerning future implementation of zero-base budgeting by other governmental units. These recommendations are a result of an investigation of the problems associated with the implementation of the zero-base budgeting system in the State of Georgia.

Although problems are expected during the implementation of any new budgeting system, it is the conclusion based on this study that many of the problems experienced in the State of Georgia could have been averted. Recommendations

regarding ways to present such problems are presented below:

1. Establish an adequate planning phase prior to the implementation of the zero-base budgeting system;
2. Seek the support of the legislative branch of government (if applicable) prior to the implementation of the zero-base budgeting system;
3. Secure the participation of budgeting personnel during the planning of the implementation phase of zero-base budgeting;
4. Provide for adequate feedback to budget participants concerning the effectiveness of the zero-base budgeting system.

Establish an Adequate Planning Phase
Prior to Implementation

Overview. There was a definite lack of adequate planning prior to the implementation of the zero-base budgeting system in Georgia. A detailed analysis of this problem has been presented in Chapter IV of this study.

The agencies began preparing the 1973 fiscal year budget in June, 1971, and were required to submit a ranking of all decision packages to the Budget Bureau by September 1, 1971. This gave the agencies only three months, at most, to learn the new budgeting system, to prepare decision packages for every function, and to rank these decision packages according to their priority for funds. As a result, much

more time and effort was required for budget preparation than was required under the old budgeting system. Furthermore, as revealed by earlier analysis, decision packages were poorly prepared and the decision package rankings were unsatisfactory. Many of the decision packages and decision package rankings had to be returned to the agencies for resubmission.

Recommendations. There should be an adequate planning phase prior to the implementation of the zero-base budgeting system. The amount of time required to do this planning will depend upon the size of the activity installing the new system. However, the time required should be sufficiently long to allow the activity to test the system and to provide adequate training for budget personnel.

It is recommended that the zero-base budgeting system be tested by a sample group of departments before it is implemented throughout government. The departments selected for this test should be representative of the composition of the government as to size, objectives, and other special characteristics.

After completion of this trial run, representatives of the departments participating in the test should meet with the staff budget analysts charged with administering the system. The purpose of these meetings would be to discuss the problems encountered during the preparation of the budget and to prepare recommended revisions to the system.

These recommended revisions would then be submitted to the executive head of government for his approval.

The amount of time required for this testing would generally be one year since budgets are usually prepared on an annual basis. This would also allow sufficient time to thoroughly train the budgeting personnel in all departments in the new budgeting procedures.

The study recognizes the fact that many elected officials will be opposed to a one year testing program for zero-base budgeting. These officials are elected for a limited term in office and their goals are, of necessity, basically short-run in nature. However, the study indicates that the benefits derived from a testing period will definitely improve the budgeting process by eliminating major problems before they occur, getting the support of budgeting personnel, and providing better budgets.

Seek the Support of the Legislative
Branch of Government for the
Zero-Base Budgeting System

Overview. It is public knowledge that the zero-base budgeting system presently employed in preparing the executive budget for the State of Georgia has not received the acceptance of the Legislative Branch of government. This has created a multitude of problems in forming the final budget for the State of Georgia. The process involved in forming the final budget is beyond the scope of this study since most of the changes made to the executive budget are

political in nature. The study has been restricted to those factors influencing the preparation of the executive budget for the State of Georgia.

However, a lack of acceptance of the zero-base budgeting system by the State Legislature has had an effect on the preparation of the executive budget. Department heads who are not satisfied with their allotment of funds in the executive budget know that they have another opportunity to procure additional funds during the budgeting session of the State Legislature. One departmental budget analyst stated that his department was not too interested in the executive budget because it was the State Legislature that gave his department the money it needed to carry out its programs.

Recommendation. Ideally, there should be agreement between the Executive and Legislative Branches as to the budgeting system to be employed. This was not the case prior to the implementation of zero-base budgeting in the State of Georgia, and this did cause some problems. Therefore, it is recommended that an effort be made to secure the support of the Legislative Branch of Government before implementing the zero-base budgeting system in other governmental institutions.

Secure the Participation of Budget Personnel During the Planning of the Implementation Phase

Overview. There was little participation by budget personnel during the planning of the implementation phase of

zero-base budgeting in the State of Georgia. The decision to adopt the new budgeting system was made by Governor Jimmy Carter, and his department heads were informed of this change in budgeting systems on March 15, 1971. Shortly after the department heads had been informed, budget analysts from the Office of Planning and Budget held individual meetings with departmental budget personnel concerning the new budgeting procedures.

Budgeting procedures adopted for use in the 1973 fiscal year budgeting process were originally initiated by Mr. Peter Phyrre. These budgeting procedures were, for the most part, identical to the budgeting procedures employed by Texas Instruments, Inc. It soon became evident that these budgeting procedures which were applicable for Texas Instruments, Inc. were not applicable for the State of Georgia. As a result, many problems were experienced during the preparation of the 1973 fiscal year budget.

Recommendation. It is the recommendation based on this study that the participation of budgeting personnel be sought during the planning of the implementation phase of zero-base budgeting. This study has indicated that many of the problems experienced during the first year of zero-base budgeting could have been averted with proper input from budget personnel in the State of Georgia. Only by combining the expertise of both an outside system consultant and of budgeting personnel familiar with the constraints existing in the

budgeting process can there be any confidence in the procedures established for the implementation of a zero-base budgeting system.

Provide Adequate Feedback Concerning
The Effectiveness of the Zero-
Base Budgeting System

Overview. There has been a minimum of feedback transmitted to budgeting personnel concerning the effectiveness of the zero-base budgeting system in the State of Georgia. After the department's decision package ranking has been accepted and the funds allocated in the executive budget, the departmental budgeting personnel are seldom advised of any further use of the information contained in their budget. As discussed in previous chapters, the benefits accruing from the application of the zero-base budgeting system are not readily apparent at the lower organizational levels. Therefore, many departmental budget analysts believe the benefits derived from the use of the zero-base budgeting system do not justify the additional time and effort required in preparing the budget.

Governor Jimmy Carter has indicated that the zero-base budgeting system made a major contribution to his reorganization of the Executive Branch of State Government by showing areas where state services were duplicated. In addition, evidence has been provided in this study indicating an improvement in the quality of management information for use both by department heads and budget analysts in the Office

of Planning and Budget as a result of employing zero-base budgeting.

Recommendation. It is the recommendation of this study that an effort be made to advise all budget participants of all benefits accruing from the use of the zero-base budgeting system. There have been several studies which emphasize the favorable effect of feedback on employees' performance and morale.¹ It is the conclusion based on this study that the benefits accruing from an adequate system of feedback would improve the attitudes, performance, and morale of budget participants in the lower organization levels of government.

Implications for Further Research

This study has been restricted to an evaluation of the zero-base budgeting system presently employed by the State of Georgia. This limitation was necessary because the State of Georgia is the only governmental unit presently employing a zero-base budgeting system. As a result, the conclusions reached pertaining to implementing a zero-base budgeting system must be considered in the light of the special circumstances and constraints existing in the State of Georgia during the period of this analysis.

¹For example: Doris M. Cook, "The Effect of Frequency of Feedback on Attitudes and Performance," Empirical Research in Accounting: Selected Studies 1967, Supplement to Vol. 5 of Journal of Accounting Research, Institute of Professional Accounting, Graduate School of Business, University of Chicago, Chicago, Illinois, 1968, pp. 213-224; Selwyn Becker and David Green, Jr., "Budgeting and Employee Behavior," Journal of Business, Vol. 35, October, 1962, pp. 399-400.

However, there now exists an opportunity for further research and analysis concerning the feasibility of employing the zero-base budgeting system in government. The State of Texas has recently adopted a zero-base budgeting system for the preparation of its 1975 fiscal year budget.

Factors influencing the preparation of the zero-base budget will vary between the two states. Some of the factors peculiar to the State of Texas are:

1. A much larger budgeting operation in terms of both volume and dollar amounts;
2. A greater length of time allotted for planning and implementation;
3. Acceptance of the zero-base budgeting system by both the Executive and Legislative Branches of State Government.

It is recommended that further research be conducted as to the feasibility of employing zero-base budgeting in government. An analysis of the zero-base budgeting system presently being implemented in the State of Texas should make a significant contribution to this research.

AN EXCERPT FROM

EXECUTIVE, LEGISLATIVE AND ADMINISTRATIVE DEPARTMENTS AND AGENCIES

DETAILED INSTRUCTIONS FOR PREPARING AND SUBMITTING REQUESTS FOR LEGISLATIVE APPROPRIATIONS

FOR THE BIENNIUM BEGINNING SEPTEMBER 1, 1977

Governor's Budget and Planning Office
Executive Office Building
411 West 13th Street
Austin, Texas 78711

Legislative Budget Office
Box 12666, Capitol Station
Austin, Texas 78711

INTRODUCTION

Instructions for preparing and submitting requests for legislative appropriations for the 1978-1979 biennium are issued under the authority of the Executive and Legislative Budget Acts.

The philosophy of the Texas Budget System and instructions and procedures to be followed in its implementation, are described herein. The instructions are brief and flexible enough to allow adherence to the general concept while permitting adoption of procedures to meet specific agency needs. Coupled with instructions and examples contained in the Budget Manual - Needs, Objectives and Measures, it is the intent of these instructions to improve budget analysis and the benefits that can be gained from this system of budgeting.

Sequence of Events: Budgetary analysis will once again be performed around the program structure developed for each agency. "Programs" and "Activities" have been defined, and the managers of these programs and activities will again play a key role in the appropriations request process. Changes desired in the program structure identified for the 1976-1977 appropriations request must be cleared with the Executive and Legislative Budget Offices before such changes are made. Again, the suggested sequence of events to be followed by most agencies should be a five-step process:

Suggested Sequence of Events

1.	2.	3.	4.	5.
Agency/Program Managers Prepare Planning Guidelines and Conduct Needs Assessment	Activity Managers Prepare <u>Activity</u> <u>Decision Packages</u>	Program Managers Rank Activity Decision Packages (<u>Activity Priority</u> <u>Table</u>)	Program Managers Prepare <u>Program</u> <u>Decision Packages</u>	Agency Administrators Rank Program Decision Packages (<u>Program Priority</u> <u>Table</u>)

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(Continued)

1. Agency/Program managers prepare Planning Guidelines: Prior to the development of decision packages, agency and program managers should identify any planning assumptions and guidelines required by activity managers within each program. Such planning guidelines might include:
 - a. Definition of basic program need and objectives.
 - b. Anticipated work load and effectiveness levels to be achieved.
 - c. Alternative methods of program delivery to be evaluated.
 - d. Policy guidelines relating to personnel, new services to be considered, and other guidelines related to agency or program policies.These planning guidelines may be modified during the budget preparation process, but initially they provide a common basis or direction from which activity managers can begin their analyses.
2. Activity managers prepare Activity Decision Packages: The Activity Decision Package form provides the detailed identification and evaluation of, and budget request for, each activity. (See instructions for Table III, pages 21-30).
3. Program managers rank Activity Decision Packages (Activity Priority Table): After activity managers prepare their Activity Decision Packages and review them with their program managers, program managers must rank these decision packages in order of priority within the program. This ranking will be used in establishing the budget levels for each program. (See instructions for Table IV, pages 31-33).
4. Program managers prepare Program Decision Packages: The initial definition of program need and objectives, plus the activity analysis and priorities, provides the basis for preparing each program. The Program Decision Package provides a detailed identification and evaluation of, and budget request for, each program. (See instructions for Table V, pages 34-38).
5. Agency administrators rank Program Decision Packages (Program Priority Table): Agency administrators must establish their priorities among programs in order to develop the agency budget request. The program evaluation and program priorities developed by each agency will provide the basis for executive and legislative budget analysis. (See instructions for Table VI, pages 39-41).

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(Continued)

6. Agency administrators prepare the agency request by levels (Agency Request By Levels Table). This table displays the total agency request by defined incremental levels. (See instructions for Table VII, pages 42-43).

After completing the Agency Request By Levels Table, the agency administrator will have evaluated all operations and identified the budget request. Summary tables and special data requests required to complete the budget submission can then be prepared in the order outlined on Page 50.

Decision Packages

The concept of decision packages applies both to the program and activity levels (Activity Decision Packages/Program Decision Packages).

The decision package form is designed to produce an evaluation of each activity or program that will describe:

1. Objective(s)
2. Proposed means of achieving objectives
3. Costs and benefits
4. Work load and performance measures
5. Various levels of effort of performance
6. Alternative means of accomplishing objectives

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The key to developing decision packages is the formulation of meaningful alternatives. The types of alternatives that should be considered in developing Program and Activity Decision Packages are:

1. Alternative methods of accomplishing the same program or activity.

The best alternative for providing program services is chosen and the others are discarded:

- Alternative methods of accomplishing activity objectives should be based around the method chosen for providing program services.
- If an alternative to the current method of operation is chosen, the recommended method should be shown in the decision package.
- Only one decision package is prepared to show the recommended method of performing the program or activity.

2. Different levels of effort for performing program services. Once a method of performing a program or activity has been chosen from the various alternative methods, a manager must identify alternative levels of effort to perform that program.

For the 1978-1979 biennium for each program for which funds are requested, it will be necessary to identify a minimum level of funding. The minimum level of funding identified must not exceed 90% of the 1977 budgeted funding level. If funds requested for a program exceed the 1977 budgeted funding level, one of the levels identified should not exceed the 1977 budgeted level of funding. If funds requested for a program exceed the 1977 budgeted funding level by 20%, one of the levels requested must approximate 110% of the 1977 budgeted funding level. An agency is not prohibited from requesting whatever amount of funds it deems necessary to accomplish program objectives in view of statutorily charged duties and responsibilities. Appropriation requests should reflect the highest priorities of the agency and, in general, should reflect a general philosophy of fiscal restraint.

In summary, a program for which funds are requested must base its funding level requests as follows:

- 1) Minimum level - Must not exceed 90% of the 1977 budgeted level of funding for the program.
- 2) Level 2 - If funds requested for a program exceed the 1977 budgeted level of funding, a level of funding that does not exceed the 1977 budgeted level of funding must be identified.

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(continued)

3) Level 3 - If funds requested for a program exceed the 1977 budgeted level of funding by 20% or more, a level of funding that approximates 110% of the 1977 budgeted funding level must be identified as a level of request.

4) Level 4 - Level four will reflect those program increases that exceed the 1977 budgeted level of funding by 20% or more.

Activity decision package requests should be prepared consistent with the planning guidelines regarding program funding levels, but no level requirements are specified for activity funding levels.

The minimum level of effort concept merits further explanation with regard to its function in the budget system. The minimum level of effort may not completely achieve the objective of the program (even the additional levels of effort proposed may not completely achieve it because of other considerations), but it should identify and attack the most important elements. The minimum level must not exceed 90% of the 1977 budgeted level of funding. The minimum level should attempt to identify that critical level of effort, below which the program should be discontinued, because it loses its viability or effectiveness. The percentage factor of 90 percent should be used as a general guideline for achieving a meaningful but realistic minimum level. The minimum level identified may be significantly less. However, the minimum must be defined by each program manager for his operations. There are several considerations which can guide program managers in determining the minimum level of effort:

- 1) The minimum level may not completely achieve the total objective of the program (even the additional levels of effort requested may not completely achieve the objective because of practical considerations).
- 2) The minimum level should address itself to the most critically needed services or attack the most serious problems.
- 3) The minimum level may merely reduce the amount of service (or number of services) provided by each program.
- 4) The minimum level may reflect operating improvements, organizational changes, or improvements in efficiency that result in cost reductions.

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(continued)

5) The minimum level may incorporate combinations of items 1 through 4.

By identifying a minimum level, the program manager is not necessarily recommending that the program be funded at this level, and may identify subsequent levels. The minimum level merely identifies one alternative, explains what could be done at this level, and, by inference from other levels, what would not be done.

Development of different levels of effort indicates that the program or activity manager thinks that all levels deserve consideration within realistic funding limitations. Each level of effort identifies an incremental cost and benefit, and management must evaluate and prioritize the marginal benefit provided by different levels of funding for each program or activity.

Priority Ranking of Funding Levels

The priority ranking of activities and levels of activities, programs and levels of programs with relationship to activity and program objectives is another key concept of the budget system. The Activity Priority Table facilitates the ranking of activities and levels of activities and assists in the formulation of program funding levels. The Program Priority Table facilitates the ranking of programs and levels of programs as they correlate to agency-wide objectives and priorities for the biennium. Agency management should carefully review all program levels of funding identified and make every effort to insure that the program ranking process reflects the priorities of the agency for the biennium.

Detailed instructions for each table of the budget system follow. The example shown will correspond to the following program structure:

Functional Category:	Health and Welfare
Program Area:	Preventable Diseases
Program:	Bureau of Tuberculosis Services
Activities:	Outpatient Services Administration Contract Services

TABLE V: PROGRAM DECISION PACKAGE

Agency: (1) Program Name	(2) Program Area Name	(3) Organizational Unit	(4) Date (Mo-Day-Yr)	(5) Prepared By	(50) Agency Code	(60) PGM Code	(70) 00 : 00	
(10) Describe Means Of Performing Program: Level (3 of _____) (Includes Pkgs) _____ thru _____				1978 Request		1979 Request		
		(10C) Rank	(10A) Resources This Level	Personnel	Cost	Personnel	Cost	
		Cumulative						
		(10B) Program Performance Measures				Measures	Measures	
(11) Describe Means Of Performing Program: Level (4 of _____) (Includes Pkgs) _____ thru _____		(11C) Rank	(11A) Resources This Level	Personnel	Cost	Personnel	Cost	
		Cumulative						
		(11B) Program Performance Measures				Measures	Measures	
		(12) Current Method of Performing Program:						



TABLE V: PROGRAM DECISION PACKAGE

Agency (1) Program Name		(2) Program Area Name		(3) Organizational Unit		(4) Date (Mo-Day-Yr)		(5) Prepared By		(50) Agency Code	(60) PGM Code	(70) Activity Code
												00 00
(14) Object Of Expense		Estimated	Budgeted	Level 1		Level 2		Level 3		Level 4		
OE AI Code	(B) Type	1976	1977	1978	1979	1978	1979	1978	1979	1978	1979	
999	Total This Level											
	Cumulative Total											
(15) Method Of Financing												
(A) Fund Code	(B) Fund Name											
999	Total This Level											
	Cumulative Total											

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AN EXCERPT
FROM
ZERO-BASE BUDGETING: A RATIONALISTIC ATTEMPT
TO IMPROVE THE TEXAS BUDGET SYSTEM

by

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CHAPTER V

ZERO-BASE BUDGETING ANALYSIS

Once developed, the program structure serves as the framework for zero-base budgeting analysis. This chapter will utilize the program structure example shown in Figure 2 of the previous chapter to demonstrate the analytical concepts of zero-base budgeting.

As the term suggests, zero-base budgeting seeks to have agencies and institutions justify their total budget requests rather than justifying only the increments above the previous level of appropriations. The concept is not a new one, as Wildavsky quotes a proponent of "justify from zero" who wrote in 1924.¹ The United States Department of Agriculture utilized the concept in preparing agency funding estimates for the 1964 fiscal year.

All programs will be reviewed from the ground up and not merely in terms of changes proposed for the budget year. Consideration must be given to the basic need for the work contemplated, the level at which the work should be carried out, the benefits to be received and the costs to be incurred. Program goals based on statutes enacted to meet problems or needs that today are of lesser priority must be re-evaluated.²

Some have maintained that the planning-programming-budgeting systems of the mid-1960's would result in the implementation of some of the zero-base budgeting techniques.

Planning-programming-budgeting systems will tend to lessen the use of the current widespread practices of giving excessive attention to the changes from the preceding year's budget with too little attention to a review of an agency's budget as a whole in the sense of reconsidering the value of existing programs.³

. . . PPB seeks to replace, at least in part, the pernicious practice of incremental budgeting, under which the budget allocation process does not involve a review of the basic structure of programs but primarily consists of making decisions about how much each existing program is to be increased or, much less frequently, decreased. Each program cannot, of course, be reviewed from the ground up each year. But the analytic steps of PPB call for a periodic review of fundamental program objectives, accomplishments, and costs while considering the effectiveness and efficiency of alternatives.⁴

The Dynamics of the Zero-Base Process

The zero-base system emphasizes an improved planning function and an improved management function as its primary components. Planning involves the establishing and specifying of objectives, the evaluation of alternative courses of action to achieve those objectives, and the allocation of resources among those programs. Such explicit requirements were not an element of the previous budget methodology. The improvement of the management function focuses on the utilization of resources--personnel, equipment, operating expenses and the like--to implement programs in an efficient and effective manner consistent with the goal of accomplishing program objectives. The zero-base concept seeks to provide the link between operational objectives and specific governmental programs and activities designed to achieve those objectives. This element of "how" to implement programs has been declared

to be one of the major weaknesses of planning-programming-budgeting systems.

PPB focuses almost entirely on what will be done, not how to do it. . . . [M]ost discussions of PPB have simply ignored the very real and crucial problems of program implementation, long a central concern of state budget activities. Policies are not better than the manner in which they are carried out, and this truism will not be altered by PPB. PPB is concerned with budget formulation and focuses on program and policy decisions, not that part of budget review that tries to detail the inputs required to implement most economically the decisions already made.⁵

PPB focuses on what will be done, not how to do it. . . . PPBS has no formal methodology to transform policies and objectives into an efficient operating plan and budget.⁶

To illustrate the various components of the zero-base budgeting system, an example is utilized to demonstrate how the theoretical aspects of zero-base budgeting will result in an improved decision-making informational tool. Although not a formal requirement in the preparation of agency budget requests, a sequence of events was suggested to aid personnel in the implementation of the zero-base budgeting concept. The sequence suggested is illustrated in Chart 2, see page 55, and provides an appropriate frame of reference to discuss the dynamics of the process. Once the dynamics have been briefly discussed, an example illustrates the theory of the concept.

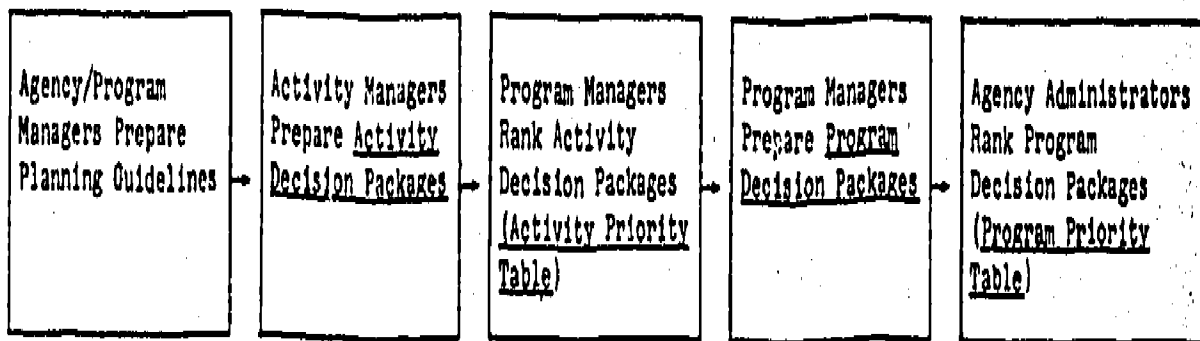
Logically, the first step of any effective planning and budgeting process should be the development of planning guidelines by agency and program managers. Such guidelines might include the identification of basic program needs and objectives, an evaluation of past

CHART 2

SUGGESTED SEQUENCE OF EVENTS IN THE ZERO-BASE PLANNING AND BUDGETING PROCESS

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performance, the identification of alternative methods of program delivery, the analysis of probable future trends and problems, the establishment of anticipated performance levels, and any other relevant policy guidelines relating to personnel, new services, etc. Such guidelines should not be so rigid that they deter the initiative of individual program and activity managers, but should serve as a common basis from which program and activity managers can begin their analysis. These planning guidelines may be reviewed and changed during the zero-base process as the activity and program managers prepare and justify their requests. For program planning to be successful, it must be a vital part of the decision-making process of an agency and must be carried out under the active supervision of those who make decisions. To act otherwise often results in an inflated version of the most recent year's budget. There should be a continuous dialogue between program managers and activity managers throughout the entire zero-base process to insure that analysis is developed consistent with the policy guidelines.

Once the planning guidelines have been established, activity managers can evaluate and prepare their funding requests accordingly. First of all, activity objectives can be formulated that are consistent with the accomplishment of program needs and objectives. Alternative methods of providing services can be evaluated and levels of service can be developed in line with the various performance level guidelines.

formulated by agency and program managers. The identification of various levels of program and activity effort is a unique and key component of the zero-base system. After activity managers prepare their requests and review them with their program managers, program managers must rank the various levels of funding identified for each activity in order of priority within the program. This process of ranking priorities establishes the budget levels of each program. If activity managers have followed the planning guidelines with regard to the various program performance levels that were established by agency and program managers, the various levels of funding identified for each activity should correlate and be reflective of the program performance level guidelines established.

The program manager can then proceed with the next step in the process which is the preparation of the program request. The program levels of funding identified from the establishing of priorities of the various levels of funding of the activities comprising the program will reflect the projected performance levels with regard to program needs and objectives. Thus, decision-makers should be able to utilize this information to determine the various impacts that can be anticipated on the target group or problem area at the various levels of funding identified.

After the program levels have been identified and program impacts evaluated, agency administrators must establish priorities among

the levels of the various programs to emphasize which services are emphasized and those that are de-emphasized in the agency's budget request.

The frequent references to activities, programs, levels, and establishment of priorities tends to become confusing. To explain the theory of the concept requires an example of the type of information required so that one can become more cognizant of the thought processes that should enter into the preparation of a zero-base budget request of an agency. Referring to Figure 2 in Chapter IV, a sample funding request is illustrated for the Institutional Care program and the Counseling and Rehabilitation activity.

Program Needs Assessment

For each agency program, agency and program managers must first identify and discuss the particular problem or need to be addressed by that program. Need identification is facilitated by the Program Decision Package Need Table, which should be prepared while agency and program managers are developing the initial planning guidelines, goals and objectives for agency programs. Need is defined as that quantity which identifies the program performance level required to solve a problem, achieve a desired state of affairs, or serve a target group. The need for a program should be derived from the determination of legislative intent which authorized the need to be met and/or the identification of

TABLE II: PROGRAM DECISION PACKAGE-NEED TABLE

(I) Program Institutional Care - Institution A	(2) Program Area Youth Services	(3) Agency Texas Youth Council	(4) Date (Mo-Day-Yr)	(5) Prepared By Bill Stewart		
(6) Discussion Of Quantity And Quality Of Need		(7) Need Indicator	1974 Estimated	1975 Budgeted	1976	1977
<p>The need for an Institutional Care program for juvenile delinquents was mandated by the Legislature with the establishment of the Texas Youth Council. (VACS Art. 3163d) This legislation states in part:</p>		Number of students served annually	1,000	1,000	1,042	1,084
<p>"The purpose of this Act is to create a Texas Youth Council to administer the state's correctional facilities for delinquent children, to provide a program of constructive training aimed at rehabilitation and reestablishment in society of children adjudged delinquent by the courts of this state and committed to the Texas Youth Council, and to provide active parole supervision of such delinquent children until officially discharged from custody of the Texas Youth Council....."</p>		Average daily student population	500	500	500	500
		Average length of stay per student	180 days	180 days	165 days	150 days
<p>"...but the purpose thereof and of all education work, training, discipline, recreation, and other activities carried on in the schools and other facilities shall be to restore and build up the self-respect and self-reliance of the children and youth lodged therein and to qualify them for good citizenship and honorable employment."</p>		Percentage of students recommitted within 5 years after release from custody	30%	30%	30%	30%
<p>The need indicators reflect the number of students who are projected to be committed to the Texas Youth Council for institutional care, treatment, and rehabilitation. Existing facilities should be sufficient with regard to the Institutional Care program, and it is anticipated that this institution will continue to operate at full capacity to meet projected demand.</p>		Number of students recommitted within 5 years after release from custody	1,500	1,500	1,300	1,080
<p>Halfway house and community based programs should continue to provide services that complement those provided by Institutional Care programs. Services need to be upgraded so that care and treatment within the institution is accomplished as quickly as possible, to further this end.</p>						

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the target group or segment of the population which has been identified as being in need of service.

The Program Decision Package Need Table requires a discussion of the nature of the need and the magnitude of the need to be addressed. There are several aspects of need which are useful in identifying the specific needs and/or demands for each program. In presentations to agencies, staffs of the two budget offices emphasized five basic aspects of need to aid program managers in program needs determination. These five aspects and their basic characteristics are as follows:

1. Target population--the group or environment to which the need relates.
2. Quantity of need--an indicator of the numerical scope of the need. This should identify the size of the true target population.
3. Quality of need--an indicator of the severity of the need (of the importance of satisfying a unit of need).
4. Urgency of need--an indicator of timely action required to satisfy needs.
5. Unsatisfied demand--an absolute or relative measure of the indicated demand for which services are not provided.

The Program Decision Package Need Table requires both a verbal description of these basic aspects of need and the identification of

quantitative need indicators that will serve as the basis for analyzing the effectiveness of program operations. Refer to the Program Decision Package Need Table example for an Institutional Care program of the Texas Youth Council for an illustration of the type of information desired. The determination of the need for governmental services is a necessary prerequisite to the evaluation of the effectiveness of such services.

The Activity Decision Package

After the Program Decision Package Need Table has been completed, each activity manager within that program must analyze his activity and prepare the funding request. This analysis is facilitated by the Activity Decision Package format which focuses analysis on the following questions.

1. What is the objective of the activity?
2. What are the alternative means or methods of performing the activity to accomplish the objective?
3. What is the proposed means of performing the activity?
4. What are the alternative levels of funding that should be considered?
5. What are the costs and benefits of each level of funding identified?
6. What are the work load measures that are meaningful in evaluating the activity?

First of all, the activity objective statement should describe the purpose and objective of the activity in relation to the program of which the activity is a part. The objective statement should state in quantitative terms the desired outputs or work load of the activity and should specify the time frame in which this will occur. Activity objectives must correlate with program objectives in terms of the work loads or outputs that the activity produces to further achievement of the program objective. The objective statement for the Counseling and Rehabilitation activity is shown on page 63. Objective statements for the other activities comprising the program--Administrative Services, Physical Plant Maintenance, Support Services, Food Services, Education, Medical Treatment, Dormitory Life and Adventure Trails--should also be stated in measurable terms indicating the work loads or outputs they seek to produce to insure achievement of the program objective.

After the activity objective statement has been formulated, activity managers should consider alternative methods of performing the activity within the parameters of the program planning guidelines. Analysis of alternative methods of accomplishing the objectives is one of the key aspects of the zero-base system. Managers are not restricted to the identification of funds needed above the existing level of appropriations, but are explicitly afforded the opportunity to evaluate the present method of operation against other reasonable alternative

TABLE III: ACTIVITY DECISION PACKAGE

Agency	Institution A	(2) Program Name	(3) Organizational Unit	(4) Date (Mo/Day/Yr)	(5) Prepared By	(6) Agency Code	(7) FID Code	(8) Activity Code							
(1) Activity Name	Counseling and Rehabilitation	Institutional Care Institution A			John Smith										
(9) Agency Operating Purpose						1974 - Estimated		1975 Budgeted							
To provide counseling and rehabilitation services to an average daily student population of 500 students. To insure that the needs of the student population are adequately met, each student should be counseled approximately 4 hours each month in accordance with the emotional problems identified for each student at the reception center by tests administered there. To accomplish this task, a case-worker/student ratio of 1:30 is desirable.						Personnel		Personnel							
						12		\$200,000		12		\$210,000			
						(10) Workload/Performance Measures						Measures		Measures	
						Number of students counseled during the year						1,000		1,000	
Number of attempted escapes						48		50							
Number of contact hours per student						3 hrs. per month		3 hrs. per month							
Caseworker/student ratio						1:35		1:35							
(11) Describe Means Of Performance Activity Level (1 of 3)						1976 Request		1977 Request							
This level of funding would provide a caseworker/student ratio of 1:72, which would permit case-workers to counsel with each student on a requested basis. The number of contact hours per student would be insufficient at approximately 3 hours per month. Each student would continue to receive counseling and rehabilitation services, but the level provided would be the minimum amount necessary to facilitate the care, treatment, and rehabilitation of each student. Students with the most severe emotional problems would suffer most under this level of service, as inadequate professional and support staffing would not permit the extra care and attention that is needed to fulfill the program objective.						Personnel		Personnel							
						9		\$166,500		9		\$166,500			
						(10) Workload/Performance Measures						Measures		Measures	
						Number of students counseled during the year						1,042		1,064	
Number of attempted escapes						64		64							
Number of contact hours per student						3 hrs. per month		3 hrs. per month							
Caseworker/student ratio						1:72		1:72							
(11) Describe Means Of Performance Activity Level (2 of 3)						1976 Request		1977 Request							
This level of funding would permit the addition of three caseworkers and the necessary supporting staff. The caseworker/student ratio would be 1:50 and each student could be counseled approximately 3 1/3 hours per month. Students with the severe emotional problems would benefit most from the additional staff resources provided by this level. A quality institutional care program could be provided with relation to the achievement of the program objective.						Personnel		Personnel							
						4		\$66,500		4		\$62,500			
						(10) Workload/Performance Measures						Measures		Measures	
						Number of students counseled during the year						1,042		1,064	
Number of attempted escapes						50		50							
Number of contact hours per student						3 1/3 hrs. per month		3 1/3 hrs. per month							
Caseworker/student ratio						1:50		1:50							
(11) Describe Means Of Performance Activity Level (3 of 3)						1976 Request		1977 Request							
This level of funding would permit the addition of three caseworkers and the necessary supporting staff. The caseworker/student ratio would be 1:50 and each student could be counseled approximately 3 1/3 hours per month. Students with the severe emotional problems would benefit most from the additional staff resources provided by this level. A quality institutional care program could be provided with relation to the achievement of the program objective.						Personnel		Personnel							
						13		\$233,000		13		\$229,000			
						(10) Workload/Performance Measures						Measures		Measures	
						Number of students counseled during the year						1,042		1,064	
Number of attempted escapes						50		50							
Number of contact hours per student						3 1/3 hrs. per month		3 1/3 hrs. per month							
Caseworker/student ratio						1:50		1:50							

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TABLE III: ACTIVITY DECISION PACKAGE

Agency: Institution A (W Agency Name) Counseling and Rehabilitation	(J) Program Name Institutional Care Institution A	(L) Organizational Unit	(M) Date (Mo/Day/Yr)	(N) Prepared By John Smith	(R) Agency Code	(S) PGM Code	(T) Activity Code
(X) Describe Means Of Performing Activity: Level (S of 3) This level of funding would provide 3 professional personnel and one supporting staff member. This would permit utilization of the resources within the community to upgrade the counseling and rehabilitation program. Students could participate, under adequate supervision, in school, church, and social activities that are reflective of the home environment in which they will function when released from custody. Equating this with the associated workload measures would reflect approximately four hours of counseling per month to each student. This level of funding is most important if the program objective is to be achieved. Staff personnel associated with this level would be able to generate a significant amount of additional resources in terms of those available in the community that can be of extraordinary benefit to students.				1976 Request		1977 Request	
		(Y) Rank	(Z) Resources	Personnel	Cost	Personnel	Cost
		This Level		4	\$ 59,000	4	\$ 55,000
		Cumulative		17	\$292,000	17	\$284,000
		(AA) Workload/Performance Measures		Measures		Measures	
Number of students counseled		1,042		1,084			
Number of attempted escapes		32		32			
Number of contact hours per student		4 hrs. per month 1:38		4 hrs. per month 1:38			
Caseworker/student ratio							
(Y) Describe Means Of Performing Activity: Level (4 of 4)		(Y) Rank	(Z) Resources	Personnel	Cost	Personnel	Cost
		This Level					
		Cumulative					
		(AB) Workload/Performance Measures		Measures		Measures	
(C) Alternative Methods Of Accomplishing The Activity:							
1) Services provided by this activity could be supplied by academic teachers budgeted within the education activity and volunteers from the university located in the community. Operational costs would be minimal. However, the emotional problems of children committed to the Youth Council are of such a nature so as to require a well-trained staff solely committed to counseling.							
2) Counseling services could be provided by contracting with the counseling staff of the statewide reception center which is located nearby. A cost of approximately \$150,000 could be projected for this type of service. The disadvantages of providing counseling services in this manner is two-fold. First of all, services would be provided on an irregular basis detracting from the quality of the overall program that is needed for an average daily population of 500 students. Secondly, additional staff would be required at the reception center in order to meet testing requirements conducted at that point.							

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TABLE III: ACTIVITY DECISION PACKAGE

Agency: Institution A		(2) Program Name		(3) Organizational Unit		(4) Date (Mo-Day-Yr)		(5) Prepared By		(6) Agency Code	(7) FOM Code	(8) Activity Code
(1) Activity Name Counseling and Rehabilitation		Institutional Care Institution A						John Smith				
(13) Object Of Expense		1974	1975	Level 1		Level 2		Level 3		Level 4		
(A) Code	(B) Type	Estimated	Budgeted	1976	1977	1978	1977	1976	1977	1978	1977	
	1. Exempt salaries	\$	\$	\$	\$	\$	\$	\$	\$			
	2. Classified salaries	136,000	149,000	118,000	118,000	42,000	42,000	43,000	43,000			
	3. Professional Services	5,000	5,000	4,000	4,000	2,000	2,000					
	4. Insurance Premium	2,000	2,000	1,500	1,500	2,250	2,250	1,000	1,000			
	5. Printing	1,000	1,000	1,000	1,000	1,250	1,250					
	6. Operating expenses	47,000	48,000	38,000	38,000	12,000	12,000	10,000	10,000			
	7. Postage	1,000	1,000	1,000	1,000	500	500					
	8. Travel	4,000	4,000	3,000	3,000	2,000	2,500	1,000	1,000			
	9. Rent											
	10. Capital Outlay	4,000				4,500		4,000				
Total This Level		\$200,000	\$210,000	\$166,500	\$166,500	\$ 66,500	\$ 62,500	\$ 59,000	\$ 55,000			
Cumulative Total						\$233,000	\$229,000	\$292,000	\$284,000			
(14) Method Of Financing												
(A) Fund Code	(B) Fund Name											
	General Revenue	\$200,000	\$210,000	\$166,500	\$166,500	\$ 66,500	\$ 62,500	\$ 59,000	\$ 55,000			
Total This Level		\$200,000	\$210,000	\$166,500	\$166,500	\$ 66,500	\$ 62,500	\$ 59,000	\$ 55,000			
Cumulative Total						\$233,000	\$229,000	\$292,000	\$284,000			

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TABLE III: ACTIVITY DECISION PACKAGE

Agency		Institution A		(2) Program Name	(3) Organizational Unit	(4) Date (Mo-Day-Yr)	Prepared by		(5) Agency Code	(6) PC# Code	(7) Activity Code
(1) Activity Name		Counseling and Rehabilitation		Institutional Care Institution A			John Smith				
(15) Personal Services Schedule				1974 Estimated		1975 Budgeted		1976		1977	
(A) Sub Div	(B) Class	(C) Grade	(D) Title	Positions	Cost	Positions	Cost	Positions	Cost	Positions	Cost
			<u>Level 1 of 1</u>								
	5214	20	Chief of Casework Services	(1)	\$ 18,000	(1)	\$ 20,000	(1)	\$ 20,000	(1)	\$ 20,000
	5213	15	Caseworker III	(2)	30,000	(2)	32,000	(2)	32,000	(2)	32,000
	5212	12	Caseworker II	(3)	36,000	(3)	39,000	(2)	26,000	(2)	26,000
	5211	09	Caseworker I	(4)	40,000	(4)	44,000	(3)	33,000	(3)	33,000
	0133	05	Secretary II	(2)	12,000	(2)	14,000	(1)	7,000	(1)	7,000
				<u>(17)</u>	<u>\$136,000</u>	<u>(12)</u>	<u>\$149,000</u>	<u>(9)</u>	<u>\$118,000</u>	<u>(9)</u>	<u>\$118,000</u>
			<u>Level 2 of 3</u>								
	5212	12	Caseworker II					(1)	\$ 13,000	(1)	\$ 13,000
	5211	09	Caseworker I					(2)	22,000	(2)	22,000
	0133	05	Secretary II					(1)	7,000	(1)	7,000
								(4)	\$ 42,000	(4)	\$ 42,000
			<u>Level 3 of 3</u>								
	5241	15	Coordinator of Volunteer Services					(1)	\$ 16,000	(1)	\$ 16,000
	5199	08	Youth Activities Supervisor II					(2)	20,000	(2)	20,000
	0133	05	Secretary II					(1)	7,000	(1)	7,000
								(4)	\$ 43,000	(4)	\$ 43,000
			TOTAL					<u>(17)</u>	<u>\$203,000</u>	<u>(17)</u>	<u>\$203,000</u>

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methods of providing services. By focusing on alternative methods of accomplishing objectives, activity managers may identify more efficient and effective means of performing the activity. After all reasonable alternatives have been evaluated, the best alternative is chosen to perform the activity. The alternatives not selected should be described, the reason for rejection stated, and the estimated costs of each alternative should be shown.

This formal consideration of alternative methods of providing services is a distinguishing feature of the zero-base system when compared with the previous system. It should be reemphasized that alternative methods for achieving the program objective should first be considered before each activity manager determines the alternative methods for achieving his activity objective. The interrelationship between programs and activities as defined by the program structure of an agency clearly places a premium on effective planning. For an example of alternative methods of accomplishing program objectives refer to page 80, and for an example of alternative methods of accomplishing activity objectives refer to page 64.

After the activity objective statement has been formulated and the method of performing the activity chosen, the next step is the identification of alternative levels of effort for performing the activity. The zero-base concept, which requires the complete analysis of programs and activities in terms of the identification of

alternative methods of providing services, also requires that funding levels be established to identify incremental costs and benefits as they relate to achievement of objectives. A primary element in the concept is that the initial level of funding identified must be below the current level of funding. The identification of a "minimum level of effort" is the base for the identification of other levels of effort. In essence, the requirement that a funding level below the current level of funding be identified has become the feature most often associated with the zero-base system. The joint budget instructions issued by the two budget offices explained the minimum level concept in some detail.

The minimum level of effort may not completely achieve the objective of the program or activity (even the additional levels of effort proposed may not completely achieve it because of realistic budget and achievement levels), but it should identify and attack the most important elements. The minimum level must be below the current level of effort. The minimum level should attempt to identify that critical level of effort, below which the program or activity should be discontinued, because it loses its viability or effectiveness. There is not a magic number (e.g., 75 percent of the current level) to identify this minimum. This minimum must be defined by each program or activity manager for his operations. However, there are several considerations which can guide program and activity managers in determining the minimum level of effort:

- 1) The minimum level may not completely achieve the total objective of the program or activity (even the additional levels of effort requested may not completely achieve the objective because of realistic budget and/or achievement levels).
- 2) The minimum level should address itself to the most critical services or attack the most serious problems.
- 3) The minimum level may merely reduce the amount of services (or number of services) provided by each program or activity.

4) The minimum level may reflect operating improvements, organizational changes, or improvements in efficiency that result in cost reductions.

5) Combinations of 1 through 4.⁷

Note that the definition of the minimum level of effort is couched in such terms so as to apply to both programs and activities. Since activities are the administrative techniques utilized to carry out programs, the logic of the zero-base system holds that the addition of all minimum levels of the activities comprising that program would constitute the minimum level of the program. The addition of subsequently identified incremental activity levels would likewise constitute the incremental program levels.

Thus, the initial planning guidelines issued by agency and program managers should specify the number of levels that will be identified at the program level so that activity managers can prepare their level requests in accordance with achievement of the program objective at these various levels of funding.

There are several basic elements of information that should be identified for each level of funding requested. The first is a description of the methods, actions, and operations required to perform the activity at each level of funding identified. Refer to pages 63-64 for an example. In describing the means of performing each level of the activity, managers should specify what will be done; how it will be done; and, the benefits and shortcomings of that level. This provides

managers the opportunity to justify funding level requests in a qualitative manner. However, emphasis is placed on justifications that can be expressed in a quantitative manner which is the purpose of the work load/performance measures information section that is provided for each funding level requested. Again refer to pages 63-64 for an example.

Although this section of the activity decision package format specifies the identification of either work load or performance measures and the supporting data, the logic of the Texas system holds that activities will produce products that can best be measured by work load and unit cost measures while most program outputs will be more properly measured by results-oriented or performance measures. The most important consideration, however, is that work load and performance measures be a meaningful method of displaying the degree to which each level of effort of an activity or program contributes to the accomplishment of the objective.

The joint budget instructions for the 1976-1977 biennium noted that work load/performance measure characteristics should:

- 1) provide a clear picture of the services provided and/or results produced for each level of effort;
- 2) identify the factors controllable by that activity or program (e.g., an activity will not have any impact on the weather, but may provide services in the form of a disaster warning system, which is controllable, and the results of which are measurable);
- 3) deal with significant, core aspects of the activity or program, directly related to the change sought by the objective;

4) be designed with an emphasis on readily obtainable data. However, measures for which data do not exist still should be identified;

5) . . . emphasize factors which may vary with, and may be correlated to, the activity's or program's expenditure level.

With the identification of work load or unit cost measures, an analysis of the efficiency of services provided can be determined at the activity level. Efficiency does not address the question of whether the product is worthwhile or good. Rather, efficiency focuses upon the ratio of inputs (resources allocated to the activity, usually measured in dollars) to outputs (products, usually measured in units called work load measures which describe the quantity of activity).⁹

Examples of work load measures are shown in the example on page 63 and also in Figure 4 in the chapter on program structure. Utilizing this type of information, the following type of analysis is possible.

Assume that states A and B both allocate \$1,000,000 to Community Colleges for training computer programmers. In State A, 500 students complete the curriculum that this \$1,000,000 bought. In State B, 400 students complete the curriculum. The cost per student is \$2,000 for State A and \$2,500 for State B. Assuming equivalent curricula the community colleges in State A are training computer programmers more efficiently than the community colleges in State B. (But that doesn't necessarily mean that A's students are better programmers than B's.)¹⁰

Measures of efficiency are important because of the limited resources that are available to meet all of the demands for governmental services. It is not only important that desired changes be brought about with regard to basic problem areas or target groups, but that this be accomplished with the expenditure of the least amount of funds and

resources possible. Work load measures provide the opportunity to compare anticipated outputs with past performances, with accepted standards, or with the experiences of other governmental units. If work load outputs are specified in the activity objective, it then becomes possible to ascertain the achievement level of each level of effort in meeting that stated objective and ultimately the program objective.

Further examples of work load measures include:

- Number of students enrolled in school
- Number of investigations
- Number of patients treated
- Number of cards received and processed
- Number of samples analyzed
- Number of facilities certified
- Number of vehicles inspected

While such measures are conducive to the measurement of output in terms of efficiency, they do not address the impact of governmental services on the problem area or target group in question.

The third page of the activity decision package format, shown on page 65, provides an object of expense breakdown for each level of funding identified. The Comptroller's Manual of Accounts is utilized as the basic guideline in determining the objects of expense for which expenditure data should be submitted and requests formulated. This information is displayed incrementally for each object of expense, with provision for the relative cost that would be experienced if each particular level of funding were approved. Additionally, activity managers are required to identify both the source of funds and the amount

of funds from each source for each level of funding identified. Theoretically, the zero-base system should not require a differentiation of the source of funds utilized to provide governmental services since all services should be justified from base zero. However, the requirement that funding sources and amounts be identified is an admission that such information is desirable under the Texas zero-base system. In the example on page 65, the general revenue fund is the sole source of funding for the Counseling and Rehabilitation activity. The fourth page of the Activity Decision Package format is shown on page 66. The staffing patterns for each level of funding identified must be shown on this section of the decision package format. While the zero-base budgeting system in Texas strongly emphasizes measurable objectives, alternative methods, alternative levels, and performance measurement, it also requires object of expense and personnel information that was such a major component of the previous budget system.

The Activity Priority Table

After all activity managers comprising a program have prepared their activity decision packages, it then becomes the responsibility of the program manager to rank these decision packages in order of priority within the program. This process is facilitated by the Activity Priority Table. An example of this process for the Institutional Care

TABLE IV: ACTIVITY PRIORITY TABLE

(I) Program Being Requested		(II) Agency				(III) Date (Mo-Day-Yr)		(IV) Prepared By		(V) Agency Code	(VI) POAB Code	(VII) (FTE)
Institutional Care Institution A		Institution A						Bill Stewart				00 : 00
RANK	Activity Name and Level	1975 Budgeted		1976 Requested		Cumulative 1976		1977 Requested		Cumulative 1977		
		Dollars (All Funds)	Positions	Dollars (All Funds)	Positions	Dollars (All Funds)	Positions	Dollars (All Funds)	Positions	Dollars (All Funds)	Positions	
1	Administrative Services (1 of 3)	\$ 200,000	6	\$ 180,000	5	\$ 180,000	5	\$ 180,000	5	\$ 180,000	5	
2	Food Service (1 of 3)	800,000	24	750,000	20	930,000	25	750,000	20	930,000	25	
3	Support Services (1 of 3)	400,000	12	300,000	6	1,230,000	31	300,000	6	1,230,000	31	
4	Education (1 of 3)	800,000	30	700,000	24	1,930,000	55	700,000	24	1,930,000	55	
5	Counseling and Rehabilitation(1 of 3)	210,000	12	166,500	9	2,096,500	64	166,500	9	2,096,500	64	
6	Dormitory Life (1 of 3)	800,000	30	700,000	22	2,796,500	86	700,000	22	2,796,500	86	
7	Medical Treatment (1 of 3)	200,000	6	175,000	4	2,971,500	90	175,000	4	2,971,500	90	
8	Physical Plant Maintenance (1 of 3)	200,000	8	175,000	6	3,146,500	96	175,000	6	3,146,500	96	
9	Adventure Trails (1 of 3)	100,000	4	80,000	3	3,226,500	99	80,000	3	3,226,500	99	
10	Administrative Services (2 of 3)			30,000	2	3,256,500	101	28,000	2	3,254,500	101	
11	Food Service (2 of 3)			100,000	6	3,356,500	107	100,000	6	3,354,500	107	
12	Education (2 of 3)			200,000	10	3,556,500	117	180,000	10	3,534,500	117	
13	Counseling and Rehabilitation(2 of 3)			66,500	4	3,623,000	121	62,500	4	3,597,000	121	
14	Dormitory Life (2 of 3)			200,000	10	3,823,000	131	200,000	10	3,797,000	131	
15	Medical Treatment (2 of 3)			40,000	2	3,863,000	133	40,000	2	3,837,000	133	
16	Support Services (2 of 3)			100,000	6	3,963,000	139	100,000	6	3,937,000	139	
17	Adventure Trails (2 of 3)			20,000	1	3,983,000	140	20,000	1	3,957,000	140	
18	Physical Plant Maintenance (2 of 3)			40,000	2	4,023,000	142	40,000	2	3,997,000	142	
19	Administrative Services (3 of 3)			30,000	1	4,053,000	143	30,000	1	4,027,000	143	

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Form 0074 00

program, page 74, reflects the decisions that the program manager must make.

If all activity managers have prepared their decision packages consistent with the planning guidelines regarding program levels, the program manager can proceed with the priority ranking of activity levels. Thus, as shown in the example, the summation of the level one funding levels of the activities constitute the level one funding level of the program. Activity packages ranked 1 through 9 constitute program level one; activity packages ranked 10 through 18 constitute program level two; and, activity packages ranked 19 through 27 constitute program level three.

Assuming an ideal program structure, it makes little difference where the various activity levels are ranked within a program level since the performance of all the activities comprising a program is necessary to perform the program and meet the program objective. This is reflected in the example for the Institutional Care program. By definition, the minimum level of an activity must be ranked higher than the second level of that activity and so forth. The Texas system recognizes the possibility that some functions may not be directly related to achievement of the program objective. Research projects would fall into this category, as well as one time capital outlay equipment expenditures of a magnitude that the method of performing an activity or the program would be altered. To illustrate, assume that a research

proposal regarding identification of a better method of performing the Counseling and Rehabilitation activity was proposed at a funding level of \$100,000 and this was the only level of funding identified. If this request is ranked number 18 by the program manager, then theoretically the second level of program funding could be at that point. The program manager might determine the second level of program funding to be at that level, or he might also include the second level of the Physical Plant Maintenance activity which would then become priority package number 19. Although not shown in the example, the Texas system allows for imperfections in program structure definition. In other words, some structures will be developed wherein the aggregate effect of the activities will not have a direct relationship with regard to achievement of the program objective. In such cases, setting priorities of activity decision packages can occur at various program funding levels. However, emphasis is strongly placed on the identification and implementation of proper program structures.

As one can see by referring to the Activity Priority Table example, by definition minimum levels of all activities must be below the current level of funding. Thus, the minimum level of the program is assured of being below the current level of program funding. In the example, the minimum level of program funding would be \$3,226,500 for each year of the 1976-1977 biennium. Ninety-nine personnel would be required to perform the program at this level. This level of funding

compares with the current level of funding, the 1975 budgeted column, of \$3,710,000 and 132 personnel. The second level of funding would require \$4,023,000 and 142 personnel in fiscal year 1976 and \$3,997,000 and 142 personnel in fiscal year 1977.

It should be noted that the joint budget instructions did provide for exceptions to the minimum level. Instances of start-up costs for previously non-existent operations, or operations that were not fully in operation during the 1975 fiscal year are examples of such exemptions.

The Program Decision Package

After the program manager has ranked levels of activity decision packages it then becomes necessary to prepare the program decision package request. Refer to the example for the Institutional Care program of the Texas Youth Council shown on page 79. As stated previously, activity managers are guided in the preparation of their activity decision package requests by the planning guidelines which included specifications of the program objective; the consideration of alternative methods of performing the program; and, the determination of tentative program funding levels. The program objective is a statement of the quantifiable impact a program is anticipated to have on a specified problem area or in achieving a desired state of affairs. The program objective statement should specify (1) the target group or problem area

TABLE V: PROGRAM DECISION PACKAGE

Agency	(2) Program Area Name	(3) Organizational Unit	(4) Date (Mo-Day-Yr)	(5) Prepared By	1967 Agency Code	1968 PCM Code	1969 Activity Code
Institution A	Youth Services			Bill Stewart			
<p>(1) Program Name: Institutional Care</p> <p>(6) Program Objective/Purpose: To maintain the institution and provide a variety of remedial experiences aimed at minimizing the incidence of recurring delinquent behavior. During the next biennium, the primary objective of this institution will be to provide a quality care and treatment program to an average daily population of 500 students that results in average length of stay of 150 days per student with a 20% recidivism rate.</p>		<p>(7A) RESOURCES</p>		<p>1974 Estimated</p>		<p>1975 Budgeted</p>	
				Personnel	Cost	Personnel	Cost
				124	\$3,250,000	132	\$3,710,000
				<p>(7B) Program Performance Measures</p>		<p>Measures</p>	
				<p>Percentage of students recommitted within 5 years after release from custody</p>		<p>30%</p>	
				<p>Number of students recommitted within 5 years after release from custody</p>		<p>1,500</p>	
				<p>Average length of stay per student</p>		<p>180 days</p>	
				<p>1976 Request</p>		<p>1977 Request</p>	
		(8C) Rank	(8A) Resources	Personnel	Cost	Personnel	Cost
			This Level	99	\$3,226,500	99	\$3,226,500
				<p>(9B) Program Performance Measures</p>		<p>Measures</p>	
				<p>Percentage of students recommitted within 5 years after release from custody</p>		<p>28%</p>	
				<p>Number of students recommitted within 5 years after release from custody</p>		<p>1,750</p>	
				<p>Average length of stay per student</p>		<p>200 days</p>	
		(9C) Rank	(9A) Resources	Personnel	Cost	Personnel	Cost
			This Level	43	\$ 796,500	43	\$ 770,500
				<p>Cumulative</p>		<p>142</p>	
				<p>142</p>		<p>\$3,997,000</p>	
				<p>(9B) Program Performance Measures</p>		<p>Measures</p>	
				<p>Percentage of students recommitted within 5 years after release from custody</p>		<p>28%</p>	
				<p>Number of students recommitted within 5 years after release from custody</p>		<p>1,400</p>	
				<p>Average length of stay per student</p>		<p>170 days</p>	
<p>(10) Describe Means of Performance Program: Level 11 of 1</p> <p>This level of funding represents the minimum amount necessary to operate an institutional care program. All services necessary to operate an institution would be provided, but each at a level that would not permit adequate treatment and rehabilitation, and dormitory life activities would be able to provide only the absolutely essential services to the student population. The quality of the program would not be conducive to the needs of each individual student. Transitional services to the home environment, so necessary in the success of institutional care programs, would be provided at a completely unacceptable level.</p>							
<p>(10) Describe Means of Performance Program: Level 12 of 1</p> <p>The increased resources provided at this level of funding would permit the provision of a quality institutional care program. The needs of most of the student population would be met, but those students with the most severe emotional problems would not receive the services necessary to insure fulfillment of the program objective. Therefore, the approval of this level of funding would result in the institution being unable to serve the students in need of institutional services because of the protracted length of stay of the most severely emotionally disturbed students and the effect this has on the remainder of the student population.</p>							

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TABLE V: PROGRAM DECISION PACKAGE

Agency: Institution A (1) Program Name: Institutional Care	(2) Program Area Name: Youth Services	(3) Organizational Unit	(4) Date (Mo Day Yr)	(5) Prepared By: Bill Stewart	(6) Agency Code	(7) PGM Code	(8) FDR: 00 00
(10) Describe Means Of Performing Program (Level 1 of 1) (Includes Page) 19 of 27 This level of funding should permit achievement of the program objective. Staffing ratios would be adequate in all treatment activities and allow each activity to produce the desired outputs that would meet the need for services of the student population. Institutional and community resources could be utilized to the optimum. Any failures of the program could be equated with the limitations imposed by an institutional setting. However, the volunteer services component should be most successful in the provision of services designed to meet the needs in this area.		(10C) Rank (10A) Resources This Level Cumulative		1976 Request Personnel Cost		1977 Request Personnel Cost	
				29 \$ 559,000		29 \$ 555,000	
				171 \$4,582,000		171 \$4,552,000	
		(10B) Program Performance Measures Percentage of students recommitted within 5 years after release from custody Number of students recommitted within 5 years after release from custody Average length of stay per student		Measure 25% 1,300 165 days		Measure 70% 1,000 150 days	
(11) Describe Means Of Performing Program (Level 0 of 1) (Includes Page) _____ of _____		(11C) Rank (11A) Resources This Level Cumulative		Personnel Cost		Personnel Cost	
		(11B) Program Performance Measures		Measure		Measure	
(12) Alternative Methods Of Accomplishing The Program The only logical alternative to the provision of services offered by this institution would be the purchase of residential services of basically the same nature for students committed to the Texas Youth Council. Such services would result in provision of a treatment program closer to each student's home. Unfortunately, the Youth Council is presently utilizing all available spaces that meet the licensing requirements of the Department of Public Welfare for such facilities. Therefore, it is necessary to operate this institution to meet the treatment needs of approximately 1,000 juvenile delinquent children in this state.							

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TABLE V: PROGRAM DECISION PACKAGE

Agency: Institution A		12 Program Area Name		13 Organizational Unit		14 Date (Mo-Day-Yr)		15 Prepared By		16A Agency Code	16B FOM Code	17B Activity Code	
11 Program Name Institutional Care		Youth Services						Bill Stewart				00 1 00	
14C Object Of Expense		Estimated	Budgeted	Level 1		Level 2		Level 3		Level 4			
14C Code	14C Type	1974	1975	1976	1977	1978	1977	1978	1977	1978	1977	1978	1977
	1. Exempt Salaries	\$ 80,000	\$ 90,000	\$ 90,000	\$ 90,000	\$	\$	\$	\$	\$	\$	\$	\$
	2. Classified Salaries	2,000,000	2,300,000	1,900,000	1,900,000	530,000	530,000	380,000	380,000	10,000	10,000	10,000	10,000
	3. Professional Services	140,000	150,000	140,000	140,000	20,000	20,000	10,000	10,000	6,000	6,000	6,000	6,000
	4. Insurance Premiums	18,000	20,000	18,000	18,000	10,000	10,000	12,000	12,000	2,000	2,000	2,000	2,000
	5. Printing	15,000	15,000	5,000	5,000	12,000	12,000	104,000	104,000	1,000	1,000	1,000	1,000
	6. Operating Expenses	260,000	370,000	339,500	339,500	144,500	138,500	50,000	50,000				
	7. Postage	10,000	12,000	12,000	12,000	4,000	4,000						
	8. Travel	20,000	20,000	18,000	18,000	6,000	6,000						
	9. Rent												
	10. Capital Outlay	48,000	49,000	20,000	20,000	20,000		4,000					
	11. Food Products	659,000	684,000	684,000	684,000	50,000	50,000						
Total This Level		\$3,250,000	\$3,710,000	\$3,226,500	\$3,226,500	\$ 796,500	\$ 770,500	\$ 552,000	\$ 552,000				
Cumulative Total						4,023,000	3,997,000	4,582,000	4,552,000				
17B Method Of Financing													
14J Fund Code	14J Fund Name												
	General Revenue	\$3,250,000	\$3,710,000	\$3,226,500	\$3,226,500	\$ 796,500	\$ 770,500	\$ 552,000	\$ 552,000				
Total This Level		\$3,250,000	\$3,710,000	\$3,226,500	\$3,226,500	\$ 796,500	\$ 770,500	\$ 552,000	\$ 552,000				
Cumulative Total						\$4,023,000	\$3,997,000	\$4,582,000	\$4,552,000				

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for consideration (need), (2) the extent to which this need will be met, and (3) the time frame in which the desired condition will be brought about. If the objective statement can be stated in such terms, it is possible to measure the effectiveness of the program with relation to achievement of the objective at the different funding levels identified.

Questions of program effectiveness are often not asked when discussing governmental services and requests for appropriations. There are probably several explanations that account for this. One would be that program effectiveness measurement is so extremely difficult. How does one determine that basic program conditions have changed, and whether or not that change was the result of services provided by the particular program? Secondly, the development of an appropriate data base to measure program effectiveness lags considerably behind the availability of data of the work load nature. This fact is simply a recognition of the state of the art. Several states, including Texas, are making every effort to improve this component of budget systems. The zero-base system in Texas seeks to raise the level of concern regarding program measurement and make it a subject of systematic analysis throughout the budgetary process.

The Program Decision Package format is very similar to that of the Activity Decision Package. The means employed to perform the program are described in a narrative, with emphasis placed on the resources

added at each particular level of funding. Managers are again given the opportunity to speak qualitatively to the aspects of programs that they feel do not lend themselves to quantitative measurement. Although the zero-base system strongly emphasizes cost effectiveness analysis and quantitative measurement, the system would be incomplete if it did not provide program and activity managers the opportunity to express their concerns regarding outputs that are not conducive to quantitative measurement.

The chief difference between the two formats, as pointed out before, is the difference between measures of efficiency at the activity level and measures of effectiveness at the program level. The Program Decision Package format also requires a summarization of proposed expenditures by object of expense. Staffing patterns are not required at the program level.

The Program Priority Table

The final step in completion of the zero-base budgeting analysis required of the agency is the establishment of priorities of the various levels of the program funding requests. This process is facilitated by the Program Priority Table. An example is shown for the Texas Youth Council. In the example shown on page 84, the Youth Council has three institutional programs, a community based program, and the central office function is described as a central administration

TABLE VI: PROGRAM PRIORITY TABLE

(I) Organization Being Requested		(II) Agency				(III) Date (Mo-Day-Yr)		(IV) Prepared By		(V) Agency Code	(VI) FOM Code	(VII) FOM
Texas Youth Council		Texas Youth Council						John Jackson				00 00
RANK	Program Name and Level	1975 Budgeted		1976 Requested		Cumulative 1976		1977 Requested		Cumulative 1977		
		Dollars (All Funds)	Positions	Dollars (All Funds)	Positions	Dollars (All Funds)	Positions	Dollars (All Funds)	Positions	Dollars (All Funds)	Positions	
1	Institutional Care-Institution B (1 of 3)	\$ 3,000,000	112	\$ 2,800,000	90	\$ 2,800,000	90	\$ 2,800,000	90	\$ 2,800,000	90	
2	Institutional Care-Institution A (1 of 3)	3,710,000	132	3,226,500	99	6,026,500	189	3,226,500	99	6,026,500	189	
3	Institutional Care-Institution C (1 of 3)	3,500,000	125	3,000,500	93	9,027,000	282	3,000,500	93	9,027,000	282	
4	Community Based Program (1 of 3)	2,000,000	80	1,900,000	75	10,927,000	357	1,900,000	75	10,927,000	357	
5	Central Administration (1 of 3)	1,000,000	50	950,000	48	11,877,000	405	950,000	48	11,877,000	405	
6	Community Based Programs (2 of 3)			1,000,000	20	12,877,000	425	1,000,000	20	12,877,000	425	
7	Institutional Care-Institution A (2 of 3)			796,500	43	13,673,500	468	770,500	43	13,647,500	468	
8	Institutional Care-Institution B (2 of 3)			800,000	41	14,473,500	509	800,000	41	14,447,500	509	
9	Institutional Care-Institution C (2 of 3)			750,000	39	15,223,500	548	750,000	39	15,197,500	548	
10	Central Administration (2 of 3)			200,000	20	15,423,500	568	200,000	20	15,397,500	568	
11	Community Based Programs (3 of 3)			1,000,000	20	16,423,500	588	1,000,000	20	16,397,500	588	
12	Central Administration (3 of 3)			100,000	5	16,523,500	593	100,000	5	16,497,500	593	
13	Institutional Care-Institution A (3 of 3)			559,000	29	17,082,500	622	555,000	29	17,052,500	622	
14	Institutional Care-Institution B (3 of 3)			540,000	30	17,622,500	652	540,000	30	17,592,500	652	
15	Institutional Care-Institution C (3 of 3)			520,000	25	18,142,500	677	520,000	25	18,112,500	677	
		\$13,210,000	499									

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program. Depending on program structure definition, the three institutions could be combined into one institutional care program but this is not the case in the example.

The purpose of the Program Priority Table is to identify and rank programs and levels of programs against one another as they relate to the overall needs and objectives of the agency. By definition, the minimum level of a program must be ranked higher than the second level of that program; the second level of the program must be ranked higher than the third level of that program and so forth.¹¹ The example illustrates this for each of the three programs.

The interrelationship between programs and levels of programs is not interdependent as are activities and levels of activities. In other words, one does not necessarily have to fund all the second levels of the three institutional care programs, the community based programs and the central administration program to have an impact on the target group or problem area. Of course some difficulties might be encountered if one institutional care program was funded at a higher level than the other two institutional care programs. There would be some basis for such disagreement since institutional care programs within the State should be of the same quality from one institution to another. However, the point is that each of the programs and levels of programs identified should have an impact in reaching a desired state of affairs.

Referring to the example, agency management has indicated by this ranking process that it desires to continue basically the present method of delivering services. Thus, the first levels of each of the five programs are ranked 1-5. However, in this example, the community based program takes on added importance as indicated by agency management ranking the second and third levels of this program above the second and third levels of the three institutional care programs. One might also make a tentative assumption that the second and third levels of the central administration program also have some relationship to the community based programs, since the third level is ranked above the third level of the three institutional care programs. However, one should be extremely careful in assigning too much importance to any major assumptions that might be made by reviewing the Program Priority Table. The Program Priority Table simply reflects an agency's ranking of its programs and levels of programs as they relate to the needs and objectives of the agency. It (the Program Priority Table) does not contain any information whatsoever regarding program needs, objectives, and impacts. To assume that it does is to mistakenly apply one of the principles of zero-base priority ranking to the exclusion of the consideration of the other principles involved. Such utilization of the concept would compromise the principles and intent of the overall system.

To summarize, zero-base budgeting analysis is framed around a program structure that is constructed along need and objective lines so as to focus attention on program results in serving a particular target group population or solving a problem. Efficiency is emphasized at the activity level of the structure and effectiveness at the program level of the structure. Alternative methods of providing services must be analyzed at both levels to insure that the most efficient and effective methods of program delivery are chosen. The zero-base philosophy requires that a level of funding below the current level of funding must be identified. Subsequent levels of funding must reveal the additional outputs or impacts that can be projected to occur with the additional resources requested. Priority ranking of levels of activities and programs indicates management's determination of how the agency's needs and objectives can best be met. Supporting information describes how the services will be provided, by whom, and the costs and benefits projected. Finally, the goal of the entire system is to provide more and better information to decision-makers so that the priorities of the State can be determined and achieved in a rational and reasonable manner.

Performance Evaluation

This is the theory of the Texas zero-base budgeting system. However, before proceeding to a critique of its application, one should

also consider the role of the post-performance evaluation procedure that has been established. Is there any difference between "analysis" and "evaluation"?

It is not easy to specify the differences between analysis and evaluation. Their methodologies are similar and cost effectiveness (in its various forms) is their mutual concern. In systems theory, analysis and evaluation generally are conceived of as two interconnected parts of an iterative process that begins with the identification of objectives and the analysis of program alternatives and culminates with an evaluation of program results. Analysis typically is regarded as a necessary step before evaluation; only after the objectives and program aims have been specified can their attainment be measured. But, as sociopolitical processes, analysis and evaluation rarely coexist in the fashion prescribed in flow charts, for the ascendancy of one ordinarily spells the eclipse of the other.

An obvious distinction is in time perspectives. Analysis is a prospective process; it has to do with planning future policy and the consideration of proposed courses of action. Evaluation is retrospective; its concern is with what has been accomplished under existing or terminated programs. Accordingly, analysis tends to be associated with new public actions while evaluation concentrates on reviews of past decisions.¹²

It is the latter distinction with regard to the time perspective that is evident in the Texas system. With the passage of House Bill 169, the Sixty-third Legislature, Regular Session, established a system of performance audits and reports by the Legislative Budget Board. This legislation stated in part:

The performance report shall analyze the operational efficiency of state agency operations and program performance in terms of explicitly stating the statutory functions each agency, department, commission and institution are to perform and how these statutory functions are being accomplished, in terms of unit-cost measurement, work load efficiency data, and program output standards as the Legislative Budget Board shall establish.¹³

Further, Senate Bill 52, Acts of the Sixty-fourth Legislature, Regular Session (the general appropriations bill for the 1976-1977 biennium) contains a rider provision which states:

Each agency shall file an annual report under guidelines developed by the Legislative Budget Board and Governor's Budget Office showing performance and work load measures for each line-item program or activity for the fiscal year. The report shall also contain a comparison to estimated performance and work load measures forecast in the budget request, and explanations for any major variance by measure.¹⁴

The purpose of the performance report in the Texas system is to assess actual program accomplishments in comparison with planned program accomplishments. The performance report should measure program accomplishments or results through the collection and analysis of data in a systematic, step-by-step process. It should be results oriented, measuring program performance in terms of its impact or its effect upon clients and citizens. Its principal purpose is to provide decision-makers with information on past performance so such information can then be utilized to improve policy and resource allocation decisions.

FOOTNOTES

1. A. E. Buck, The Budget in Governments of Today (New York: Macmillan Co, 1934), p. 172.
2. United States Department of Agriculture, Office of Budget and Finance, "Instructions for 1964 Agency Estimates," April, 1962.
3. Harry P. Hatry, "Considerations in Instituting a Planning-Programming-Budgeting System (PPBS) in State or Local Government," George Washington State University. State and Local Governments Project.
4. Charles L. Schultze, The Politics and Economics of Public Spending (Washington, D.C.: The Brookings Institution, 1969), p. 23.
5. S. Kenneth Howard, Changing State Budgeting (Lexington, Kentucky: Council of State Governments, 1973), p. 117.
6. Peter A. Pyhrr, Zero-Base Budgeting: A Practical Management Tool for Evaluating Expenses (New York: John Wiley and Sons, Inc., 1973), p. 149.
7. State of Texas, Instructions for Preparing Agency Budget Requests for the Biennium Beginning September 1, 1975 (Austin, Texas: Executive Budget Office and Legislative Budget Office, 1975).
8. Ibid., p. 19.
9. Gloria A. Grizzle, "Asking the Right Questions to Evaluate Programs in State Government," Office of State Planning. Raleigh, North Carolina, 1972.
10. Ibid.
11. State of Texas. Instructions for Preparing Agency Budget Requests for the Biennium Beginning September 1, 1975 (Austin, Texas: Executive Budget Office and Legislative Budget Office, 1975).

12. Allen Schick, "From Analysis to Evaluation," The Annals of The American Academy of Political and Social Science 394 (March, 1971), p. 60.
13. State of Texas, Vernon's Annotated Civil Statutes, Article 5429c-3.
14. State of Texas, Senate Bill 52, Acts of the Sixty-fourth Legislature, Regular Session, 1975.

CHAPTER VI

EVALUATION

How does one determine that the funding decisions made by utilizing the zero-base concept are better than those that were made under the previous budget system? Quite frankly, it is almost impossible to point to a decision and say that it was a better decision because of the utilization of the zero-base budgeting concept. Theoretically, one should not assume that better decisions will necessarily result but should assume that better information will result and be structured in a manner that is relevant to those engaged in the decision-making process. To gain an understanding of the type of information generated and its application to decision-making, the author interviewed senior examiners from the Legislative Budget Office and Executive Budget Office who had experience with the previous budgetary process and who also formulated budget recommendations by utilizing the zero-base concept. Also, questionnaires that addressed the same basic questions that were posed to examiners were forwarded to personnel involved in the preparation of budget requests for the Department of Health, Department of Public Safety, and Department of Corrections. By analyzing the views expressed in these responses and the author's personal experience with

the two different systems, the author seeks to provide some conclusive evaluations on the advantages and disadvantages of the zero-base budgeting process.

The Strategy of Implementation

First of all, as pointed out earlier, the zero-base concept was implemented in all state agencies and institutions. Admittedly, the concept that was implemented for colleges and universities, the junior colleges, and the minimum foundation program for financing public schools was vastly different than the concept implemented throughout the remainder of state government. The former two were different because of the formula system utilized to fund this segment of higher education and the latter was different because of the statutory provisions that specifically detail the funding mechanisms to be utilized in financing public school educational needs. The point to be emphasized is that the implementation of zero-base budgeting differed from the methodology that state budget directors have on at least one occasion noted as most preferable in installing PPB systems.

Overall, budget directors favor a deliberate speed policy that does not upset budget traditions and that involves a wide spectrum of participants. The composite "best way to install PPB" is; in a few agencies at a time rather than across the board; with the regular staff rather than with a special PPB staff; by revising the existing budget procedures rather than by establishing special new procedures; by working with the agencies rather than by concentrating the work in the central budget office; by concentrating on the legislature rather than by circumventing it; by giving

planners an advisory rather than a leading role; by relying on people who know state budgeting; by establishing state goals rather than by developing supporting data; by focusing on program alternatives rather than on cost projects.¹

Zero-base budgeting was implemented in Texas in a manner quite different from the "ideal" process described above. For example, basic implementation characteristics included: across the board implementation rather than a phased-in process with a few selected agencies; regular use of special expertise provided by consultants; and, a vast revision of then existing budget procedures. It is virtually impossible to describe the difficulties encountered in implementing a comprehensive budgeting system such as zero-base throughout Texas state government with a limited budget staff. The immense burden that this placed on examiners of the two central budget offices and agency personnel involved in budget preparation probably resulted in each having a better understanding of the other's problems. Additionally, it was the general consensus of those who were involved that any improvements that are necessary to improve the system pose substantially less problems than those involved in the initial implementation efforts. This general opinion seemed to be expressed throughout examiner and agency personnel responses.

Most of the conclusions reached in this chapter are based on the opinions of examiners and activity and program managers and thus reflect judgment on the type of information desired by personnel at this level

of the decision structure. To summarize for a moment, these types of personnel will be principally concerned with data gathered at the program and activity levels of the structure. On the other hand, the Governor and members of the Legislature should be primarily concerned with the data generated at the program area and program levels. The intent of this report is not to recommend improvements regarding the current budgetary structure, but to concentrate instead on any improvements that can be made in the system that is implemented around the existing structure. The point to be emphasized is that it is quite difficult to design a system that accommodates the informational desires of those involved in the dual budget preparation process in Texas --the Governor and the members of the Legislative Budget Board.

The Structuring of Information

Some of the difficulties involved are easily noted. For example, assume that information generated at the program area level--generally the amount of resources being directed toward a particular group or segment of the population with similar disabilities, needs or attributes--is basically structured in such a manner that is relevant both to the Governor and legislators. Quite frankly, this assumption is probably valid more often than not. However, in developing the program level of the structure--the level wherein the external effects that programs have upon problem areas, target groups or a desired state

of affairs can be measured--should one develop agency structures according to objectives or organization responsibilities, according to geographical considerations, or according to different clienteles? At precisely this point, the dual process of budget preparation imposed the burden of designing a system to meet informational desires that are probably quite different in nature. While members of the Legislature might be concerned with the level of program expenditures in an area of six counties, the Governor might be more concerned with the level of program expenditures with regard to that same program in terms of the distinct clientele served.

Working within this general environment, examiners expressed the general opinion that zero-base budgeting did not structure information in such a manner that was conducive to utilization by decision-makers--the Governor, the Lieutenant Governor, the Speaker of the House of Representatives, and the members of the Legislative Budget Board and remaining members of the Legislature. This is not to say that zero-base budgeting failed because it did not supplant the "politics" that are so much a part of the decision-making process, but that it did not translate the information generated in such a manner that it was most relevant to those involved in decision-making at that level of the decision structure.

Examiners and agency personnel recognize the necessity of gubernatorial and legislative support in the implementation of a new

budgeting system, and it is generally agreed that such support was available from the beginning of the process to culmination with the passage of the general appropriations bill for the 1976-1977 biennium. Indeed, it was Governor Briscoe and Lieutenant Governor Hobby who initiated the thrust for zero-base budgeting implementation in Texas and not their ratification of a proposal that originated with the staffs of the two budget offices. However, the type of information desired by these two decision-makers was never fully communicated to the staff beyond the point that "all governmental services should be justified, rather than only those increases above the current spending level."

Although Governor Hobby participated in the implementation of the system by chairing the steering committee, his chief representatives seemed to be the consultants who had aided in the installation of such a system in Georgia. During this time, savings were continually alluded to as a primary benefit of the zero-base process. Savings can only occur, however, if decision-makers make savings decisions. Governor Briscoe, Speaker Daniel and the Legislative Budget Board finally agreed that the consultants contract should be terminated. This came at a time when the basic decisions had been reached with regard to the joint budget instructions that would be issued for utilization in preparing budget requests for the 1976-1977 biennium. To the extent that the consultants' desires were reflected in those instructions, one can generally assume that Governor Hobby's wishes were accorded.

Alternative methods, alternative levels, objectives, performance measures, and establishment of priorities were all components of the new system. What was not evident, however, was how decision-makers wished to see such information displayed. For some reason, this never became clear during the entire process.

Examiners struggling to filter through the substantial amount of additional information that was generated through the zero-base process, found that their problems were compounded when they were confronted with the responsibility of structuring the information in such a manner so that it would be relevant to decision-makers. Without any definite indication of the desires of the Governor or members of the Legislature, they were left with the most difficult task of either anticipating informational needs and proceeding accordingly or presenting information in the same manner that was most meaningful to them (examiners). Structuring information by program area often requires the accumulation of such data from several different agencies. To the author's knowledge, such questions were infrequently asked, if they were ever asked at all. With regard to the ranking of programs and program levels against one another as they relate to the objectives and needs of the agency, this information was rarely displayed. Summarizing, examiners felt a real sense of frustration with regard to the structuring of information according to the "desires" of decision-makers. Whether this be an indicator of lack of leadership or lack of

professionalism on the part of the budget staffs is a matter that can be debated to any end. In this paper, the author merely recognizes that it was a major problem.

Thus, it is no surprise that examiners either disagreed or disagreed strongly with each of the following statements:

1. Legislators found agency priority ranking information to be extremely useful and depended on it heavily in their decision-making processes.
2. Legislators have a clear understanding of the zero-base budgeting system in Texas and the data that is generated thereby.
3. Committees tended to analyze agency requests from base zero in determining funding recommendations for the 1976-1977 biennium.
4. The information displayed on the priority tables was utilized more by legislators in their decision-making processes than by analysts and those comprising internal boards of review.
5. Legislators respond favorably to the information generated by the zero-base budgeting system.

Recognition of this problem should not serve as an excuse to place blame or responsibility on others for any defects in the system, but should serve as a reminder that improvements must be made to

accommodate the informational desires of those who serve at the summit of the decision-making structure. With its emphasis on needs, objectives, performance, and evaluation, the zero-base concept is a system doomed to failure if it does not provide the type of information decision-makers desire to determine the funding priorities of the State.

Desirability and Feasibility Evaluation

Examiners and agency managers agreed that the zero-base system provides better information than was previously available. This is due primarily to the structure of the zero-base system which explicitly requires the presentation of information that was previously provided on a basically "requested" basis. Agency personnel and examiners were asked to rank elements of the zero-base system with regard to both desirability and feasibility.* The results of these ratings of sixteen elements of the zero-base system are reflected on page 102. Chart 3 reflects the attitudes of examiners and agency personnel. Characteristically, examiners and agency personnel felt that all elements listed fell within the range of "top priority" or "desirable." While some

*Desirability

1. Top Priority
2. Desirable
3. Can Be Deferred
4. Not Desirable

Feasibility

1. Easy
2. Not So Easy
3. Difficult
4. Very Difficult

felt that some elements could be deferred, the general consensus of those responding was that improvements were necessary for all elements listed. Such is the nature of the zero-base concept and the initial efforts of implementation.

Additionally, reflecting the general opinion previously discussed, most felt that few improvements would be easy to obtain but none fell within the "difficult" or "very difficult" category when averaged by those responding. Most were felt to be of a "not so easy" nature, but then again there are very few problems associated with budgeting systems that fall within the "easy" category. One should be careful and not attach too much significance to the differentiations in rankings that occur between those of agency personnel and examiners. The important point to be noted is that both felt improvements in all areas were either "top priority" or "desirable" and that all such improvements would probably be "not so easy" to achieve.

The Program Structure

A logical place to begin is with the discussion of program structures. As noted earlier, the zero-base system formalized previous efforts with regard to the identification of programmatic classifications of information. Program structure teams, consisting of examiners from the two state budget offices, the program evaluation unit and consultants worked closely with agency personnel. A program structure

CHART 3

DESIRABILITY AND FEASIBILITY COMPARISONS

	<u>Examiners Desirability Rankings</u>	<u>Agency Personnel Desirability Rankings</u>	<u>Examiners Feasibility Rankings</u>	<u>Agency Personnel Feasibility Rankings</u>
Improving work load and performance measures	1	3	5	11
Program evaluation as a follow up to appropriations	2	9	9	9
Improving goals and objectives	3	4	1	3
Improving the development of different levels of program and activity funding requests	4	11	6	13
Appropriations on a program format basis	5	13	4	4
Training and recruiting staff	6	6	14	6
Developing supporting information	7	10	2	2
Selective application of the zero-base concept on major policy issues	8	16	10	16
Establishing criteria for evaluation	9	5	13	12
Continuing the involvement of program and activity managers in the budgetary process	10	2	11	1
Refining the program structure	11	12	3	5
Receiving adequate support from the Governor and Legislature	12	1	12	8
Improving the priority system	13	8	7	10
Developing better program alternatives	14	15	8	15
Automating system data requirements	15	14	16	14
Improving program need and/or demand identification measures	16	7	15	7

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review committee, composed of senior examiners and consultants, was formed to analyze the various efforts of the program structure teams and agency personnel. The program structure review committee developed a prescribed set of procedures to aid in the systematic identification of agency program structures.² This procedure explained the purpose of the Texas program structure; the link between the program structure and zero-base budgeting; and, various procedures that could be utilized in developing agency programs and activities. The design process contained four basic phases:

1. Familiarization--Program structure team members became thoroughly familiar with each assigned agency. This included a review of the organizational structure, annual reports, constitutional and statutory provisions, past budget requests, and appropriation formats.

2. Initial Exploration--Program structure teams contacted agency personnel and initiated agency discussion and thought by posing several rather basic questions. What are the agency's objectives? What is the agency's organizational or responsibility structure? How is the agency's budget presently constructed? What are the functions in which the agency engages? What are the constraints, e.g., cost accounting systems, on the design of a program structure?

3. Detailed Design--Two approaches were undertaken at this stage to follow-up on the questions posed during the initial exploration phase. The "top-down" approach focused on the determination of

agency objectives, and the establishment of programs by grouping agency activities according to these objectives. The "bottom-up" approach focused on the determination of existing agency functions (activities), and the establishment of programs by grouping related activities together according to purpose. These two approaches were undertaken separately and then interactively until the program structure was developed. Further, along with the definitions of programs and activities, the basic characteristics that could be associated with the proper determination of each were provided to aid managers in the development of the structure. Thus, needs, objectives, work load measures, performance measures, and cost accounting data were carefully considered in the development of program structures.

5. Review--The program structure review committee analyzed the structures at the various stages of development and offered suggestions for improvement or pointed out areas that required further analysis. This committee functioned as a "quality control" mechanism and ultimately approved all agency program structures.

This systematic process resulted in the development of program structures that generally depicted agency operations in a programmatic fashion satisfactory to both examiners and agency personnel. More important, however, is the fact that such structures were generally well-received by the Governor and members of the Legislature. Indicative of this is the fact that the appropriations format for the 1976-1977

biennium is of a general program nature. The previous line-item, object of expense appropriation pattern has been largely abandoned.

Examiners agree that the theory of the program structure--the interrelationship of a combination of activities producing work loads with the aggregate effect of the activities impacting the achievement of program objectives--is valid and further refinements are needed to further this end. However, time constraints and other factors that were experienced during initial program structure design hindered the achievement of this objective on a statewide basis. For example, one-half of the examiners interviewed expressed the opinion that existing organizational structures were a major deterrent in the development of agency program structures. Agency personnel, conversely, by a two-to-one margin expressed the opinion that agency organizational structures were not a major deterrent in the development of program structures. Realistically, there is probably a tendency to adjust program categories to fit within existing organizational structures. This tends to occur because agencies do not feel that program budgeting will force them to lose their identity if the program structure is adjusted to fit within organizational lines. In an environment very much cognizant of time constraints, the result was typically a compromise between recognition of organizational structures and a structure that focuses attention on outcomes and results, rather than on processes and inputs.

Program Needs Assessment

Predictably, examiners were most concerned with the need to improve performance, work load and need measures that are so important in the determination of the effectiveness and efficiency of governmental services. With regard to need indicators, examiners were most gratified with the success of initial efforts to institute this requirement into the budgetary process. This information had not been formally required as an element in the previous budget submissions. As could be anticipated, however, the need indicators identified must be significantly improved in future budget submissions. For example, legislation was frequently cited as expressing the need for a particular program. This is indeed appropriate, as instructions to the agencies indicated this was one of the proper means of needs determination. However, legislation is not the only manner in which the needs for a particular program can be expressed. In identifying the magnitude of the target population, the severity of the problem, and the time frame in which services would need to be provided to alleviate the problem, need indicators seemed to fall short of the examiners desires. In other words, once the enabling legislation detailing the need has been identified, it then becomes necessary to identify quantitatively the following elements as they relate to a particular program.

1. the target population,
2. the quantity of need,

3. the quality of need,
4. the urgency of need, and,
5. the unsatisfied demand.

This is not an easy task, but a necessary prerequisite in the evaluation of the effectiveness of governmental services provided.

Performance and Work Load Measures

Examiners and program and activity managers agreed that output measures had been utilized to some degree in the preparation and evaluation of budget requests in the past. However, the formal commitment to the identification of work load and performance measures and the data associated with these measures again distinguishes the zero-base system from the previous system. Indeed, agency personnel expressed the general opinion that zero-base budgeting emphasized quantitative measurement to the exclusion of non-quantitative data that are often useful in justifying program and activity funding requests. Examiners, on the other hand, felt that improvements were necessary in the identification of work load and performance measures and the accompanying data relevant to these types of measures. How does one determine whether basic program conditions have changed and whether that change was the result of the program in question? Concluding that the performance of a program resulted in a change in basic conditions requires that one show that the program's products or outputs are linked to these changes

in conditions. Examiners and agency personnel are both correct in that qualitative and quantitative information are both useful in such determinations.

Successes that were realized under the initial zero-base process with regard to quantitative measurement of program performance should serve as stimuli for further improvements in this area. Examiners are more cognizant of the utility of this type of information during the decision-making process. Additionally, agency program and activity managers are now thoroughly familiar with the concept of quantitative measurement and the benefits that can be derived from it. Indeed, there is a quite apparent recognition on the part of these personnel for the need to improve both output measures and data availability. This is evidenced by the "top priority" designation that agency personnel gave to "improving work load and performance measures" in the desirability rankings. Further, an understanding of the interrelationships of the zero-base system is evidenced by the "top priority" designation of "improving goals and objectives" that also occurs in the agency desirability rankings. Understandably, examiners also gave a "top priority" designation to these two components of the system in their desirability rankings. The point to be emphasized is that further improvements are more easily made in an environment where both "provider"--agency managers-- and "reviewer"--examiners--recognize the importance of improving the product. In the author's opinion, examiners

can be particularly optimistic due to the agency responses in this area.

The Program Appropriation Pattern

Appropriations for most agencies for the 1976-1977 biennium were of a programmatic nature, which is the same basis upon which appropriations were requested. A noteworthy example of the differences of such a format when compared with appropriations for the previous biennium is exemplified by the Department of Health.* Figure 5 reflects the appropriation pattern for the 1974-1975 biennium and Figure 6 reflects the appropriation pattern for the 1976-1977 biennium. Item number 23 in Figure 5 and item number 3 in Figure 6 represent appropriations for basically the same governmental services.

Examiners particularly recognize the significance of appropriations on a program format basis. Not only is it highly desirable in their opinion, but since it has been initially accomplished it is also rather feasible. Theoretically, the primary advantage associated with a program appropriation format is that it serves as the basis for evaluating programs as a follow-up to appropriations. This is the primary

*It is desired, at this point, to emphasize that the Department of Health has always internally budgeted its appropriated funds in a programmatic manner and that examiners from the two budget offices have always based their recommendations along the same programmatic lines as explicitly stated in item 3 of the 1976-1977 appropriation pattern. Such is not always the case in Texas state government.

	For the Years Ending	
	August 31, 1974	August 31, 1975
1. Commissioner of Health	\$ 32,500	\$ 33,500
2. Deputy Commissioner	32,000	33,000
3-22. Exempt positions listed	1,150,000	1,191,000
23. All other expenses for operations and maintenance including per diem of Board Members and members of the Tuberculosis Advisory Committee and the Credentials Committee, personal services, including salaries of exempt and classified positions, professional fees, hourly workers, consumable supplies and materials, current and recurring operating expenses, grants to others, departmental transfers, capital outlay, and all other activities for which no other provisions are made, estimated	49,227,229	51,133,039
24. There is hereby appropriated out of the General Revenue Fund to the Texas State Department of Health, Division of Maternal and Child Health, the following amounts for maintenance of hearing aids and such necessary accessories as may be required	86,650	86,650
25. For the establishment of the Kidney Health Care Division in the Texas Department of Health to provide care and treatment of persons suffering from chronic kidney diseases, including salaries and wages, travel expense, rent, capital outlay, professional and contract services and all other necessary activities for which no other provisions are made	2,505,000	3,124,000
26. Longevity Increases	54,683	
27. Training Fund--There is hereby appropriated out of the General Revenue Fund to the Texas State Department of Health, Division of Tuberculosis Control, the following amount for training programs for employees in the Central Control Division or by grants to the Chest Hospitals. Such training programs shall be designed to improve the tuberculosis control program, including salaries, training stipends, tuition or similar fees, travel, and other necessary expenses	50,000	50,000
28. Reserve Fund--There is hereby appropriated out of the General Revenue Fund to the Board of Health for allocation by said Board to existing institutions under its jurisdiction for emergency purposes and for equipment, repairs, replacements and/or new construction	50,000	50,000
GRAND TOTAL, DEPARTMENT OF HEALTH OPERATING BUDGET, ESTIMATED	<u>\$53,188,063</u>	<u>\$55,701,189</u>

Figure 5. Department of Health appropriation pattern for the 1974-1975 Biennium

	For the Years Ending	
	August 31, 1976	August 31, 1977
1. Director of Health Resources	\$ 40,500	\$ 42,300
2. Deputy Director of Health Resources	40,000	41,800
3. All other expenses for operations and maintenance including per diem of Board Members and members of the Tuberculosis Advisory Committee and the Credentials Committee, personal services, including salaries of exempt and classified positions, professional fees, hourly workers, consumable supplies and materials, current and recurring operating expenses, grants to others, departmental transfers, capital outlay, and all other activities for which no other provisions are made, each estimated:		
a. Administrative Services:		
(1) Departmental Administration	-735,447	775,955
(2) For Administration of Senate Bill No. 41, Acts of the Sixty-fourth Legislature, Regular Session, 1975	131,600	129,700
(3) Bureau of Fiscal and Management Services	3,302,347	3,521,573
(4) Utilities (non-transferable)	195,696	195,696
(5) Bureau of Supporting Services	1,598,307	1,692,441
b. Health Maintenance:		
(1) Public Health Regions	3,350,637	4,418,298
(2) Bureau of Personal Health Services:		
(a) Bureau Administration	64,801	66,299
(b) Maternal and Child Health Division	34,180	36,180
(c) Crippled Children	10,213,613	10,747,002
(d) Family Planning	1,453,343	1,534,727
(e) Speech and Hearing	265,812	272,067
(f) Family Health Services	680,734	718,841
(g) Women, Infants and Children	4,581,224	4,587,175
(h) Chronic Disease Division	33,683	35,680
(i) Cancer and Heart	562,623	620,752
(j) Kidney Health Care	4,485,502	5,282,402
(k) Chronic Disease Screening	446,680	482,203
Subtotal, Personal Health	\$22,822,211	\$24,383,328
(3) Bureau of Dental Health	2,000,000	U.B.
(4) Bureau of Laboratories	1,952,091	2,126,800
(5) Bureau of Community Health Services	6,369,567	6,897,644
c. Preventable Diseases:		
(1) Bureau of Communicable Disease Control	4,405,875	4,680,142
(2) Bureau of Tuberculosis Services	6,591,851	7,100,926
d. Special Health Services:		
(1) Bureau of Licensing and Certification	4,064,431	4,343,801
(2) Bureau of State Health Planning and Resource Development	1,083,665	1,134,427
(3) Bureau of Veterinary Public Health	6,078,607	6,659,282
(4) Bureau of Vital Statistics	1,195,001	1,289,623
(5) Health Maintenance Organization	65,484	92,100
e. Environmental and Consumer Health Protection:		
(1) Bureau of Consumer Health Protection	1,635,019	1,706,416
(2) Bureau of Environmental Health	2,473,373	2,613,836
Subtotal, All Other Expenses, Estimated	\$70,131,916	\$73,846,068

Figure 6. Department of Health appropriation pattern for the 1976-1977 Biennium

Figure 6.--Continued

	For the Years Ending	
	August 31, 1976	August 31, 1977
4. Training Fund--There is hereby appropriated out of the General Revenue Fund to the Texas Department of Health Resources, Bureau of Tuberculosis Services, the following amount for training programs for employees in the Bureau of Tuberculosis Services including the Chest Hospitals. Such training programs shall be designed to improve prevention, management and control of chest diseases as authorized in Senate Bill No. 130, of the Fifty-ninth Legislature, Regular Session, House Bill No. 799, and House Bill No. 211 of the Sixty-second Legislature. Funds for the improvement of these programs may be expended for salaries, training stipends, tuitions, seminar fees, travel, and other necessary expenses	50,000	50,000
5. Reserve Fund--There is hereby appropriated out of the General Revenue Fund to the Board of Health Resources for allocation by said Board to existing institutions under its jurisdiction for emergency purposes and for equipment, repairs, replacements and/or new construction	<u>50,000</u>	<u>50,000</u>
GRAND TOTAL, DEPARTMENT OF HEALTH OPERATING BUDGET, ESTIMATED	<u>\$70,231,911</u>	<u>\$73,946,088</u>

responsibility of the Program Evaluation Division of the Legislative Budget Board in accordance with the provisions of the enabling legislation which established the Division. If funds are appropriated along the same lines as requested and performance levels are established accordingly, then program evaluation can address such basic questions as:

1. How efficient are programs?
2. How effective are programs?
3. How productive are programs?

The Program Evaluation Division can review programs for which funds are appropriated and try to answer the above questions in a retrospective manner. This type of evaluation is further aided by a rider provision in Senate Bill 52, Acts of the Sixty-fourth Legislature, Regular Session (the general appropriations bill for the 1976-1977 biennium) which states:

Each agency shall file an annual report under guidelines developed by the Legislative Budget Board and Governor's Budget Office showing performance and workload measures for each line-item program or activity for the fiscal year. The report shall also contain a comparison to estimated performance and workload measures forecast in the budget request, and explanations for any major variance by measure.³

Performance reports of the Program Evaluation Division of the Legislative Budget Board should be a major step in "closing the loop" of the complete fiscal management process. Such reports should relate actual accomplishments to previously expressed intentions and provide

information for evaluation of past performance, information for planning future programs and information for the improvement of current program decisions.

While discussing this issue, one should acknowledge what appears to be agency objections to appropriations on a program format basis. It is priority number thirteen on the agency desirability rankings. The most plausible explanation for this is probably expressed by two budget officers from different agencies with regard to the following rider provision contained in Senate Bill 52, Acts of the Sixty-fourth Legislature, Regular Session (the general appropriations bill for the 1976-1977 biennium):

None of the money appropriated by this Act may be transferred from one agency or department to another agency or department, or from one appropriations item or program to another appropriation item or program, unless such transfer is specifically authorized by this Act.⁴

Referring to the appropriation pattern for the Department of Health for the 1976-1977 biennium (Figure 6 on page 111), this means that funds cannot be transferred between any of the items of appropriation shown in the appropriation pattern. Coupled with the Governor's inability to execute the budget, this effectively means that appropriations must be expended in the manner appropriated and thus does not recognize conditions that might change during the biennium. Agency responses to this manner of appropriating funds with this type of restriction are as follows:

The most significant development of zero-base budgeting was the appropriation pattern that resulted. In effect, the Legislature removed the fiscal administrative responsibilities from the agency administrator. The appropriation bill is a law and dictates fiscal policies for state agencies. The current bill not only appropriates funds but budgets the funds operationally by programs within an agency. Appropriations are monies set aside by a formal action for a specific use and the result of a legislative process to provide for expenditures several years in advance. Budgets are plans to provide for the use of these monies in detail and need to be flexible to provide for expenditures as current needs arise; therefore, budgets should be administrative tools for professional agency administrators to manage. Appropriations should be the result of legislation and budgets should be the result of administration.⁵

Programs should have available to them at the beginning of each fiscal year, those funds appropriated to accomplish the stated goals and objectives. Salary and budget savings, however, should revert to the Department for possible reallocation on a departmental priority basis. Salary and budget savings which are retained by a program, if expended, must be expended on a basis inconsistent with appropriation purposes; e.g., the general revenue funds were appropriated based upon categorical needs expressed by the program director in the zero-base budget request. Assuming these financial needs were funded, the subsequent expenditure of salary savings will either increase the approved categorical spending level or expand the expenditure categories. If these savings reverted to the Department, emergency needs, which are impossible to forecast in a biennial budget, could be satisfied. The appropriation transfer limitation as imposed by Article V, Section 63, of the appropriation bill passed by the Sixty-fourth Legislature, is in conflict with a true zero-base budgeting concept and violates all good management practices.⁶

Similar complaints were also being voiced by other agency personnel as the Comptroller of Public Accounts proceeded to set up appropriation accounts on a programmatic basis for the 1976-1977 biennium.

Alternative Methods of
Accomplishing Objectives

When one considers the responses regarding the development of better program alternatives, a very basic and key concept with regard to the justification of governmental functions from base zero, the differences between the theory of the concept and the results of actual implementation are illustrative of the actual problems involved in implementing zero-base budgeting in state government. While both groups gave this component a desirable rating, actual comments reflected a certain dismay with improving this type of analysis. This is confirmed by the rather low feasibility ratings shown for "developing better program alternatives."

All nine examiners interviewed expressed the general opinion that the section dealing with the analysis of alternative methods of accomplishing program or activity objectives did not prove useful to them in determining funding recommendations. Rather than identifying reasonable alternatives to the present method of providing services, examiners expressed the nearly unanimous opinion that such analysis was usually construed in such a manner so as to justify the present method of operation. A survey of the budget requests of the Department of Health, Department of Corrections, and Department of Public Safety reveals that the number of programs and activities where an alternative method of accomplishing the objective was utilized as the basis for

the decision package request rather than the current method of operation was zero.

A majority of agency program and activity managers expressed the opinion that the identification of alternative methods of accomplishing objectives did provide the opportunity to better analyze current methods of operation of programs and activities. However, in the case of these three agencies, the simple fact is that this opportunity did not lead to the identification of better service delivery methods but to a justification of the current method of operation. This realization is not in conflict with the theoretical aspects of the zero-base system. One should not necessarily assume that there must be better methods for providing governmental services. However, the system should provide the opportunity to identify better methods and use such methods as the basis for formulating requests if they would, in fact, result in a more efficient or effective mode of service delivery. However, if there are better methods and the system prevents their identification, then the system must be altered to accommodate that end. Examiners tended to agree with the following response of an agency program manager.

The alternative methods of accomplishing objectives facet of zero-base budgeting ranks with the minimum level as the most abused procedure. Most directors seek alternatives for accomplishing program goals which are unrealistic, and those which usually serve as an example of how well the current operations satisfied known needs. Contracting for services seemed to be the most popular alternative. Through extremely costly contractual arrangements,

the desired results can be achieved, but always at a higher cost effectiveness. This will usually solidify the existing operation as one equal in results to the contractual alternative, but much less costly. Develop alternatives which show the current mode as the most favorable can describe the theme of this zero-base budgeting function.⁷

These are subjective judgments, of course, and the verification of their validity or invalidity is virtually impossible. Regardless of such an outcome, however, alternatives can be suggested to the current instructions that might be more conducive to the type of analysis that is desired in the consideration of alternatives.

Alternative Levels of Funding

If the alternative methods section of the zero-base format resulted in the identification of few better means of accomplishing objectives, it can be safely stated that this section still did not cause as much consternation and frustration as did the identification of different funding levels with relevance to achievement of objectives. Particularly noteworthy in this regard is the chief characteristic of the system from which the term zero-base was derived, the minimum level. Agency program and activity managers were initially skeptical of this concept. A survey questionnaire indicated that the personnel of the three agencies participating were almost equally divided on the following statements:

Identification of a minimum level of funding was useful in analyzing the funding requests for activities and programs.⁸

Funding analysis of programs and activities was usually conducted from a base zero level.⁹

Some agency personnel added their own comments on this subject and the following were typical rather than the exception:

Stating a program's minimum level of operation is an ineffective budgeting tool. Why? Because most directors tend to develop a minimum level which is obviously unacceptable so that, at least, the current or second level of operation can be maintained. Obviously, this attitude is precipitated through the director's fear that his program may be reduced.¹⁰

Our first problem was with the level of funding less than the previous budget. With the inflation we experienced the last two years, there was no way we could honestly prepare a budget with our requirements.¹¹

Instructions to base your budget upon a level less than your present dollars appropriated results in arbitrary reductions in program performance to conform to budget instructions. This is particularly true in present conditions of inflationary prices. To continue appropriations at the current dollar amount would automatically reduce your current performance level. Without uniform guidance from budget authorities on inflationary increases, each state agency must make assumptions causing wide discrepancies in budget submissions. After submitting our request at a level below our current performance level, we were never asked one question by a budget staff member or a member of the Legislature; so it appears to be an exercise of futility, costing the State much time and expense that could be utilized to increase the current performance level.¹²

Examiners expressed the general opinion that the identification of minimum and alternate levels of funding was beneficial and enhanced analysis. However, the general consensus was that the minimum level was generally stated in a manner that tended to justify at least the current level of funding.

The joint budget instructions were flexible with regard to the identification of different levels of funding. While instructions were quite specific on the requirements of a minimum level, agency program and activity managers were allowed to identify subsequent levels of funding at their own discretion, although advised that planning guidelines should be followed to provide consistency among the levels of funding identified for each program. After the minimum level was established, managers identified the incremental costs and benefits that were projected to result with each increase in funding requested. No limit was prescribed on the number of levels that could be identified, their composition, or the amount of funds that could be requested. Some agency and program managers specified that one of the levels of funding identified must correlate to the current level of funding, either dollar-wise or performance-wise, but this was not a formal requirement imposed by the system.

The initial experience with an unstructured and flexible level of funding identification reveals that examiners found it necessary to recommend either increases or decreases around the basic level of funding where their program and/or activity analysis was centered. In other words, if the examiner desired to recommend approximately the second level of program and/or activity funding, he still found it necessary to recommend either increases or decreases in that level of funding identified by the program and/or activity managers. A survey

of the three agencies reveals that examiners' recommendations tended to correspond to precisely programmatic levels requested when those levels represented precisely the current level of funding. Otherwise, examiners generally felt compelled to alter in some way the levels requested in formulating their recommendations. As could be expected, program managers take exception to this practice as evidenced by these comments:

The staff of both the Legislative and Executive branches did not observe the program budgeting concept. In most of the activity recommendations, deviations were made from the requested levels. Although this is a valid procedure for an examiner to exercise, it invalidates the quantitative measures to be accomplished at a funding level. There is seldom a direct correlation between the dollars increased or decreased from a level and the resulting quantitative measures or accomplishment. When program levels are violated, there must be some loss of program accountability as related to the state budget request document.¹³

To request a budget based on levels of performance is good provided the agency administrator has the discretion to rank his levels of performance by program. However, if his ranking goes unheeded once again this becomes an exercise in futility. To illustrate, many hours and days were spent budgeting for different levels for programs and activities. Basically, the appropriation for the 1976-1977 biennium was to continue to finance our current levels of operations. What programs were increased, were not increased at the levels requested but by some arbitrary increase not even consistent with the agency administrators ranking of the programs.¹⁴

Admittedly, the alteration of requested funding levels does present some problems with regard to program evaluation as a follow-up to appropriations. The question immediately arises to agency personnel, what level of performance can be projected to occur at the altered level of funding? The relationships that have been established between agency

management and budget examiners will determine to a large degree the success of solutions to such problems. The role that politics will continue to play in the budgetary process makes such problems inevitable.

In evaluating the alternative levels of funding element, examiners and program and activity managers were almost unanimous in voicing their approval of the following two statements:

The current level of funding (dollar-wise) should be identified as one of the levels formulated in activity and program requests.¹⁵

The current level of funding (performance-wise) should be identified as one of the levels formulated in activity and program requests.¹⁶

Both of these statements are in direct conflict with the theory of zero-base budgeting, which holds that governmental expenditures should be justified from base zero rather than only increases above the current level of funding. Levels identified subsequent to the minimum level were justified on the basis of the incremental costs and benefits that were projected at each particular level. Under such a concept, there is nothing sacred about the current level of funding and it need not be identified under the current system. This discretion is left with agency and program managers.

Examiners and agency personnel, after experience with such a concept, now agree overwhelmingly that the current level of funding, both dollar-wise and performance-wise, is important in analyzing

governmental programs and should be identified in the program and activity funding requests. Whatever can be said with regard to the identification of a current funding level being in conflict with the principles of zero-base budgeting, the simple fact remains that the current level of funding is important. It is important to know what current dollars will produce in the future and what it will cost to produce the current output in the future.

The Priority Ranking Process

With regard to the priority ranking process, improvements in this area also seem to be needed. It has been shown that if agency programs are properly defined, then the need for Activity Priority Tables is obviated. Realistically, however, one must recognize that programs will not always be defined properly and, on occasion, there are special governmental functions that do not have a direct impact with regard to achievement of the program objective. In these instances, the Activity Priority Table indicates the priorities of different services at their different funding levels.

Examiners generally feel that Program Priority Tables are more useful than Activity Priority Tables in determining the basis for funding recommendations. When programs are properly defined, one would expect this to be the case. On the other hand, examiners feel very

strongly that most of their analysis is concentrated at the activity level. What is the explanation for this seeming contraction?

First of all, analysis being predominant at the activity level indicates that program structures were frequently less than what was desired and that examiners took exception to the manner in which alternative levels of funding were identified. This was alluded to earlier. Indeed, on this last point, examiners felt very strongly that it was necessary to recommend either reductions or increases in the funding levels identified by program and by activity. For example, while one activity might be judged to have a reasonable second level of funding, the other activities of that program might contain funds in their second levels that examiners would determine to be excessive with regard to achievement of the program objective at the second level of program funding. Thus, examiners felt compelled to analyze generally each activity. By doing this, examiners were expressing a general lack of confidence in planning at the program level. It is hoped the initial experience with determination of funding levels will result in a better justification of each activity funding level with regard to its relationship to each particular level of program funding requested. Obviously, examiners are quite desirous of improvements in this area.

Secondly, as stated earlier, priority tables do not provide any information regarding the impact of governmental services on target groups or problem areas. Program Priority Tables do provide information

on the relative rank of programs and levels of programs with relationship to the needs and objectives of the agency. Activity Priority Tables, theoretically, only provide information with regard to the determination of program funding levels. Again, if it is necessary to perform all the activities comprising a program level, then it matters not whether the level of one activity ranks higher than the level of another activity within the same program level. If all the activities need not be performed to accomplish the program objective, then the program structure is improperly defined and priority ranking of such activities or functions is useful only to the extent that it compares unlike and unrelated elements. Summarizing, when agency programs were properly defined, examiners tended to utilize Program Priority Tables in determining the basis for analysis of funding recommendations more than they utilized Activity Priority Tables for the same purpose. On the other hand, when agency program structures were not properly defined, examiners tended to consult Activity Priority Tables more often. In either case, due to the manner in which levels were constructed, examiners tended to conduct most of their analysis at the activity level of the program structure.

Sources of Funding

With regard to the methods of financing programs and activities, this leads into some interesting thoughts on the zero-base system

presently structured in Texas. The zero-base concept presently requires that analysis be conducted on all activities and programs, regardless of the source of funding. As a matter of explanation, the same type of analysis is required for programs and activities whether they be funded solely from the general revenue fund, from dedicated funds, or from some mixture of state and federal funds. Realistically, it would appear that one would more carefully analyze activities and programs funded solely from the general revenue fund, one of the key state funds that must be carefully considered when determining if new taxes or revenue sources are needed to finance state governmental programs, than one would programs funded from dedicated funds or federal funds. However agency personnel and examiners were almost evenly divided on the question of whether or not "zero-base budgeting analysis should be conducted on all programs and activities, regardless of the source of funding."¹⁷ Related somewhat to this is the selective application of the zero-base concept on only major policy issues. If this methodology were adopted, one theory would hold that sufficient time could be devoted to the major issues where zero-base analysis is most needed, without requiring analysis of all services from base zero, which is so very time consuming. Examiners recognize that this might be preferable, but agency personnel deem it to be least desirable and least feasible of all the zero-base elements listed on Chart 3 on page

102. It is this latter view which is probably most realistic with regard to the application of the zero-base system to major policy issues and explicit recognition of sources of program and activity funding. The dual budgeting system almost requires that zero-base analysis be performed on all activities and programs, regardless of the source of funding or the relative importance of the program or activity. What would be deemed relevant to one examiner might not correspond to the relevancy test of another examiner. The latitudes that are available under a strong executive system are not available in Texas. Disagreements could be expected with regard to what constituted an issue; whether or not various sources of funding are relevant to the analysis of particular services; and, quite simply when zero-base analysis should be performed. While some have argued that it is unnecessary to perform zero-base analysis each year or each biennium, the structure of the Texas budgeting process would seem to force the system in that general direction.

The Management Function

The zero-base concept emphasizes the necessity of adequate planning in projecting needs and providing services. A conceptual benefit of the system is an improved management system. Under the zero-base concept, improved management would result because the analysis of governmental services is a function of those responsible for providing

services, the program and activity managers. The Texas system strongly emphasizes the involvement of both program and activity managers in the planning and budgeting processes of an agency. If their roles were implicit in the past, then the present zero-base system at least implies that their role should preferably be explicit. The desirability and feasibility rankings of the three agencies surveyed indicate that managers have always played a substantial role in the planning and budgetary processes of the agency. As could be expected, managers deem this desirable and see no problems whatsoever with its continuance. Improved management will not necessarily result, however, simply because service providers are included in the planning and budgetary process of an agency. Better information must be provided that is useful to management, and management must utilize such information to improve the efficiency and effectiveness of the services it provides.

CHAPTER VII

RECOMMENDATIONS

In this chapter, the author will make recommendations on how the Texas zero-base budgeting system might be improved.

Program Structure Revision

In preparing for the development of budget submissions for the 1978-1979 biennium, agency program structures must again be reviewed. Regardless of the outcomes of previous efforts, program structure development must be continuous. To ignore this fact is to view government as a stagnant, non-responsive entity whose responsibilities never change and whose commitments always remain the same. The process that was utilized in initial program design efforts is satisfactory to make any needed changes in program structure determination. Examiners and agency personnel should once again systematically review existing program structures utilizing appropriation patterns as the basis for any needed changes. While adhering to the theory that led to the development of present program structures, those involved in revision efforts must adhere to the most important principle in the structuring of information; it must be arranged so that it is relevant to the

decision-maker and must highlight the dimensions of the problems that are of most concern to him.¹

The theory of the Texas structure is consistent with this principle. However, there are instances wherein theoretical aspects simply cannot be accommodated within the confines of existing environments. Such is the nature of government and governmental services. These imperfections should be recognized and program classifications should be structured accordingly. The Texas program structure is flexible enough to satisfy these extremes and still serve as a useful format in presenting budget information. Imperfect program structures will continue to be one of the major problems with regard to the implementation of the zero-base budgeting concept in Texas. To admit as much is simply to be realistic, and to continue to pursue the original objectives envisioned for the program structure concept is to continue the commitment to the provision of a better budgeting system.

Program Needs Assessment

Qualitative judgments are necessary in any explanation of the need for services. However, to measure the effectiveness of services provided, it is preferable that needs be expressed quantitatively by identifying indicators that accurately depict true target populations, problem areas, and the severity of problems. Improvements must continue to be made in this particular area of needs determination. A

systematic procedure must be established to determine the "whys" of programs and a component of that procedure must be examples along the same lines as shown for the Youth Services program in Chapter V. However, such examples should not be thought of as the end-product but as a stimulus to innovative thought on the part of all managers. Needs determination is the first element in the zero-base process and must be improved considerably if the effectiveness of governmental services is to be evaluated.

Performance and Work Load Measures

How does one proceed with the improvement of work load and performance measures, and thus program analysis and evaluation? First of all, emphasis must continue to be placed on this type of cost effectiveness analysis. The desire to express qualitative judgments in justification of funding requests can be accommodated within the zero-base framework. A lesser commitment to quantitative measurement of program effectiveness would probably result in a reversal to qualitative judgments, along the lines of the previous budgeting system. However, since those involved in both the preparation and analysis of funding requests recognize the need for this type of data, one can be rather optimistic regarding further improvements in this area.

Secondly, efforts must be focused on the levels of the program structure to insure they are properly defined. When properly defined,

each level of the structure will have one or more work load or performance measures which should serve as either a measure of the efficiency or effectiveness of services provided. A requirement in the identification of such measures is that they provide information which permits the linkage of outputs to an effect upon the target group or problem area. The linkage of outputs to impacts involves the search for causal relationships which is exceedingly difficult. Steiner addresses the problem quite succinctly:

Assign benefits and costs and then pick the optimal set of projects. This provides too little help. One of the economist's most potent functions is honestly to identify and separate that which can be accurately measured and compared from that which involves such heroics of assumption that actual measurements are but concealed preferences.²

Thirdly, under different nomenclatures, other states are relentlessly pursuing systems designs that are increasingly oriented toward program performance measurement. Planning, programming, and budgeting systems have generally been modified by many states to such an extent that they are no longer comparable with the objectives originally envisioned for such systems. However, state budgeting staffs continue to seek methods of quantitatively measuring the impact of governmental programs regardless of the system of budgeting now being utilized. Comparisons can be made among states on the relevance of measures of effectiveness and efficiency identified. Quite often, the successes of one state will readily apply to the efforts of other

states, since state services fall within a rather basic and common framework.

Alternative Methods of Accomplishing Objectives

There are several alternatives to the improvement of this component of the zero-base budgeting system, and there are advantages and disadvantages associated with each alternative. One approach that has received some preliminary discussion would be the elimination of the present alternative methods analysis and the replacement of it with the analysis of program and activity effectiveness at some arbitrarily reduced funding level. In other words, the two state budget offices would set forth in the budget instructions a common and fixed percentage of the current (fiscal year 1977) funding level and require that all agencies and institutions identify the effect that such a reduction in funding would have on the provision of services by all activities and programs. A work load/performance measures section would be instituted along the same lines as for the other levels of funding, in addition to a narrative discussion of the projected impact.

What would be the possible advantages of such a change? One, all managers would be forced to identify their expected program or activity outputs at the same percentage level below the current level of funding. In other words, there would be an equalization factor

involved with all managers proceeding with analysis and justification from a strictly defined base.

Two, this process generally assumes that if an activity or program cannot be justified at a defined lower level of funding, then it probably cannot be justified at all. Examiners would then have sufficient cause to proceed from such a basis with a request that the agency managers respond to specific informational requests that could be utilized to analyze the specific need for provision of such services. At such a time, alternative methods of service delivery could be further explored. It should be noted that the fixed percentage reduction in funding would not necessarily constitute a funding level request, but should serve primarily as a mechanism for the evaluation of the method of delivering services.

Three, analysis of such an alternative is often in keeping with the informational desires of governors and members of the legislature, especially when an insignificant growth in revenues is projected. What would be the result if state services were reduced by X percent, across the board? This is the type of question that often surfaces in an environment where increased governmental spending comes under close scrutiny. Recognition of such questions should neither imply that they are proper or improper, but merely recognize that such questions are often asked. If such questions are proper and relevant, then this alternative provides a framework to analyze the efficiency

and effectiveness of governmental services at a defined level below the current level of funding.

What would be the possible disadvantages of the fixed percentage reduction methodology? First of all, such a change is characterized by a certain degree of arbitrariness, both in the concept and in the establishment of fixed percentage reductions. This concept assumes that the method of providing governmental services can be better analyzed by requiring analysis of fixed percentage reductions of the current method of operation than by the explicit identification of alternative methods of achieving objectives. There is no guarantee that this will, in fact, occur. Indeed, rather than requiring explicit identification of alternative methods of program delivery, this concept implicitly assumes that such alternatives will be identified by the type of information that will be generated. This is a rather large assumption. Indeed, a reasonable argument could be made, depending on the definition of the fixed percentage reduction required, that such a concept would provide managers a better opportunity to justify the present budget level or an increased level of spending, with the generation of little or no information on how such services might be better provided.

Secondly, this concept imposes the burden of determining what the fixed percentage reduction rate should be. Should it be 5, 10, 20, 30, or even 50 percent? In an unstable economic environment, it

becomes virtually impossible to set an across the board rate that is reasonable and realistic and that will provide the type of information desired.

Thirdly, and closely associated with the problem of defining a uniform fixed percentage reduction rate, this concept assumes that the need for the different types of governmental services tends to be basically the same. Such is not the case. Some services are of a much more essential nature than others, and the relative degrees of necessity are matters on which reasonable men will disagree. Further, such disagreements will tend to increase when the funding needs for services become the point of discussion, and especially when discussed in view of the demand for the additional resources that might be available for appropriation. The point to be made is that the need for services does not apply equally to all governmental programs and that the determination of how such needs should be met is a function of the democratic process.

The author would propose another approach with regard to the analysis of alternative methods of accomplishing objectives. If one assumes that a principal motivating force in government is toward bigger budgets, more programs, larger staffs and increased payrolls, then an objective would be the provision of an environment which motivates managers toward the goal of better and more efficient public services. Simply put, how do you transfer the desirable motivating

aspects of the profit motive that is prevalent in the private sector to the analysis of the most suitable means of providing services in the public sector? This question has puzzled experts for many years; has been the subject of numerous studies; and, in the face of a constantly expanding public sector, remains one of the most important domestic problems facing government today.

Translating this question into the context of alternative methods of service delivery, how can one encourage managers to be innovative and economical and strive to identify better methods to deliver services, without simultaneously indicting such managers for inefficiency and ineffectiveness with regard to the current method of operations? One alternative would be to institute a reward system that would enable agency managers to prepare decision package requests that would incorporate savings from the identification of better means of providing needed public services. Under such a proposal, agencies could utilize the savings identified to prepare one or more new decision package requests. These new requests could then be ranked on the Program Priority Table with regard to the achievement of agency-wide goals and objectives. Under such a system, it would be initially assumed that any savings identified would necessarily revert to the new priority funding requests identified by that agency. It is hoped this would insure a total commitment to the analysis of reasonable alternative means of accomplishing objectives. This would be

especially true in an environment where new revenues were of a very limited nature.

Alternative Funding Levels

First of all, one should begin with the minimum level of funding concept and determine what improvements can be made in this area. Some would maintain that a fixed percentage reduction should be applied statewide to all programs and activities as one of the funding level requests. Adherence to this concept would be an admission that there is no validity in the identification of minimum levels. That is, this concept would explicitly recognize that there is not "a critical level of effort, below which the program or activity should be discontinued, because it loses its viability or effectiveness."³ If the minimum level concept is valid, then one can certainly assume that the "critical level" described above will not be the same for all programs and activities.

An improved zero-base system would continue the identification of a minimum level along the same lines as provided in the current system with one exception. Under properly defined program structures, the minimum level concept should apply only to programs. Thus, most of the activities comprising the program would also have a level of funding below the current level of funding, but not necessarily all of them. The initial level of funding identified for some activities

might be either the current level of funding or even a level that exceeds the current level of funding. Such a distinction is in keeping with the general theory of the system, with particular relevance to the structuring of information along programmatic lines. If the program structure concept is valid, then the identification of a minimum level for programs is also valid, without requiring that all activities have a level of funding below the current level. Such discretion should be left to the program managers of an agency.

The budget instructions regarding the minimum level will have to be altered to incorporate this concept. The instructions on minimum level determination, which were quoted at length earlier, are probably stated as well as can be done. However, revisions should be studied to determine if the concept can be better communicated to program and activity managers. It is hoped the initial experience with regard to minimum level determination will prove most valuable and make the process more easily understandable during the next biennium. The initial fears of managers should have been alleviated to some degree, and the reasons for identifying a minimum level should thus be better understood and produce information along the lines desired.

The current level of funding, both dollar-wise and performance-wise, should also be required for agency programs. Using the same rationale described above, activity funding levels would generally follow these same lines but this discretion should rest with the

program managers. Some would argue that the identification of two current levels is unnecessary and too burdensome. One could probably assume that examiners would prefer the identification of a current level along current dollar lines, while agency personnel would probably prefer to identify a current level that focuses on the dollars needed to maintain the current level of performance. There are merits to both, and both should be identified. It is important to know what outputs current dollars will produce in the succeeding biennium and what level of dollars are needed to maintain the current performance level. To ignore these simple and practical facts is to design a system that is conceptually without serious fault and is practically quite useless.

The final level of program funding that should be identified should constitute the program funding request. Managers may, of course, stop at any level along the process in this regard. In other words, if the minimum level constitutes the request for a program, then it would not be necessary to identify any additional funding levels. This would also apply to either of the current funding levels.

This might result in a wide disparity in funding levels between the current performance level and the requested level. For example, the current performance level could be 120 percent of the current funding level and the requested level could conceptually be 300 percent or more of the current funding level. The present system is designed

to discourage such wide variations in funding levels. It focuses on increments and permits the identification of as many funding levels as may be necessary to insure that "reasonable" increments are identified. However, under the proposed system, examiners would have the discretion of requesting that program managers identify intermediate levels if they (examiners) determined that such analysis was necessary. Such analysis, however, would not be a formal requirement in initial agency budget submissions but would be provided at the request of examiners.

The Priority Ranking Process

To reiterate, priority tables do not provide any information regarding program or activity performance, means of performing programs or activities, objectives of programs or activities, alternative methods of performing programs or activities, object of expense data, staffing patterns, or the methods of financing programs and activities. If one recognizes the purposes that priority tables serve and utilizes them accordingly, any improvements needed in this area are quite negligible. Improved program structures offer the best opportunity to make the establishment of priorities more meaningful.

Computerization

A paper on any budgeting system would be incomplete without reference to application of data processing techniques for data manipulation. Currently, there is a general feeling that the zero-base

system should be computerized. The implementation of zero-base budgeting resulted in the generation of a mass of information that was not previously available. Some of it was very useful and much of it was not useful with regard to the decision-making process. Additionally, some information that was available under the previous system was not available under the zero-base system. There are certain costs associated with any changes in budgetary systems, and loss of certain types of information is one of those costs. The computerization of the system should be designed in such a manner to provide quick access to certain types of information that is useful in the decision-making process and should manipulate the mass of information that is available to lessen the time burden that is placed on examiners of the two budget offices. The determination of what is useful and what can be computerized to be useful will be one of the key questions that must be addressed in the next set of biennial budget instructions.

Conclusion

Zero-base budgeting is not the long-awaited panacea that has been the object of search for so many years by budget examiners. It is simply another procedure for structuring information in a rationalistic manner to improve the decisions that determine the programs and operations of state government. Studies will be conducted on how to further improve this process. Politicians will continue to speak of

expanded and improved governmental services by restructuring the priorities of state government. Taxpayers will continue to be wary of the need to impose new taxes or increase present taxes. The end product, the state budget, will continue to be the source of agreements and disagreements on practically every major program contained therein. Another rationalistic concept, zero-base budgeting, to improve government is now inextricably a part of that process and that government. Its successes and failures are dependent upon the decisions of those who utilize it, and history will be the judge of the wisdom of those decisions.

FOOTNOTES

1. S. Kenneth Howard, Changing State Budgeting (Lexington, Kentucky: Council of State Governments, 1973), pp. 151-2.
2. The Brookings Institution, Economics of Public Finance (Washington, D.C., 1974), p. 197.
3. State of Texas, Instructions for Preparing Agency Budget Requests for the Biennium Beginning September 1, 1975 (Austin, Texas: Executive Budget Office and Legislative Budget Office, 1975).

AN EXCERPT FROM



STATE OF ARKANSAS

DEPARTMENT OF FINANCE AND ADMINISTRATION
 P. O. Box 327L
 LITTLE ROCK 72203

BUDGET DIVISION

April 30, 1976

MEMO TO: ALL DEPARTMENT, AGENCY, BOARD AND COMMISSION DIRECTORS

SUBJECT: 1977-79 BIENNIUM BUDGET PROCEDURES

This manual outlines the procedures to be used in preparing your 1977-79 biennium operating budget requests. Procedures for preparing capital budget requests will be issued at a later date.

The duties, powers, and responsibilities of the Department of Finance and Administration relative to preparation of budget requests are as follows:

- (1) The Director of Finance and Administration shall prepare, or cause to be prepared upon such forms as he shall prescribe, the required information with respect to each department, institution, or agency of the State.
- (2) The Director of Finance and Administration shall have the authority to examine and study the budget information as supplied to him and shall have the power to make recommendations for modifications and revisions of the budget requests if, in his opinion, the facts before him justify such revisions.
- (3) If any State Agency shall fail or refuse to furnish any information with respect to budget estimates, as and when the same shall be requested by the Director of Finance and Administration, then he shall have the authority to prepare and submit his own recommendations as to the budget requirements of any such State Agency.

Generally, this manual follows the same format used in the past but the type of Budgeting System described herein is new.

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The new Priority Budgeting System allows your Agency to request a "Base Level of Operations" and to request Priority Programs. The definition of terms section of this manual fully explains the Base Level and Priority Program concepts.

The New Priority Budgeting System:

1. Allows your Agency to establish priorities both at program, Agency, and Department levels.
2. Each priority or level of service must stand on its own merit and must be budgeted as a whole unit.
 - A. New Programs will have a better chance in the competition for scarce funds.
 - B. Existing programs must prove their worth in order to be continued.
3. Allows the Governor, Legislature and Agency Director a chance to look into existing and proposed programs. All existing programs will be competing for base level or high priority funds.
4. Each can establish his own priorities.
5. Attempts to check the uncontrolled growth in Continuing Level.

I urge you to study this manual carefully. If you have any questions concerning the procedures described herein, please contact the Budget Analyst assigned to your Agency. I especially call your attention to the requirement that all monies maintained in depositories other than the State Treasury must be budgeted for the 1977-79 biennium and be presented to the Legislative Council.

The entire Budget Staff is available to assist you in the preparation of your Biennial Budget Request:



John A. Ryles, Administrator
Office of Budget
Department of Finance and Administration

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PROCEDURES FOR PREPARING
THE 1977-79 BIENNIAL BUDGET REQUEST

BASE LEVEL:

1. Budgeted Amount 1976-77 Fiscal Year. The amounts which appear in the 1976-77 fiscal year budgeted column in the Biennial Requests will be your agency's estimated expenditures by line-item not exceeding appropriations or funding resources available.
2. BASE LEVEL - BASE LEVEL OF SERVICE: Limits: Base Level of Service Request for the 1977-78 fiscal year must reflect a minimum of a ten percent (10%) reduction by fund type (i.e., General, Federal, Special, etc.) in your agency's "Actual Operations Budget", for the 1976-77 fiscal year. For the General Revenue Agencies, the "Actual Operations Budget" for 1976-77 may not exceed "A" plus forty (40%) of "B" Allotment of the Revenue Stabilization Law plus other known revenues. For all other agencies the "Actual Operations Budget" may not exceed either the known revenue available or the 1976-77 appropriation, whichever is the lesser.

An exception to the 10% reduction outlined above will be made for non-operational Special Line Item or Grant-in-Aid Base Level Requests. The Base Level of Service Requests for these non-operational Grants-in-Aid may not exceed the "actual funded budget" for the 1976-77 fiscal year, plus any uncontrollable cost for each year of the coming biennium. Examples of these uncontrollable costs are; an uncontrollable increase in the caseload for AFDC; additional costs mandated by law (Teacher Retirement); or the natural growth in the number of teachers in the local school districts. All controllable costs may be budgeted in Priority 1 or any other Priority and would include any change in the 1976-77 rate schedules, teacher salary in-

creases, increased benefits, or increased grant payments. Special line-items, such as Uniform Allowances, Special Travel, Professional Services, Optional Medicare-Medicaid or Social Service Programs, Purchase of Data Processing, and other operational type line-items will participate in the 10% reduction mandated in the Base Level Request.

The requests in Base Level may not provide sufficient appropriations or funds to allow your programs to operate at the desired level, to meet all of the needs, services, goals, or objectives of your program. Therefore, the most important elements of your most critical programs or services should be among the first items to be included in your Base Level Request.

Your Base Level Request may reflect a reduced level for all of your programs; or may reflect the elimination of existing low priority programs; or alterations in existing programs or the method of service delivery; or limited expansion and improvements to existing programs; or organizational changes to improve the efficiency of your programs.

Limited position swaps, exchanges, and reclassifications, will be allowed in your base level request if they are requested in order to improve the efficiency of your existing program or service. New position titles may be requested as appropriate. Any action concerning personnel should be coordinated with the Office of Personnel Management of the Department of Finance and Administration.

A program budgeted in either the Base Level or Priority requests must be capable of standing not only on its own merit, but must also be budgeted in a manner that the

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particular request provides the necessary personnel and operational support required for the program to function. Each request must be independent of all other requests and provide all of the elements of support necessary for the program's operation at any level. The only exception to this rule is in the area of personnel swaps, exchanges, or reclassification costs which will be compiled by the computer (BR-65). Even though this type of request may be made in Base Level the additional costs will be reflected in a separate priority for cost identification purposes.

PRIORITY PROGRAMS:

PRIORITY 1. Your Agency's Priority One request may represent the reinstatement of those programs reduced or eliminated in the Base Level Request (the 10% reduction), in addition to those increased operations costs (inflation and step increases) associated with the Priority One (1) Request, or any other appropriate request as long as the sum of the Base Level Request and the Priority One (1) Request does not exceed 101% of the Actual Operations Budget for the 1976-77 fiscal year.

An exception to the 101% limit will be made for the non-operational Grant and Aid Request. The total amount of the controllable cost, such as, payment or rate increases may be included in Priority 1 or any other priority.

PRIORITIES 2 THROUGH 11 - may be used for any other request by program/service/activity/ cost center level request.

PLEASE REMEMBER: - All requests either Base Level or Priority 1 through 11 must be able to stand alone on its own merit and contain all of the essential personnel and operations costs necessary for the operation at the requested level of the program or service.

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EXCERPT FROM
STATE OF IDAHO
PROGRAM MANAGEMENT AND
BUDGET DEVELOPMENT MANUAL

Prepared in accordance with
Chapter 35, Title 67, *Idaho Code*

By the Division of Budget,
Policy Planning and Coordination

With significant cooperation and assistance
from the Legislative Fiscal Office

CECIL D. ANDRUS
Governor

MAY 7, 1976

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II PROGRAM MANAGEMENT PROCESS

A. OVERVIEW

The steps of the program management process involve such activities as need or problem identification, determining goals to address identified needs or problems, designing and evaluating programs to attain goals, consideration of necessary legislation, setting specific program objectives, and evaluating performance in achieving objectives. Properly done, this creates a framework that facilitates decision making at the program, department, and statewide level, and maximizes the benefits of sound planning at each stage of the process.

Budget development is an integral part of a comprehensive management process for state government. The result of the budget process serves as a guideline for the implementation function of management. It will also serve as a measurement standard for the control phase of management. When coupled with the performance information provided in the budget, it provides for regular evaluation of the task performed which is the last of the major management responsibilities.

The program management process includes the following six components: 1) identify needs or problems; 2) develop program goals; 3) performance evaluation; 4) evaluate current program structure and legislation to determine if changes are needed; 5) develop objectives and performance indicators for each program; and 6) identify fiscal changes (decision units) necessary to accomplish objectives within each program.

B. IDENTIFICATION OF NEEDS OR PROBLEMS

Identification of needs or problems is the first necessary step in the process of budget preparation. Emphasis should be focused on needs and problems that require and deserve attention and policy review by the Governor and Legislature. From such an identification stem program goals, objective identification, and a recommended solution.

In identifying needs and problems, answers should be given to the following types of questions:

1. What seems to be the real problem or issue? Why is this a proper concern of the state? What mechanisms do you use to ascertain the need for the services provided by your program?
2. What appears to be the causes of the problem or the need for services? To what extent are they currently known?
3. Who are the specific population (i.e., clientele) groups affected? (If other than the general public, identify their special characteristics such as: age group, race, income class, special needs, geographical location, etc.) What mechanism do you use to ascertain the effectiveness of your program in meeting their needs?

4. What is the magnitude of the problem? How widespread is it now? What effect is it likely to have in future years?

C. PROGRAM GOALS

The program goal(s) is the long-range result or accomplishment desired from this program. The goal should describe and relate directly to the problem the program is trying to overcome or to the condition the program is trying to create. The goal does not necessarily need to be confined to a fiscal year period of time, nor is it necessary that the goal be directly measurable. It should indicate the general direction of the program as opposed to a specific level of accomplishment.

We are asking all executive departments to consider the "goals" developed in the Idaho's Tomorrow program as well as goals developed in other citizen participation processes as an integral part of their budget development process.

D. PERFORMANCE EVALUATION

1. Performance Evaluation in Program Management

Annual program review is an integral part of the management process. It should be one of the first steps in the development of a department's program and the last step in the evaluation of how well program objectives were accomplished during the fiscal year. Effective managers will also periodically review performance during the year to assess progress toward accomplishing program objectives. Evaluation may result in:

- a. Altering the goals and objectives for the program to more realistic levels;
- b. Requesting additional resources in the budget process in order to more effectively accomplish the objectives that were previously set; or
- c. Determining ways that a program can achieve objectives in a more efficient manner, thus enabling a savings to the taxpayer or an ability to provide more services for the same amount of money.

Program evaluation can be carried out by different methods, such as:

- a. Central staff organizations which conduct indepth studies of the efficiency and effectiveness of programs as outside professionals.
- b. Central staff organizations involved in the process of reviewing agency budget requests.

- c. Program and departmental managers as an integral part of their planning/budget/management process.

As a practical matter and because of the limited size of the central management, budget, and planning staffs, most program evaluation needs to be done by program managers.

2. Performance Evaluation in Budget Development

Although the responsibility for program evaluation rests with program managers, certain elements of this evaluation can be incorporated into the budget review and development process.

Actual and estimated performance levels for the prior and current year should be reported to compare with the appropriated levels for those years on the B-3 form, "Program Description." The "Annual Report and Program Evaluation" should explain significant differences between actual and appropriated performance levels as well as discussing areas of program accomplishment that do not lend themselves to quantitative measurement.

3. Evaluation Questions

In order to provide a perspective to program managers in development and evaluation of programs, answering such questions as the following might be helpful:

- a. "Are the functions being performed effectively in achieving the identified goal?" (If the answer is "no," the functions needs to be re-evaluated in terms of the problem or issue.)
- b. "Are the results worth the cost of achieving them?" (If the answer is "no," thought then should be given to improving efficiency or possibly eliminating the program.)
- c. "Are the functions and tasks being performed as designed?" (If the answer is "no," activities should be further analyzed.)
- d. "Are functions and tasks being performed as efficiently as possible?" (If the answer is "no," activities need to be streamlined.)

E. EVALUATION OF CURRENT PROGRAM STRUCTURE AND LEGISLATION

1. Program Budgeting

The essence of program budgeting is that it seeks to relate impacts to cost, directing attention toward what the program is about rather than emphasizing detailed breakdowns of line

item categories. Program budgeting shifts the emphasis from the means of accomplishment to the accomplishment itself. A program is the result of:

- a. The identification of a need or problem;
- b. A decision to take action to resolve or correct the problem; and
- c. A plan for allocating resources to the problems.

All work performed by a department should be reflected in its program structure. The completed program structure is the result of management planning and provides the guidelines for performance of the other management responsibilities.

2. Program Definition

A program is a set of activities that follows a planned course of action to achieve specified goals and objectives. A program is a broad category of similar services (WHAT) for an identifiable group (WHO) for a specific purpose (WHY).

3. Characteristics of Programs

- a. Programs must be manageable. There must be a specific person designated as responsible for the operation of the program and for the achievement of its objective(s).
- b. Programs must have an identifiable, measurable impact or effect. Direct service programs should be able to provide explanations of impact or effect in terms of citizens, while staff function programs would be explained in terms of effects or impacts on the operation of the direct service programs served.
- c. A program must have at least one long-range goal and one short-range objective. All objectives within a program should clearly contribute to the identified goal.

4. Program Structure

An organization's program structure has two primary uses: first, as a format for the presentation of budgetary information; and second, as a framework within which resource allocation decisions are made. Program structure will not necessarily reflect organization structure. It groups the activities of an agency into a set of categories that facilitate analytic comparisons of the cost and effectiveness of providing a specific service and comparisons of the cost of one program to that of another. Program structure has frequently been used to capture information of a type (e.g., federal grant, expenditure classes, locations, fiscal years, and organizational units) for which its use is not appropriate.

A three-level (major program, minor program, and program element) program structure is available for use at the present time, although it is not necessary to utilize all three levels. The levels should be used to draw distinctions between the most significant parts of an issue which are represented at the major program level and the various aspects of solving the issues/problems which are represented by minor programs and program elements.

5. Legislation

An important part of the executive program is analyzing existing legislation and proposing new or revised legislation. The proper authority to achieve the desired goals is critical. The impact of new or revised legislation should be considered throughout the program management process.

F. OBJECTIVES AND PERFORMANCE INDICATORS

1. Objectives

Objectives are specific accomplishments which reflect effort during a fiscal year toward achieving the program goals.

- a. They should describe the most important activities or major components of the program.
- b. They should be clear, concise, and understandable.
- c. They should be measurable so that the degree of accomplishment of the objective (performance) can be determined.

2. Performance Indicators

Performance indicators are the measures of progress toward an overall goal. The best performance indicators are effectiveness indicators which specifically describe the degree to which program goals or objectives are being accomplished. Major types of performance indicators are:

a. Effectiveness Indicators

These attempt to provide the information on the degree to which program goals and objectives are achieved. They should indicate the effect of services on the well-being of clients and the public. For example, the "percent of clients of a vocational rehabilitation program that are employed sixty days after completing the program" is a measure.

b. Efficiency Indicators

These provide information on how inexpensively government products or services are being provided. Efficiency indicators may appear in the following three forms:

- (1) Ratios comparing the amount of workload accomplished to the amount of input (e.g., dollar cost per patient day or number of lane miles of highway repaired per person day). It is misleading to use only this kind of indicator because it does not consider the quality of the activity. If an increase in the amount of work is accomplished for a given amount of input but sacrifices the quality of the activity, efficiency has not improved. Thus to properly apply this form of efficiency indicator the quality of work done must also be considered.
- (2) Ratios comparing the amount of program accomplishments to the amount of input. An indicator such as the "number of clients showing significant improvement per dollar" are valuable measures of efficiency because they consider program quality.
- (3) Utilization rates of facilities, equipment, or employees is a possible efficiency indicator. These can be expressed in a variety of ways such as hospital capacity utilization factors, vehicle or equipment down times, and the amount of nonproductive time per employee, such as waiting time in court rooms for parole/probation officers.

c. Workload Indicators (e.g., number of cases processed)

Changes in their magnitude do not indicate whether performance is "good" or "bad" or whether it is getting "better" or "worse." They are primarily useful because of their potential for use in developing efficiency indicators by relating them to the amount of input required to produce the work.

G. DECISION UNITS

1. Definition

A "decision unit" (DU) proposes a change in or maintenance of performance and the associated changes in costs.

2. Identification of DU's

The process of identifying decision units begins with a review of identified issues, resultant program goals, and objectives.

Such a review should highlight the appropriateness of objectives, number of people served, level and type of service, efficiency and effectiveness of operations, uncontrollable costs, etc., and lead directly to identification of a desired impact upon each objective.

3. Purpose

The purpose of the decision unit is to associate a change in the results of a program relative to the costs of the program. Therefore, every decision unit must specify the effect on a performance indicator and the amount of money related to that impact. Thus, any time an objective changes or the cost of its attainment changes, a DU would be required.

4. Categories

Several general conditions have been identified which would require a decision unit and also serve to categorize decision units. This will assist departments in identifying decision units applicable to their programs.

All decision units must have a title which is indicative of content.

Examples of decision unit categories are as follows. See the instructions for the B-8 form for a full explanation.

- a. Elimination of Function or Objective
- b. Transfer Between Programs
- c. Methods Improvement
- d. Decreased Impact or Workload
- e. Fund Shift
- f. Maintenance of Current Operations
- g. Effectiveness Adjustment
- h. Increased Impact or Workload
- i. New Objectives

5. Sequence of Development and Priority Listing

a. Sequence of Development

It would be most useful if DU's are first developed internally by objective within a program in the same

sequence as the previously cited categories of decision units. Such an internal development should accommodate reductions in costs to establish a base prior to increases in costs.

b. Priority Listing

Decision units should be listed in priority order, ranked from highest to lowest priority on the B-8 form. In a program with several objectives, a "New Objective DU" for one objective could precede the "Maintenance of Current Operations DU" for another if it is determined more important to attain the new objective than to continue with the one presently defined. The priority listing will enable management to clearly indicate its judgment of the relative importance of the decision units included in the budget request.

PROGRAM REQUEST BY DECISION UNIT

A. GENERAL1. Sequence

The first five major entries should be made in the order and should be numbered as specified below in detail:

- DU #1 Prior Year Appropriation
- DU #2 Prior Year Actual Expenditure
- DU #3 Current Year Appropriation
- DU #4 Current Year Estimated Expenditures
- DU #5 Budget Year Base

Even though these entries are not technically decision units, they will be labeled as such in the "D.U. Ref. No" column to the left to facilitate later reference.

Commencing with DU #6, decision units should be listed in order of agency priority, with the highest priority decision units being listed first and each numbered in descending priority sequence until the full budget year request level is reached.

2. Content

Detailed requirements for all decision units are specified below. All information requested should be incorporated into the B-8 form, regardless of the number of blocks required to contain such information.

3. Titles

Each decision unit entry should be titled (i.e., Prior Year Appropriation, Prior Year Actual Expenditures, Maintenance of Current Operations, Effectiveness Adjustment, Workload Increase, etc.).

4. Funding Source

Departments using an operating fund into which state, federal, or other sources are pooled, should indicate the costs allocable to each source.

B. DECISION UNIT ENTRIESDU #1 Prior Year Appropriation

For each fund source used in this program, indicate the number of staff

B-8, PROGRAM REQUEST BY DECISION UNIT (continued)

in a full-time equivalent basis, the amount of appropriation in each standard classification, and the total appropriation for the program. Also indicate the total FTE staff and total appropriation by standard classification in the appropriate blocks. This block should reflect the total of the basic appropriation, adjustments made under statewide pay bills, and any supplemental appropriation received. In the case of appropriations made from "General Fund Surplus" that are available for more than one fiscal year, the amount allocable to the first year should be equal to amount expended during that year and the amount allocable to the subsequent year should be the total amount of the appropriation less the amount spent in the first year. In the description, specify the performance expected to be achieved at the appropriation level for each of the objectives shown on the B-3 form for this program.

DU #2 Prior Year Actual Expenditures

For each fund source used in this program indicate the number of staff on a full-time equivalent basis, the amount of expenditures in each standard classification, and the total expenditures for the program. Also

indicate the total FTE staff and total expenditures by standard classification in the appropriate blocks.

In the description specify the degree to which program objectives (as shown on the B-3 form) were accomplished and indicate the services (projects) that were actually provided in the prior year, related to the specific performance indicators set out on the B-3 form.

DU #3 Current Year Appropriation and Adjustments

This series of blocks should contain the original appropriation and any adjustments made thereto to arrive at the estimated expenditures and should be numbered as follows:

3.0 - Current Year Appropriation
(including allocations made under a statewide pay bill)

This should be displayed in the same manner as the prior year appropriation. In the description, specify the planned performance level to be provided under the appropriation, again specifically related to the objectives set out on the B-3 form.

3.1 - Additional Adjustments

Additional adjustments to the current year appropriation should be made in separate blocks and numbered consecutively as 3.2, 3.3, 3.4, 3.5, etc., until all necessary adjustments to the current year appropriation have been completed. In each case the reason for the change and the impact on the performance of that program should be explained in the description. Types of adjustments (not listed in a required order) are as follows:

- a. Federal Fund or Other Fund Increases
- b. Federal Fund or Other Fund Decreases
- c. Transfers Between Programs

Total of all transfers in must equal total of all transfers out.
- d. Expenditure Class Transfers
- e. Supplemental Appropriation Request

Detailed narrative justification for the request, together with program impact if not granted, is required.

DU #4 Current Year Estimated Expenditures

This series of blocks should contain current year estimated expenditures and any adjustments made thereto to arrive at budget year base and shall be numbered as follows:

4.0 - Current Year Estimated Expenditures

This decision block should specify the performance levels planned for each program objective during FY 1976. In each case relate specifically to the objectives and performance indicators on the B-3 form for this program. Differences in performance expectation from that listed in the current year appropriation decision block should have been explained by the intervening decision units describing current year appropriation adjustments. This decision block entry is the mathematical total of the current year appropriation (3.0) and all intervening adjustments made thereto.

4.1 - Removal of Capital Outlay

Eliminate all capital outlay from the current year estimate figure.

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B-8, PROGRAM REQUEST BY DECISION UNIT (continued)

4.2 - Removal of Non-Recurring Expenditures

Eliminate non-recurring expenditures in the current year (such as one-time projects, moving costs, etc.) that will not be carried forward into the budget year.

4.3 - Additional Adjustments

Additional adjustments to current year estimated expenditures to arrive at the budget year base should be made in separate decision blocks and should be numbered consecutively as 4.3, 4.4, 4.5, etc., until all necessary adjustments to the current year estimated expenditures have been completed. In each case the reason for the adjustment and the impact on the performance of that program should be explained in the description. Types of adjustments (not listed in a required order) are as follows:

a. Federal Fund or Other Fund Losses Anticipated for Budget Year

Basis for anticipated loss should be explained in narrative. Do not include any other fund increases to replace the lost funds.

b. Elimination of a Function or an Objective

If a program function or objective is to be eliminated in the budget year, the adjustment would reflect a reduction by the amount previously expended to achieve the function or objective.

c. Methods Improvement

Increased efficiency in the methods used to achieve an objective could result in a reduction in costs.

d. Workload Decrease

Level of workload is reduced from previous level resulting in a reduction in costs.

e. Impact Decrease

Level of impact is reduced from previous levels although the same number of people are being served, resulting in a reduction in costs.

f. Transfer Between Programs to Occur in the Budget Year

Transfer of an activity in from another program or out to another

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3-8, PROGRAM REQUEST BY DECISION UNIT (continued)

program in the amount previously expended for the activity; total of all transfers in must equal total of all transfers out.

DU #5 Budget Year Base

This decision block entry should reflect the base upon which additional requests for the budget year will be developed and is the mathematical total of current year estimated expenditures and all intervening adjustments made thereto.

DU #6 Further Decision Units in Agency Priority Listing

Decision units from #6 forward should be listed in order of priority with the highest priority decision unit being listed first and each in descending priority sequence until the full budget year request level is reached, and should be numbered 6, 7, 8, 9, etc. The final decision unit listed should be the full budget year request, the mathematical total of budget year base and all the intervening decision units. Types of decision units (not listed in a required order) are as follows:

a. Maintenance of Current Operations

Increase necessary to accommodate the same workload or to produce the same level of impact as the previous expenditure provided. The base figures used in computing increases, together with justification for such increases, should be included in the narrative in the description column. Separate decision units should be entered for the following:

- (1) Personnel cost increases (in-grade step increases for classified, merit increases for exempt and longevity for both) for existing personnel as supported by the "Wage and Salary Requirements" printout for each program; and replacement capital outlay items essential to maintain existing levels of services (include justification therefor).
- (2) Inflation or price increases requiring budget accommodation. Such increases will

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B-8, PROGRAM REQUEST BY DECISION UNIT (continued)

be allowed only when justified in adherence to the criteria in Section III. A. 5.

- (3) Federal fund increases not requiring state match (exclusive of new positions).
- (4) Funding shift from federal or other funds to General Fund to maintain existing level of services.
- (5) Increases associated with the funding shift in accordance with the guidelines specified in paragraph (1) immediately above.

Each of the above should be contained in a separate decision unit such as 6.1, 6.2, 6.3, etc.

b. Effectiveness Adjustments

Increases to achieve an objective set previously which is unattainable or only partially attainable under current expenditure levels. Narrative should specify the objective (as shown on the B-3 form), explain why the objective is unattainable and specify the degree to which objectives could be met better, with the change in

performance levels related to the objective clearly stated.

c. Workload Increases

The same level of impact or service being provided to a larger number of people, resulting in increased costs. All costs associated with the workload increase should be included. In the description, workload increases should be related to specific objectives and the change in performance related to each objective indicated. Indicate whether the workload increase is due to factors beyond the control of the program or if it is a discretionary increase.

d. Impact Increases

Situation or condition in which an objective is changed or expanded resulting in the same number of people being provided with an increased level of service. All costs associated with the impact increase should be included. In the description, identify the changed or expanded objective(s) (from the B-3 form) and the increased level of performance (impact) to be achieved.

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e. Methods Improvement

Increased efficiency or productivity in the methods used to achieve an objective could result in immediate increased costs but result in long-term decreased costs. In the description, describe the impact of the increased efficiency and the long-term effects. This is particularly appropriate for capital outlay requests requiring a large initial outlay but resulting in future savings.

DU is related to the new objective, indicate the changes in performance level of the objective related to each DU.

(2) Requiring New Legislation

If the decision unit will be used to implement new legislative authority being sought by the agency, it should be labeled as "New Legislation," in addition to providing the information requested in f. (1) above.

f. New Objective

(1) Within Current Legislative Authority

Costs associated with the attainment of a new objective. More than one DU could be developed in connection with a new objective, with separate DU's for varying levels of workload and/or impact (service). In the description, identify the new objective (from the B-3 form) together with justification therefor, and indicate the specific services (projects) to be provided: If more than one

(3) Citizen's Goals

If a decision unit is proposed to assist in achieving goals expressed in the Idaho's Tomorrow process (or other citizen's participation process), it should be clearly identified as such.

STATE OF ILLINOIS
EXECUTIVE OFFICE OF THE GOVERNOR
BUREAU OF THE BUDGET
SPRINGFIELD 62706

Excerpt from--
Bureau of the Budget
Circular No. 3
Revised September 1, 1975

Instructions to Agencies on Preparation and
Submission of Annual Budget Estimates
Part III -- The Program Budget

1. The Program Budget submission serves several purposes: (1) It forms the basis for the review and evaluation of agency programs and supporting activities and their costs and thereby provides perspective on the need for the programs in light of their costs; (2) It links resources, priorities, and management objectives; and (3) It provides material for use in developing and justifying the Governor's budget, including decisions on program and budget issues, the budget message and Book I, The Accountability Budget.

Letter of Transmittal

2. The letter of transmittal from the agency head to the Director of the Bureau of the Budget will highlight the policies, programs, objectives, and public needs which underlie his budget request. It will also call attention to any policy or program issues which were not previously settled; however, it will not be used as a device to re-open closed issues unless there is a compelling reason to do so.

3. The transmittal letter will identify management improvements accomplished or set as objectives. It will identify the low priority programs which are proposed to be eliminated or substantially reduced and it will explain and justify any proposed changes in appropriation structure and funding.

4. The transmittal letter is to include as an attachment a one-page summary in outline form describing with a single numbered sentence each major agency accomplishment or shortfall in meeting a commitment either already realized or anticipated in the current year and each major objective proposed in the budget year. The purposes of this one page attachment together with the additional attachments required by the next two paragraphs are to permit the Governor a summary overview of accomplishments, shortfalls, and objectives for the three years and to assist in the planning of Book I, The Accountability Budget.

5. The transmittal letter is to include as a second attachment a review of the objectives and commitments made in the prior year's Accountability Budget, pointing out which objectives or commitments have been met and explaining the reasons for shortfalls or other deviations from promised objectives or commitments. This may include descriptions of program and management impact of legislative actions on the prior year's budget submission as well as subsequent gubernatorial or agency actions affecting objectives and commitments.

6. The transmittal letter should also include as a third attachment preliminary MBO's for FY 1977 in the format prescribed for the Governor's condensed summary for the MBO program in the Governor's memorandum to agency heads dated August 7, 1975, re: Management by Objectives for FY 1976.

7. The letter will identify any new legislation to be proposed having an impact on the budget or management objectives, including transfers of functions.

Schedule BR-0 Series: Proposed Fund Allocations by Program and Supporting Activities

8. The tabular material supporting the program/budget requests consists of four schedules: Forms BR-0, BR-0-A, BR-0-B, and BR-0-C. The schedules show the derivation of the agency's budget request divided among programs rather than by object classes and organizational elements. They also serve to identify program increments and trade-offs at the margin. To assure that the schedules are relevant and to not require excess work, the stub entries should be worked out between the agency and the BoB before data is collected.

9. The schedules will list the various programs and supporting activities and the amounts for each for 19CY and 19BY. This is a total resources schedule and shall include all appropriated and non-appropriated financial resources. The identification of the programs and supporting activities to be used will be jointly determined by the agency and the Bureau of the Budget (see Part II, paragraph 3 for further guidance).

10. All Federal funds, including Federal funds passed on to or received from or through other state agencies (examples: LEAA funds from ILEC or CETA funds from GOEMD), shall be shown as separate entries on each of the forms in the BR-0 series. See Part IV, paragraph 10 for additional information requested for Federal grants.

Schedule BR-0: Summary

11. Form BR-0 is derived from the information shown on the BR-0-A and BR-0-B and summarizes the agency program budget so as to highlight changes and priorities. It will show for each program and supporting activity:

- a. The amount allocated for that purpose within 19CY appropriations and allotments. Reserves which are not intended to be spent should not be included.
- b. The total of all decreases (gross, not net of offsetting increases) from the 19CY funding level for whatever reason, e.g., reduced workload, low priority work, completion of assigned mission, increased productivity, mechanization, etc.
- c. The mandatory increases in requirements which are not subject to control by the agency head, such as an increased number of vouchers to be processed, and increased number of persons eligible for medical assistance, and the realized (but not prospective) increase in prices.
- d. The base for 19BY, derived by subtracting the decreases from and adding the mandatory increases to the 19CY allocation.
- e. Current program maintenance increments proposed for 19BY. These are the additional amounts to continue those 19CY activities at present levels that the agency would propose to cut back to reach the 90% level.

- f. Program expansion increments proposed for 198Y. These are to be increases of the desirable, rather than mandatory type such as increases in existing programs to serve an expanded clientele with improved services. In keeping with existing budgetary constraints, there must be a demonstrated public need for them and they must contribute to the Administration's objectives.
- g. New initiatives, i.e., discrete new programs, sub-programs, or activities proposed for 198Y. As in the case of program increments, there must be a demonstrated public need and a contribution to the Administration's objectives.
- h. The total for 198Y for each individual program and supporting activity and the grand total for the agency.

Schedule BR-0-A: Proposed Fund Allocations Within the 90% Level

12. Form BR-0-A is used to identify the programs and supporting activities or portions thereof which are proposed for funding within the 90 percent of the agency's total for 19CY for Operations and Grants-in-Aid. The total amount for Permanent Improvements will be treated as "add-ons" on Form BR-0-B and therefore omitted from this form. The BR-0-A form utilizes the same columnar display as the BR-0 described above -- the 19CY allocation, the decreases, the mandatory increases, the base of 198Y, the program maintenance and expansion increments, the new initiatives, and the total for 198Y. The grand total for 198Y on this form, however, must not exceed 90 percent of the 19CY total.

13. Note that program increments and new initiatives may be proposed within the 90 percent level but they must be of higher priority than any 198Y funding proposals not within the 90 percent level.

Schedule BR-0-B: Program Increments Above the 90% Level

14. Form BR-0-B will reflect those 198Y funding proposals for Operations and for Grants-in-Aid which cannot be accommodated within the 90 percent of the 19CY total. It will also include the total amounts for Permanent Improvements. BR-0-B will utilize the same program and supporting activity breakdown as on the previous forms; however, a program may be listed two or more times depending on the priority accorded each proposed add-on (sub-program, activity, or effort). In addition, the columnar arrangement differs from the other BR-0 forms. The stub column will list in priority order for Operations and Grants-in-Aid (starting with the highest) each proposed increase over the 90 percent level. The program will be identified, followed by a brief statement of the purpose of the add-on. The figure columns will show --

- a. For each program or supporting activity the amount allocated for 19CY -- the same amount as shown for the program/activity on the preceding forms. The name of the program/activity may be repeated several times, but the amount in this column will be the same in each case.

- b. For each program and supporting activity, the amount of the 90 percent base -- this will be taken from the last column of the BR-0-A. This sum also will be repeated each time the program/activity name is repeated in the stub.
- c. Program maintenance and expansion increment amounts -- these will be of the non-mandatory type, must meet a demonstrated public need and contribute to the Administration objectives.
- d. New initiatives amounts -- these must meet the same criteria as program increments.
- e. Total for program, including add-ons -- this column will show for each add-on the new total for the program/activity for Operations and Grants-in-Aid (the 90 percent base figure from the second figure column plus the add-on).

Following a subtotal reflecting the add-ons and the program totals for Operations and Grants-in-Aid will be listed, on a single line, the amounts for Permanent Improvements. Since this is a zero-based item, the column headed "90X base (from BR-0-A)" will be left blank and the entire amount of the 1976 request will be shown as Program Increment or New Initiative.

The final figure in this column will be grand total consisting of the final total from the last column of the BR-0-A plus the totals from the program increments/new initiatives columns of this form. It will be the same as the final total 1981 request on Form BR-0.

BR-0-C: Crosswalk Between Programs/Funds and Category Expenditure

15. Form BR-0-C takes the 1981 funding level and 1981 total request figures for each program and supporting activity from Form BR-0 and breaks them by category and fund. The stub column will list the program/activity and beneath it the treasury fund or non-appropriated resource. The figure columns will show for each fiscal year the amounts for each category -- Operations, Grants-in-Aid, Permanent Improvement, and Other.

Schedule BR-1: Summary of Available Resources by Budgetary Program

16. This schedule, prepared on Form BR-1, will identify the agency programs and supporting activities and show the amount of financial resources applied to each. A further breakdown by subprograms is to be provided where the amounts are significant. The programs and supporting activities to be reported will be those determined jointly by the agency and the Bureau of the Budget for use in Schedule BR-0.

17. The schedule will show for each program and supporting activity the amount of Obligational Authority available in 19CY and proposed for 19BY and the difference between the amounts for 19CY and 19BY. It will be in the form of two separate schedules when non-appropriated resources are available. The first will reflect the distribution of all available financial resources and will agree with the sums reported on the BR-0 Summary, plus unspent reserves. This schedule must also agree with the "Grand Total" on the BR-2. The second schedule will reflect the programmatic distribution of the amount shown as "Appropriations Requiring General Assembly Action" on the BR-2. This is the only schedule needed when there are no non-appropriated resources available.

18. The sequence of presentation will be total first, followed by the individual programs and supporting activities. The total line will read either "Total Resources Available" or "Appropriations Requiring General Assembly Action".

Issue Papers

19. The purpose of the issue papers is to permit maximum agency input in identifying issues and preparing the decision papers that will ultimately be reviewed by the Governor. The format also permits the agency the opportunity to identify basic alternatives that it believes should be reviewed by the Governor.

20. Close cooperation between the agency and BoB will be required to minimize unnecessary submissions and to ensure that agency and BoB positions are clearly identified. This process will be an iterative one beginning with the identification of issues during the summer. The agency and BoB will then agree on those major issue papers that will be submitted with the budget submission. In the case of major program expansion or reduction the agency in its issue paper should identify and analyze the major alternatives to such action even though a final BoB position has not been determined. Where a tentative BoB recommendation is known, it can be incorporated into the paper. Additional issue papers may be required later during the budget review process and as new topics arise. Other issues may be dropped as they are resolved.

21. The final decision package that will go to the Governor will contain a summary of those major program increases, decreases or reallocations on which the agency and BoB agree. Major agency and BoB differences will be spelled out in the format of the issue paper. In some cases an issue paper will be required even when the agency and BoB agree if the resource or other implications of the agency proposal merits the careful consideration of alternatives by the Governor.

22. The issue paper should most desirable be limited to one page but should not exceed two pages. The budget requirements for BY+1 (FY 1978 on the attached example) are requested to indicate the outyear effect of the proposal. The assumptions made concerning that impact should be explained in the issue paper. Additional outyears may be added if necessary to indicate the full impact of present decisions.

Narratives for Book I, the Accountability Budget

23. Narratives for Book I, the Accountability Budget, should be submitted to the Bureau of the Budget within a week after final decisions by the Governor on the agency's programs and budgets, but in no case later than January 15.

24. In each case the narrative must address itself to the public need that the program meets and the Administration's objectives. Emphasis will be on performance and cost-effectiveness. The program product (outputs) are to be quantified to the maximum extent possible so that they may be related to program costs in a meaningful manner. As each program has a goal or purpose it serves -- some reason for being a program -- it should be possible in most instances to measure its accomplishments in such a manner as to provide some perspective on its relative value.

25. The narratives are designed to aid the general public as well as the legislature in gaining an understanding of what the state government is doing, why it is doing it, and what it costs. Armed with this information, it should be possible to make an informed judgment as to the necessity for the amounts proposed for 1987.

26. Program narratives must be succinct, devoid of technical terms, and held to the minimum length necessary for adequate presentation. While brevity is desirable, it should not be carried to such extremes that understandability is jeopardized. The narratives should describe programs in terms of facts or specific desired outcomes, avoiding generalities, over-promises, and moral judgments.

27. Narratives should provide explanations of the budget requests, increases, decreases, objectives, and other data presented in the BR-0 and BR-1 schedules. When the program is revenue-generating, the amount of revenue and the net cost of the program are to be given.

28. Narratives should go off from the preceding year narrative, updating achievement or nonachievement of objectives; describing program changes and accomplishments, and maintaining sufficient year-to-year consistency that a maximum of accountability for past commitments is achieved. The agency MBO program is also a source of material for the Accountability Budget narrative.

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EXCERPT FROM
STATE OF MONTANA

PRIORITY BUDGETING SYSTEM
1977 - 1979 Biennium

INSTRUCTIONS AND PROCEDURES
June 1976

OFFICE OF THE GOVERNOR
BUDGET AND PROGRAM PLANNING

THOMAS L. JUDGE, Governor
MICHAEL G. BILLINGS, Director

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INTRODUCTION

House Bill 643 (Chapter 460, Montana Session Laws of 1975) provides that the "budget director shall implement a program planning and budgeting system . . . for at least one program in representative agencies of state government service such as planning, human service, delivery, licensing and regulation, and other programs as determined by the budget director."

The Office of Budget and Program Planning has responded to this legislation by designing a program planning and budgeting system which consists of three distinct but closely related phases: policy formulation, long-range planning, and budget development. The first two steps have largely been completed, the results being reflected in the *Governor's Policy Initiatives* and the *Executive Planning Process*. The final step -- translating the policy initiatives and multi-year plans into the 1977-79 executive budget -- commences with the distribution of these and related budget instructions.

Preparing the 1977-79 Executive Budget

The Executive Budget for the 1977-79 biennium will be prepared in three parts. The first of these is the traditional budgeting approach with some significant modifications. Under this method, a budget reflecting the cost to continue the current level of services will be prepared and submitted to Office of Budget and Program Planning by June 30, 1976. Then, any desired modifications to the current level service request (expansions, reductions, and new activities) will be prepared and submitted by August 15, 1976. All agencies excluding those selected as pilot projects will prepare their budgets in this manner. Instructions for this approach have already been distributed.

The second part, which will be used by the eight programs selected to be pilot projects, is required under House Bill 643. It is described below.

The third aspect covers the preparation of the Long Range Building Program. House Bill 643 requires that all agencies prepare their capital budget requests according to the format prescribed by that legislation. The Construction and Maintenance Division, Department of Administration, will distribute instructions for the preparation of capital requests in a short time.

The Priority Budgeting System

The requirements of House Bill 643 can best be fulfilled by utilizing an approach which is being termed the Priority Budgeting System.

The basic concept of the Priority Budgeting System is that the estimate of financial needs for a budget program must be justified in its entirety, and is analyzed by decision-makers accordingly. Program managers are required to biennially assess the benefit derived from ongoing operations, as well as the need for additional resources. The Priority Budgeting System will identify to all levels of management the cost, benefits, and suggested operational improvements

associated with the achievement of desired goals and objectives, as established by both the *Governor's Policy Initiatives* and departmental executive plans.

The process begins with the identification of all the discrete activities within a program. The budget request for each activity is developed in a series of "activity decision packages," each one representing the resources required to support a particular output and impact level at which the activity would operate if the funding request were ultimately approved.

Decision packages are then ranked in order of priority by each manager in presenting his budget request to higher management. The ranking process is further carried out at the department level. These department recommendations will then be evaluated by OBPP in cooperation with program personnel pursuant to formulating final recommendations for the Governor's action. The ranking process offers each manager at each decision level the opportunity to fully express his recommendations for the allocation of resources within that particular area of responsibility.

These instructions and procedures are intended to explain the purpose and concepts underlying the Priority Budgeting System, how to comply with the various information requirements of House Bill 643, how to complete the various forms involved, and how to arrange and submit each program's final budget request to OBPP. It is strongly urged that *all* individuals carefully read and digest these instructions. The concepts are initially difficult to grasp (although once understood, they should not be difficult to apply), so it is important that they be fully understood. Knowledge of the process should not be limited to fiscal managers. A critical element in the successful completion of the process is the complete involvement of both fiscal *and* program managers. In fact, the initial steps in the process should be completed by program managers.

Once these instructions are distributed, OBPP staff will work closely with each of the eight programs in explaining the use of the process. It is imperative that the various concepts be clearly understood at the end of this phase.

GLOSSARY

Budget Program Structure. The method employed to organize information and examine outputs and impacts. It is a statement of the functions and activities of state government, relating the contribution of each part to the whole. The program structure is in turn dependent on a classification system, which allows comparisons to be made between similar activities. For the purposes of this approach, the components of the budget program structure are as follows:

1. **Functional area:** forming the highest level of the structural hierarchy, each functional area represents a major purpose of state government. Seven functional areas have been identified for current state operations, including General Government, Economy and the Environment, Education, Human Services, Community Development, Public Safety, and Transportation.
2. **Program:** the major subdivision of a functional area, a program is a logical grouping of a set of activities around a common purpose.
3. **Category:** the third level of detail, a category is the basic component of a program. It can be expressed in goal terms and should reflect the efforts necessary to achieve the stated goal(s).
4. **Activity:** a discrete function or operation which utilizes resources to achieve specific objective(s) through the production of work outputs which have a measureable policy effect on client groups or the environment.

It is important to note that a budget program structure does not necessarily have to parallel organizational program structure. The activity is the basic building block and should easily relate to either the budget or the operating structure. For preparation of the 1977-79 executive budget this program structure will be applied only to those eight programs covered by these instructions (see Attachment VI).

Objective. A statement of a planned result, quantifiable within a specific time-frame.

Workload and/or Demand Estimator. The impetus for providing the means to achieve desired end results (origin can be from citizens, legislation, or natural causes).

Output Measure. An accountable unit of work produced at the activity level which measures the extent of that activity. (This term is being substituted for "program size indicator" in House Bill 643.)

Impact Indicator. A measure which indicates the effect activities have upon individuals (clients, target population) or the environment. (This term is being used in place of "effectiveness measure" called for in House Bill 643.)

Current Level Services. The level of effort authorized by a program's appropriation for the 1977 fiscal year, plus inescapable increases due to salary adjustments, inflation, etc. (Any activity authorized through a budget amendment is not a part of current level services, but rather should be treated as a modification to current level services.)

Activity Decision Package. A means of analyzing the allocation of resources by discrete units of operation within a program in an effort to promote more rational decision-making. The analysis focuses on the relationship of outputs and impacts to different levels of funding.

THE PRIORITY BUDGETING SYSTEM: PURPOSE AND CONCEPTS

Purpose

In most cases, plans and budgets are typically developed by taking the cost of the current level of operation, adding "built-in" and inescapable adjustments such as salary increases, and then requesting additional expenditures and programs. This process does not require a detailed review of the ongoing operations and expenditure levels, has led to ever-increasing budgets, and places the burden of proof on the top management review process to alter these budget requests.

For the 1977-79 budget, a system is being introduced which requires each pilot program manager to justify his entire budget request in detail, and shifts the burden of proof to each manager to justify why *any* money should be spent. This procedure requires that all activities and operations be identified in "activity decision packages," which will be evaluated and ranked in order of importance by systematic analysis. (Activity decision packages are so named because they require thorough analysis of the costs and benefits of completing a discrete activity and because the information generated as a result of such a process encourages a more rational decision on the desirability of carrying out the activity and, if so, at the most appropriate level of effort.)

This approach should provide numerous benefits for program managers. First of all, the identification of one hundred percent of each activity requires each manager to carefully evaluate and consider the ongoing need for each activity and to consider different levels of effort and alternative ways for performing the activity.

Secondly, based on the evaluation of alternatives, the program and activity managers have the opportunity to communicate their analysis and recommendations to higher management for review and consideration in determining budget allocations.

Third, once activity decision packages have been identified, prepared, and accorded a priority ranking, changes in desired expenditure levels for program budgets do not require the recycling of budget inputs, but the decision package ranking identifies those activities (decision packages) to be added or deleted.

Finally, the list of ranked decision packages can be used during the operating year to identify activities to be reduced or expanded if allowable expenditure levels change or actual costs vary from the budget.

The philosophy, procedures, and budget forms and instructions for the Priority Budgeting System are described in this manual. The instructions are intended to allow a good deal of flexibility in adapting the general concepts and procedures to your specific needs. This process has three basic forms, which are intended to aid each manager in planning and budgeting for his activities; they are not forms to be filled out after the planning and budgeting process is completed. Once these analysis forms are completed and the allocation decisions made, the regular budget forms will be used to further explain those decisions in more detail.

Concept of Activity Decision Packages

An activity decision package identifies a discrete function or operation in a definitive manner for management evaluation or comparison with other functions, including consequences of not performing that function, alternative courses of action, and costs and benefits. Activity decision packages will be defined at operating levels below the program level in most departments where discrete pieces of an operation can have meaningful identification and evaluation.

There are two types of alternatives that should be considered when developing activity decision packages:

1. *Alternative methods of performing the same activity.* This analysis identifies alternative ways of performing a function. The best alternative is chosen and the others are discarded.
 - If an alternative to the current way of doing business is chosen, the recommended way will be shown in the decision package with the current way shown as an alternative.
 - Only one decision package is prepared for the method selected. It shows the recommended way of performing the function and identifies the alternative ways considered, giving a brief explanation of why they were not chosen.
2. *Alternative levels of effort of performing the function.* This analysis identifies alternative levels of effort to perform a specific or related activity. A minimum level of effort should be established (eighty percent or less of the current biennium appropriation), and additional levels of effort identified as separate decision packages.

This minimum level of effort package may not completely achieve the purpose of the activity (even the additional levels of effort proposed may not completely achieve it because of realistic budget and achievement constraints), but it should identify and attack the most important elements. In many cases, the minimum level of effort may be much less than 80 percent of the current level of operation. (One exception to this rule of thumb would be start-up functions or operations that were not up to full speed during the preceding budget year).

Managers should consider both types of alternatives in identifying and evaluating each function. Managers will usually identify different ways of performing the same function first, and then evaluate different levels of effort for performing the function for whichever method is chosen.

The identification and analysis of alternatives and the subsequent preparation of activity decision packages cannot be made in a vacuum. Guidelines concerning such matters are available in the *Governor's Policy Initiatives*. Those initiatives have been amplified and supplemented as a part of the *Executive Planning Process* and should provide the basis for the identification and consideration of both alternative methods and alternative levels of effort.

Formulation of Activity Decision Packages

Activity decision packages are usually formulated at the next level below the program level.

This should promote a detailed identification of activities, operations, and alternatives by those managers most familiar with the task to be performed, as well as generate interest in and commitment by those individuals who will be responsible for carrying out the actions identified in the approved packages.

To begin developing activity decision packages, a manager might logically start by identifying the current year's operations. The manager can take the current year's expenditure level, identify the functions or operations creating this expense, and calculate or estimate the cost for each function. After current operations have been broken into activity decision packages, the managers can start looking at the requirements for the coming year.

The identification of "business as usual" (or current) levels of effort and funding merely provides the basis from which each manager will consider operating requirements for the ensuing biennium. The real starting point in determining the next biennial budget occurs when alternatives to "current" levels of effort are developed by evaluating different ways and/or levels of effort to perform the activity. If an alternative to the "current" method is chosen, the so-called alternative method is incorporated into the recommended package and the "current" method is identified as the alternative. At the conclusion of the formulation stage the manager will have identified the proposed functions, which will fall into three categories:

1. Different ways and/or different levels of effort for performing the function;
2. "Business as usual," where there are no logical alternatives so the present method and level of effort is recommended; and
3. Packages for new functions or operations.

Before performing the analysis relevant to the various activities, a list of those activities which will be the subject of the decision packages should be discussed with OBPP.

Activity Decision Package Ranking

Once all activity decision packages are completed, successive levels of management will rank all of those packages in priority order of importance.

This section suggests some ranking procedures that may be of help to each manager in ranking activity decision packages. The ranking process attempts to provide management with a technique to allocate its limited resources by answering the questions of what objectives should we attempt to achieve and how much should be spent in this attempt?

Management can try to answer these questions by taking the decision packages identified and analyzed and listing (ranking) them in order of decreasing benefit to each organization. Management can then identify both the benefits to be gained at each expenditure level and the consequences of not approving additional packages ranked below that expenditure level.

The initial ranking of packages should occur at the organizational level where the packages are developed in order to allow each manager to evaluate the relative importance of the various activities involved. This ranking will be reviewed at higher organizational levels and used as a

guide for merging those rankings. At the lower organizational levels, rankings can be done by an individual with adequate detailed knowledge of the areas involved. However, at the higher levels the expertise required to rank packages may be best obtained through a joint review and analysis procedure similar to the one currently being used in considering the executive plans.

Two problem areas can be expected during the initial implementation of the ranking process:

1. Managers may have conceptual difficulty in ranking packages that they consider "requirements" and may express concern as to their ability to judge the relative importance of dissimilar functions since many packages require subjective judgment.
2. The number of decision packages may be too great for the time management has available to thoroughly evaluate and rank the packages.

The difficulty and the time consumed in ranking packages can be reduced, however, if managers do not concentrate on ranking packages that are high priority or "requirements" and are well within the expenditure guidelines (other than to ensure that all alternatives, cost reduction opportunities, and operating improvements have been explored and incorporated as appropriate), but instead concentrate on discretionary functions and levels of effort; and do not spend too much time worrying whether package 4 is more important than package 5, but only assure themselves that packages 4 and 5 are more important than package 15, and package 15 more important than package 25, and so on.

Ranking packages at each organizational level thus allows the responsible managers to evaluate the desirability of various expenditure levels throughout the planning and budgeting process.

Conclusion

It is important to note that the basic thrust of this approach to planning and budgeting is to re-focus attention on the outputs (work accomplished) and impacts (effectiveness) of a program's efforts, thus enabling a clearer understanding of the way inputs (resources in dollars and personnel) are managed to achieve those results. In fact, the relationship between inputs and outputs is the basis for evaluating efficiency (or productivity); the relationship between inputs and impacts establishes the basis for judging effectiveness. Thus, the Priority Budgeting Process builds upon the strengths of the traditional input approach to budgeting by providing program and fiscal managers, as well as executive and legislative decision-makers, with a much more concrete assessment of both efficiency and effectiveness than they have ever had before.



State of Rhode Island and Providence Plantations
EXECUTIVE CHAMBER, PROVIDENCE

Philip W. Noel
Governor

July 27, 1973

TO: All Department Directors
and Agency Heads

FROM: Philip W. Noel, Governor

SUBJECT: Zero-base Budgeting

Introductory

You will recall that one element in the range of assignments I set for my administration was the introduction of zero-base budgeting.

I share in the concern of all taxpayers that our government may well have lapsed into carrying on activities - maybe even entire programs - as matters of habit and routine, as the continuing exercise of effort perhaps without product, and the spending of public funds in the conduct of things which are questionably effective in reaching any objectives whatsoever or are of doubtful value for our times.

This is the origin of my firm position that in developing budget requests

for the coming year every department director is mandated to work within the concept that

- . . . program justification starts at zero dollars;
- . . . every activity is subject to question, starting with whether its very existence is warranted and, if so, what is its relative value in reaching program objectives; and
- . . . further, if an activity qualifies for introduction or expansion, such should come about through the judicious devaluing of other activities.

This is for the most part the essence of budgeting from zero-base.

Activities are examined, assessed as to need and effectiveness, and thereupon adjudged for continuance or downgrading or upgrading. Generically this is to be the objective in preparing requests for funding for 1975.

I fully realize that a formalized system to this end could entirely displace the existing budget preparation process, or, otherwise, the concept can be factored thereinto. Since I will be more concerned with the conclusions of judicious management than in what might result in an essentially formalistic display, our major move in the preparation of the 1975 budget will first be to embody the concept of base zero into our considerations. This will permit us to continue the on-going development of program budgeting while particularly stressing the point that everything demands justification before any dollars are provided.

To carry off this task you will be required to evaluate your programs and activities in greater depth and in a more objective manner than in the

past. The pattern to be followed is given below. As for the outcome, every element of success will be an advantage to the effectiveness of government, will impact favorably on costs, and thereby will be a stroke in favor of the taxpaying public.

The 1974 Setting

The budget document for fiscal 1974 contained a considerably upgraded format displaying newly-developed program information and a restructured presentation of financial data. Customary agency descriptions, previously focusing on organizational characteristics supplemented by supportive program and financial data, gave way to a schematic presentation based on departmental and divisional objectives and activities, linking thereto prior year program results and intended accomplishments for the upcoming year. The underlying rationale for this further move toward program budgeting was that by displaying activities of state government in terms of purposes and outcomes a much improved vehicle for explaining and supporting requests for appropriations would result.

The division of budget working closely with top-line personnel in the various departments developed and applied this new budgetary format to most governmental operations. Unfortunately, because of constraints of staff and the statutory deadline for budget submittal, there was not sufficient time to completely extend this approach throughout the government. For the 1975 budget, however, all departments and agencies are to plan to have their presentations in this format.

Moving to Zero-base Approach

Entry into the pattern of assessing and evaluating all activities from base zero is to proceed as follows (on forms provided):

1. Department directors and agency heads are to re-examine the FY 1974 budget presentation of your (a) program objectives and (b) particularly the activity hierarchies, with a view to modifying or re-casting such, if the case requires, so as to conform more closely with projected 1974 operations.

Special attention is to be addressed to activity classifications:

- where there are omissions, activities are to be added;
 - where refinements are necessary, alterations are to be made.
 - on completion, the re-aligned structure will be a designation of all agency activities to be performed during fiscal 1974.
2. Moving a step further, you are to assign your estimate of the priority rank of each activity as an indicator of its relative importance vis-a-vis other activities in the attainment of program objectives.
 3. Additionally, since the hierarchy of priorities can ordinarily be expected to correlate with the comparative degree of funds allocated, you are requested to reasonably determine (and set forth) :
 - (a) the amount of agency funds allocated to each activity, and, alongside,
 - (b) the percentage of agency effort each activity bears to the total of all activities; it is recognized, of course, that this percentage may or may not correlate with the allocation of funds.

The preceding are neither simple nor surface actions. They require a kind of program-activity-soulsearching which may be new to some and which in any event is never easy. They will, however, increase and intensify awareness of the relative degree of necessity of work undertaken.

Moreover, so assessing current FY 1974 activities is a pre-requisite to the follow-through for FY 1975.

Budget Request for 1975

For fiscal 1975, the same activities review and analysis process is to be followed. For the zero-base concept to begin to take hold so as to progressively permit decision determinations to be made upwards on the continuum of least to highest values, a number of additional advisories and factors must be adhered to. They are as follows:

1. Obviously, the 1974 appropriations level is not to be construed as the starting point for 1975's requests, with all activity analysis and justification largely centering on changes incremental to that level.
2. Program activities are to be analyzed and justified in the context of carefully delineated objectives, i.e. as stated in the 1974 budget or recast in the re-assessment thereof.
3. Activity costs are to be calculated from base zero according to targets set for 1975, i.e. how much will be required to fund anticipated accomplishments.
4. You are especially requested to indicate how the cost of proposed expansion or deepening of any on-going activity, or the addition of a new activity can be offset by cost reductions as the result of
 - (a) the diminishment or abandonment of other activities,

- (b) the introduction of more efficient program alternatives.
5. You are to designate (a) the priority rankings for requested 1975 activities, and (b) the percentage of agency effort of each activity to all activities.
 6. Finally, from the structure of your detailed budget requests for FY 1975 - which follows the itemization pattern evolved through FY 1974 - you are to apportion the amount of funds assignable to each activity.

The redeployment of effort (#4) and funds is left to your management judgment.

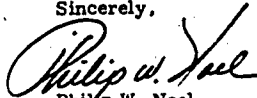
Enclosed herewith is an illustration of the form to be used in implementing this movement to zero-base budgeting. Child welfare services which appears on p. 41 of the 1974 budget is the illustration; its completion is, of course, left to the agency involved. Each budgeted agency will receive such a form, with extra copies available.

Additionally, forms will be provided for the submission of presentations and data relative first to items #3 and #4 of the section herein on the budget request for 1975, and otherwise for explanations relative to any other segment of the budget request process.

Enclosed with this document or soon to follow are the appropriate budgetary forms and instructions for building up and aggregating the body of cost data relating to agency operations. These follow the on-going pattern. It is the disposition of such requests which will be affected by our movement toward zero-base budgeting.

During the month of August or very early in September, I will meet with each of you to stress my concern for this assignment and to discuss your progress and problems in responding to the effort required of you. The budget office will make arrangements for these appointments.

Sincerely,


Philip W. Noel
Governor

Enc.

PROGRAM ANALYSIS SUMMARY FOR FISCAL 1975

Division of Budget
Department of Administration

Major activities	Department Social and Rehab. Services		Division Community Services - Child Welfare Services		Account No.	
					1232-100	
	1974 Program			1975 Request		
	Priority Ranking	Allocation Funds	Effort %	Priority Ranking	Allocation Funds	Effort %
<p><u>Social Services:</u> -provides preventive, supportive and rehabilitative services to children in their own homes.</p> <p><u>Protective Services:</u> -offers protection for all children who are living under hazardous conditions and who are abused, neglected or exploited by their parents.</p> <p><u>Foster Care:</u> -provides care for children in foster family homes and adoption homes, group placement at the children's center or in other specialized group facilities. This direct care program is available to all children who may need foster care for an indeterminate period of time; case work services to the children and natural parents is geared toward the reconstruction of the natural family.</p> <p><u>Day Care:</u> -offers services in family day care homes for children who need day time care rather than full time foster care.</p> <p><u>Temporary Shelter Care:</u> -provides children with emergency shelter care and emotional support necessitated by a crisis in their natural family.</p> <p><u>Investigations:</u> -investigates child marriages required by law, adoption placements and petitions of children placed for adoption by other than a licensed child-placing agency.</p> <p><u>Licensing:</u> -licenses and maintains standards in all child placing agencies, child-caring institutions, day care centers and private homes boarding children.</p> <p>*Additional On-going Activity #Proposed New Activity</p>						

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ZERO-BASED BUDGETING
IN NEW JERSEY

Michael J. Scheiring
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State of New Jersey

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ABSTRACT

This article describes the Zero-Base Budgeting System of the State of New Jersey. It enumerates the aims and pitfalls of zero-based budgeting, plus, it identifies steps to avoid hazards when implementing ZBS.

ZBS is a system in which each governmental program, regardless of whether it is a new or existing program, must be justified in its entirety each time a new budget is formulated. It offers management a practical tool for evaluating program benefits versus costs, a method to redirect program efforts and funds from low priority existing programs into high priority, possibly new, programs, a means to improve efficiency and effectiveness, and a rational way to reduce and control budget growth.

ZERO-BASE BUDGETING IN NEW JERSEY

Background

On July 22, 1974 a memorandum was issued by Governor Brendan Byrne to all Departments and State Agencies. It called on "all managers at all levels to question the continued need for every program and every activity within every program of our State government and assign a priority ranking to each such program and activity."^{1/} In accordance with the Governor's directive, zero-base budgeting was instituted to evaluate present and anticipated program funding plans. Thus, New Jersey joined the growing list of governmental agencies and private industries utilizing ZBB to prepare budgets. Currently, the States of Georgia, Illinois, New Mexico, Delaware, and Texas are experimenting in some manner with zero-base budgeting techniques.

Governor Byrne was urging the zero budget concept in conjunction with his tax reform program, declaring that the tax package, which included a graduated income tax equal to 12½ percent of the taxpayer's Federal income tax liability, was designed to limit the future property tax rate increases by municipalities and counties. Therefore, the Governor stated, the State has to adopt a policy of frugality in spending.^{2/} By August, the tax package proposed by Byrne had been skillfully pushed through the Assembly only to be stalled in the Senate indefinitely. The State estimated that a deficit ranging from 350 to 400 million dollars would face the State in the 1976 fiscal year. This deficit estimate did not include what was projected the State would have to pay to the local school districts to meet the terms of a lower court order (the Botter decision) on school aid. The minimum estimate for increased State school aid was 150 million dollars which was to be increased to 450 million dollars as a result of a decision by the State's Supreme Court.^{3/}

The fiscal and economic environment of New Jersey served to provide an atmosphere conducive to implementing zero-base budgeting. As the Governor looked ahead to the next year when the full effect of the deficit would be felt, he remarked: "It must be clear to all that for some activity or programs, appropriations in FY (fiscal year) 1976 may have to be eliminated entirely or reduced below the FY 1975 level."4/

The objectives of this article are to describe zero-based budgeting in New Jersey, to point out its aims and pitfalls, and to identify ways to avoid hazards when implementing ZBB.

Description of Zero-Based Budgeting in New Jersey

Zero-Based Budgeting has been defined as a system whereby each governmental program, regardless of whether it is a new or existing program, must be justified in its entirety each time a new budget is formulated.5/

The basic steps to zero-base budgeting are:

1. Identify and describe each discrete program activity in a "decision" package.

A program activity is defined as a distinct function or sphere of action directed towards achieving a program element objective.6/

2. Evaluate and rank the packages by benefit versus cost analysis.
3. Allocate the resources accordingly.7/

In the Journal of the American Planning Association, Aaron Wildavsky observed that budgeting tends to be incremental. Rarely are gross changes made. The New Jersey ZBB system recognizes this fact and also recognizes that what is the best allocation of funds is a matter of subjective judgement. New Jersey's ZBB-system seeks to provide state decision-makers with the information to pass more rational subjective judgements and the ability to evaluate and realign program priorities.

Three budget forms are crucial to providing the decisionmakers with the needed information. They are the Zero-Base Budget Requests -- Priority Packages, the Zero-Base Priority Ranking Sheet, and the Performance Analysis Form. These forms serve as a "decision" package which identifies and describes a program activity in such a manner that management can evaluate its benefits and rank it against other activities competing for limited resources and then decide whether to fund it. The forms are designed to provide management with an indication of the objectives of the program, the activities by which the program objectives are to be achieved, the benefits expected from the program, the qualitative and quantitative effects of reducing or not approving the program activity, the expenditures of funds and personnel the activity requires, and the effect on personnel and resources if the allocation of funds is reduced or not allotted at all.

For example, the Zero-Base Budget Request -- Priority Packages form displayed below asks the agency to:

...state the objective of the program activity

...list the legislative statutes that would need to be repealed or amended at the various funding levels: 0 percent

STATE OF NEW JERSEY
 -4- Department of the Treasury
 Division of Budget and Accounting—Budget Bureau
 Term-Base Budget Request—Priority Packages
 Budget Request For _____

Department: _____ Element: _____
 Program Activity: _____

1. Objective-
2. List New Jersey statutes which should be repealed to permit each level of funding. List statutes which should be amended and explain how they should be amended.

	Repeal	Amend	Description of Suggested Amendments
a. 0%	_____	_____	_____
b. 50%	_____	_____	_____
c. +25%	_____	_____	_____
d. +25%	_____	_____	_____
e. +25%	_____	_____	_____
f. above 125%	_____	_____	_____

3. Describe the qualitative effects of this funding level upon the activity. (What needs or demands could not be satisfied or would be satisfied more completely?)
 - a. 0% -
 - b. 50% -
 - c. +25% -
 - d. +25% -
 - e. +25% -
 - f. above 125% -

4. Evaluate the quantitative effects of each funding level upon the activity.

Evaluation Data	Budgeted by	Incremental Effect					
		0%	+25%	+25%	+25%	+25%	Above 125%

5. Indicate on the reverse side of this form the effects of each funding level on budgeted and dedicated revenues.

6. Complete the following:

	0%		+25%		+25%		+25%		Above 125%	
	No.	Amount (000's)	No.	Amount (000's)	No.	Amount (000's)	No.	Amount (000's)	No.	Amount (000's)
Budgeted Exp.										
Estimated Exp.										
Unbudgeted Exp.										
Total										

Note: Limit supplemental comments to reverse side of this form.



50 percent, 75 percent, 100 percent, 125 percent, above 125 percent funding of the current funding level

...describe the qualitative effects or impacts of funding the program activity at the different funding levels

...evaluate the quantitative effects of each funding level upon the program activity

...estimate the effects of each funding level on budgeted and dedicated revenues, and

...indicate the effects of the alternative funding levels on personnel.^{8/}

The information derived from this form attempts to provide answers to the central question of whether the benefits to be lost where funds would be decreased outweigh the benefits to be gained where funds would be increased or maintained. The answer is conditioned in part on the effects and impacts on what outputs and inputs would be lost or gained, and on the decisionmaker's subjective judgement as to whether the outputs and inputs are valuable and desirable. These judgements are made by various officials in the management hierarchy.

The Zero-Base Priority-Ranking Form serves through a ranking process to prioritize the budget judgements of management decisionmakers. The form requires the agency to rank the program activities within a program subcategory in priority order at the various funding levels. A sample completed form has been reproduced and displayed below.

AGRICULTURE

AGENCY PRIORITY SPENDING ANALYSIS

BUDGET REQUEST FY 76

Account Number

Program	Fiscal Year	Expended 1974	Appropriated 1975	Continuation	Priority Level 1	Priority Level 2	Priority Level 3	Priority Level 4	Priority Level 5	Current Year Total	Recommended Budget Base
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Advisory Council	30	270	250	275	125					125	
Entomology	30	370	350	375	175					375	
Laboratory Services	20	230	225	250	113					113	
Plant Pathology	20	200	215	225	107					107	
Swine Encephalitis (New)	10								152	152	
Swine Disease Control	10	155	162	180	81					81	
Entomology	20					88				88	
Advisory Council	30					61				61	
Parasitology Control	10	95	100	115	50					50	
Parasitology Control	10	85	100	110	50					50	
Laboratory Services	20					56				56	
Plant Pathology	20					51				51	
Swine Disease Control	10					41				41	
Entomology	20						88			88	
Swine Disease Control	10	18	50	50	25					25	
Total or Subtotal		1743	1651	1503	726	302	88		150	1266	

Form H-104-3 Rev. 7/74

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Utilizing the ZBB Budget Request -- Priority Package forms, which have required agency managers to describe the consequences of various funding levels on performing a program activity, the State decisionmaker at various levels is able to compare and rank the "decision" packages in a manner that will be consistent with the desired objectives and that will seek to optimize the program's success in achieving objectives and benefits. The budget decisionmakers are then able, utilizing the ZBB Priority Ranking form, to accept or reject a discrete level of effort and to know the effects of ~~each~~ decision action. In essence, ZBB furnished the decisionmaker with the information necessary to make a determination as to whether funding at a current, increased, or a lower level is justified by the benefits to be realized or lost by a particular funding level. It serves to answer the questions: "How much should we spend?" and "Where should we spend it?"⁹ The ranking process provides management with a working tool to evaluate and allocate its resources in a more rational manner and gives them the ability to realign program priorities.

The Performance Analysis form of the "decision" package serves to provide additional performance data on the outputs and effects of various programs. It provides historic data, current data, and projects the effects of alternative funding levels on future performance data. It acts to supply more detailed information on the effects of management decisions. It helps to make a decision, which by its very nature must be subjective, be at least more rational.

Aims of New Jersey's ZBB System

New Jersey's past experiences with program budgeting served to facilitate the introduction of zero-base budgeting. It provided a program structure and the means to classify program activities. Program budgeting had developed information on programs, the outputs produced, and in many cases rudimentary data on the costs of the outputs, and an indication of the effects and impacts of the program activities.

The PPBS approach was meant to be effective in bringing out into the open previously unarticulated assumptions that were utilized to justify a given program. This concept was too often consumed by bureaucratic rhetoric, providing the decisionmakers with scant help. The zero-based approach, we felt, would force all participants in the process to focus on the necessity for choice as the key aspect of budget making. ^{10/} Thus, under mounting fiscal pressures, New Jersey tried to build on the PPBS techniques.

ZBB is attempting to force state decisionmakers to begin to combine planning, budgeting, and operational decisionmaking into a systematic management process. ^{11/} It seeks to require managers to quantify both the anticipated costs and to provide projected performance measures on the outputs, effectiveness, and efficiency of the program. Hopefully, ZBB will begin to provide the detailed information needed to do comprehensive program evaluations. It sought to aid the manager and the budget decisionmaker by telling them what changes in the quantity or quality of each program's outputs would occur if funds were decreased or increased. It attempts to furnish the decisionmaker with the information necessary to determine whether the current funding level is still justified or whether a lower or higher

funding level will provide greater overall program benefits. ZBB tries to solicit agency intentions on how money would be spent and what performance results could be expected. It sought to provide management officials with a vehicle to identify possible areas for reduction if the executive budget recommendations were lowered by the Legislature's Appropriation. ZBB attempted to become a useful tool in determining budget items to be vetoed by the Governor when the Legislature forwarded an unbalanced budget.

ZBB aimed to provide decisionmakers with the ability to examine program objectives and programs that were based on statutes that were enacted to meet problems or needs that were priorities of days long past. Both the statute and the objectives are brought up for re-evaluation. Thus, whole programs that owe their continued existence to a legislative action taken long ago, which are continually refunded without question, now are to become questioned and focused upon in terms of need for, benefits to be derived from, costs to be incurred, and in terms of priority with other programs, both old and new, that are competing for scarce dollars. ZBB charges an agency to develop a defense of its budget request that doesn't rely on the perimeter of constructed trenches of previous appropriations.

Another aim of ZBB was to provide budget decisionmakers with a rational way to reduce and control budget growth. For the past decade, New Jersey's State Budgets have increased at an average of 16.8% a year. The State has been faced in the last two budget years with marginal revenue growth, and rapidly growing needs, particularly in the area of state aid, including Medicaid, Higher Education, Mass Transportation, Public Assistance, and educational support for the Local School Districts. In addition, New Jersey has no State income tax. Even if New Jersey achieves general tax reform through property

tax relief and the imposition of a personal income tax, such a rate of budget growth can not be sustained.

As can be seen in Table 1, after years of large budget increases, the Governor submitted to the Legislature a proposed budget with a 1.8% increase. This was the lowest proposed budget increase in 21 years for a State whose average budget increase during that period was 14.7%.

When finally settled, the budget for the 1976 fiscal year was reduced by 3% below the previous fiscal year's appropriation.

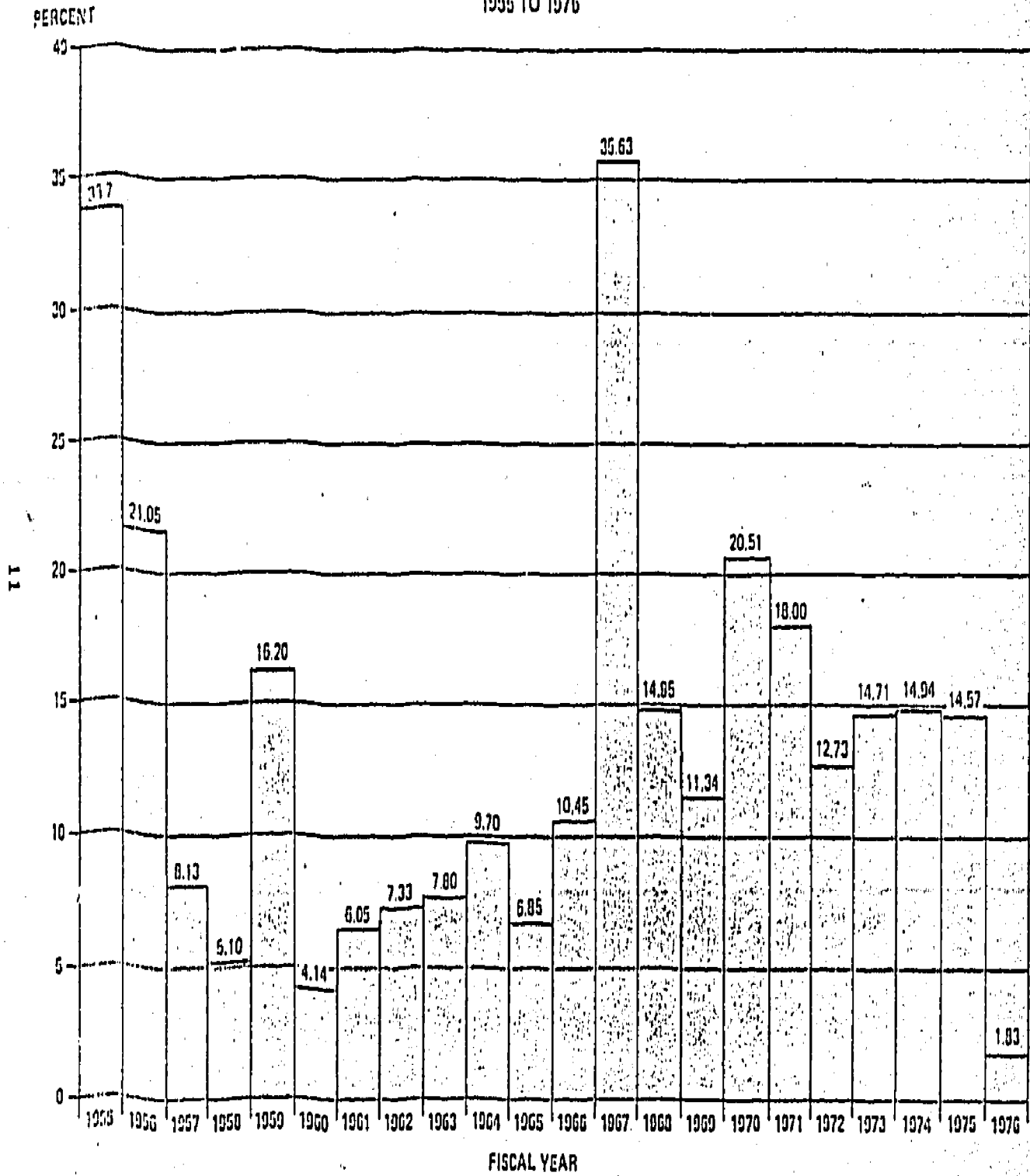
I want to make it clear that on this basis, I am not claiming that ZBB has accomplished significant savings and revolutionized the budget process. The reduction and control of New Jersey's budget growth has occurred but should be viewed in perspective against other factors such as fiscal necessity. Only time and experience under a variety of fiscal circumstances will prove whether ZBB achieves the aim of controlling budget growth.

For fiscal year 1977, New Jersey's basic "no new revenues" budget purposes an increase of about 2% -- a figure which would bring State spending back to the level of a year ago.

Again, the purpose of ZBB is to act as a tool that assembles needed information and identifies the choices available to the decisionmaker. Decisionmakers are always forced to choose among competing demands and "from the standpoint of policymakers the budget process ultimately must be judged by how well it helps them to evaluate and compare competing demands -- and thus helps to make choices."

TABLE 2: ANNUAL PERCENT CHANGE IN NEW JERSEY STATE SPENDING
(INCLUDING SUPPLEMENTALS)

1955 TO 1976



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SOURCE: "Budget: State of New Jersey for Fiscal Year 1975-76"
February, 4, 1975, p. 14A.

Pitfalls and Problems of ZBB

Since the concept of zero-based budgeting is still new to the State of New Jersey, an extensive list of problems can not be offered. ^{13/} New Jersey's "honeymoon" period with ZBB has not ended. However, problems and pitfalls have been encountered in the following areas:

1. agency and staff resistance to the system,
2. lack of understanding of the basic concepts, and
3. quality of some of the information submitted.

Some agencies complained that their program activities are so interrelated that one activity cannot be separated for funding purposes without affecting several other program activities. Agencies were reluctant and found it quite painful to develop a priority ranking of program activities. They would constantly argue that all their program activities are important.

The Budget Bureau did not accept either complaint as valid. The Zero-Base Budget Request -- Priority Ranking Form provides agencies with the opportunity to explain the interrelationships of program activities and the effects of alternative funding levels on the individual program activity and on other program activities.

The agencies' difficulty with establishing a priority ranking of program activities was considered a psychological problem of reluctance to decide what program activity comes first in importance, and a reluctance

to furnish information that might result in a lower budget recommendation for a program activity that was ranked low on the totem pole.

Agency resistance to the zero-base system is inherent to the system in that the decision process now becomes more clear and open to scrutiny. Some agencies view this openness as a threat, while others view it as a valuable managerial tool.^{14/} Agencies and staff are generally reluctant to embrace any system that will disrupt the way things have been done in the past.

The staff of the Budget Bureau in some instances resisted the ZBB system. This was especially true of older personnel who had seen various budget systems come and go. Many questioned whether the budget management was strongly behind making zero-base budgeting a reality. Younger staff seemed to be more inclined to embrace the ZBB concept and to utilize it in formulating their budget recommendations. Wildovsky and Hamman investigated the staff reaction of the Department of Agriculture where zero-base budgeting was implemented. They indicated that "For the large minority who expressed positive feelings about zero-base budgeting, the experience appears to have satisfied a longing to believe that they were proceeding according to the canons of rational methods of calculation."^{15/}

Many agency personnel expressed the opinion that ZBB was just a glossy public relations gimmick. They felt that much of the information demands placed upon them would not enter the picture when it came time to make budget decisions, either by the agency internally, by the central budget office, or by the Governor's office in making budget recommendations

to the legislature. In many cases, the opinion probably proved to be void. Political, social, economic, and personal considerations always enter the budget decisionmaking process. No matter what the budgeting tool employed, line-item budgeting, PPB, or ZBB, the decision waters always become muddied by the above factors. Few budget decisions could clearly be attributed to the zero-base budget, but it was a definite factor in influencing many of the budget decisions that were made.^{16/}

Problems (2) and (3) are somewhat related. The Budget office received forms, with the information requested under ZBB, that were poor or of mediocre quality. Part of the problem is undoubtedly due to a lack of understanding of the concepts and procedures involved in zero-base budgeting. The agencies and the Bureau of the Budget had only a short time in which to implement the system. Therefore, time available for training key agency personnel was limited. Another reason for the deficiencies in the submissions of agency information was the time constraint given agencies to complete the forms. Lastly, much of the information available to the agencies on program activities was only available on a more aggregate level. LaFaver indicated that: "Historic cost and performance data are seldom available by the decision unit."^{17/}

An additional problem was the lack of staff time and qualified staff to do proper program analysis of the decision packages. In many cases, zero-base served to highlight the program problems, issues, and alternatives which only accentuated management's perplexities in trying to find needed solutions. No discernible benefits in cost reduction or management improvement resulted from the zero-base process. As LaFaver wrote: "A competent

budget presentation often raise more issues than are answered. It is not reasonable to expect a set of forms to enable an agency to analyze itself to the satisfaction of a critical analyst. As such, significant portions of time need to be reserved for independent examination. New forms usually increase rather than reduce the need for such analysis."^{18/}

Another problem is that agencies who had significant amounts of federal funds connected to their programs or regulating agencies whose appropriations are tied to the revenues received from the industries regulated were not reviewed critically at the various alternative funding levels. If revenue dollars were to be lost where zero-base analysis indicated program cuts were feasible, the warranted zero-base decision was not taken. A management action such as this is not a unique problem of ZBB.

Many of the problems and pitfalls of ZBB in New Jersey mirrored the same problems that were experienced under PBB.

Steps to Avoid ZBB Implementation Hazards

States or other levels of government who may be considering the implementation of zero-base budgeting should review the possible hazards that may occur. The hazards presented below and the possible steps to overcome these hazards are offered with the aim of aiding those who seek to establish a ZBB type system. Hopefully, they will aid in insuring a successful implementation.

1. ZBB can not be implemented overnight. Time is needed to develop budget forms properly and to train budget and agency personnel in their use. Therefore, budget preparation time should be lengthened during the new system's implementation.

2. Top management may be viewed as ignoring and displaying only lip-service to ZBB. It is important that upper-level budget officials actively demonstrate to budget staff and appropriate agency officials their support and utilization of zero-base budgeting in reviewing agency budget requests, in analyzing budget staff recommendations, and in making final budget decisions.
3. Agencies may have considerable problems in interpreting forms and in understanding zero-base concepts. Close coordination and follow-up should be conducted by the budget office to insure proper understanding and completion of budget request forms by the agencies.
4. Performance measures should be reviewed beforehand to assure that data, on the need for the program, the efficiency and effectiveness of the program, along with the program outputs produced, that the agency intends to submit for budgetary purposes will be provided by the agency in the proper manner. The types of performance measures requested are often confused by the agencies.
5. The Legislature can be an extreme hazard to the success of any new budget system. Legislators are generally reluctant to have budget methods changed or altered from the present scheme of things. An educational seminar for lawmakers, especially for those legislators on the finance committees, should be held in order that they will be better able to understand the concepts of the new system.
6. A new budgeting system is not instituted by fiat. Budget system reforms and improvements usually take years of slow and painful

development. Do not herald any new system or major change in a present budgeting system as a new Messiah that will bring about solutions overnight. The experiences of PPB has served to provide many lessons in this area.

Summary

New Jersey's ZBB system attempts to get away from the common budgetary custom of regarding current operating and expenditure levels as a sacrosanct established base and from the practice of reviewing in detail only proposed increases and decreases. ZBB offers New Jersey's management a practical tool for evaluating program benefits versus costs, a method to redirect program efforts and funds from low priority existing programs into high priority, possibly new, programs; a means to improve efficiency and effectiveness, and a way to control budget growth. The hazards and pitfalls of implementing and utilizing ZBB are few and surmountable.

In New Jersey, zero-base budgeting has weathered its initial budget cycle. There are still problems to overcome and new challenges to face but ZBB can work fairly well during these fiscally hard times.

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0. The author wishes to thank Dr. Robert Lee, Henry Brillinger, Peter Bearse, and Frank Gatti for providing comments on an early draft of this article. Special thanks must be given to Peter Silvia, Robert Cooberley, and Robert Aschermann the principal architect's of New Jersey's Zero-Base System and the New Jersey Bureau of the Budget for their cooperation and assistance.
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