

BUDGETARY PROCESSES IN CLASS "A" SCHOOLS OF MONTANA

Robert Vernon Odermann

vi

ABSTRACT

This study was done to review budgetary process models within public education and to determine which models have been predominately used in the United States public education sector. The review of processes and their components was done to provide a historical base for development of a descriptive survey. The survey was administered by the author by telephone to the thirty Class "A" school administrators responsible for budgetary processes within the Class "A" school districts in the state of Montana.

The intent of the survey was to analyze budgetary processes within these districts in light of the two budgetary models found in the review of literature. These process models were called "traditional" budgetary processes and "program" budgetary processes.

The "traditional" process is defined as a continuous procedure that includes planning, budget preparation, adoption of budget, and fiscal administration and appraisal. The traditional process has as its primary objective, the generating of "input-oriented" data necessary to develop the operating school budget. The process usually includes seven to eight months of planning based on such activities as negotiations with personnel, staffing pattern projections, material and equipment projections, operating program changes, computation of fixed charges, and computation of potential revenues for fiscal operations.

The "program" budgetary process is defined as the expression of output-oriented programs and activities and their relationship to specific resources. Both programs and resources are projected over a multi-year cycle with emphasis on outputs, cost effectiveness analysis of educational alternatives, rational planning techniques and analytical decision making. Major components are: systems analysis, development of program structure, multi-year planning, cost effectiveness analysis, budget preparation and evaluation of processes and outputs.

Eighty-seven per cent of the thirty Class "A" districts in Montana indicated that preliminary budgets submitted to Boards of Education were incremental, input-oriented, traditional documents based primarily on input dollar projections.

Thirteen of the thirty Class "A" districts reported that some components of the "program" process were used in their traditional cycle. However, what exists in Class "A" school districts in Montana is a pre-dominate pattern of "traditional" budgetary processes as defined in the review of the historical data on public education budgetary processes.

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BUDGETARY PROCESSES IN CLASS "A" SCHOOLS OF MONTANA

by

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CHAPTER I

INTRODUCTION

This study was intended to explore the major models of budgetary processes that, historically, have been designed and implemented in public education and to analyze the budgetary processes existent within Class "A" school districts within the state of Montana as they are compared to the major models mentioned above. The author is compelled to explore these budgetary process models and specifically, the Class "A" Montana school district budgetary processes in light of these models, for several reasons. He is interested in learning more about public school budgetary processes in general. He is interested in increasing his knowledge in these areas because of his minimal experience in designing and implementing budgetary processes. He is interested also in producing, within a finite period of time, a document which will meet the requirements for partial fulfillment of a masters degree and at the same time, provide the readers with information and challenge other researchers to expand research in this broad area.

Title 75 of the Revised Codes of Montana, 1947 incorporate the legislation governing the public schools of Montana. Section 75-6701, R.C.M., 1947 mandates that each school district in the state of Montana shall annually propose and adopt a budget in accordance with the requirements set forth in Chapter 67 of Section 75. Such budget fixes the amount of revenue required for a given year's operation of the school district and the maximum expenditures allowable for that year.

In Montana, the school budget for operating a district consists of

a General Fund Budget for general maintenance and operations of schools and such additional budgets as are required for the school district and as authorized by law. A district is required to establish a budget for only those funds which its schools need. The format of the budget document is consistent for each school district and mandated by the State Board of Education. However, the processes used in determining the necessary budget need for a district's operations may vary from school district to school district. The budget document, as well as the financial accounting code structure used for expenditure control within the document are expressed in terms known commonly as "traditional or function-object oriented". The mandated forms require budget estimates to be accounted for within this "function-object" coded structure. The dollar amounts reflected within each function-object line item code, however, may or may not be the results of budgetary processes that are "function-object" oriented. It is these budgetary processes that the author is concerned with. As an administrator within a Class "A" Montana school district, the author found no available literature that provided such analysis of budgetary processes in Class "A" Montana schools.

For purposes of this study, it was necessary to examine the most commonly used budgeting models to develop the scope of research. The review of literature was limited to finding these models and examining subsections of each model to provide a point of reference for survey.

The findings of the review of literature were then used as a basis for determining the extent of usage of such processes within a defined number of school districts in the state of Montana.

CHAPTER II

REVIEW OF LITERATURE

As the author reviewed the literature available in the area of budgetary processes, two major models which have been used in public education emerged most frequently. These models will be referred to as the "traditional or incremental" system and the "Planning, Programming, Budgeting" system (P.P.B.S.). An analysis of the major components within each of these systems was done so as to identify each component and then determine when and where such systems and components have been used in public education.

No previous studies have been done in the area of review of budgetary processes in Class "A" schools of Montana. Thus the literature reviewed concerning the budgetary processes in general is solely used to lay the foundations for information that would assist the author in developing an instrument to survey these Class "A" school districts in Montana.

Because of the nature of the research approach used, the descriptive survey approach, no hypothesis was to be stated; rather, a simple statement of effect of research was appropriate. Results were expected to show that a wide variance of budgetary processes have been used in Class "A" schools of Montana. Because of these expectations, the author set a goal of enlightening readers to exactly what does exist in Class "A" schools of Montana.

CHAPTER III

PROCEDURES

The study involved a two-fold process to complete the data for the main body of information. First, the author screened as many available sources as he could find that would give historical information concerning budgetary processes used in public education. Such descriptive findings in this research process have been included in the main body in chapter four.

Secondly, the author designed a survey instrument using historical data found in the review of literature as the basis for the survey questions. The fact that all school district of Montana must submit a standardized budget document that places dollar amounts requested within function-object line items implies that there is a need to determine whether or not any one given line item or sets of line items may be determined on the basis of any one of the major processes identified in the research stated above. Therefore, the author chose to use a survey which utilizes a questioning approach, which allows for yes and no answers in order to tabulate data for information tables and also explanatory answers which allowed for general comments that could be categorized into general statements which reflected variances in the population sample.

Because of the need for yes and no answers as well as explanatory comment answers to questions, the author chose a survey technique of the structured interview, in which all respondents were orally asked the same questions and data was recorded for each respondent. Oral inter-

views were completed by telephone because of the limitation of extensive travel that would be necessary for personal interviews.

The author's original statement of purpose for research indicated the need to survey Class "A" schools in Montana. Because there are only thirty such school districts in Montana, the author chose to include the entire thirty districts in the telephone survey, thus providing a one hundred per cent sample of the entire survey area. The data gathering plan included several key process steps:

1. The interviewee was a person responsible for or directly accountable for the budgeting process within the school district surveyed.
2. The interviewer recorded responses directly on to a single interview form that was identical for each respondent.
3. The interviewer made personal contact with the interviewee and offered assurance on anonymity by designating responses on a form which identified the school district only by assigned number.
4. Telephone calls were placed during a time of day when the respondent had ready access to material which would assist the interviewee in answering the questions.
5. A pilot survey was administered to two randomly selected school districts within the survey area to determine:
 - a.) ability of interviewee to understand the questions

- b.) ability of interviewee to answer adequately because of the need for oral response.
- c.) applicability of questions
- d.) questions worded in such a fashion so as to not bias the question.
- e.) feasibility of answer to be converted to either tabled data or comment data respectively.
- f.) if time and setting of survey were appropriate for quality of answer.

The results of the survey questions which could be answered yes or no or unknown were tabulated based upon overall answers of each of the survey respondents and tabulated on a percentage basis of the entire survey sample. (being 100 per cent).

Survey questions which called for explanatory answers or comments were categorized according to similarity of content idea and compiled into percentage based answers or were classified into such categories as numbers of whole, portions of whole or estimated averages.

The data taken from the survey was presented in summative form in tabular results and summative paragraph statements detailing existent conditions within the survey sample of all Class "A" public schools in Montana.

CHAPTER IV

MAIN BODY

PART ONE

FUNCTIONAL DEFINITIONS

Account Code: A descriptive heading or numeric code used to categorize similar financial transactions according to program, function, object or source.

Appropriation: An allocation of funds made by a governing authority for specified purposes and often restricted as to time when it may be expended.

Budget Document: A written statement of an estimate or plan describing expenditures and revenues for financing an organization's operations for a specified time period, usually one year; the public school fiscal year begins July 1 and ends June 30; at the termination of the defined period, the budget technically no longer exists other than as a historical document.

Budgetary Process: A continuous activity comprised of planning, formulation of a budget document, interpretation, presentation to an approving authority, formal adoption, fiscal administration and appraisal leading to a future fiscal planning and recycle.

Cost-Effective Analysis: A means of relating the cost of a particular activity or project to effective performance or goal attainment; the decision maker may choose from among feasible alternatives on a basis of least cost and greatest effectiveness.

Crosswalk: The expression of the relationship between the program structure and the appropriation- budget structure; the translation of a

multi-year program and financial plans into annual budgets; a simple table vertically listing program categories and horizontally listing appropriations and budget activities based upon the program budget code.

Direct Costs: Actual or budgetary costs that may be charged directly to or prorated as a part of the cost of a program, service, function or department. They are eliminated if a program is eliminated or added if a program is added.

Evaluation: Comparison of desired outcomes or objectives with actual accomplishments.

Function-Object Budget: Widely used presently by local public schools to identify cost under a number of broadly defined function and object categories such as administration, instruction, debt service, and plant maintenance; emphasis is upon objects of expense rather than programs of a school.

Indirect costs: Actual or budgetary costs that are not readily identified with a specific program, service function, or department and are seldom completely eliminated if a program is eliminated.

Multi Year Program Summary: Concise description in numerical, dollar and other values for the past year, current year and future years' projections, authorized program output, input, personnel and materials needs and proposed program changes.

Operating Budget: That part of a total budget of a school system which contains instructional and related costs; it does not include capital outlay, debt service, transportation, and other similar supportive costs.

Planning: Relating means to ends; formulating rationally feasible courses of action through a systematic consideration of alternatives; planning may be unilateral or participatory.

Program: A group of interdependent, closely related, services or activities possessing or contributing to a common objective or set of objectives; a package of subprograms, elements, components, tasks and activities.

Program Budget: A statement of policy that relates costs to differentiated programs; it relates resources, financial and otherwise, to the organizational activities, outputs, services, missions or programs; the financial expression of value priorities based upon a program structure classification.

Programming: The determination of the manpower, materials and facilities required to support a program; inputs are related to outputs by lines of action through an information system.

Program Statement: A formal, recorded description of multiyear program needs, objectives, authority, inputs, outputs and supportive information.

Unassigned Support: A budget category containing items that are not assigned to direct program, service or function-object categories; a kind of residual budgetary item.

PART TWO

RESEARCH FINDINGS FROM
HISTORICAL REVIEW AND SURVEY

The money used to operate a public school district comes through various forms of taxation. The U.S. Office of Education has estimated that of the total revenue for public school education, the federal government provides four (4) per cent; the state governments forty-one (41) per cent; and the local school districts, fifty-five (55) per cent. As much as ninety-three (93) per cent of funds for local education is obtained from property taxes, while the remaining seven (7) per cent comes from non-property taxes such as local per capita taxes, taxes on wages, sales and amusements. In order for a school district to receive moneys from these various tax sources, it must make plans far in advance of the day when the money will actually be available for expenditure.¹ This advanced planning is but one facet of a multifaceted management system within public school education known as the budgetary process. The scope of these budgetary processes was first laid out in what came to be known as the "traditional" approach to budgeting in public schools. "Traditional" budgetary processes and the "traditional" budget might best be defined by delving into the financial principles upon which public school accounting is based.

¹ Sam B. Tidwell, Public School Fund Accounting, Principles and Procedures (New York: Harper and Brothers Publishing Co., 1960), p. 78

The National Committee on Governmental Accounting designated an accounting system for public school finance based upon an accounting entity known as a fund. The N.C.G.A. defines the "fund" as a sum of money or other resources segregated for the purpose of carrying on a specific activity or attaining certain objectives in accordance with special regulations, restrictions or limitations and constituting an independent fiscal and accounting entity.² A fund therefore is both a sum of resources and an independent accounting entity.

Traditionally, the number of funds available to be used within the school district's operations are set by state laws, rules and regulations and others may be prescribed by the local school districts' Boards of Trustees as necessary to provide sound financial administration. Within each fund, a self-balancing group of accounts must be provided for to show its assets and other resources on the one hand, and obligations, fund equity and other credits on the other. Within each fund, accounts must be set up to permit identification of revenues and expenses.

The principles of fund accounting have been and are now those principles by which public school financial administrations operate as a governmental entity. Although budgetary processes within a school district may take on different planning formats, the end product, the

²Ibid., p. 12.

budget, is written and designed to be expended through a nationwide system of accounting based on these fund accounting principles. The nature of these public school funds may be analyzed more completely by looking at some of the properties of any given individual fund as are delineated by Tidwell:

1. A fund has an identifiable sum of money or other resources to which it has claim or ownership.
2. The resources of a fund may be actual assets or potentially available to the fund.
3. The assets of a fund may be used for carrying on a specific activity or attaining certain objectives.
4. The activity of objective for which a fund's assets may be used is regulated through proper administrative or legal procedures.
5. A fund is an independent fiscal accounting entity and may be viewed, in a sense, as an independent operation. To account for its assets, the fund requires a set of accounts which will reflect realization and application of the funds resources.
6. To properly account for realization and application of a public school fund's resources, traditional accounts are used which record assets, liabilities, fund equity, reservations of fund equity, revenues, expenses and budgetary accounts.
7. A fund's revenues must be identified and classified by source and amount.

8. A fund's expenditures require identification and proper classification by purpose, function, organization and organizational unit, if possible.
9. A fund's cash receipts must be recorded, controlled and traceable to that source of cash and to the depository.
10. A fund's disbursements must be made only in accordance with restrictions placed on the fund's use.
11. Each fund, having its own independent accounting system, periodically presents a balance sheet and a statement of the fund's operation, these being the financial statements of the fund.

Many states, the state of Montana included, have adopted accounting manuals which designate the "Funds" that are to be used in the financial administration of resources used in public education. In 1957, the United States Office of Education, with the assistance of five national professional organizations, published a classification of expenditure accounts which it recommends be used in accounting for expenditures of any established fund, (See Figure 1). The U.S.O.E. recommends that the appropriate standard accounts be selected from those listed to account for expenditures of each special fund. Their prime objective for such standardization is to be able to obtain statistical data on a nationwide basis.

Because the product of public school budgetary processes, namely the budget itself, has taken on a format based on public school fund

accounting principles, and, more often than not, has also aligned itself closely with a structured fund account expenditure code not unlike that of the U.S.O.E. recommendations, "Traditional" budgetary processes in public education also have taken on similar characteristics.

The "traditional" budgetary process, defined in its broad sense by most authorities, is a continuous affair that includes planning, development of the document, presentation to the approving authority, formal adoption, fiscal administration and appraisal.³ The budget document, however, is confined to a fiscal year, usually July 1 to June 30; therefore, the budgetary process for such a fiscal year involves three such budget documents. First, the preliminary stages of planning relate to the budget of the succeeding year; second, the fiscal administration is devoted to the current budget; and third, appraisal of the previous year's budgetary experiences, both program and fiscal, serve as the basis for current planning. Each phase of the traditional budgetary process is highly influenced by the format of the budget document itself. By indicating how the data must be categorized, the budget structure gives direction to all participants in the process.

The process of developing the annual school budget within the traditional approach has as its primary objective the generating of input

³ Henry H. Linn, School Business Administration (New York: Ronald Press Company, 1956), p. 143.

data that is needed to develop a fiscally and politically realistic document. To achieve this goal, numerous activities usually take place, each of which at certain stages of the process, is operating independently of the others. These activities occur generally within the seven to eight months interval prior to the date of the budget document's adoption. Usually these activities include:

1. negotiations with teachers and other staff members for salary adjustments, fringe benefits and other personnel considerations;
2. determination of changes in number of staff, usually based on projected student population and facilities;
3. compilation of requests (departmental or other) for additional and replacement materials and equipment for existing services;
4. formulation of highest priority changes and estimating of staffing and materials costs related to these staffing;
5. computation of costs for fixed charges (Social Security, retirement, other employee benefits, insurance, etc.) and outstanding indebtedness (debt service); and,
6. computation and projection of the potential revenue limits from the various sources that will ultimately confine the budget to the fiscal year; namely, the State and Federal government, the municipality (dependent districts) and the public, where budget and tax rates require a vote of the residents.

Ultimately, after the results of these common activities are pulled

together and scrutinized, the decisions to determine what goes into the proposed budget document are made on the basis of a common sequence of priorities. These priorities usually range from the most to the least politically defensible items. Planners normally consider first those items which are mandated by law or regulation, such as fixed charges, outstanding indebtedness, pupil transportation, etc. Ordinarily, these items will comprise from fifteen (15) to thirty (30) per cent of the entire budget. Secondly, and highly associated with the first consideration, planners consider negotiated salaries of existing staff members. The third most defensible priority usually consists of replacement of used materials for the existing educational and related services. The fourth priority most often will consist of addition of staff and new materials for numerical increases in pupil population based on existing services, both educational and operational; and the last priority and least defensible in many planners considerations is the item which deals with changes in or additions to staffing and materials to implement significant program service changes.

The priorities indicate that there are no questions on the mandated items. Salaries are usually scheduled with automatic increments which in turn effect the legally mandated increases in fixed charges. "Between mandated items and salaries, approximately seventy-five (75) per cent of the monetary value of the budget has been accounted for and very often these result in ninety (90) per cent of the increase of the

total budget over the previous year's budget."⁴

Significantly at this point, the input oriented approach of the traditional budgetary process is most definitely emphasized. Salaries and employees benefits become divorced from specific educational programs and are identified with general position titles such as teachers, administrators, clerks, maintenance workers, etc. Salaries become objects of expense under the broad headings such as instruction or administration; and employee benefits become a conglomerate entity divorced from either position titles or programs because of the designation of the budgetary format.

The third priority, the determination of material needs within the budget, usually follows a similar incremental, input-based track. These needs are usually compiled from school building requests, often determined on a per-pupil or per-staff allowance basis. Most often, a prior-use experience in various activities is the basis for the requests. Justification for changes in these requests from fiscal year to fiscal year ordinarily relate to the changes in numbers of students, spaces, curriculum, or across-the-board adjustments for inflationary cost increases.

The fact that traditional planning processes rely heavily on the format of the budget document is also reflected in the priority of mat-

⁴ Sam B. Tidwell, Ibid., p. 141.

erial needs. Budget account codes designated for instructional and custodial supplies, new and replacement equipment and other materials categories establish not only the channels for the mechanics but also the thinking behind the budget process. In essence, budgeted materials and supplies are an arithmetic product of a predetermined unit of allowance times the number of students or users of the unit of allowance.

In some school districts, costs of materials are accounted for by departments, grades or buildings. This serves the purpose of providing and experience guide in appropriating allowances from fiscal year to fiscal year and in controlling expenditures by these departments, grades or buildings.

The fourth and fifth priorities normally will be reflected within the budget line items as proposed increases in such line items based upon first, the cited planning needs of increased enrollments and inflationary cost increases and finally, an objective-based program increase indicated by such needs, educational or otherwise, within the school district's operations. Often these program needs will be the product of either short term (one year) or three to five year planning techniques.

"The earliest authorities on school finance, as well as present ones, have purported to emphasize educational planning as the foundation of the school budget."⁵ "Texts have traditionally defined the school

⁵ C.A. DeYoung, Budgeting in Public Schools (Revised ed.; Chicago: John S. Swift Co., Inc., 1950), p. 509.

budget as a financial plan for the implementation of an educational plan."⁶ In light of the "traditional" planning activities and priorities that are usually considered, the first phase of the traditional budgetary process, planning, can best be described as highly incremental or object-input oriented. This incremental approach suggests then that in reality, the "traditional" planning phase is centered around a two-fold plan; one being the financial plan and the other, the educational plan. Most commonly, school boards refer to their financial plan as the budget and their educational plan as a series of generalized statements of educational philosophy, policy and program contents in explanation and justification of the financial plan. Often included in such an educational plan will be a brief reference to various courses of study offered, achievements of local students, description of needed and existing facilities, projections of pupil enrollments and perhaps aspirations for the year ahead for which the budget is submitted.

Long range budget planning in the traditional process is generally interpreted to relate to the projection of annual budgets, working with the traditional categories of expenditures and revenues. A common device used is to extend the curve of prior experience adjusted by anticipated changes in pupil growth and general cost trends. Revenue projections depend on estimating the state's future aid program and the ability of local real estate assessments to increase to yield tax income. These

⁶ Sam B. Tidwell, Ibid., p. 142.

planning projections often generate for boards of education simulated budgets for as much as five years ahead.

The actual preparation of the budget document is the second phase of the traditional budgetary process. Usually a designated official or officials will be responsible for compiling the data that has been gathered as a result of the seven to eight month period of planning. The document is a series of input allocations for expenditure and a summary of estimated revenues from the various sources necessary to provide such allocations. Ordinarily the document will be stated in classification codes of an acceptable function-object nature and totaled to show conformity of expenditure accounts to allocable revenues. A typical "Traditional" budget document can be seen in Figure 2 for the reader's considerations. Note especially the function-object coded classifications in relation to expenditure accounts.

The third phase of the traditional budgetary process is the presentation of the budget and formal adoption. Within any budgetary process, this phase involves the actual stamp of approval from local boards and ultimately from other agencies, state and federal, from whence funds for such budgets will come; local boards will adopt such proposals on the basis of feasibility of passage of tax levies and conformity to legal regulations regarding the budget itself.

The fourth and fifth phases of the traditional budgetary process involve the actual implementation of the financial and educational plans

as well as the assessment of such implementation near the end of the fiscal year. Financial checks and balances within the accounting structure of the school district will ensure that expenditures are recorded within proper specifications of fund accounting principles and done in such a way as to be able to withstand any internal and external audits of such proceedings.

The budget is the fiscal controlling device for administration of the district's services, but at the termination of the defined period, usually the one fiscal year, the budget technically no longer exists other than as a historical document. However, within the traditional budgetary process, the budget becomes one of the prime bases for the next fiscal year's planning.

Appraisal of fiscal year efforts is done through a variety of approaches. More often than not, a cross match of actual expenditures to budgeted expenditure allocations will offer the traditional budgetary planner evidence that planning processes have been successful. Conformity of actual line item expenditures to projected figures will become the basis for future projections, along with the ever recurrent activities and priorities set for the new fiscal year's planning as mentioned earlier in the text. "In traditional budgetary planning, the factor of output measurement of instructional programs has not been a serious consideration."⁷ With the primary emphasis being placed upon the bud-

⁷ Ibid., p. 146.

get document itself, appraisal of public school organizational operations tends to deal with effective fiscal accountability and only broad functional program appraisal. Broad major programs are appraised upon the basis of what costs were incurred in expenditures of salaries, materials and other related expenses in relation to a fiscal year's efforts of providing educational programs to a set number of students. Appraisal of such program performance usually will consist of reports on such areas as achievement of local students, summary reports on how existing staff, materials and expenses can be utilized, and how all of these can be utilized to further maintain the level of aspirations for the year ahead.

A different form of budgetary process began to appear in the early 1950's in the United States. This process was exemplified by the planning orientation that was involved in the first phases. The concept in budgetary processes became known as the "program" budgeting process. The conceptual basis for the model of the budgetary process can be traced to capital theory, macroeconomics and principles by RAND Corporation. Program budgeting is not the exclusive domain of RAND, and many other organizations have contributed to the development of it. Program budgetary processes might best be described by looking at the overall system of budgeting that is associated with the title, P.P.B.S. or Planning, Programming, Budgeting Systems. The budgetary processes within this system are called program budgeting.

Program budgeting relates the output-oriented programs, or activities, of an organization to specific resources that are then stated in terms of budget dollars. Both programs and resources are projected for at least several years into the future. Emphasis is on the outputs, cost effectiveness methods, rational planning techniques, long range objectives and analytical tools for decision making. The major components of the program budgeting processes as they apply to public education are:

1. Systems analysis
2. Program structure
3. Multi-year planning
4. Cost effectiveness analysis
5. Budgeting
6. Evaluation

The first step in the design of the program budget consists of a rigorous analysis of the organization which ends with the formulation of objectives expressed in operational terms. For any school system, this means that the educational philosophy may be used as a basis for more specific curricular objectives. The most fruitful approach to stated objectives is that objectives be stated for appropriate curricular programs in terms of behavioral, achievement, or attitudinal outcomes. One purpose of the systems analysis is to present analytical comparisons of alternatives. These objective determinations re-

present the initial phase of program budgeting. They serve as a beacon to guide the organization, but they are not self-actuating. Considerable literature exists on the derivation and classification of instructional objectives. Summarized briefly, program budgeting requires an appropriate level of objective specification to the extent that such objectives can be used to specifically implement the design of the program structure. The first step involves identification of overall objectives of the instructional programs. The second step usually involves the specification of the work performance situation identified in terms of a number of conditions (for example; environmental, organizational, functional) in which the student will be expected to perform effectively after the termination of the instructional process. The third step requires the specification of what is called the terminal student performance objectives; in other words, the particular group of capabilities a graduate at each level will be expected or able to demonstrate. Step four refers to "enabling" objectives or immediate learning outcomes, which detail particular skills, actions, or knowledge which the student must acquire in order to obtain terminal performance objectives. The fifth step is a statement of the design of the learning experience which includes what the student will do, what the instructor will do, what the overall course of learning will cover and its value and what materials and aids are necessary for the performance.

As stated above, the purpose of specifying objectives in program

budgeting is the translation of these objectives into a program structure, the second major component of program budgeting. The objectives are subdivided within a program structure in such a way as to afford operational measures of objective attainment in context of resource allocation decisions. Neither broad philosophical objectives nor detailing behavioral objectives are directly translatable into a program structure. The former are non-operational in their very philosophical abstraction and thus cannot serve as a basis for resource allocation decisions. The latter are too detailed and are useful only for dealing with lower level decisions such as curriculum composition and evaluation of instructional design. At the program structure level, objectives must be operational in that they can be translated into defined measures of performance and effectiveness. They must be operational in that they translate information which lends itself to resource allocation decisions. School districts utilizing program budgeting can specify their program structure in whatever manner they deem appropriate. The only constraint is the extent to which certain programs are mandated by State Departments of Education or supported by federal aid or foundations.

The program structure comprises the outputs, programs, program elements, human and material resources and strategic missions or activities of the organization. Program structure or "Programming" is the specific allocation of resources for the support of the various in-

structional programs. "The program structure is derived from and parallels the hierarchical classification of institutional objectives, the definition of program, subprogram and program element reflecting the corresponding objective definitions. Primary or output program definitions reflect primary objectives; intermediate or support programs reflect intermediate objectives. The program structure must embrace all the activities of the organization."⁸

Program structure must not be confused with the traditional budgetary classification of input activities. A classification system such as the following must not be recognized as a program structure:

<u>PROGRAM LEVEL</u>	<u>PROGRAM DESCRIPTION</u>
1	District wide summary of all educational activities
2	Instruction (all instructional costs)
3	Regular Instruction
4	Mathematics
5	Algebra 9

The above structure is typical of a system that might be instituted by a school district and called a program structure. This system is typically just a renaming of the "traditional" activities oriented hierarchy with the name "program" attached to it. It presents cost break

⁸ James Cutt, A Planning, Programming and Budgeting Manual, Resource Allocation in Public Sector (New York: Praeger Publications, 1974), p. 126.

downs by institutional levels, not program levels. It allows only for categorization of inputs. Without outcome specifications, the assignments of costs to broadly defined activities such as these becomes merely the traditional exercise in cost accounting or unit cost analysis. A program structure cannot be developed simply by grouping instructional costs either by subject area, target area, grade level, grade span, building or some larger unit. "The crux of the issue in an output-oriented system is to identify the objectives to be satisfied by instructional activities or within attendance centers."⁹

In the field of elementary education for example, improvement of reading skills for those involved in compensatory educational programs could be identified as a subprogram within a major instructional program of reading. The objective is more specific. The next step is definition of how much improvement, over what period of time, within what constraints and for what target groups. Subcategories are sometimes referred to as program packages.

A program element is the next level of breakdown; that is, it is a "subpackage" of a program category. It is comprised of specific products to be expected, such as goods and services used in the attainment of objectives. In short, the basic test of a program is the ease with which objectives within it may be identified and their achievement

⁹ Steven J. Knezevich, A Resource Allocation Decision System for Education - Program Budgeting (P.P.B.S.) (Berkeley, California: McCutchan Publication Corp., 1973), p. 76.

measured, not whether cost data alone may be conveniently clustered within it. Knezevich outlines the basic steps in developing the program structure or "programming" as these:

1. Divide into steps the activities necessary to achieve the objectives.
2. Note the relations between each of the steps, especially any necessary sequences.
3. Decide who is to be responsible for doing each step.
4. Determine the resources that will be needed for doing each step.
5. Estimate the time required for each step.
6. Assign definite dates for each part.

The Federal Government defines this process as the programming process which has as its inevitable outcome, the "program memorandum". The Research Corporation of the Association for School Business Officials prefers to call the product of the programming process the "Program Plan Document". The RC-ASBO report¹⁰ describes the Program Plan Document as a "detail plan of the related components of each individual program included in the program structure for achieving the goals of the school district". The sequence of the Program Plan Document includes: an exploratory plan, a prototype plan, an interim plan and an operational plan. Each plan further delineates a more definite and specific statement of the alternatives available in the decision making process.

¹⁰ W.H. Curtis, Educational Resources Management System, A Report Prepared by the A.S.B.O. Research Staff on P.P.B.S., (Chicago: 1971), p. 73.

"Programming is not a rigid approach to goals to be realized. It should include generation of alternative courses of action. The top executive is responsible for this activity. Likewise no program structure remains static for long. As new objectives emerge for an organization, a force is created to generate new sets of programs designed to satisfy these objectives."¹¹ Educational institutions are complex organizations pursuing multiple objectives. It is very difficult to develop programmatic structure because of the interrelationship of the many activities within the structure of a school district. Programs include a number of complementary components, none of which can be effective without the other. Thus, an educational program requires the right proportions of administration, teachers, and buildings. Once resources are committed to a purpose, it is difficult to transfer them elsewhere. Programming helps to determine, in advance, what needs to be done to overcome the problem of allocating these resources effectively.

Present program structures for K-12 systems tend to follow identification of grade level programs in schools. The following is a typical illustration of a program description for a K-12 school system. It is neither advocated to be one to be followed nor stated as a structure that is to be considered all encompassing and best. Knezevich merely lays out this structure as historically typical of K-12 systems.

¹¹ Steven J. Knezevich, Ibid., p. 79.

_____ SCHOOL DISTRICT PROGRAM STRUCTURE

I. Regular Programs

A. Elementary Instruction

1. Kindergarten
2. Primary
3. Intermediate
4. Supplementary Services
5. Co-Curricular

B. Middle-Junior High Instruction

1. Art
2. Business Education
3. Foreign Language
4. Home Economics
5. Industrial Arts
6. Language Arts
7. Mathematics
8. Music
9. Physical Education
10. Science
11. Social Studies
12. Vocational Training
13. Co-Curricular

C. Senior High Instruction

(Same items as shown in B (1) - (13) above)

D. Adult Education

II. Special Program

A. Compensatory

B. Children of Migrant Laborers

C. Drug Abuse

1. Instruction

2. Program Development

3. Staff Development

D. Exceptional Children

1. Emotionally Disturbed

2. Hearing Impaired

3. Homebound/hospital

4. Learning Disabilities

5. Mentally Handicapped

6. Physically Handicapped

7. Speech Therapy

8. Socially Maladjusted

9. Visually Handicapped

10. Program Development

E. Reading Remediation

F. Summer Instruction

III. Support Programs

A. Auxiliary Services

1. Food Services
2. Transportation

B. Instructional Support

1. Educational Media
2. Pupil-personnel Services
3. Instructional Administration
4. Staff Development
5. Program Development
6. Program Evaluation

C. Facilities Support

1. Plant Operations
2. Plant Maintenance
3. Plant Construction
4. Plant Security
5. Plant Management

D. Administrative Services

1. Business Services
2. Financial Services
3. Information Services
4. Personnel Services
5. Management Services

There is a real danger that unless such a program structure is sup-

ported by measurable objectives for each year of instruction, little will be gained for decision makers to use resources of the school district to their optimum and also such a structure can easily be left at the input level and become merely a reclassification of a traditional budget structure.

As Knezevich purports, an educational program structure can be organized around objectives written in terms of tasks or missions of the schools. He advocates that public schools have four major dimensions to these missions:

1. The intellectual dimension

- a. possession of knowledge: concepts; a fund of information
- b. communication of knowledge: skills; to acquire and transmit
- c. creation of knowledge: habits; discrimination and imagination
- d. desire for knowledge: values; a love for learning

2. Social dimension

- a. man to man: cooperation in day to day relations
- b. man to state: civic rights and duties
- c. man to country: loyalty to country
- d. man to world: wider relationships of people

3. Personal dimension

- a. physical: bodily health and development
- b. emotional: mental health and stability

- c. ethical: moral integrity
- d. esthetic: cultural and leisure pursuits
- 4. Productive dimension
 - a. vocation-selective: information and guidance
 - b. vocation-preparation: training and placement
 - c. home and family: housekeeping, do-it-yourself, family life
 - d. consumer: personal buying, selling, investment

These dimensions are the basis for designing the major objectives that a school district defines for its program structure. Knezevich gives a hypothetical series of objectives and how in fact these objectives are linked to these dimensions as well as form the basis for educational resource allocation decisions, planning timelines and program evaluations for use in future years.

An educational task oriented program structure might look like this based on a series of objectives:

Objective I: To promote one year of educational growth and development for each year of school attendance in each of the school experiences offered.

The programatic format for this objective might look like this:

Program A: Experiences to continue intellectual growth of all pupils equal to one year as measured by existing evaluation instruments, possession, communication, creation, and desire for knowledge

Subprogram I: For Student Services Unit P-

primary units for children under five

Program Subcategory a: developing ability to think and communicate
clearly for all pupils

Program Subcategory b: developing the desire for knowledge in all
pupils

Program Subcategory c: acquiring appropriate quantitative knowledge
for all pupils

Program Subcategory d-n: other specific objectives promoting intel-
lectual growth on a regular and sequential
basis

Program Activity 1: direct instructional services

Program element a: teachers salaries

Program element b: instructional supplies

Program Activity 2: special instructional services

Program element a: counseling salaries and other inputs

Program element b: psychological testing and related services

Program Activity 3: administrative services

Program element a: principals salaries , supplies, etc.

Program element b: supervisory salaries, supplies, etc.

Program element c: central office salaries, supplies, etc.

Program Activity 4: instructional facilities procurement, maint-
enance and/or operation

Program Activity 5: innovation and pilot projects

Subprogram 2: For Student Services Unit E-

Elementary units for pupil in K-6

(Program Subcategories as above modified to pupils of this level of development)

(Program Activities and elements as shown above)

Subprogram 3: For Student Services Unit J-

Junior High or Middle School Units

Subprogram 4: For Student Services Unit S-

Senior High Students

Subprogram 5: For Student Services Unit A-

Adult Units

Subprogram 6: For Student Services Unit X-

Exceptional Student Units

Program B: Experiences to continue social development for all pupils to one year of growth as measured by existing instrument

(Subprograms, program subcategories, program activities and program elements developed similarly for those shown for Program A)

Program C: Experiences to continue personal development-physical health and development, emotional health and stability, ethical and esthetic development

(Subprograms, program subcategories, program activities and program elements developed similarly to those shown in Program A)

Program D: Experiences to continue developing the productive capabilities of individuals - vocational selection, vocational preparation, home and family life and consumer skills and insight.

(Subprograms, program subcategories, program activities and program elements developed similarly to those for Program A)

Objective II: To provide compensatory experience for all pupils one or more years below peers and to ensure completion of educational opportunities for at least 90 per cent of those entering grade 9.

The programmatic format for this objective might look like this;

Program A: To minimize the number of students who terminate their educational experience prematurely - drop-out prevention

Subprogram 1: For pupils in elementary or middle school units

Program Subcategory a: to identify potential drop-outs

Program Subcategory b: to design compensatory programs

Program Subcategory c: to provide a pattern of home and family counseling

Program Subcategory d: to provide job opportunities and stipends for students

Subprogram 2: For senior high student service units

(Program Subcategories similar to those in Subprogram 1)

Program B: To reduce learning deficiencies among students

(Subprograms and program subcategories similar to those above)

Objective III. To maintain systems support services at efficient levels and design new systems approaches.

The programatic format for this objective might look like this:

Program A: Improving staff rapport

Program B: Operating an efficient transportation system for students served

Program C: Ensuring system security

Program D: Evaluating system operations and designing new approaches

Program E: Managing with efficiency the system's fiscal and material resources

Objective IV: To develop satisfactory environmental relations and to sense changing social demands on the system.

Program A: Improving parent and community relations

Program B: Developing more effective state and federal relations

Program C: Meeting the standards for accrediting agencies

Program D: Meeting attacks on schools

Under the above program structure with its series of programs, expenditures for various subject matter areas as they relate to each objective would be clustered around each of the objectives indicated. In this fashion, a decision maker would have a complete display of what resources are consumed to satisfy the various missions or tasks of the school district in each of the four dimensions mentioned by Knezevich.

The program structure or programming phase of the program budgetary

processes encompasses the third phase, namely the multi-year planning. Program budgeting, in order to be effective as a process, calls for management decision making that is not only dependent on analysis of alternative programs but also these program alternatives must be projected over a multi-year base to serve as the basis for long range resource allocation. The process of programming can take from two to five years and then is annually an ongoing process.

The principle product is a multi-year program document and financial plan for the school district. Program or department chairmen are required to project their needs into the future for a stated period of time, usually up to five years. The budget classifications should facilitate the comparison of program outcomes over this span of time. More often than not in education, this is done in capital budgets much more than in operating budgets because there are formal, required procedures for estimating student enrollments and forecasting the number of buildings to be needed at a future time. The multi-year planning involves designing a decisional matrix and a data flow plan to ensure that the annual budgeting is not incremental (solely input oriented), but is integrated with long range planning. To insure that long range planning is in fact incorporated into the programming structure, ordinarily the original design for the programming structure will include a document often called a "Program Planning Document". Within the document will usually be found a series of projected dates for program length coupled

with a statement of resource inputs estimated in annual increments over the period of the long range plan. A sample of such document can be found in Figure 3. Each program will have a program planning document completed and then all documents can be analyzed on the basis of their merits within the organizational whole. The analysis of each of the programs based on their program planning documents and their relationship to the entirety of school district activities is the fourth phase of program budgetary processes, the cost effectiveness analysis.

"Cost effectiveness analysis is the use of systematic and quantitative techniques to compare the effects of alternative techniques in applying resources (inputs) in order to accomplish desired objectives (outputs)."¹² The purpose is to discover ways whereby desired objectives can most nearly be realized under given constraints. Cost effectiveness analysis can not make decisions. It is a process that makes available and arranges data in such a fashion as to sharpen the judgments of decision makers. Without it, there is no basis on which to make decisions other than intuition and past practice. Austin D. Swanson, author of "Administrative Accountability Through Cost Effectiveness Analysis: A Proposal", purports that a model for educational decision making can be used safely in any decision applied to allocation of resources in educational activities. His model is shown in Figure 4. There are two

¹² Lesley H. Browder, Jr. (ed.), Emerging Patterns of Administrative Accountability (New York: McCutchan Publications Corp., 1971), p. 288.

general classes of input resources with which to work. The first is monetary and is converted into teachers, books, buildings, etc. The other class of inputs is pupils.

Pupil inputs and physical resources are combined into an interaction function, the second panel of the model. The interaction function takes place in the school classroom or elsewhere where instructional environment has been created with institutional resources. The combining of physical and pupil resources in the interaction function yields behavioral changes in the pupils involved. These changes are the outputs of the educational institution, the third panel of the model.

Swanson's model can well be adapted by program budgetary decision makers by placing within the interaction phase the numerous volumes of program alternatives that may be produced within the programming phases and analyzing the effectiveness of such alternatives once before decisions are made and again in a cost effectiveness analysis setting after outputs are measured through student performance or evaluative performance criteria built within the evaluative structure. Attempts to quantify all program objectives would probably suffocate program efforts, however. Many educational benefits defy quantitative measurements and therefore it would seem desirable to articulate many of the benefits in non-quantifiable terms.

The final stage within cost effectiveness analysis is, after constructing the model to represent various choices available, to rank al-

ternatives in order of preference and make decisions as to which alternatives are to be implemented. At such time as decisions are made as to which program alternatives are to be utilized in an interaction function, the fifth phase of program budgetary processes unfolds. Although it is not necessarily a complete follow through sequencing in which budget documents are created, financial administrators, who are more often than not also program planners, begin to analyze the program elements within the program activities, subprograms and programs. Necessary dollar amounts are assigned to program elements. Elements are combined into activities, activities into subprograms and in turn, subprograms to identified budgetary allocations to programs.

The program budget document format need not reinvent the wheel; that is, budgetary classifications within traditional line items need not be done away with; only reinforced by the program format that identifies costs in such a way as to reflect the true program structure. The sample program budget in Figure 5 identifies a simple crosswalk of traditional line item object-input oriented classifications and program structure identified allocations. The crosswalk is in a very general summative form but it illustrates some basic relationships between the traditional line budget format and the program budget format. The program format presents a disaggregated description of the operation of a school district and in this form provides insight into cost distribution and the data potential for evaluation of cost performance of dif-

ferent component programs of the district. Also the program portion of the crosswalk has been directly organized with reference to the objectives which are embodied in the four major district programs and five support programs. Thus the presentation of figures is organized to be directly responsive to planning requirements of the educational policy makers who have designed the program structure and made allocation decisions based on most effective alternatives. The crosswalk model does also allow educational financial administrators to glean data necessary to complete mandated traditional budget documents for the public sector accounting processes.

Knezevich provides yet another sample of a program budget format that does not incorporate the crosswalk method; provided are only the related program costs based on designated objective based programs and stated in a five year planned programmatic structure. See Figure 6.

Once the program budget document is completed, the process of having approving authorities evaluate and adopt it are fairly standard in most school districts. Within the program structure of objectives, assignments of activities have been designated and implementation of activities takes place within the interaction phase of the model. Pupils and resources interact to produce measureable outcomes. It is these measureable outcomes within district operations that lead to the last phase of program budgetary processes, the evaluation.

The comparison of desired outcomes, as expressed in programmatic

objectives, are made with actual accomplishments of students. Performance indicators are used and often take the form of measures of student performance, educational productivity, measurement of actual preparation, increase in human capital, organizational growth services, etc. Whatever the school does, whether quantifiably measureable or not is its outputs. The program activities listed in the program structure constitute the outputs of the district. Program output indicators may be measured in terms of volume of services, such as numbers of students doing a particular activity in varying degrees of proficiency. Volume indicators can be used to evaluate number of meals served in auxiliary programs, number of students transported, etc. Program output indicators may also be measured in terms of quality; for example, numbers of students with achievement scores at or above grade level, number of graduates, number of persons achieving specified training objectives, number of students receiving scholarships, number of students employed with training skills at specified levels, just to name a few.

The refinement of quantifiable and non-quantifiable outputs into a format for evaluation statements is the final step in completing the cycle of the program budgetary processes. Evaluative data is in turn related to costs incurred within a given year and then related to the overall costs as projected over the extended years timelines. This cycle is used to affirm, modify if necessary, or create new objectives that can be systematically again analyzed and incorporated into the ongoing

program structure. Eventually the data is used in designing alternatives for the next year's decision making process.

The description of both the "traditional" input-oriented budgetary processes and the program budgetary processes would indicate a massive volume of content areas that might be considered in determining what budgetary processes actually exist in any given school district throughout the United States. The author recognizes of course, that other forms of budgetary processes in governmental agencies, businesses, and institutions might be included in the historical search of budgetary processes. But primarily, these two processes seemed to appear most often, within research limitations, to be descriptive of processes used within public school education.

Because the limitation of the author's intent to survey educational budgetary processes is confined to Montana Class "A" schools, key components of both processes were explained in some length to respondents of the author's survey prior to introduction of survey questions. Each budgetary process was defined in terms of their key components to survey responder in the same fashion. Component definitions for "Traditional" budgetary processes included:

1. planning -phase based on six activities:
 - a. negotiations
 - b. change in staff
 - c. compilation of requests for resources

- d. formulation of high priority changes
- e. computation of fixed charges
- f. computation of potential revenues
- 2. budget document preparation
- 3. appraisal of actual expenditures after implementation of year

Component definitions of the program budgetary processes included:

- 1. systems analysis
- 2. program structure
- 3. multi-year planning
- 4. cost effectiveness analysis
- 5. budget document preparation
- 6. evaluation, short and long term

Respondents to the survey were orally asked the questions of the survey and the results were written on separate copies of the questionnaire form.

Fifteen of the thirty Class "A" districts in Montana use a "traditional" budgetary process model similar to the model explained in the preceding pages. Although fifty per cent of the districts indicated traditional processes as their primary model, the majority of these fifteen districts did report that some components of their processes involved long range planning techniques. Most often indicated was the fact that even though their traditional processes were limited by the nature of their funding sources, the areas of building reserve, maintenance and food services could better be adapted to long range goal-structured planning techniques. All of the districts did indicate, however, that

their projections for one to five years were input oriented in the sense that projections were made on such statistical comparisons as projected student enrollments, projected price increases in materials and services and projected building needs based on anticipated student enrollments.

Over and above the fifty per cent of the districts indicating the use of traditional budgetary processes were forty-four per cent of the sample or thirteen districts that did categorize themselves as "traditional" but also as having combined some components or segments of the "program" budgetary processes as explained earlier in the text. Therefore, twenty-eight of the thirty districts (94 per cent) tended toward the budgetary structure of the input-oriented, incremental, traditional budgetary processes.

Within the latter forty-four per cent, respondents to the survey indicated overwhelmingly that, in developing their preliminary budgets and justifications for inputs into the traditional State-mandated document, budget dollars tended to be input oriented because of the lack of measureable devices to give planners output data concerning program objectives within their program structures. Only one of these thirteen districts indicated that full scale objectives for programs within two of their areas were able to be measured on the basis of outputs. Of the thirteen districts utilizing components of the program process model, ten such districts reported that actually programs were planned on an annually on-going cycle and were based upon input costs as reflections

of increases over prior year experiences.

In light of the author's research findings concerning program structure and the necessity for output measurement in determining which alternative might be most effective, all twenty-eight districts indicated that measurable data was input oriented and not measured in accordance with output of specifically measurable objectives.

The thirteen districts that indicated that their processes did align partially with the "pure" concept of program budgeting, referred to a prevalent problem area in the process; namely, development of the program structure. Twenty-six districts indicated that their districts had gone through the process of defining broad educational goals. Fourteen of those districts indicated that these goals were more further refined into more specific levels. Seven of the fourteen indicated that goals were defined to a broad program level and seven indicated that the broad goals at the program level were further defined into program objectives. Therefore, only seven of the twenty-six districts were actually at a level where objectives could be measured by some objective output-based criteria measurement device. Thus in the true sense of program budgetary processes, these districts were not able to complete perhaps the most vital element of "program budgeting", cost effectiveness analysis for decision making based on educational outputs.

The decision making processes in the budgetary steps within all of the districts surveyed were done at the supervisory and administrative

level in terms of development of the preliminary budget document itself. Eighty-seven per cent (26 of 30) of the districts indicated that participatory input was requested from instructional staff regarding materials and operating equipment for instructional and non-instructional programs. Twenty-three of the districts reported that no or very little input was given by the Boards of Trustees at the preliminary planning and programming level. Most Boards served as reviewers and adopters of preliminary budget recommendations after planning and preliminary program development was completed. Four districts reported that budgetary input was sought from community members and students. The remaining twenty-six indicated that no input was sought from these sources.

Five of the twenty-eight "traditionally" oriented districts explained their procedures for development of the program structures. Only one district of these five had a written program planning document that reflected a hierarchy of programs, sub programs, program elements and activities based on educational objectives. This district indicated that a move toward the development of full scale program budgeting processes based on educational outputs was one of their long range district goals. However, at the time of survey, only two such programs within their operating programs were being measured with quantifiable measurement devices geared toward educational objectives. At survey date, one year of data had been developed and more time was needed to determine whether cost effectiveness analysis could be done within those programs. The

district was at the same time involved in further development of program structure for the other identified program areas. Also, a preliminary planned crosswalk budget document which detailed the projected costs for the two programs had been completed. However, no analyses of the cost effectiveness of the structure had been done as of the survey date.

As mentioned earlier, thirteen of the thirty districts had indicated that some of their district operations had been identified, but that a program structure had not been completed. All of these districts and the district that reported program budgetary processes did have some method or methods for evaluating effectiveness of inputs to the educational process. However, these techniques were year-end evaluative measures which were done after the annual budgetary cycle had been completed. These evaluative measures included;

1. teacher judgement and supervisory subjective statements.
2. standardized and criterion-referenced testing devices
3. State Goal Achievement testing, grades 6 and 12
4. measurement of numbers of students participating in given activities.
5. district-made competency testing in specific curricular areas.
6. per pupil costs by grade level, departments and activities over specified periods of time.

One district specified that the budgetary process cycle within its

district operations could be considered as a true "program" budgetary process. In examining the major components that the author found in the review of literature and comparing such to the district's components, the district could be said to only partially fulfill that claim. Its entire budgetary process was based on a multi-year planning cycle. Each instructional and support program was delineated within a program structure and that program structure was based on measureable program objectives. The district was involved in an ongoing systems analysis of operational activities and the district had designed procedures for evaluating the cost effectiveness of program alternatives. Program planning documents were designed for all operating programs and specific allocations of resources, human and material, had been assigned to programs. The one element that the district respondent indicated was missing was the element of evaluation. The district indicated that the most difficult procedure they had encountered to the date of the survey, and not yet completed, was the development of meaningful objective and subjective measurement tools. Such tools, in the respondent's words, were vital to providing relevant and dependable data for management decisions. The district respondent also specified that program budgetary processes within their district lacked defensibility. To explain this statement further, it is necessary to consider an area of the survey that was responded to by a majority of the districts in the same fashion.

Twenty-six districts indicated a similar response in answer to the

question concerning the need to conform to the state and federally mandated funding systems within education. The district that professed program budgetary processes as well as many of the other districts overwhelmingly stated that the effect of the year to year foundation funding program and year to year dependency on the passage of special voted tax levies proved devastating to long range planning systems. Many district respondents stated that the overall efforts of a program budgetary process, with its tremendous implications for reorganization, could not be justified in terms of time spent in process, effort of many individuals, and conformity to rigorous procedures. In fact, many stated that the results of such a process could be negated due to lack of assurity of fiscal revenue allocations.

Although many of the component parts of "program" budgetary processes are being used by Class "A" school districts in Montana, the "pure" model as delineated in the previous historical review is not prevalent in these Class "A" schools.

Incidental to the survey efforts, several district respondents made a strong effort to emphasize some key factors within districts that have had an effect on the budgetary processes' nature. Because of declining enrollments within their districts, many school boards were placed into the position of seriously questioning the feasibility of long range program planning. Also, severe restrictions were placed on decision makers when analyzing staffing needs because of these declining enroll-

ments. As indicated in figure 7 in the Appendix, an average of seventy-seven per cent of the districts' operating General Fund budgets in the thirty districts were allocated to salaries and related benefits for personnel. The districts indicated that an average of eighty per cent of these salary and benefit dollar amounts were directly traceable to instructional-related personnel such as administrative, teaching and teacher support personnel. Thus the effect of negotiations by such personnel within the Class "A" schools has a direct bearing on the cost of such educational inputs. Over seventy-five per cent (23 of 30) of those surveyed indicated that salaries and benefits were variables within input resources that weighed heavily on management decision makers in terms of allocations of budgetary dollars.

Other external pressures to the decision makers and planners consisted of inflationary prices of commodities and services and rising demands for fiscal accountability from local taxpayers. Such factors, though incidental to the author's survey of existing processes, do have a bearing on what actually exists in Class "A" schools in terms of budgetary processes.

At this point, the author does not imply that either the traditional or the program budgetary processes model is more desirable or more effective. In summation, what exists in Class "A" school districts in the state of Montana is a predominate pattern of "traditionally" input-oriented budgetary processes. Eighty-seven per cent of the thirty dis-

tricts indicated that preliminary budget documents submitted to their Boards of Trustees for adoption in any given fiscal year are incremental, input-oriented documents based on primarily function-object line item allocation of dollars.

It is obvious, at this point, to the author that the reasons for such existing conditions could be multitudinal. Likewise, the arena of research that could be done in determining effectiveness and comparative values of either type of budgetary process in public education is limitless. The author submits a challenge to researchers to delve into either of these broad areas of research.

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APPENDIX

FIGURE 1

CLASSIFICATION OF EXPENDITURE ACCOUNTS
RECOMMENDED BY U.S. OFFICE OF EDUCATION

Administration	Other Expenses
Salaries	Fixed Charges
Contracted Services	Employee Retirement
Other Expenses	Insurance and Judgements
Instruction	Rental of Land and
Salaries	Buildings
Principals	Interest on Current Loans
Consultants or Supervisors	Other Fixed Charges
Teachers	Food Services and Student Body
Other Instructional Staff	Activities
Secretarial and Clerical Assistants	Food Services
Other Salaries for Instruction	Salaries
Textbooks	Other Expenses
School Libraries and Audiovisual	Seperate Fund or Account
Teaching Supplies	Student Body Activities
Other Expenses	Salaries
Attendance and Health Services	Other Expenses
Attendance Services	Seperate Fund or Account
Salaries	Community Services
Other Expenses	Recreation
Health Services	Civic Activities
Salaries	Public Libraries
Other Expenses	Custodial and Detention
Pupil Transportation Services	Care of Children
Salaries	Welfare Activities
Contracted Services and Public	Nonpublic School Pupils
Carriers	Instructional Services
Replacement of Vehicles	Attendance and Health
Transportation Insurance	Services
Expenditures in lieu of	Transportation Services
Transportation	Capital Outlay
Other Expenses	Sites
Operation of Plant	Buildings
Salaries	Equipment
Contracted Services	Debt Service from Current Funds
Heat for Buildings	Principal of Debt
Other Expenses	Interest on Debt
Maintenance of Plant	Paid into Sinking Funds
Salaries	
Contracted Services	
Replacement of Equipment	

SAMPLE "TRADITIONAL" BUDGET DOCUMENT

EXPENDITURES:	APPROVED EXPENDITURE CURRENT YEAR	ENSUING YEAR EXPEND- ITURE - ESTIMATED AND APPROVED
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ADMINISTRATION:

0111 Salaries, Prof.	\$ 26,000	\$ 29,000
0113 Salaries, Clerical	24,000	26,000
0130 Supplies	6,000	5,500
0150 Other expenses	<u>6,300</u>	<u>8,000</u>
 TOTAL ADMINISTRATION	 \$ 62,300	 \$ 68,500

INSTRUCTION:

0211 Salaries, Principals	\$ 89,000	\$ 94,000
0212 Salaries, Teachers	840,000	950,000
0213 Salaries, Clerical	36,000	39,000
0214 Salaries, Aides	38,000	45,000
0218 Travel Expense	2,000	2,500
0230 Teaching supplies	48,000	50,000
0240 Textbooks	20,000	22,000
0250 Other expenses	<u>16,000</u>	<u>15,000</u>
 TOTAL INSTRUCTION	 \$ 1,089,000	 \$ 1,217,500

LIBRARY SERVICES:

0310 Salaries, librarians	\$ 28,000	\$ 35,000
0340 Books and periodicals	7,000	7,500
0350 Other expenses	<u>2,800</u>	<u>3,500</u>
 TOTAL LIBRARY SERVICES	 \$ 37,800	 \$ 46,000

SUPPORTIVE SERVICES:

0410 Salaries, Prof.	\$ 18,000	\$ 26,000
0413 Salaries, Clerical	6,000	6,500
0450 Other expenses	<u>500</u>	<u>1,000</u>
 TOTAL SUPPORTIVE SERVICES	 \$ 24,500	 \$ 33,500

OPERATION OF PLANT:

0610	Salaries	\$ 78,000	\$ 75,000
0650	Other Expenses	11,000	12,000
0680	Heat and utilities	<u>55,000</u>	<u>63,000</u>
TOTAL OPERATION OF PLANT		\$144,000	\$150,000
MAINTENANCE OF PLANT:			
0710	Salaries	\$ 10,000	\$ 11,000
0730	Supplies	22,000	20,000
0780	Contracted services	<u>55,000</u>	<u>30,000</u>
TOTAL MAINTENANCE OF PLANT		\$ 87,000	\$ 61,000
SCHOOL FOOD SERVICES:			
0810	Salaries	<u>\$ 13,000</u>	<u>\$ 15,000</u>
TOTAL SCHOOL FOOD SERVICES		\$ 13,000	\$ 15,000
STUDENT BODY AUXILARY SERVICES:			
0910	Salaries	<u>\$ 10,000</u>	<u>\$ 11,000</u>
TOTAL STUDENT BODY AUX. SERV.		\$ 10,000	\$ 11,000
OTHER CURRENT CHARGES:			
1054	Rental of land & bldg	\$ 1,000	\$ 1,200
1057	Insurance	65,000	68,000
1059	Other expenses	4,000	4,500
1072	Interest on Warrants	<u>3,500</u>	<u>4,000</u>
TOTAL OTHER CURRENT CHARGES		\$ 73,500	\$ 77,700
CAPITAL OUTLAY:			
1161	Sites	\$ ---	\$ 15,000
1162	Buildings	---	---
1163	Remodeling	30,000	40,000
1164	New equipment	25,000	28,000
1165	Other expenses	<u>---</u>	<u>1,000</u>
TOTAL CAPITAL OUTLAY		\$ 55,000	\$ 84,000
TOTAL FUND EXPENDITURES		\$ 1,596,100	\$ 1,764,200

REVENUE:

FINAL
REVENUEESTIMATED
REVENUE

REVENUE FROM DISTRICT:

01-11	District Levies	\$ 302,000	\$ 371,000
01-98	Cash Reappropriated	26,000	90,000

REVENUE FROM COUNTY:

01-31	Basic Equalization	333,000	350,000
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REVENUE FROM STATE:

01-41	State Deficiency Levy	---	50,000
01-42	State Equalization Aid	742,000	715,000
01-48	State Permissive Levy	<u>193,100</u>	<u>188,200</u>

TOTAL FUND REVENUE

\$1,596,100

\$1,764,200

FIGURE 3

PROGRAM PLANNING DOCUMENT

Request for Program Introduction, Extension or Modification

School _____ (Grade, Area or subdivision)

1. Purposes: Modification or extension of existing educational programs and the introduction of new program dimensions that call for additional resource allocations must be justified. One purpose of this document is to provide decision makers with data helpful in arriving at decisions to approve or disapprove program introduction or changes.
2. Program Title (Identification Data)
3. Estimated starting date _____
4. Estimated termination date _____
5. Major Program Objectives (State in performance and measureable terms)
6. Outline of Program Strategies: (briefly describe what strategies, techniques and procedures will be followed to fulfill each objective)
7. Anticipated Program Outcomes: (describe what improvements or end products are likely to result at various points in time during the program)
8. Target Populations and Learner Levels to be Served: (indicate numbers types and maturity levels to be influenced)
9. Relationships to Existing Programs, if any: (if none, indicate. Demonstrate likelihood of duplications)
10. Program Locations: (where will programs actually be in operation?)
11. Resources Requested Over Life Span of Program:

Identification of inputs requested	Current Year	2nd Year	3rd Year	4th Year	5th Year	Total for All Years
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Number and Types
of inputs:

Personnel Needs

Types

Professional

Others

Numbers

Professional

Others

Space Needs

Types of Spaces

Numbers

Total Area

Special Design

Problems

Equipment Needs

Materials

Fiscal Resource

Demands:

Salary and Benefit

Payments

Space Rental,

Construction or

Remodeling Costs

Equipment Rental or

Purchase expenditures

Materials Costs:

Textbooks

Supplies

Other Expenses

Other Costs: Over-

head, etc.

Total Fiscal resource

Demands

Revenue Sources:

Local

State

Federal

Foundation or Other

Total Revenues

12. Program Director

Submitted by: _____

Approved or Disapproved: Date: _____

FIGURE 4

A GENERAL INPUT-OUTPUT MODEL
EVALUATING EDUCATIONAL ALLOCATION DECISIONS

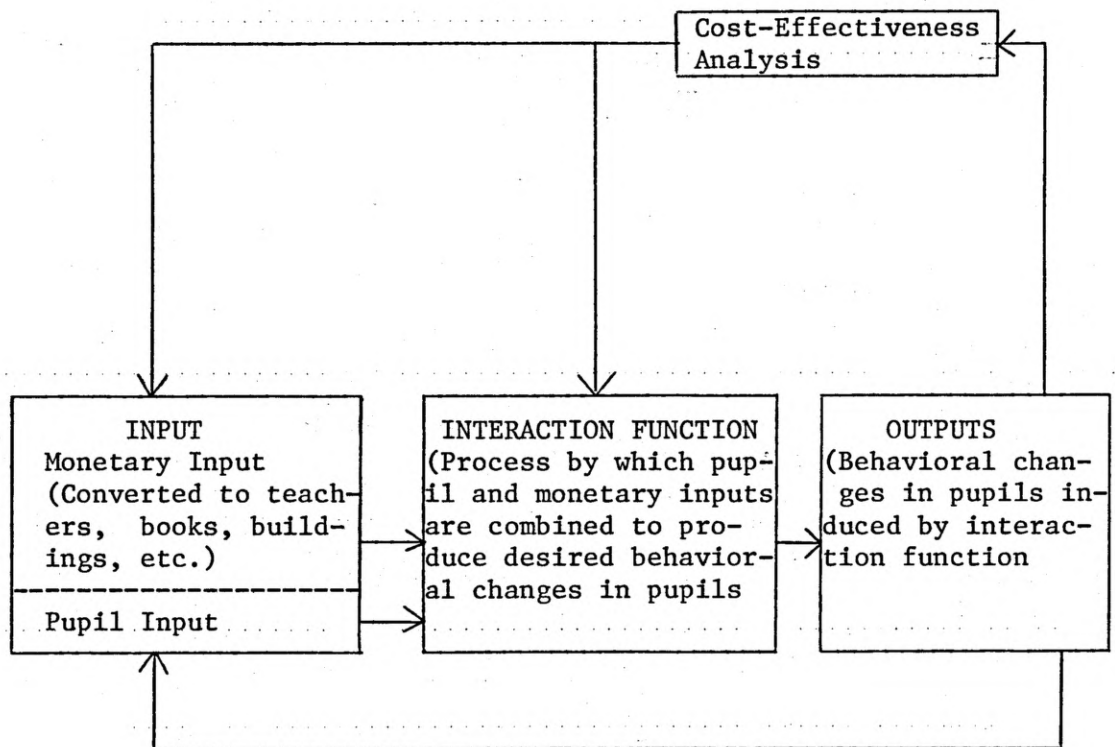


FIGURE 5

SAMPLE CROSSWALK BUDGET

Account No.	Account	Total	Instructional Programs				Instructional Support Programs			
			1	2	3	4	Guild. Res. & Aux. Media Serv.	Oper. Maint.	Admin.	
0100	Administration	75,000	15,000	15,000	14,000	-	-	-	10,000	10,000 11,000
0200	Instruction	250,000	100,000	60,000	20,000	20,000	20,000	10,000	-	20,000
0300	Health	8,000	-	-	-	-	-	-	8,000	-
0400	Food Service	15,000	-	-	-	-	-	-	15,000	-
0500	Operation & Maintenance	50,000	20,000	10,000	10,000	5,000	-	-	5,000	-
0600	Transportation	20,000	-	-	-	-	-	-	20,000	-
Total Current Outlay			418,000	135,000	85,000	44,000	25,000	20,000	10,000	58,000 10,000 31,000
1000	Capital Outlay	15,000	5,000	2,000	2,000	-	1,500	2,500	1,000	1,000 -
Total Current & Capital Outlay			443,000	140,000	87,000	46,000	25,000	21,500	12,500	59,000 11,000 31,000

-Projected from only one year of a five year planning phase-

FIGURE 6

PROGRAM BUDGET EXAMPLE

Program Number	Program Description	Year: 1 2 3 4 5					Budget (in thousands)
		1	2	3	4	5	
1.	Learning intellectual skills	4,655	4,905	5,265	5,630	6,025	
2.	Learning about the world	4,445	4,785	5,130	5,484	5,875	
3.	Developing the individual	2,700	2,920	3,135	3,350	3,590	
4.	Preparation for employment	805	865	930	995	1,070	
5.	Preparation for higher education	665	720	765	820	880	
	DIRECT INSTRUCTION TOTAL	13,270	14,195	15,225	16,280	17,440	
6.	Assessment, guidance & counseling	990	1,035	1,105	1,185	1,275	
7.	Development and evaluation	425	455	490	525	560	
8.	Instructional Resource & Media Services	250	240	260	275	295	
	INSTRUCTIONAL SUPPORT TOTAL	1,665	1,730	1,855	1,985	2,130	
9.	Auxiliary Services	1,085	1,185	1,310	1,445	1,595	
10.	Community Services	700	110	110	115	120	
11.	Operation and Maintenance	2,840	3,050	3,190	3,480	3,750	
12.	Capital Outlay	450	725	1,325	1,695	2,195	
13.	Administration	2,560	2,805	3,010	3,215	3,445	
	TOTAL INSTRUCTION AND SUPPORT	22,570	23,800	26,025	28,215	30,675	
PHYSICAL DATA							
Students		20,000	20,510	21,510	22,180	23,070	
Elementary		7,500	7,780	8,090	8,415	8,750	
Junior High		6,500	7,070	7,355	7,650	8,155	
Senior High		34,000	35,360	36,775	38,245	39,775	
TOTAL STUDENTS		1,260	1,310	1,365	1,416	1,473	
Teachers		1,900	1,975	2,055	2,135	2,220	
Total Personnel		45	46	47	49	51	
Schools		3,250	3,285	3,320	3,450	3,570	
Square Feet in thousands							

FIGURE 7

ANALYSIS OF SALARY AND BENEFIT
ALLOCATIONS IN CLASS "A" MONTANA
GENERAL FUND BUDGETS

	Traditional Budgetary Process Districts (15)	Program Budgetary Process Districts (1)	Combined Budgetary Process Districts (14)	Total Class "A" Districts (30)
Average % of General Fund Budget Allocated to Salaries and Benefits	76.18%	85.0%	77.53%	77.15%
Range of % of General Fund Budget Allocated to Salaries and Benefits	67 - 83%	85.0%	70 - 83%	67 - 83%
Average % of Personnel Salaries and Benefits Allo- cated to Instruc- tion related Personnel	79.29%	80.0%	80.93%	80.10%
Range of % of Personnel Salaries and Benefits Allo- cated to Instruc- tion related Personnel	64 - 90%	80.0%	68 - 90%	64 - 90%