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ABSTRACT

A CONCEPTUAL DESIGN IS PRESENTED FOR A PLANNING, PROGRAMMING, BUDGETING SYSTEM (PPBS), WHICH PROVIDES THE INFORMATION NECESSARY FOR--(1) PLANNING EDUCATIONAL PROGRAMS THAT WILL MEET THE NEEDS OF THE COMMUNITY, AND (2) CHOOSING AMONG THE ALTERNATIVE WAYS IN WHICH A SCHOOL DISTRICT CAN ALLOCATE RESOURCES TO ACHIEVE ITS GOALS AND OBJECTIVES. THE PPBS DESCRIBED IN THIS MANUAL HAS BEEN DEVELOPED TO ASSIST CALIFORNIA SCHOOL DISTRICTS ACHIEVE A MORE EFFECTIVE AND EFFICIENT UTILIZATION OF AVAILABLE RESOURCES--MONEY, MANPOWER, AND MATERIALS. IT PROVIDES THE MEANS FOR SYSTEMATICALLY ANALYZING DISTRICT NEEDS IN ORDER TO DETERMINE THE MOST EFFECTIVE ALLOCATION OF AVAILABLE RESOURCES, AND FOR ASSESSING THE ACCOMPLISHMENT OF STATE AND DISTRICT OBJECTIVES. A BIBLIOGRAPHY IS INCLUDED. (FS)

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# CONCEPTUAL DESIGN FOR A PLANNING, PROGRAMMING, BUDGETING SYSTEM

## FOR CALIFORNIA SCHOOL DISTRICTS

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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PRELIMINARY

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CALIFORNIA STATE DEPARTMENT OF EDUCATION
Max Rafferty – Superintendent of Public Instruction
Sacramento 1969

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# CONCEPTUAL DESIGN FOR A PLANNING, PROGRAMMING, BUDGETING SYSTEM

## FOR CALIFORNIA SCHOOL DISTRICTS

*Prepared under the direction of the*

**Advisory Commission on School District Budgeting and Accounting**

## PREFACE

The planning, programming, budgeting system presented in this manual has been developed, operationally tested in six school districts, and revised as need was indicated by the test results under the direction of the Advisory Commission on School District Budgeting and Accounting. The commission has arranged for the system to be operationally tested during the 1969-70 school year by 14 school districts and the office of one county superintendent of schools, and the commission will use the test results as a basis for making any changes in the program that it believes necessary or desirable.

In addition to subjecting the system to this operational testing, the commission is making copies of this publication available to all California school districts and offices of county superintendents of schools and requesting each of them to study and evaluate the system and report their findings to the commission. The commission suggests that each of these agencies appoint selected committees to perform these tasks. For example, one committee might be composed of members of the administrative staff; one composed of members of the instructional staff; one composed of members of both the credentialed and classified employees of the agency, members of the governing board of the agency, and representatives of parent and teacher organizations. By employing these various types of committees to study and evaluate the planning, programming, budgeting system, the school districts and offices of county superintendents of schools will be able to provide the advisory commission with information that represents the full spectrum of persons who are responsible for operations of the schools ensuring effective and efficient functioning of the educational programs offered by the schools.

The data collected by employing these two means of evaluation will be used by the advisory commission on a basis for determining whether the planning, programming, and budgeting system is to be presented to the State Board of Education in its present form or revised and subjected to further evaluation before it is presented to the Board.

RAY H. JOHNSON
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## Part One

# PLANNING, PROGRAMMING, BUDGETING SYSTEM: FUNCTIONS AND CHARACTERISTICS

A planning, programming, budgeting system (PPBS) provides the information necessary (1) for planning educational programs that will meet the needs of the community; and (2) for choosing among the alternative ways in which a school district can allocate resources to achieve its goals and objectives.

The PPBS described in this manual has been developed to assist California school districts achieve a more effective and efficient utilization of available resources – money, manpower, materials. The system provides the means for systematically analyzing district needs in order to determine the most effective allocation of available resources. The PPBS also provides a means for assessing the accomplishment of stated district objectives. The system will probably be of greatest value to the district in providing the ability to demonstrate the effectiveness of the educational system in meeting the needs of modern-day society.

A PPBS differs from current planning and budgeting systems in emphasizing the definition of district needs, goals, and objectives; the development of programs to achieve the objectives; and the application of systems analysis techniques. Therefore, a PPBS involves much more than recording and reporting fiscal and statistical data. It also involves developing new analytical techniques for determining the best allocation of resources and for measuring the extent to which each objective has been met.

The implementation of a PPBS will require time and effort from each district. Personnel on virtually every level within the school district should be concerned with the implementation and operation of the system. The investment of this effort and involvement will result in an increased capability to improve the management of a district and its educational programs. PPBS is a dynamic system requiring continuing analysis and revision. For maximum benefit, users should be prepared to evaluate, criticize, monitor, and improve the system regularly.

The PPBS was designed under the guidance of the Advisory Commission on School District Budgeting and Accounting, California State Department of Education. A group of six school districts, ranging in size from 1,400 a.d.a. to more than 100,000 a.d.a., cooperated with independent consultants retained by the Commission during the 1968-69 fiscal year in the design program. In the 1969-70 fiscal year, 14 school districts and one office of a county superintendent of schools will participate in the program on a pilot basis. Current plans anticipate implementing the system in all school districts in California over a multiyear period commencing July 1, 1970.

The conceptual design of the PPBS is described in two parts: "System Description" and "System Specification." "System Description" contains a basic definition and description of the elements and concepts of the system; "System Specification," a step-by-step procedure for implementing and operating the system. The PPBS presented is designed for preliminary testing by the 14 school districts and one office of a county superintendent of schools. It is anticipated that modifications and revisions will result from this experimental design-testing phase.

The system is designed to allow for differences among the California school districts. However, effective use of the system requires that it be uniformly applied to a designated level. Districts that wish to develop more detailed information beyond that level are encouraged to do so.

Examples of report formats and data forms are employed to illustrate the different methods of presenting plans, programs, and budget information. The report formats should be utilized by each district as the basic budget document. Small districts may find it convenient to use only one of the reports illustrated rather than the complete set. Data sheets are intended to guide each district in the design of tools that are appropriate for its needs.

## Part Two

## SYSTEM DESCRIPTION

In this part, "System Description," the concepts, mechanics of operation, and uses of the PPBS are discussed; and all elements of the PPBS, the techniques involved, and the interactions of the elements and processes are described.

### Purpose and Scope

The planning, programming, and budgeting system (PPBS) consists of well-defined but separate elements and processes which must be properly coordinated into an integrated, effective system to the extent that each of the elements and processes contributes to and implements the others. The *elements* include the following:

- Goals
- Objectives and evaluative criteria
- Programs
- Program structures
- Program codes
- Program budget
- Multiyear financial plan
- Program cost accounts
- Program reports

The *processes* include the concepts and techniques of system analysis and resource management. System analysis is that approach to decision making that emphasizes the following:

- Definition of educational problems
- Development of alternate programs
- Analysis of alternate solutions
- Recommendation of preferred program(s)

Resource management monitors the program activities to ensure that objectives are accomplished on time and within the allotted resources.

At the present time most activities in a school district take place within an annual budget cycle based on a fiscal year ending June 30. This annual budget (or management) cycle influences the thinking and planning activities of the district and tends to limit the time period considered to one year. The necessity for publishing a budget document containing certain specified data elements, often required by state and federal agencies, has further limited the planning process.

The proper implementation of a PPBS will encourage school districts to look beyond the one-year time period and to seek new methods and techniques. This new approach will permit decision makers to relate activities and the allocation of resources to the achievement of the district goals and objectives, as well as to see the results of management action over a period of several years.

The principal effect of the operation of a PPBS is in the planning process. The planning process will continue to take place around the fiscal year ending on June 30 and will result in the preparation of a budget document. Figure 1 illustrates the PPBS planning and implementation requirements.[1]

[1]The figures in this part are numbered from 1 to 9.

## Elements of PPBS

In this section the elements of the PPBS are defined and the planning required for each element is described. It is assumed that an operational PPBS does not exist and therefore the elements must be developed for implementation. After the initial implementation effort, planning and development activities for subsequent years will consist of evaluation, system analysis, revision of existing data, and planning for changes considered. The process of system analysis as it relates to PPBS elements is described under the heading "System Analysis," page 17.

### Goals

*A goal is a statement of broad direction, purpose, or intent based on the identified needs of the community. A goal is general and timeless; that is, it is not concerned with a specific achievement within a specified time period.*

The development of goals and a goal structure are approached by considering the needs of the district and community. The goals will provide the basic guidance for all activities in the district, and all other elements of the PPBS will be determined and effected by them.

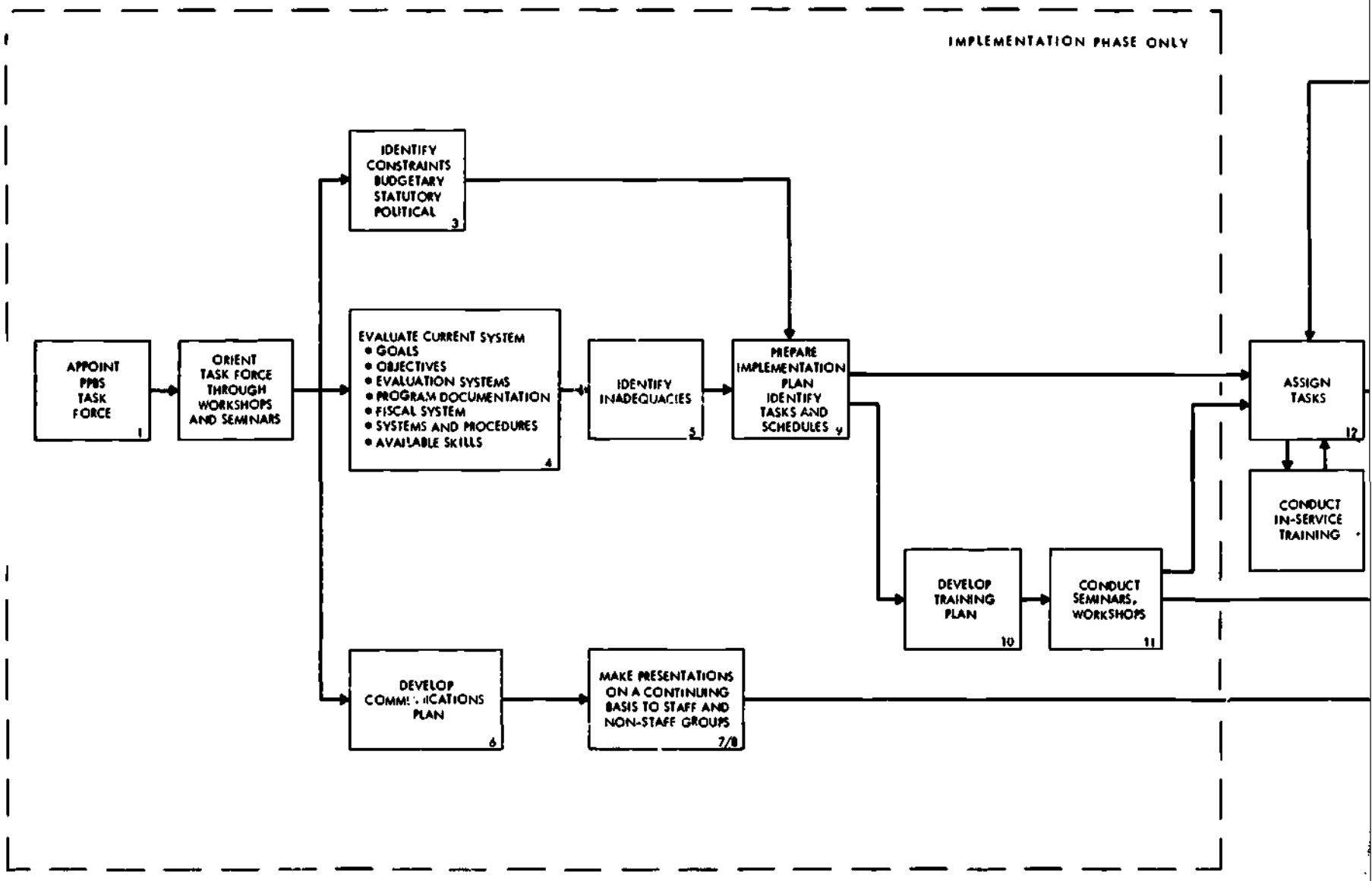



**Figure 1. PPBS Planning and Implementation Requirements**

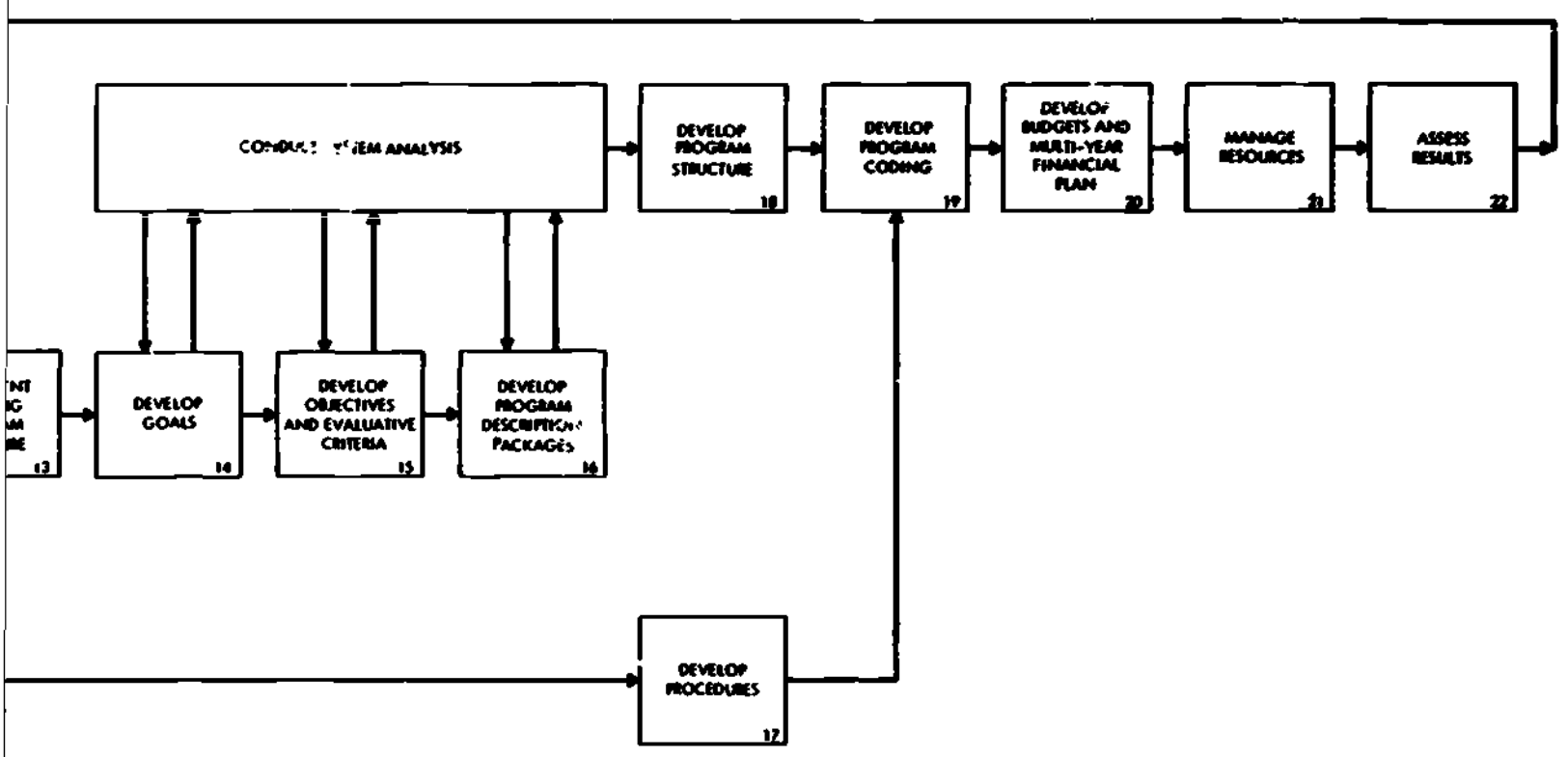
Although the school board has the ultimate responsibility for the district, the development of district goals will involve others, including the public. The professional staff of the district should be intensely involved. Included in the professional staff involvement should be teachers, department heads, principals, and central office personnel. The results of the efforts of those involved in the development of goals must be approved by the board. Once approved, the district goals developed become the policy guidelines for the district.

The top-level goals will be quite broad and based on the identified needs of the community. The lower-level goals must be more specific and will support the higher-level goals.

Examples of typical goals follow. Note that in these examples some goals are more specific than others and that none of the goals can be quantified.

To provide quality education that will help every child acquire the habits and attitudes associated with responsible citizenship

To provide quality education that will help every child acquire the greatest possible understanding of himself and an appreciation of his worthiness as a member of society

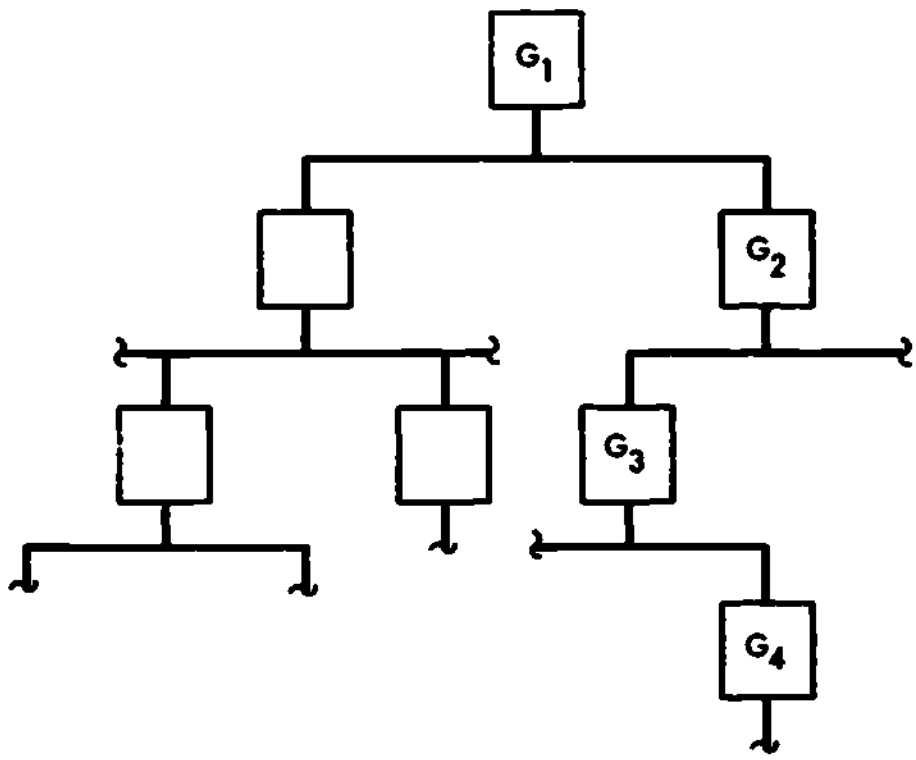


To provide quality education that will help every child acquire, to the fullest extent possible for him, mastery of the basic skills in the use of words and numbers

To provide quality education that will give every child opportunity and encouragement to be creative in one or more fields of endeavor

As some goals are more specific, related goals can be arranged in a hierarchy with the lower-level, more specific goals contributing to the higher-level, broader goals.

An example of a goal structure is shown in Figure 2. Goal $G_2$ mentions several areas of the curriculum; namely, business education, home economics, and agriculture. In this example the goals are expanded for business education only. Goals under home economics and agriculture may be expanded in the same manner.




$G_1$ - TO PROVIDE ALL STUDENTS THE OPPORTUNITY TO DEVELOP SKILLS ENABLING THEM TO GAIN EMPLOYMENT

$G_2$ - TO PROVIDE ALL STUDENTS THE OPPORTUNITY TO DEVELOP SKILLS IN BUSINESS, HOME ECONOMICS, AND AGRICULTURE

$G_3$ - TO PROVIDE ALL STUDENTS THE OPPORTUNITY TO DEVELOP SKILLS IN TYPING, SHORTHAND, BOOKKEEPING, AND OFFICE MACHINE OPERATION

$G_4$ - TO PROVIDE ALL STUDENTS THE OPPORTUNITY TO DEVELOP SKILLS IN BOOKKEEPING

**Figure 2. Typical Goal Structure**

Goals can stand alone or can be expanded if desired. It is possible to have more than one goal at any level. A goal such as "to develop good citizenship" may not require expansion.

Beyond the minimum details required by the System Specification, the individual or organization developing or operating a PPBS may develop goals and a goal structure to whatever level or detail that suits its needs. Each district may have many unique characteristics; as a result, the goals may vary. For example, a rural district with a multi-ethnic population may have unique goals emphasizing the development of English language capabilities; economically deprived areas may have unique goals dealing with preparation for employment; affluent areas may have goals emphasizing college preparation; rural areas may have unique goals dealing with agriculture.

The development of goals should be a coordinated process to ensure that communication exists at all levels and that goals at any level are consistent with the goals of the total district.

## Objectives

*Objectives are desired accomplishments which can be measured within a given time frame. Achievement of the objective advances the system toward a corresponding goal. Accordingly, objectives that support and contribute to the achievement of the established goals must be developed.*

The process for developing objectives is similar to that for the development of goals and a goal structure. Objectives, like the goals they support, can be grouped and arranged in a hierarchy with lower-level, more specific objectives contributing toward higher-level, broader objectives. A hierarchy of objectives may be structured as shown in Figure 3. The objectives listed in Figure 3 are progressively more specific and are consistent with and support the goal structure shown in Figure 2.

The following examples of typical objectives are quantifiable, are within a time frame, and state as specifically as practicable how the degree of achievement will be determined or measured.

> Upon completion of the term, a sixth-grade pupil will be able to read and pronounce with 80 percent accuracy a list of sixth-grade words selected from the basic Stanford Achievement Test – Reading.

> Upon completion of the term, 60 percent of eleventh-grade students will score at least at the Los Angeles County average on standardized tests on reading comprehension.

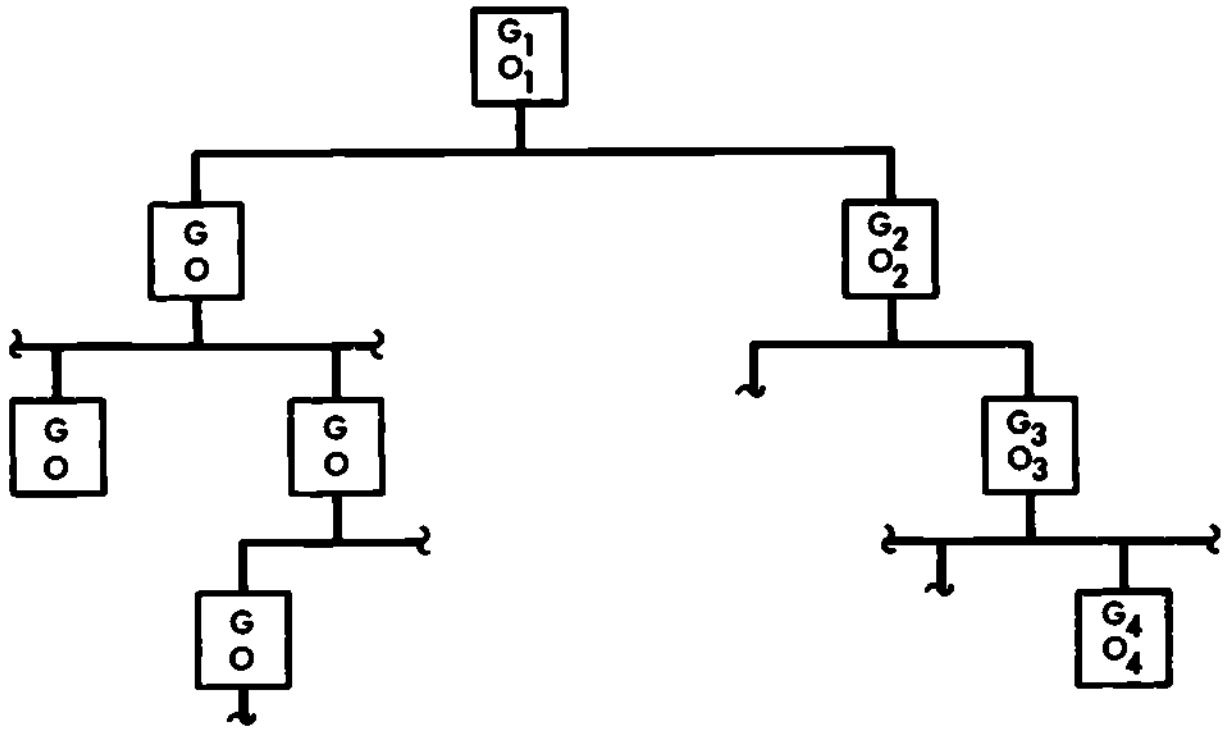
Figure 4 presents a hierarchy of goals and objectives for which achievement is measured subjectively.

More than one objective may be desired for a given goal. For example, if the goal is to develop physical fitness, the objectives may be those that follow:

> For 85 percent of the students to pass the President's Physical Fitness Test according to age and physical characteristics

> For 85 percent of ninth-grade male students to pass the following tests:

| | |
|---|---|
| 5 pull-ups | 50 sit-ups in 5 minutes |
| 15 push-ups | 440-yard run in 70 seconds |




$0_1$ FOR 90 PERCENT OF THE GRADUATING SENIORS WHO WISH TO ENTER THE LABOR FORCE TO GAIN EMPLOYMENT WITHIN THREE MONTHS OF GRADUATION AS MEASURED BY A DISTRICT SURVEY

$0_2$ FOR 90 PERCENT OF GRADUATING SENIORS WHO WISH TO ENTER THE LABOR FORCE TO GAIN EMPLOYMENT AS DESIRED IN BUSINESS, OR AGRICULTURE WITHIN THREE MONTHS OF GRADUATION AS MEASURED BY A DISTRICT SURVEY

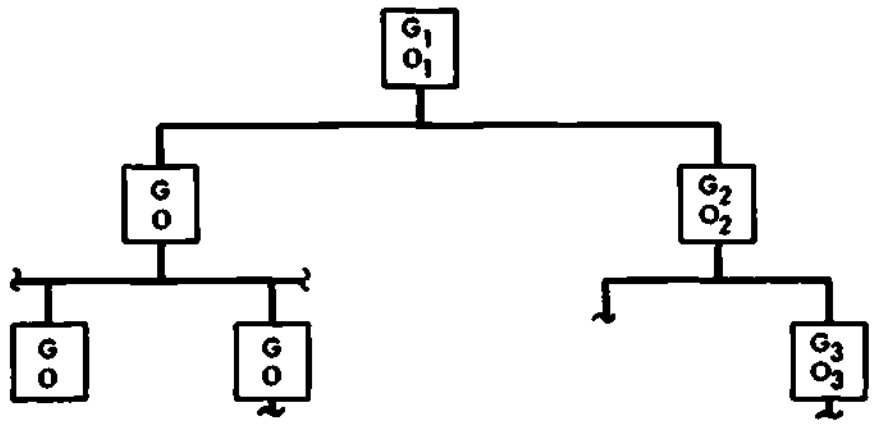
$0_3$ FOR 90 PERCENT OF THE BUSINESS CURRICULUM STUDENTS TO MEET THE FOLLOWING STANDARDS:

- TYPING - 40 WORDS PER MINUTE AS MEASURED BY THE IBM TEST WITH 90 PERCENT ACCURACY
- SHORTHAND - 60 WORDS PER MINUTE AS MEASURED BY THE GREGG TEST WITH A 2000 WORD VOCABULARY
- BOOKKEEPING - DEMONSTRATE ABILITY TO USE JOURNALS INCOME STATEMENTS, AND BALANCE SHEETS AS DETERMINED BY CLASSROOM TESTS
- OFFICE MACHINE OPERATION - MEAN SCORE EQUAL TO NATIONAL AVERAGE ON NCR TESTS

$0_4$ UPON COURSE COMPLETION NINETY PERCENT OF STUDENTS WILL BE ABLE TO ACCOMPLISH THE FOLLOWING BASED ON CLASSROOM TESTS

- STATE AND UNDERSTAND THE BASIC ACCOUNTING EQUATION OF DOUBLE ENTRY BOOKKEEPING
- UNDERSTAND THE FUNCTION OF AND MAKE JOURNAL ENTRIES
- UNDERSTAND THREE DEPRECIATION CALCULATION METHODS

**Figure 3. Typical Objective Structure**




| | |
|---|---|
| $G_1$ | TO PROVIDE ALL STUDENTS THE OPPORTUNITY TO DEVELOP AN APPRECIATION OF MUSIC. |
| $O_1$ | 90 PERCENT OF ALL GRADUATING SENIORS WILL HAVE EITHER PARTICIPATED IN BAND, VOCAL MUSIC, OR COMPLETED A COURSE IN MUSIC APPRECIATION WITHIN THREE YEARS OF HIGH SCHOOL. |
| $G_2$ | TO PROVIDE ALL STUDENTS THE OPPORTUNITY TO DEVELOP AN UNDERSTANDING AND APPRECIATION OF MUSIC HISTORY, MUSIC THEORIES, AND MUSIC LISTENING. |
| $O_2$ | 90 PERCENT OF THE STUDENTS COMPLETING THE COURSE IN MUSIC APPRECIATION UNDERSTAND THE HISTORY OF MUSIC AND DIFFERENCES AMONG PROGRAM MUSIC, ABSOLUTE MUSIC, OPERA, ORATIONS, ART SONGS, AND OVERTURES AS MEASURED BY LISTENING AND OTHER CLASSROOM TESTS. |
| $G_3$ | TO PROVIDE ALL STUDENTS THE OPPORTUNITY TO DEVELOP AN APPRECIATION FOR MUSIC LISTENING. |
| $O_3$ | UPON COURSE COMPLETION, 90 PERCENT OF THE STUDENTS WILL EXPRESS VERBALLY THAT THEY APPRECIATE LISTENING TO MUSIC. |

**Figure 4. Hierarchy of Goals and Objectives with Subjective Measurements of Achievement**

It is not required, however, that objectives be developed for each higher-level goal in the structure. In a four-level goal structure for mathematics, objectives might exist only for the third and fourth levels.


To provide quality education that will help every student acquire analytical skills


To provide quality education that will help every student apply analytical skills to qualitative and quantitative problem solving


To provide quality education that will help every student develop mathematical skills

The mean class score will equal or exceed the national average on a standardized mathematics test by the end of the semester


To provide quality education that will help every student develop skills in algebra

The student will demonstrate with classroom tests the ability to perform algebraic operations with exponents, roots, factoring, and the quadratic equation

In that goals 3 and 4 are consistent with and support goals 1 and 2, achieving the objectives for the lower-level goals will automatically advance the system toward the higher-level goals.

The minimum requirements for the depth of detail for goals and objectives are defined in Part Three, "System Specification." Districts that desire additional information may expand the goal and objective structure beyond the minimum requirements.

The formulation of objectives should be a coordinated process to ensure communication and consistency at all levels.

The approved and documented objectives will provide the basis for evaluation and analysis of the performance of the programs carried out by the school district.

## Programs

*A program is a group or package of interdependent. closely related services or activities progressing toward or contributing to a common objective or set of allied objectives.*

Previous sections have described the formulation of goals and objectives. Development of programs to meet these objectives will ensure that activities will be directed toward the requirements of individual districts. The concepts and techniques of system analysis, described later in this part under "System Analysis," will assist the districts in developing programs that are responsive to their particular needs.

Basically, the development of programs requires the following:

- Identify the activities required to achieve objectives
- Develop schedules for activities considering time constraints
- Assign and schedule resources for activities

The achievement of the stated objectives is the major consideration in developing a program. Program development requires formal documentation of all activities required to achieve these objectives. School districts are already involved in many activities that contribute to the achievement of objectives. In the instructional areas these activities are often well documented in the form of curriculum guides and course outlines. In the support areas there is generally less documentation.

Such existing formal documentation of ongoing activities may be used for programs in the PPBS. Documentation must be developed for any undocumented activities. Where it is determined that new activities are required, they must be identified and documented.

All related activities can then be grouped and arranged in a chronological sequence. Time constraints such as semester cycle, fiscal year, holidays, and vacations may then be taken into consideration in scheduling the activities. At this point, assignment of time and materials required for the program activities can be planned.

When program development is completed, it must be documented in the form of a program description package. The program description package is basically a statement of the program content. It will include a description of the objectives that the program is designed to achieve and the specified method of evaluation. If standardized tests are to be used, they should be identified with the dates on which they are to be given. Should the evaluation be a subjective teacher evaluation report, the outline of the report should be provided where possible.

The completed program description package will provide a planning document for the program that describes the activities to be performed, the time period in which they are to be accomplished, and the resources assigned to each.

Individuals and organizations should be assigned responsibility for program development. The program development process should be coordinated to ensure communication and consistency with objectives.

The specific tasks required to accomplish these steps are described in Part Three, "System Specification."

## Program Structure

*A program structure is a hierarchical arrangement of programs that represents the relationship of activities to goals and objectives. The structure contains categories of activities with common output objectives.*

Although programs will vary among school districts, there are several advantages to a common approach to developing a program structure. The structure presented as a guideline in Figure 5 was developed to satisfy the requirements of the PPBS and will work in a variety of environments.

The established program structure, when approved, will become the basic framework for all planning and reporting within the district.

## Program Codes

*Programs are coded by number to facilitate the collection of such data as costs and statistics in a variety of combinations and formats consistent with the program structure. These data are used to control program expenditures, to evaluate program effectiveness in terms of stated objectives, and to analyze the cost effectiveness of alternative programs.*

Specific code digits are assigned to programs at each level of the program structure to allow grouping and summarization of data on similar programs. A portion of a tentative program structure with each level of the structure numbered is shown in Figure 6. Utilizing the numbers on the boxes and following the structure, one can see that a secondary school level typing course becomes program number 114021.

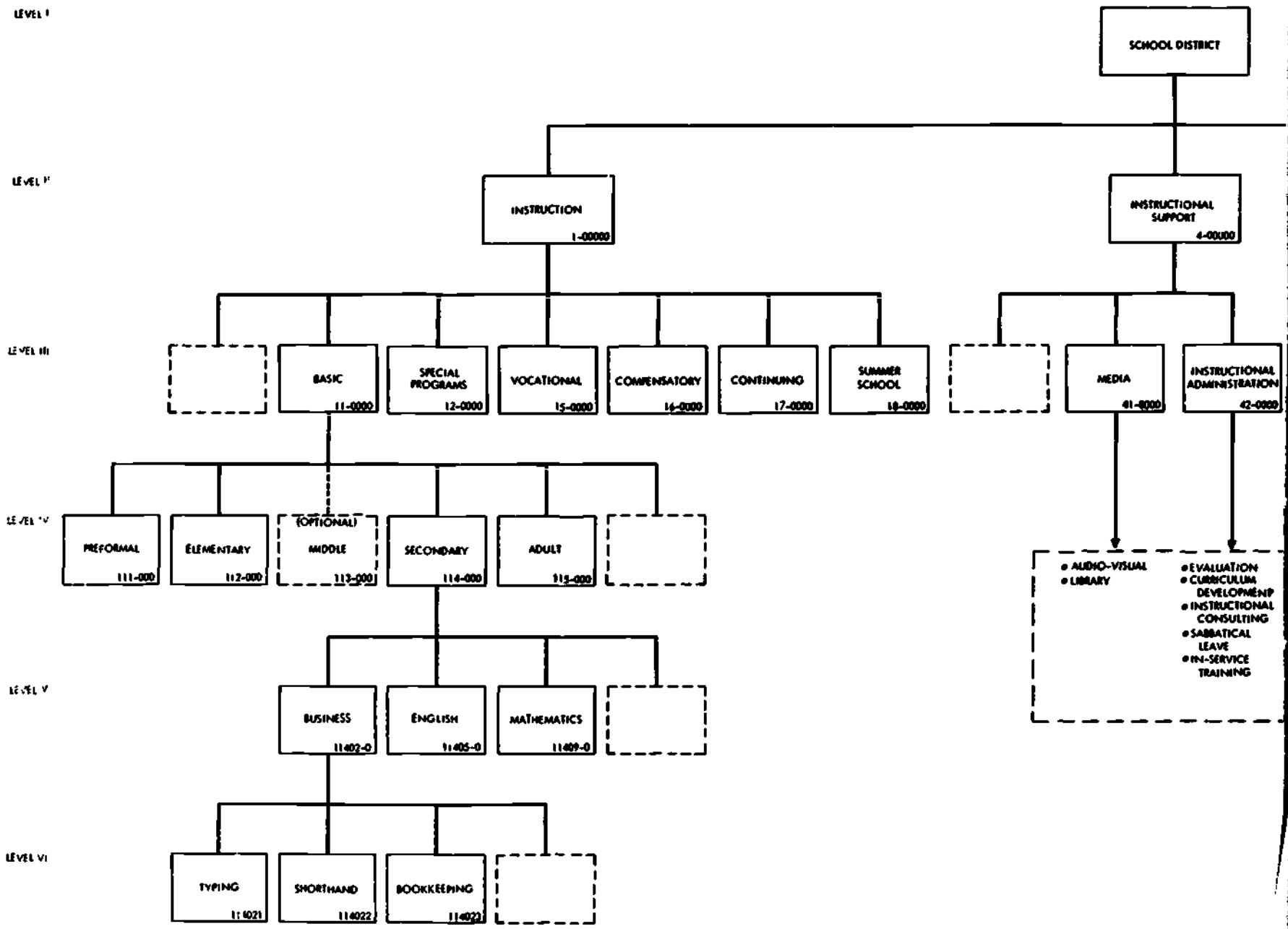



**Figure 5. Program Structure Guideline**

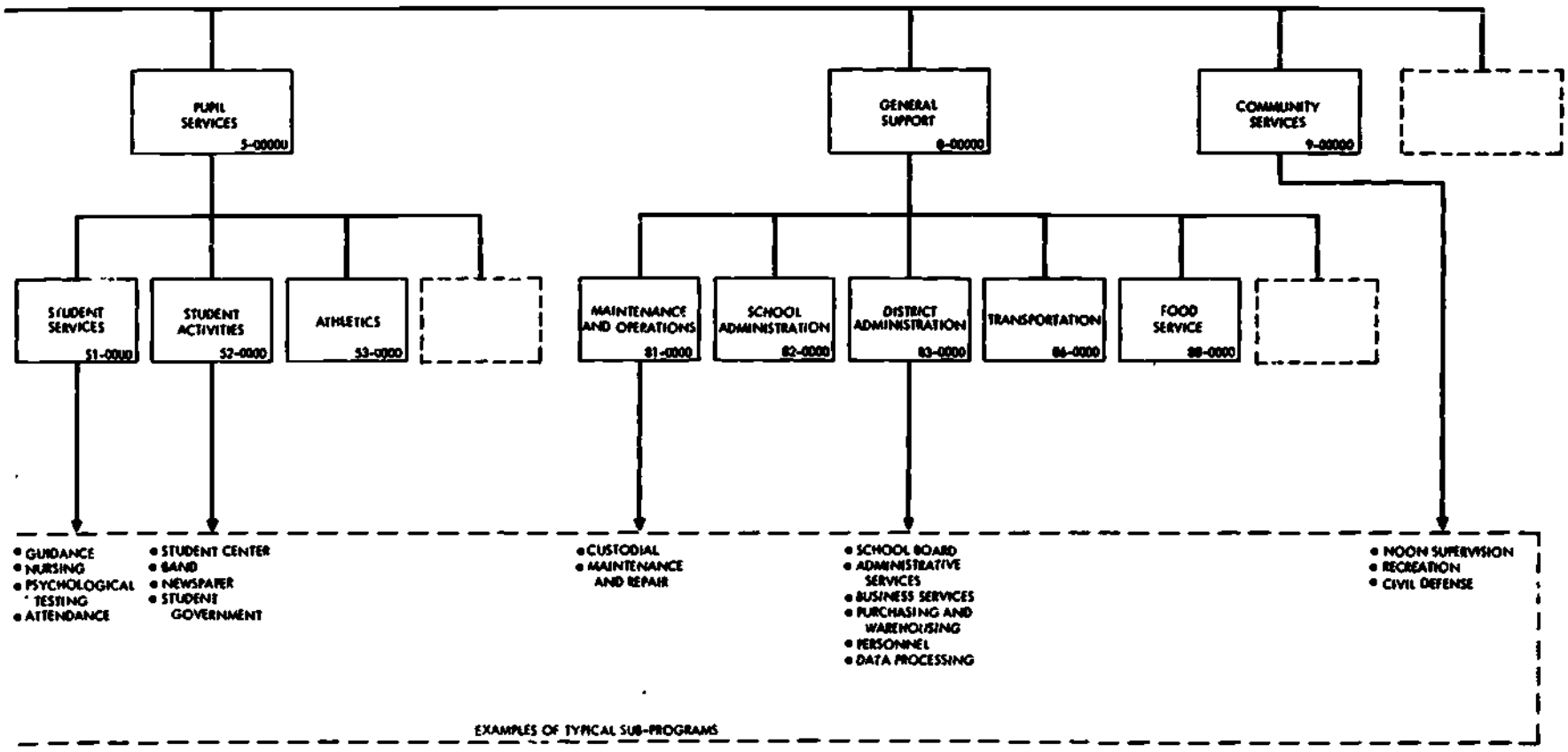
A recommended numbering technique and a list of code numbers for possible programs within a program structure are included in Part Three, "System Specification."

The magnitude and complexity of the program code numbering format is dependent upon the degree to which the individual school district chooses to define the program structure.

**Program Budget**

*The program budget in a PPBS is a plan that relates proposed expenditures for programs, within a specific time frame to goals and objectives, based upon a program structure classification. It includes the proposed revenue sources for financing programs.*

Currently, the annual budget is documented on a state-mandated form (J-41), which expresses the proposed expenditures of the school district in a function/object format. Objects of expenditures (such as teachers' salaries) are reported within generalized functional areas (such as



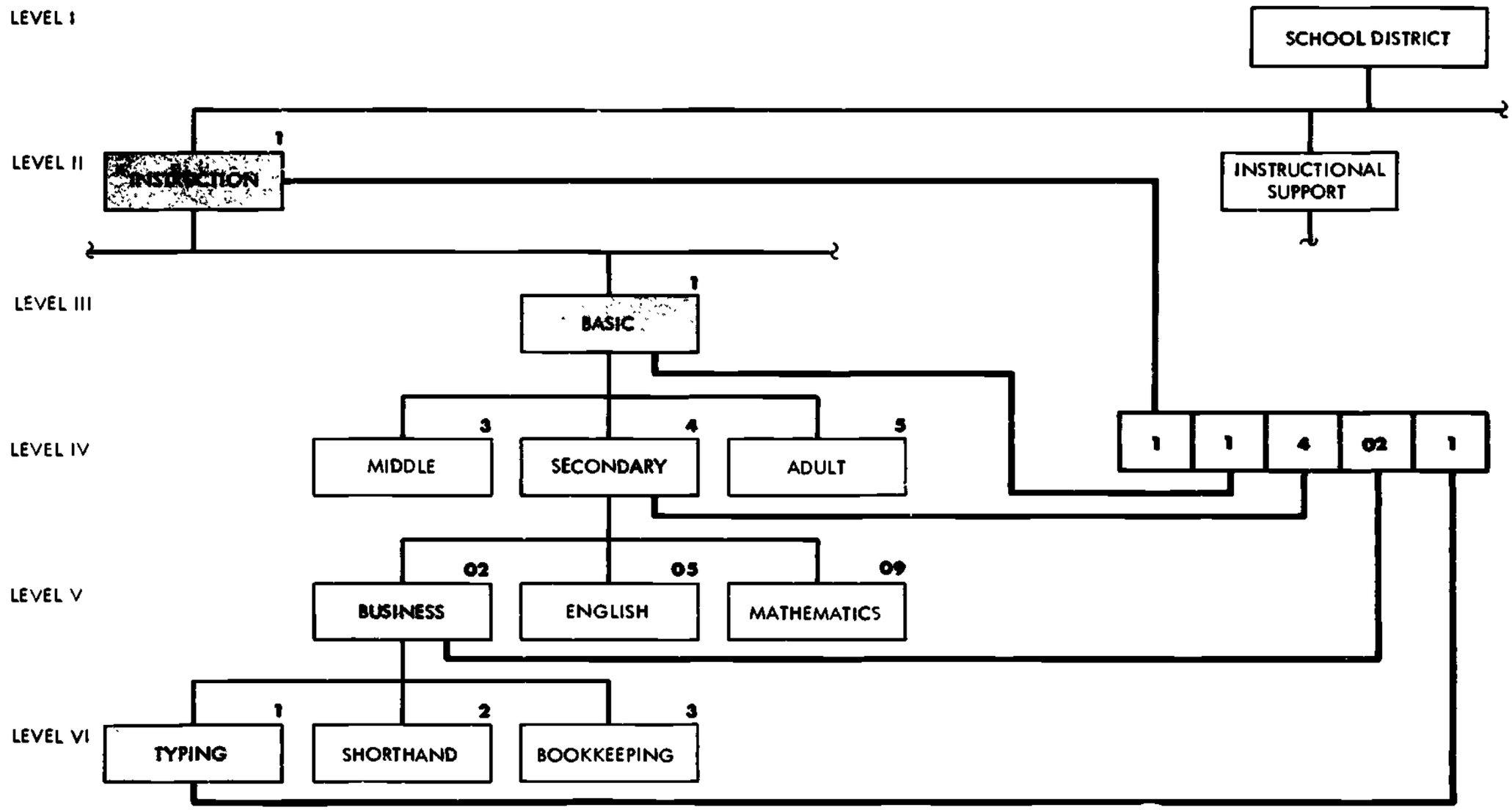



**Figure 6. Program Coding Within the Program Structure**

Instruction, Health Services, and the like). Although this type of presentation satisfies the current budgetary requirements of the state, it does not necessarily provide the visibility required to evaluate the success of a school district in meeting needs of the community.

The budget document for a PPBS is the instrument used to present a comprehensive financial plan to the school district, community, state, and other interested agencies. Proposed expenditures are reported for each program, and summarized by program structure level. Anticipated sources of revenue for financing individual programs are reported in the budget document, as well as actual program costs for the current year. Since programs are built around goals and objectives, the program budget in effect relates costs to needs and desired accomplishments.

### Multiyear Financial Plan

*The Multiyear Financial Plan (MYFP) presents financial data for existing and alternative programs projected for a period of several years.*

The development of an MYFP is generally a significant departure from the current practice, as it shifts the emphasis from budget-year costs to costs incurred over a period of years. Costs are projected for each program and summarized by levels of the program structure. Actual cost data for the current year are included when possible to indicate trends and growth. The future impact of current program implementation can be evaluated by projecting the costs and growth data for several years. This projection will be particularly useful for planning development programs and programs requiring multiyear capital investments.

Any cost projection is a matter of judgment, with the accuracy of the projection decreasing over the longer time periods covered. However, planning techniques that have proved sufficiently accurate for decision making have been developed. Because it is often difficult and unnecessary to forecast all program financial data in detail, the level of detail covered should decrease as the time becomes longer.

Scheduling for MYFP should be compatible with the annual budget cycle. The superintendent should be responsible for directing the exact format, level of detail, and individuals assigned to develop MYFPs. The minimum requirements for time period covered, level of detail, and suggested schedule are given in Part Three, "System Specification."

## Management Information

A basic characteristic of any school district is that the district is dynamic and will change to meet the needs of the community. For this reason, it is imperative that an information system be developed to provide the decision-related information required for effective management. Information by itself is not sufficient. Specific information in a particular format must be made available to the decision makers in a timely manner. The purpose of a PPBS management information system, therefore, is to:

- Meet internal cost, schedule, and performance requirements
- Provide a uniform system of reports – this system having a common data base that can be summarized at required levels of detail
- Satisfy internal and external reporting requirements
- Focus management attention on problem areas

To develop a management information system, it is first necessary to determine what decisions must be made. It is then necessary to specify what information is required to make these decision. Data that will fulfill these requirements must be then collected and reported.

## Data Base

For an educational PPBS, a data base comprised of six major categories of data must be developed and recorded within a multiyear framework: (1) pupil statistics; (2) program information; (3) personnel assignments; (4) facilities usage; (5) fiscal data; and (6) community profile data.

*Pupil statistics*. The evaluative criteria used to assess the achievement of objectives and the success of their corresponding programs will vary and may include not only classroom test results but other pupil statistics such as drop-out rate, college entry rate, and return-to-school rate. It will therefore be necessary to record such statistics in a consistent format and to report these statistics in specific time frames and against specific programs. The multiyear financial planning process will require projections of pupil enrollment data not only in terms of number of students but also categorized by predicted socioeconomic changes within the community.

By reflecting community needs, these statistics may also indicate the requirement for new programs. By maintaining such statistics for long periods of time, it will be possible to develop behavioral patterns, trend reports, and long-range program evaluations.

*Program information*. Such program data as goals, objectives, and evaluative criteria for each individual program operating in the school district must be recorded, stored, and reported. These data are required both for the basic instructional programs, such as mathematics, English, and social sciences and for the support programs, such as counseling, career guidance, ancillary services, transportation, and the like.

*Personnel assignments*. At least two major areas of information on school district employees are required by the PPBS: (1) assignment information; and (2) payroll information. For example, within the PPBS framework, a district may choose to distribute a first-grade teacher's pay to several first-grade programs while charging all of the kindergarten teacher's salary to a single, preformal program. For a high school Spanish teacher who works two periods a day as a counselor, who is assigned as an assistant football coach three months of the school year, and who teaches driver training on Saturdays, specific portions of his salary should be charged to the Spanish program, the counseling program, the physical education program, and the driver training program. The recording of personnel assignments is therefore a necessary part of PPBS.

*Facility usage*. In a PPBS the expenses involved in the operation and maintenance of the facilities of each school district are charged against the specific facility and are identified with the programs served by that facility. This procedure enables reporting of true program costs.

*Fiscal data*. At the present time, the districts are required to account for specific costs, such as teachers' salaries, supplies, materials, equipment, and contracted services for federal and state-funded programs. PPBS requires refinement and utilization of these program accounting techniques. The level of detail to which these techniques must be refined depends upon the number and complexity of programs within the district and the number of levels developed in the program structure.

*Community profile data*. The category of "Community Profile Data" is entirely free form and is left to the administration of the individual school district. The decision-making process, especially at the higher levels, may require data describing the society in which the educational system operates. These data will assist in identifying the requirements and needs of the community. They may include demographic information, unemployment statistics, or figures on income, ethnic groups, and economic growth.

## Resource Management

The timely availability of decision-related information will permit effective management action to ensure that programs accomplish the stated objectives within the allocated resources. Much of management action consists of changes to plans based on variance of performance from plans.

When the information indicates that programs are expending resources and achieving results according to plan, only continued monitoring and direction are required. Should expenditures or performance vary significantly from plans, changes may be required. Several types of variance and changes are possible.

*Expenditure variance*. When expenditures vary significantly, the variance will indicate that more funds may be required or that funds are available for other programs. Managers must check program performance relative to objectives prior to transferring funds. If expenditures are less than those planned and performance is also under the plan, a transfer may not be desirable. If expenditures are under plan and performance is adequate, it may be possible and desirable to transfer resources to another program. All decisions of this type shonld consider performance as well as resources.

*Performance variance*. In any type of organization, performance will vary from the best of plans due to (1) lack of information when plans are developed; and (2) changing circumstances.

There are several reasons for performance variance and several possible corrective actions. Where all objectives are consistently exceeded or missed, the variance would probably indicate that the objectives are unreasonable. Personnel responsible for such programs should reexamine the objectives to make them more reasonable on the basis of resources. Objectives that are reasonable but not achieved may require a change in the program content or methodology. This type of change may permit achievement of objectives without the addition of resources.

Objectives may not be achieved due to improper allocation of resources. Reallocation of resources may be possible as a result of significant overachievement (or underachievement) of objectives. Resources consist of personnel, equipment, facilities, and supplies. Therefore, reallocation of resources does not always require budget revision.

Inasmuch as the main thrust of a district is to accomplish its stated objectives, most management decisions will be indicated by variance from these objectives; however, decision makers must consider both the expenditure and the accomplishment before taking management action.

## System Analysis

As the school districts begin their efforts toward implementation of a PPBS, formal system analysis will be used in a minor role, since very few programs will be analyzed at this stage. Realistically, most initial implementation effort will deal largely with the proper grouping of related

ongoing programs that snpport the goals and objectives. Snbseqnent to the PPBS implementation, system analysis will play an increasingly significant rcle in the revision of ongoing programs or the introdnction of new programs, particnlarly in crucial areas inflnenced by the changing reqnirements of society. Continning evalnation of these implemented programs is a necessary ingredient of a viable system analysis process.

It wonld be both misleading and inappropriate to imply that each district, school, department, or classroom teacher must have the immediate analytical capabilities to perform complex economic or cost-benefit analysis in order to initiate a PPBS. System analysis is, however, an essential element of the PPBS and nltimately will be reqnired.

System analysis is an approach to decision making that emphasizes the following:

- Definition of edncational problems
- Development of alternative programs
- Analysis of alternative solntions
- Recommendation of preferred program(s)

Charles J. Hitch, President of the University of California, summarized the concept of system analysis in this way:

> It is my experience that the hardest problems for the systems analyst are not those of analytic techniques . . . what distinguishes the useful and productive analyst is his ability to formulate the problem; to choose appropriate objectives; to define the relevant, important environments or situations in which to test the alternatives; to judge the reliability of his cost and other data, and not least his ingenuity in inventing new systems or alternatives to evaluate.

## System Analysis Process

The following discnssion describes the basic steps of the system analysis process – its pnrpose, inpnts, and ontpnts. It is not intended as a step-by-step procedure that must be followed. This process will vary from application to application; therefore, the following discussion is presented as an overview of this viable bnt variable techniqne. The basic steps involved in the system analysis process are snmmarized in Figure 7 and are described as follows:

*Step 1 – Select area for system analysis.* The selection of an area in which to perform system analysis shonld be based npon the edncational needs and problems of the district. Edncational systems shonld be viewed as components of the larger socioeconomic environment. Recognition by the district of the contribntion the edncational component mnst make to this larger environment will lead to the identification of those areas where greater effort is reqnired, or areas that have been completely overlooked. These problem areas may be defined generally; one snch area might be "the need to rednce poverty in a district." Or the problem areas may be defined specifically; one such area might be "the need to initiate a Head Start program." Other areas reqniring attention may involve an ongoing program or programs. In the first examples, system analysis might be directed toward the initiation of new programs. When ongoing programs are involved, the object wonld be increased effectiveness of the existing program or experimentation with new techniqnes.

The emphasis in this step shonld be directed toward defining the need rather than solving the problem and shonld resnlt in a list of district needs or problems ranked in priority order. From this list, one or more areas for system analysis shonld be selected and specifically defined.

*Step 2 – Reexamine or formulate goals.* Goals – broad statements describing how the district plans to meet identified needs – must be defined for the area selected for system analysis. If the

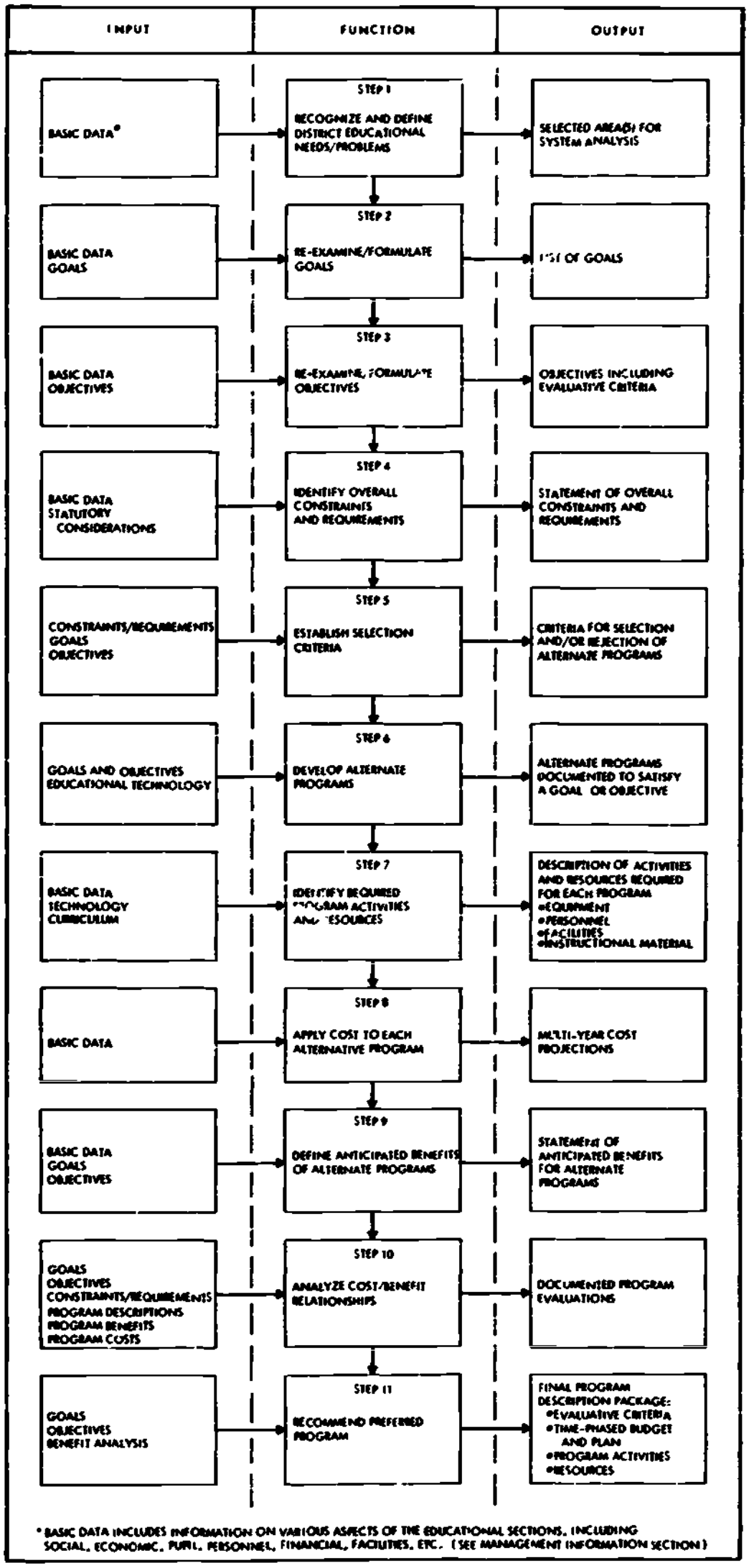



**Figure 7. System Analysis Process**

problem area involves an ongoing program for which goals have already been established, these goals should be reexamined. If goals are inconsistent or unclear, they should be refined to indicate clearly how the district responds to the problem.

*Step 3 – Reexamine or formulate objectives.* Like goals, objectives pertaining to the problem area must be reexamined; or they should be formulated where none exist.

By definition, objectives must be quantifiable. Therefore, it is necessary to define the method by which the achievement of the objective can be assessed. These evaluative criteria should include data requirements and units of measure within a specified time frame.

*Step 4 – Identify constraints and requirements.* The established goals and objectives should be reviewed to identify any possible limiting constraints and implied requirements. These constraints may be political, financial, demographic, social, technological. or geographic. Examples of constraints are given in Figure 8.

GOAL

TO DEVELOP INDIVIDUALS WHO, IN TERMS OF THEIR POTENTIAL, APPRECIATE THE VALUE OF THE SCIENCES AND UNDERSTAND THE PURPOSES AND METHODS OF SCIENCES (OBSERVATION, EXPERIMENTATION RECORDING, ANALYSIS, PREDICTION).

CONSTRAINTS:

| | |
|---|---|
| GEOGRAPHIC: | THE DISTRICT IS REMOTE FROM SCIENTIFIC/ TECHNOLOGICAL CENTERS. |
| DEMOGRAPHIC: | THERE IS A PREPONDERANCE OF CHILDREN FROM FAMILIES WITH LOW EDUCATIONAL ATTAINMENT. EDUCATIONAL OPPORTUNITY SHALL BE PROVIDED FOR CHILDREN FROM 2-1/2 TO 18 YEARS OF AGE. |
| ADMINISTRATIVE: | ONLY TWO SCIENCE LABS EXIST IN SCHOOL BUILDING. |
| POLITICAL: | |
| TECHNOLOGICAL: | |
| FINANCIAL: | THE RATIO OF EXPENDITURE FOR ADMINISTRATION TO THOSE FOR DIRECT PROGRAM ACTIVITY SHOULD NOT EXCEED 0.8/1. |
| LEGAL: | |
| FACILITIES: | |

**Figure 8. Typical Constraints**

*Step 5 – Establish general selection criteria.* General criteria to be used in selecting between alternate solutions to the problem should be established. For example, a district may wish to select that program which will affect the greatest number of students. If serious financial constraints are identified in Step 4, the program that requires a minimum of resources might be selected. Selection criteria will vary with each situation and may involve several factors.

*Step 6 – Develop alternate programs.* Potential solutions to the educational requirements identified in the statements of goals and objectives must be developed in a program format. The constraints identified in Step 4 should be considered, as well as the general selection criteria established in Step 5. This sixth step is a critical one. Choosing the best of two poor solutions may not meet educational needs. Therefore, a range of program alternatives should be developed.

*Step 7 – Identify required program activities and resources.* All resources and activities which would be required for the implementation and operation of each program alternative developed in Step 6 should be identified. Resources for each program would probably include, but not be limited to, personnel, materials, facilities, and services. The program activities and resources should be described in sufficient detail to enable an accurate cost projection for each program under consideration.

*Step 8 – Apply cost to alternate programs.* The cost for each program should be estimated for the total life of the program or for a minimum of five years. Costs should be calculated on a total program basis, as well as by object. The procedure for applying costs to alternate programs is described in Part Three, "System Specification," under the heading "Program Budget and Multiyear Financial Plan."

*Step 9 – Define anticipated benefits of each program.* Determining the benefit value of alternate programs will provide an important consideration in the selection of recommended programs. Benefits – the desirable outcomes of educational programs – can generally be measured in terms of the evaluative criteria associated with each objective. Of particular importance is the recognition and specification of who benefits and when. Corollary benefits should also be specified when the implementation of one program will provide additional benefits in other areas. For example, a significant improvement in a reading program will probably have a beneficial effect upon other academic areas.

*Step 10 – Analyze cost/benefit relationships for program evaluation.* The costs and benefits of alternate programs should be compared and analyzed with respect to the following:

- Goals and objectives
- Constraints and requirements
- General selection criteria
- Relationship of benefits to costs

*Step 11 – Recommend preferred program.* The program selected in Step 10 should be formally defined and documented in a "program description package" (see Part Three under the heading "Development of PPBS Elements") and recommended for approval. Careful documentation of the system analysis process and of the reasons for the final program recommendation might prevent repetition of effort at a later date.

The preceding steps are illustrated by the hypothetical example presented as follows:

The Highridge School has been greatly concerned over the reading achievement demonstrated by its students as measured by the SRA reading test. This year, the district has adopted goals and objectives at several levels aimed at the improvement of reading skills. Personnel now face the problem of program selection.

Alternative methods of modifying or revising the existing program were considered. These included the following:

- Increased instructional time
- Smaller classes
- Better instructional materials
- Employment of reading specialists
- Improved instructional methods
- Individualized instruction
- Technological aid

Modification of the existing program by utilizing one of the methods listed in the foregoing would, in effect, create an alternate program.

New programs considered included the following:

- Special classes for children with language disadvantages
- Classes initiated at an earlier age

Program cost/benefit evaluation data were developed as summarized in Figure 9. It can be seen that the program oriented to increase reading skills by starting children at an earlier age appears

| PROGRAM OR ACTIVITY | TOTAL PROGRAM COST INCREASE | ESTIMATED % IMPROVEMENT OF TEST SCORE | COST/BENEFIT RELATIONSHIP |
|---|---|---|---|
| INCREASE TIME | $100,000 | 10 | 10.0 |
| DECREASE CLASS SIZE | 50,000 | 20 | 2.5 |
| IMPROVE MATERIALS | 20,000 | 10 | 2.0 |
| HIRE SPECIALISTS | 40,000 | 20 | 2.0 |
| IMPROVE METHODS | 30,000 | 20 | 1.5 |
| START EARLIER | 10,000 | 10 | 1.0 |
| BUY TECHNOLOGICAL AIDS | 100,000 | 40 | 2.5 |
| INITIATE INDIVIDUALIZED INSTRUCTION | 30,000 | 10 | 3.0 |
| FORM SPECIAL CLASSES FOR DISADVANTAGED | 40,000 | 2 | 20.0 |
| EXISTING PROGRAM | $400,000 | BASELINE | |

Figure 9. Cost/Benefit Evaluation Data for Alternative Reading Programs

to have an advantage in giving the most benefit for each dollar spent. Conversely, the program with the least advantage for the cost involved appears to be "Special Classes for Disadvantaged."

The results of the cost/benefit evaluation alone do not necessarily determine which program should be recommended. There may be limiting selection criteria that preclude accepting a program chosen on cost/benefit relationships alone. For example, a requirement may have been established to accept no program that would not show at least 15 percent improvement. Or perhaps there is a limiting budget restriction; for example, the program implemented to meet this objective must not exceed $7,000

**Implementation Activities**

Once a program has been recommended and approved, a detailed implementation plan should be developed to include a time schedule for initiation of the program, assignment of required resources, and the responsible personnel. During the life of the program, management action is required to ensure the achievement of objectives on schedule and within the budgeted resources.

Essential to the success of the system analysis process is the assessment of results. It is important to determine whether the recommended and implemented program achieved the stated goals and objectives within the anticipated time frame and budget. By comparing the actual performance against the planned or anticipated performance in terms of program accomplishments, resources expended, and time required, one can assess the effectiveness of a given program.

If this analysis indicates that the program has not achieved the desired results, the complete system analysis process can be repeated. Further analysis may indicate the need for a program revision or the development of an entirely new program.

## Part Three

# SYSTEM SPECIFICATION

In Part Three, "System Specification," the initial tasks that are involved in the implementation of a planning, programming, budgeting system (PPBS) are described, and detailed information on the development of PPBS elements is presented.

## Purpose and Scope

"System Specification" provides a step-by-step explanation of the tasks required for the planning, implementation, and operation of a PPBS in a school district. This specification describes how responsibility for specific tasks is assigned, suggests the schedules for events that must be accomplished, illustrates the suggested types of forms used in the system, and provides instructions for completing the forms. PPBS activities and materials in a school district are designated and discussed; these include procedures, forms, documents, and instruction to users at all levels within the school districts.

## Initial Tasks for Implementation

In this section the preliminary procedures which can be used to plan for the implementation of a PPBS in a school district that does not presently have such a system are described. Initial implementation will require specific tasks not required once the system is operational. For example, at the inception it is assumed that the school districts do not have the various skills and experience necessary to develop and operate the system. Therefore, it is necessary to conduct workshops and seminars to provide a working knowledge of a PPBS. As the system becomes operational, the school district personnel involved will become increasingly skilled and knowledgeable in operating it.

Figure 1 is a flow diagram of the basic steps in the implementation and operation phases of the PPBS.[1] Steps 1 through 11 are related to the implementation phase only. The remaining steps are required both for implementation and for operation. A time scale was purposely omitted, as scheduling of the tasks is a function of school districts. However, the steps are shown in sequential order to assist the districts to prepare a schedule that will conform to the required output deadlines as determined by the annual budget cycle.

As initial steps (1 through 11) are basic to developing the various elements of a PPBS, these tasks are described in the pages that follow. The development of PPBS elements and other tasks required to implement and operate the system are described under the heading "Development of PPBS Elements," page 29.

### Step 1. Appoint PPBS Task Force

When the district has made the commitment to implement a PPBS, it is necessary to designate specific individuals in that district to provide the leadership and be responsible for the

[1]The figures in this part are numbered from 1 to 18.

accomplishment of the implementation. The school board should designate in a written directive the PPBS task force by name. The task force should include, but not be limited to, the following:

- A member of the school board
- The superintendent
- The senior curriculum officer
- The senior business officer
- Principals
- Representative teachers

The directive should also state the individual responsibilities and specify the assignment of sufficient time to accomplish the implementation of an operational PPBS. The directive should be published and distributed throughout the district.

### Step 2. Orient the Task Force

The appointed task force must be oriented to the principles and requirements of an operational PPBS through seminars and workshops. These sessions may be provided by the state, contracted for, or developed within the district.

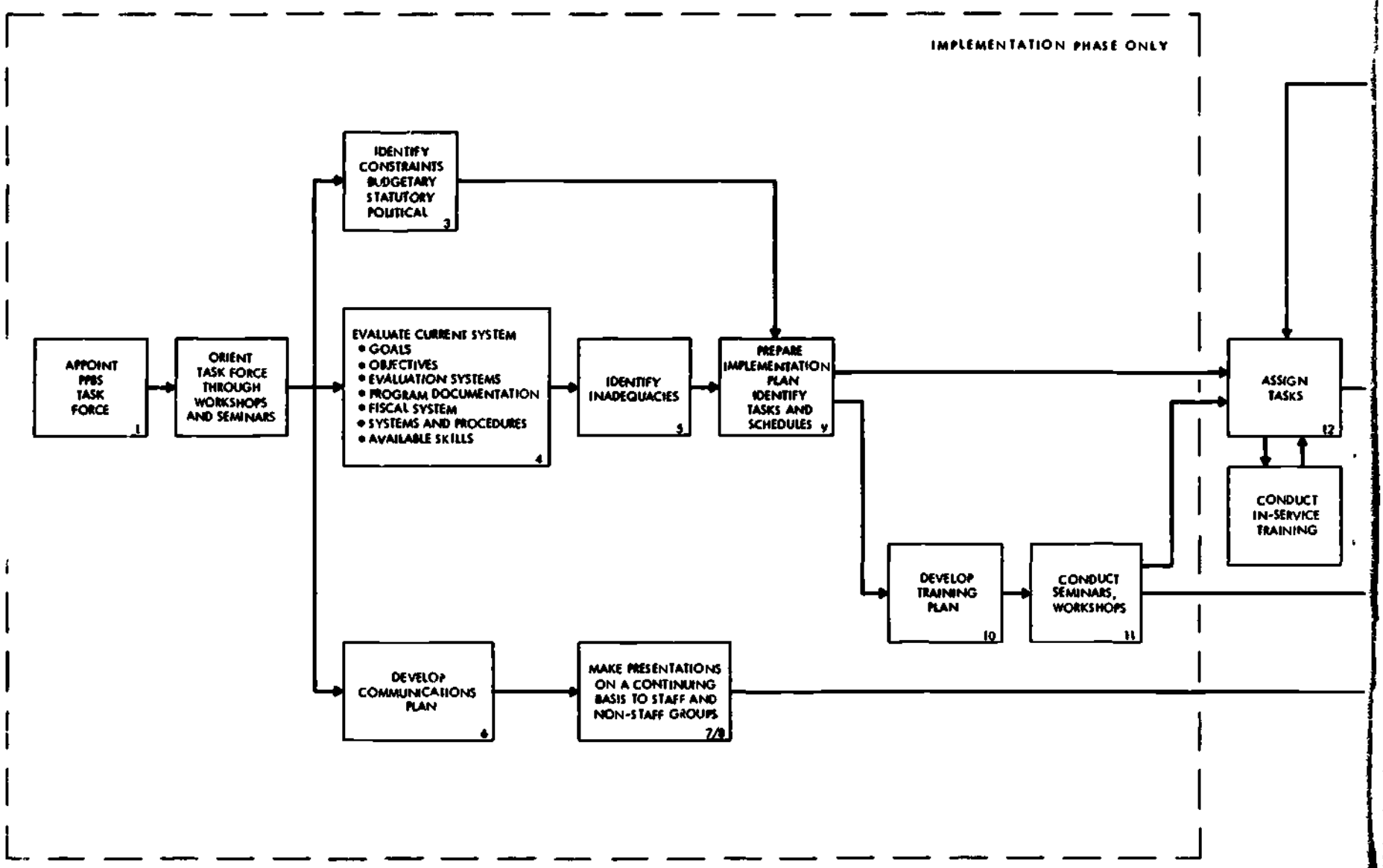



**Figure 1. PPBS Planning and Implementation Requirements**

The sessions will give the task force members a working knowledge of the elements of PPBS, including system analysis. The expertise acquired should be sufficient to allow members to direct and participate in the development of the elements of an operational PPBS.

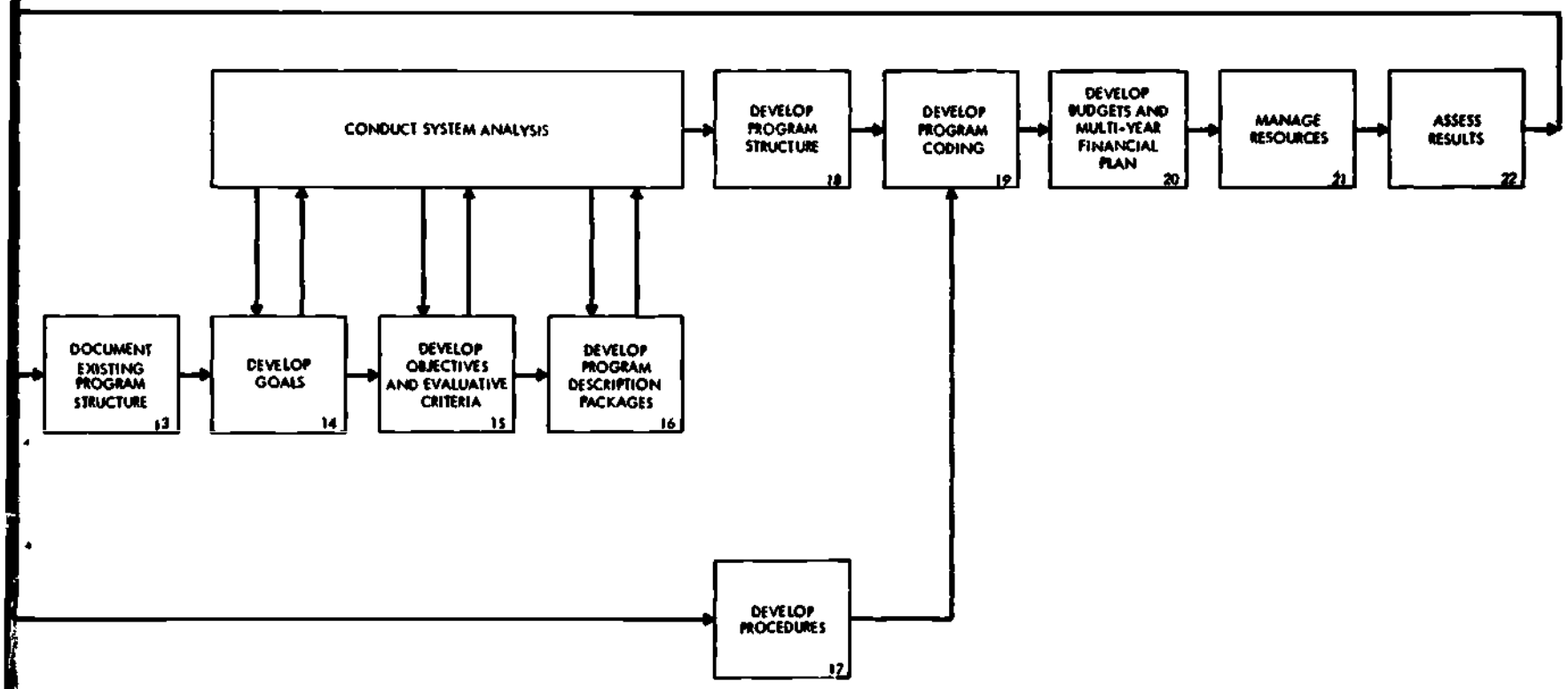
### Step 3. Identify Constraints

The task force will identify the constraints in the development of an operational PPBS. These constraints might be budgetary, statutory (state and federal), political, demographic, or temporal. All identified constraints should be documented and distributed to all personnel or organizations involved in the initial PPBS development.

### Step 4. Evaluate Current Systems

The task force should review and evaluate the current practices and documentation that exist in the district relative to the requirements for an operational PPBS. These practices should be compared to the exact definitions of goals, objectives, programs and structures, and cost accounts to determine their applicability to the PPBS.

IMPLEMENTATION AND OPERATIONS PHASES



In addition, the task force should evaluate the skills and experience of personnel available in the district relative to that required for the development of a PPBS.

### Step 5. Identify and Document Inadequacies Between Current Practices and Those Required for a PPBS

Upon completion of Step 4, the task force should determine and document the inadequacies of the present practices, documentation, and skills. The inadequacies should be identified by the specific PPBS element (goals, programs, and the like) and, when possible, by individual or organizational entity that will be responsible for element development. The report should qualify the extent of the shortcoming and describe the requirements in each area.

### Step 6. Develop Communications Plan

As the implementation of the PPBS represents a change in the current operating practices, many questions will be raised and perhaps some apprehension will be manifested about possible implications. The task force will be responsible for preparing a plan for communicating to all interested parties information about the implementation of an operational PPBS.

This plan should identify tasks necessary to develop information, make presentations, and identify media. Specific events, such as presentations to teachers' meetings, PTA groups, and civic groups, and also news articles should be scheduled over the entire implementation period. The purpose of each presentation should be specified. The responsible individuals or organizations and the required resources should be identified by task.

### Step 7. Make Presentations to Educational Staff

The task force, or its delegated representative, should make broad-based presentations to the staff of the school district, including the administrators, school board members, teachers, and support personnel. These presentations should cover the concepts of PPBS, the involvement of the staff at all levels, the requirements the PPBS will place on the staff, and the benefits that will accrue to the entire educational process.

### Step 8. Make Presentations to Nonstaff Groups

The task force, or its designee, should make presentations to members of the community not directly involved in the educational system. The task force should endeavor to reach as wide and as diverse a group as possible. The emphasis of these presentations will be to communicate the benefits of PPBS.

The techniques used for communication can be as diverse as required by the type of audience and should include printed materials, speeches and visual aids.

### Step 9. Prepare Implementation Plan

The task force should prepare a detailed plan for the implementation of an operational PPBS – such a plan to take into consideration the results of steps 3, 4, and 5. The tasks, the required training, and the time period for accomplishing the tasks should be specified in the plan.

The end result of each specific task should be indentified. Also the resources, both personnel and materials, required to accomplish each task should be identified.

### Step 10. Develop Training Plan

The implementation plan developed in Step 9 will identify the training requirements. A specific plan must be developed to meet this need. Considering the findings of Step 4, the specific skills that are lacking and the individuals or organizations that require these skills should be identified. Specific training methods and materials should be developed. A schedule of training sessions identifying the trainers, the trainees, and the training objectives to be accomplished should also be prepared.

### Step 11. Conduct Training Sessions

The task force will be responsible for directing the initial training sessions. The training sessions at this level should be addressed to supervisory personnel or to personnel with the basic responsibility for implementing the PPBS, as the attending members will probably be assigned to conduct the inservice training of operations personnel. The sessions should include lectures, seminars, and workshops, and the task force should monitor these activities to ensure that the results are consistent with their purpose. It may be desirable to utilize state or other agencies to prepare and conduct these initial training sessions.

### Step 12. Assign Tasks

In Step 9 specific tasks required for the implementation of an operational PPBS were identified. Steps 10 and 11 specified the required skills necessary for the accomplishment of these tasks. When these steps are completed, the task force, by written directive, should assign specific individuals to the tasks identified in the implementation plan.

### Step 13. Arrange Existing Programs into Tentative Program Structure

In the initial development of goals, it is first necessary for the task force to document the existing programs into a tentative structure to provide a guideline for the structuring of goals. This tentative program structure (see the subsequent section, "Program Structure," page 34) will simply group related programs in hierarchical order.

When the steps listed in the foregoing are completed, the remaining implementation of the system can begin with the development of PPBS elements as described in the section that follows.

## Development of PPBS Elements

Descriptions of PPBS elements, discussions of the development of these elements, and illustrations of forms, documents, and guidelines that may be found useful in this phase of the system are presented in the following paragraphs.

### Goals

*Implementation phase*. The task force will prepare a plan for the developing of goals. This plan will specify the responsible personnel and provide a schedule for goal development and approval.

Together with the tentative program structure, the plan will be distributed to the personnel responsible for goal development. The top-level goals to meet the broad needs of the community are the responsibility of the policy-making body of the school district, the school board. Lower-level, more specific goals will be developed by individuals or organizations in the school district as specified by the task force. The goals at lower levels must support and be consistent with the top-level goals established by the policy-making body.

As a minimum, PPBS requires that goals be defined in sufficient detail to allow development of programs to the fifth level under "instruction" and to the third level under all other Level II programs. (Figures 5, 6, and 9 show the six levels under consideration.) This minimum requirement should not prevent districts or individuals from developing a more extensive goal structure, should they so desire.

Developing goals in this manner will result in a structure or hierarchy of goals that is consistent with the tentative program structure. Should goals be developed to meet district needs that cannot be identified with programs shown on the tentative program structure, they will form the basis for new programs which can be added to the program structure.

Developed goals should be documented in narrative form as shown in Figure 2. A summary description of the program supporting the goal should be entered in the space called "Program Description Summary." Several goals relating to the same program may be stated on the same form.

The schedule for the initial development and approval of goals will be determined by the task force within the time constraints of the annual budget cycle.

*Operational phase.* After the initial goal structure has been established, it will be necessary periodically to review, analyze, and perhaps modify goals in order to be responsive to the dynamic educational environment. New or revised goals must be documented in narrative form.

After implementation when the system is operational, it will be necessary for the superintendent to specify in writing the individuals and organizations responsible for the development and approval of goals and for meeting schedule requirements. Because goal statements must be available during the decision-making process, the schedule will be based on the annual budget cycle. For example, the deadlines for development and revision of goals to support the budget cycle may be those listed in the following:

| *Level* | *Date* |
|---|---|
| School district | September 15 |
| Instructional/support | October 15 |
| Type of effort (Level III) | December 1 |

Larger districts will probably require longer lead times because of the size and complexity of their system.

## Objectives and Evaluative Criteria

*Implementation phase.* After the initial goals are developed, structured, and approved, the task force will develop a plan for the development of objectives that support and contribute to the achievement of goals. The plan should identify the personnel and organizations responsible for the development and approval of objectives and should establish the schedule for the completion of the task.

PPBS ELEMENT FORM

GOAL STATEMENT

To provide all students the opportunity to develop skills in typing, shorthand, bookkeeping, and office machine operation.

DEVELOPED BY _____

OBJECTIVE STATEMENT AND EVALUATIVE CRITERIA

DEVELOPED BY _____

PROGRAM DESCRIPTION SUMMARY

This program is designed to allow students to develop skills in the areas of typing, shorthand, bookkeeping, and office machine operation sufficient to gain employment using these skills. This program will include practice with typical problems and situations found in actual employment situations. Contacts will be maintained with the local business community to aid students in obtaining employment.

DEVELOPED BY _____

PROGRAM TITLE _____

PROGRAM ID NO. _____ PROGRAM NO. _____ PROGRAM LEVEL ____

SUPPORTED PROGRAMS _____

SUPPORTING PROGRAMS _____

**Figure 2. Narrative Documentation of Goals**

Objectives. like the goals they support. form a hierarchy consistent with both the goal structure and the program structure. The more specific objectives must be consistent with and support the broader-level objectives.

It is not necessary to develop objectives for the highest level of goals. The task force will determine at what goal level the highest level of objectives will be developed, and these objectives will be developed first. It is required. however, that at least one objective be developed for the lowest-level goals. This should not prevent districts from developing a more extensive objective structure should they so desire.

A critical part in the development of objectives is the method by which the objective is measured. The assessment of achievement is often very difficult in education. Either objective or subjective measures (or both) may be appropriate. In many cases standardized tests or pupils' grades will satisfy the measurement criteria. In other cases such measures as attendance level. attitude scale. drop-out rate, or subjective judgment must be used.

It is essential that the method for evaluating or measuring the objective be included in the statement of objectives.

In summary, the objectives must:

- Relate to a goal
- Be measurable
- State the method of measurement
- State the time period for achievement

When developed, the objectives and evaluative criteria will be documented in narrative form, together with the goals they support (see Figure 3). If several objectives are developed for the same goal, they must be stated on the same form.

*Operational phase*. After the system is operational, it will be necessary periodically to review, analyze, and modify objectives and the methods by which they are measured. New or revised objectives or measurement criteria will be documented in the same manner discussed in the foregoing.

The schedule for the development of objectives is determined by the annual budget cycle. Objectives, like goals, must be available for the decision-making process. It is suggested that the development and revision of objectives required to support the annual budget cycle be completed no later than February 15.

## Programs

*Implementation phase*. When the goals and objectives have been formulated, approved, and documented, programs must be developed to accomplish the objectives.

The task force should prepare a plan for the development of programs similar to the plans for goals and objectives. This plan should specify the individuals and organizations responsible for the development and approval of programs and should establish the schedule for completion of the task.

The following steps are required to develop a detailed program:

- Determine the general program activities required to achieve objectives
- Determine resource requirements (i.e., personnel and materials)

PPBS ELEMENT FORM

GOAL STATEMENT

To provide all students the opportunity to develop skills in typing, shorthand, bookkeeping, and office machine operation.

DEVELOPED BY _____

OBJECTIVE STATEMENT AND EVALUATIVE CRITERIA

Ninety percent of graduating Business Curriculum students shall meet the folowing standards:

Typing - 70 words per minute as measured by the IBM Test with 90% accuracy

Shorthand - 100 words per minute as measured by the Gregg test.

Bookeeping - Demonstrate understanding of journals, income statements, and balance sheets as determined by decision tests.

Office Machine Operation - Mean score equal to national average on NCR test

DEVELOPED BY _____

PROGRAM DESCRIPTION SUMMARY

This program is designed to allow students to develop skills in the areas of typing, shorthand, bookkeeping, and office machine operation sufficient to gain employment using these skills. This program will include practice with typical problems and situations found in actual employment situations. Contacts will be maintained with the local business community to aid students in obtaining employment.

DEVELOPED BY _____

PROGRAM TITLE _____

PROGRAM ID NO. _____ PROGRAM NO. _____ PROGRAM LEVEL ____

SUPPORTED PROGRAMS _____

SUPPORTING PROGRAMS _____

**Figure 3. Narrative Documentation of Objectives and Evaluative Criteria**

- Develop schedules for program activities. with due consideration for time constraints
- Develop a program description package

All of the activities comprising a program must be identified and documented. These include activities both inside and outside of the formal school room environment (such as study trips). If the program is designed to accomplish multiple objectives. activities should be identified with their respective objectives.

Dates must be established for accomplishing the activities within the program. The first step is to arrange all of the activities into a logical sequence. Dates can then be established, with sufficient consideration given to such time constraints as the semester cycle, the fiscal year, holidays and vacations, the length of the school year, and the length of the school day.

Required resources, comprised of personnel, facilities, supplies, or services, will be identified with the program activities. When the required resource items have been identified with activities, they must be related to the dates established for accomplishing the activities.

*Developing program descrtption package*. A "program description package" must be prepared for all developed programs. It is comprised of a narrative description of the activities of the program, the intended method of measuring program achievement, a program data sheet, and such detailed documents as may be required by the program, such as materials lists, equipment required, and so forth.

The program data sheet will contain a summary of the resources required for the program (see Figure 4). The narrative program description will contain a specific detailed statement of program content and activities, as well as a description of the objective(s) the program is designed to achieve. For curricular programs, the program description may take the form of course outlines or curriculum guides. For noncurricular programs, it may be in the form of operational procedures and organizational responsibility descriptions. The specific method of program evaluation must also be identified. If standardized tests are to be used, they must be identified by name with the dates on which they are to be given. If the evaluation method is a subjective teacher evaluation report, the outline of the report should be provided if possible.

*Operational phase*. After the PPBS is operational, it will be necessary periodically to review, analyze, and modify the programs and their contents. The performance of the programs will be evaluated relative to the objectives for which the programs were designed. On the basis of this evaluation, existing programs may require revision, or new programs may be needed to meet changing needs, requirements, and constraints. The recommendation to add, modify, or delete programs may be the result of a system analysis as described in Part Two, page 17. It will be the responsibility of the superintendent to specify by written directive the programs approved for development and the individuals and organizations responsible for their development. A program description package will be maintained for each program and updated when required during the operational phase.

The documented and approved programs must be available for use in developing the following year's budget. Therefore, all programs should be developed and documented early enough to allow approval prior to budget deadline.

### Program Structure

*Implementation*. In the development of the program structure. each program is compared with the guideline structure (Figure 5), starting at the top levels to determine the category for the

PROGRAM DATA SHEET

PROGAM TITLE _____ PROGRAM CODE _____

FUND _____ LOCATION _____ PROGRAM LEVEL _____

| RESOURCE REQUIREMENTS | CURRENT YEAR | | BUDGET YEAR | | 2nd YEAR | 3rd YEAR | 4th YEAR | 5th YEAR |
|---|---|---|---|---|---|---|---|---|
| | QTY | AMOUNT | QTY | AMOUNT | | | | |
| 1. ESTIMATED A.D.A. | | | | | | | | |
| 2. TEACHER POSITIONS | | | | | | | | |
| 3. CERTIFICATED SALARIES | | | | | | | | |
| 4. CLASSIFIED SALARIES | | | | | | | | |
| 5. EMPLOYEE BENEFITS | | | | | | | | |
| 6. BOOKS AND SUPPLIES | | | | | | | | |
| 7. EQUIPMENT REPLACEMENTS | | | | | | | | |
| 8. SUPPORT PROGRAM SERVICES | | | | | | | | |
| 9. OTHER SERVICES | | | | | | | | |
| 10. CAPITAL OUTLAY | | | | | | | | |
| 11. OTHER OUTGO | | | | | | | | |
| 12. TOTAL DIRECT COSTS | | | | | | | | |
| 13. TOTAL DIRECT COST (EXCL. LINES 7 & 10) | | | | | | | | |
| 14. COST/ADA (LINE 13) | | | | | | | | |
| 15. PROJECTED COST INCREASE/ADA | | | | | | | | |
| 16. PROJECTED ADA COST | | | | | | | | |
| 17. PROJECTED ADA | | | | | | | | |
| 18. PROJECTED COST (EXCL. LINES 7 & 10) | | | | | | | | |
| 19. EQUIP. REPLACEMENT & CAPITAL OUTLAY | | | | | | | | |
| 20. TOTAL PROJECTED DIRECT COSTS | | | | | | | | |
| REVENUE SOURCES: | | | | | | | | |
| 21. FEDERAL | | | | | | | | |
| 22. STATE | | | | | | | | |
| 23. COUNTY | | | | | | | | |
| 24. LOCAL | | | | | | | | |
| 25. TOTAL | | | | | | | | |

RECOMMENDED BY: DATE

_____ _____

_____ _____

BOARD ADOPTION _____ DATE

**Figure 4. Sample of Program Data Sheet**

program. When the proper category at the top level is determined, the program is then compared with the next lower level and the proper category at that level determined. This process is repeated until the appropriate level of the structure is reached.

For the example shown in Figure 6, an algebra program is structured by comparing the boxes on descending levels: The program will fit in the "school district" (Level I) under "instruction" (Level II). It is in the basic (Level III) instructional category for secondary schools (Level IV). It is then determined to be a part of the mathematics (Level V) program and is therefore structured under mathematics at Level VI.

Recognizing the need for a degree of flexibility among the school districts, the guideline structure (Figure 5) shows dotted boxes at several levels. This indicates that the individual school districts can insert programs at any level consistent with their goal structure. If the program does not fit into a category at a given level, a new box must be added and given the program title.

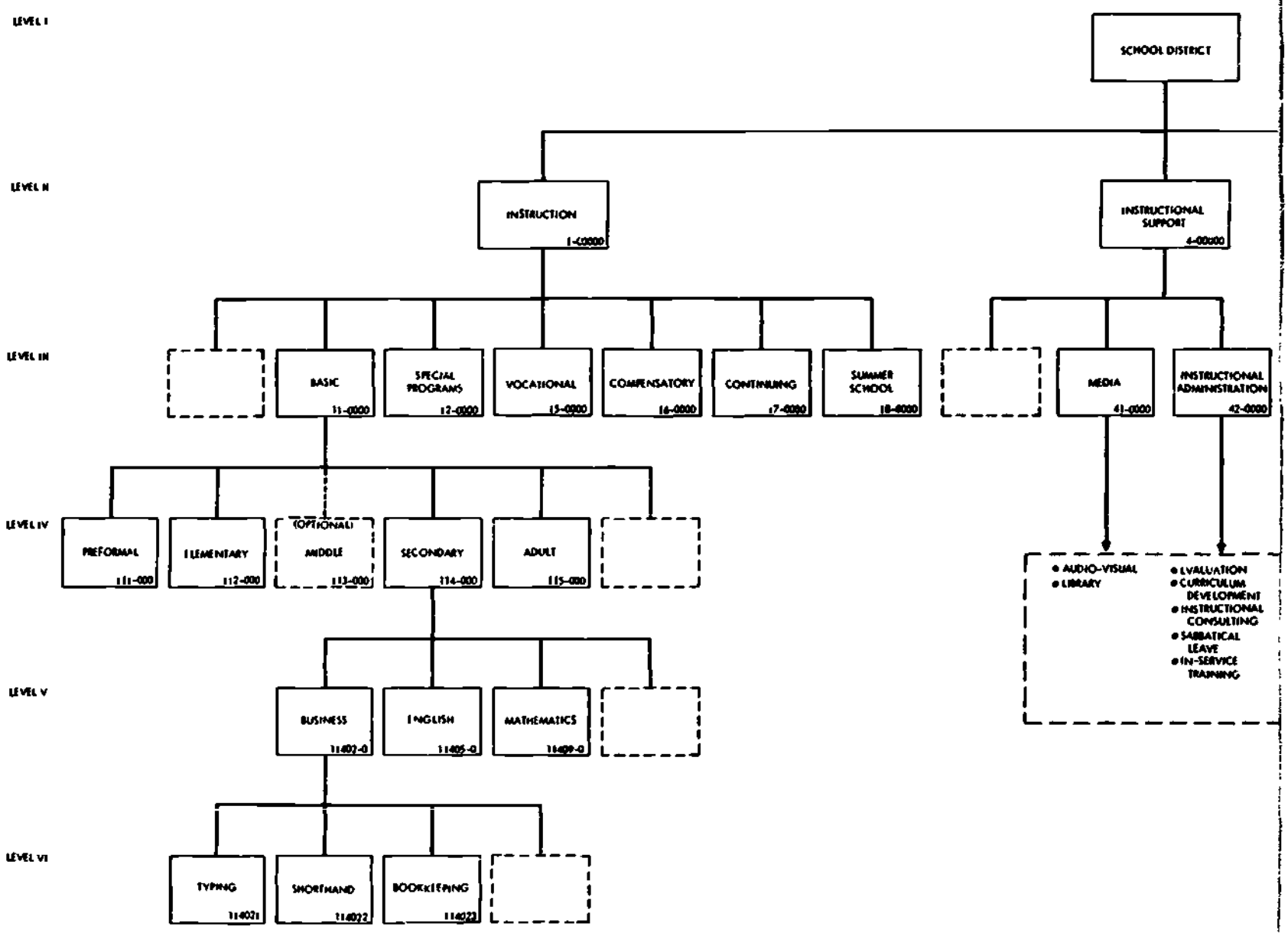
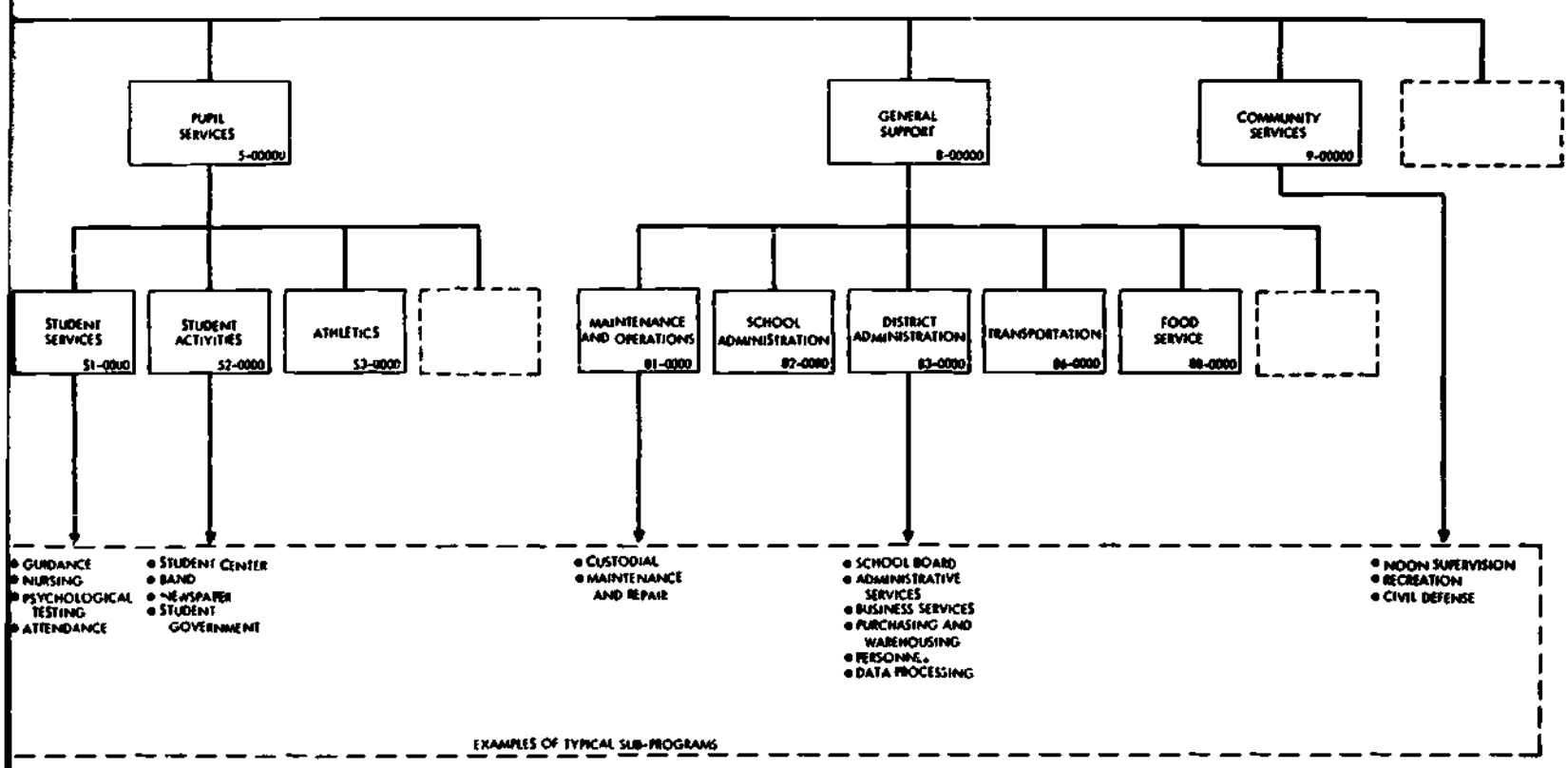



**Figure 5. Program Structure Guideline**

The PPBS requires that programs be structured to Level V under instruction and to Level III for all other programs. If this does not satisfy all reporting requirements, or if a district desires more extensive breakdown of information, further levels may be developed.

The process of program identification in terms of the program structure is recorded on a program structure form as shown in Figure 7. It is assigned a program code number relative to its position on the structure (see procedure for program numbering under the heading, "Program Codes," page 40). The individuals or organizations responsible for program development, program approval, and program accomplishment should be specified.

*Operational phase*. When the PPBS is operational, it will be necessary periodically to review, analyze, and modify the program structure as programs are added or deleted. The recommendations to add or delete programs may be the output of system analysis, described in Part Two, page 17.



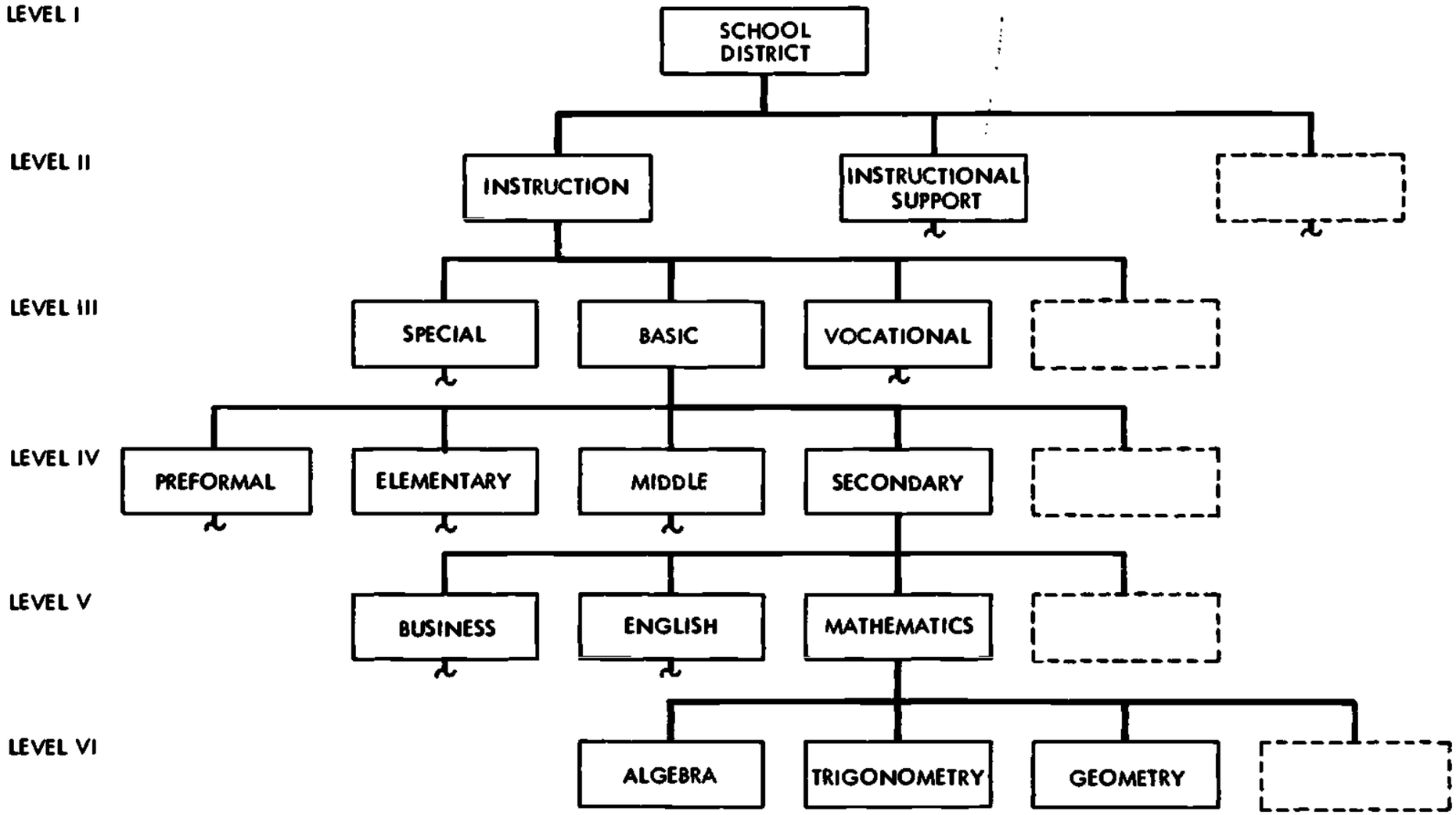



**Figure 6. Program Structure Detail**

| PROGRAM STRUCTURE FORM | | | |
|---|---|---|---|
| SCHOOL DISTRICT | | | DATE |
| PREPARED BY | | APPROVED BY | |

| PROGRAM CODE NUMBER | LEVEL | PROGRAM TITLE | RESPONSIBLE INDIVIDUAL |
|---|---|---|---|
| | | | DEVELOPMENT |
| | | | APPROVAL |
| | | | ACCOMPLISHMENT |
| | | | DEVELOPMENT |
| | | | APPROVAL |
| | | | ACCOMPLISHMENT |
| | | | DEVELOPMENT |
| | | | APPROVAL |
| | | | ACCOMPLISHMENT |
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| | | | DEVELOPMENT |
| | | | APPROVAL |
| | | | ACCOMPLISHMENT |
| | | | DEVELOPMENT |
| | | | APPROVAL |
| | | | ACCOMPLISHMENT |

**Figure 7. Sample of Program Structure Form**

The superintendent should specify by written directive the individuals and organizations responsible for the development and approval of a program structure. When completed, the program structure will be documented on the program structure form (Figure 7). The documented program structure should be available for decision makers when developing the budget.

## Program Codes

*Implementation phase*. After the program structure has been developed and approved, the programs on all levels must be classified and coded. Coding will facilitate the collection of data for individual programs and the summarizing of data for program reports. This requires developing a chart of program codes consistent with the program structure. A complete program code number must include the preceding numbers of all the related, higher-level programs or program groups in the structure.

The task force should direct the development of the required program classifications. When the classifications are accomplished, the business office should assign the program code numbers to be used, and these should be entered on the program structure form (Figure 7).

In developing its program code numbers, the district must take into consideration at least the following factors:

- Type of present data-handling system, whether EDP or manual
- Number of digits that can be accommodated by the present system
- Number of programs established initially, probable timing, and number of programs when expanded
- Management reporting requirements
- Type of district (secondary, elementary, or unified – some districts will not require a life-span digit)

Each of these factors can influence the design of the program code chart. The two most important characteristics of the code should be (1) that it allow the easy accumulation of program information along the lines of the program structure; and (2) that it allow the same along the lines of program responsibility. The length of the code should be kept as short as possible to simplify the coding of input documents.

An example of a program code chart which might be used by a unified school district is shown in Figure 8.

Figure 9 illustrates a portion of the program structure. Each program through Level V is assigned a code number from the chart shown in Figure 8. Development of programs for Level VI and below is optional with each district. The high school typing course represented in Figure 9 is coded as 114021. If one uses the same procedure illustrated, shorthand would be coded as 114022 and bookkeeping as 114023.

Although the program codes appearing in Figure 8 are fairly lengthy, districts should be able to assign codes in such a way that several shortcuts in the coding of accounting input documents are available.

| CODE NUMBER BY PROGRAM LEVEL | | | | |
|---|---|---|---|---|
| II | III | IV | V | |
| | | | | FIRST LEVEL |
| | | | | SCHOOL DISTRICT |
| | | | | SECOND LEVEL-PROGRAM GROUPS |
| 1 | | | | INSTRUCTION |
| 4 | | | | INSTRUCTIONAL SUPPORT |
| 5 | | | | PUPIL SERVICE |
| 8 | | | | GENERAL SUPPORT |
| 9 | | | | COMMUNITY SERVICES |
| | | | | THIRD LEVEL PROGRAMS |
| 1 | 1 | | | BASIC EDUCATION |
| 1 | 2 | | | SPECIAL PROGRAMS |
| 1 | 5 | | | VOCATIONAL |
| 1 | 6 | | | COMPENSATORY |
| 1 | 7 | | | CONTINUING |
| 1 | 4 | | | SUMMER SCHOOL |
| 4 | 1 | | | MEDIA |
| 4 | 2 | | | INSTRUCTIONAL ADMINISTRATION |
| 5 | 1 | | | STUDENT SERVICES |
| 5 | 2 | | | STUDENT ACTIVITIES |
| 5 | 3 | | | ATHLETICS |
| 8 | 1 | | | MAINTENANCE AND OPERATIONS |
| 8 | 2 | | | SCHOOL ADMINISTRATION |
| 8 | 3 | | | DISTRICT ADMINISTRATION |
| 8 | 6 | | | TRANSPORTATION |
| 8 | 8 | | | FOOD SERVICE |
| 8 | 9 | | | CONSTRUCTION MANAGEMENT |
| | | | | FOURTH LEVEL-LIFE SPAN |
| | | 1 | | PREFORMAL |
| | | 2 | | ELEMENTARY SCHOOL |
| | | 3 | | MIDDLE SCHOOL |
| | | 4 | | HIGH SCHOOL |
| | | 5 | | ADULT |
| | | 6 | | |
| | | | | FIFTH LEVEL |
| 1 | 1 | | 01 | ART |
| 1 | 1 | | 02 | BUSINESS EDUCATION |
| 1 | 1 | | 03 | CITIZENSHIP |
| 1 | 1 | | 40 | DRIVER TRAINING |
| 1 | 1 | VARIABLE | 05 | ENGLISH |
| 1 | 1 | | 06 | FOREIGN LANGUAGE |
| 1 | 1 | | 07 | ENGINEERING |
| 1 | 1 | | 08 | LANGUAGE AND LITERATURE |
| 1 | 1 | | 09 | MATHEMATICS |
| 1 | 1 | | 10 | MUSIC |
| 1 | 1 | | 11 | PHYSICAL EDUCATION |
| 1 | 1 | | 12 | SCIENCE |
| 1 | 1 | | 13 | READING |
| 1 | 1 | | 14 | SOCIAL SCIENCE AND HISTORY |
| 1 | 1 | | 15 | NON-DEPARTMENTAL (INDEPENDENT) COURSES |
| 1 | 5 | | 21 | AGRICULTURE |
| 1 | 5 | | 22 | HOME ECONOMICS |
| 1 | 5 | | 23 | INDUSTRIAL EDUCATION |
| 1 | 2 | | 30 | MENTALLY RETARDED |
| 1 | 2 | VARIABLE | 40 | MENTALLY GIFTED |
| 1 | 2 | | 50 | EMOTIONALLY HANDICAPPED |
| 4 | 2 | | 60 | PHYSICALLY HANDICAPPED |
| 4 | 1 | | 71 | AUDIO VISUAL |
| 4 | 1 | | 72 | LIBRARY |
| 4 | 1 | | 73 | EDUCATIONAL TV |
| 4 | 2 | | 74 | PROGRAM PLANNING & DEVELOPMENT |
| 4 | 2 | | 75 | CURRICULUM SUPERVISION |
| 4 | 2 | | 76 | EVALUATION |
| 5 | 1 | | 81 | HEALTH |
| 5 | 1 | | 82 | GUIDANCE/COUNSELING |
| 5 | 1 | | 83 | ATTENDANCE |
| 5 | 1 | | 84 | SOCIAL WORK |
| 5 | 1 | | 85 | PSYCHOLOGICAL |
| 8 | 3 | | 81 | BOARD POLICY & LEGISLATURE |
| 8 | 3 | | 82 | GENERAL MANAGEMENT |
| 8 | 3 | | 83 | BUSINESS SERVICES |
| 8 | 3 | VARIABLE | 84 | PERSONNEL SERVICES |
| 8 | 3 | | 85 | DATA PROCESSING |
| 8 | 3 | | 86 | INFORMATION SERVICES |
| 8 | 3 | | 87 | GENERAL SERVICES |
| 8 | 1 | | 88 | CONSTRUCTION MANAGEMENT |

**Figure 8. Typical Program Code Chart**

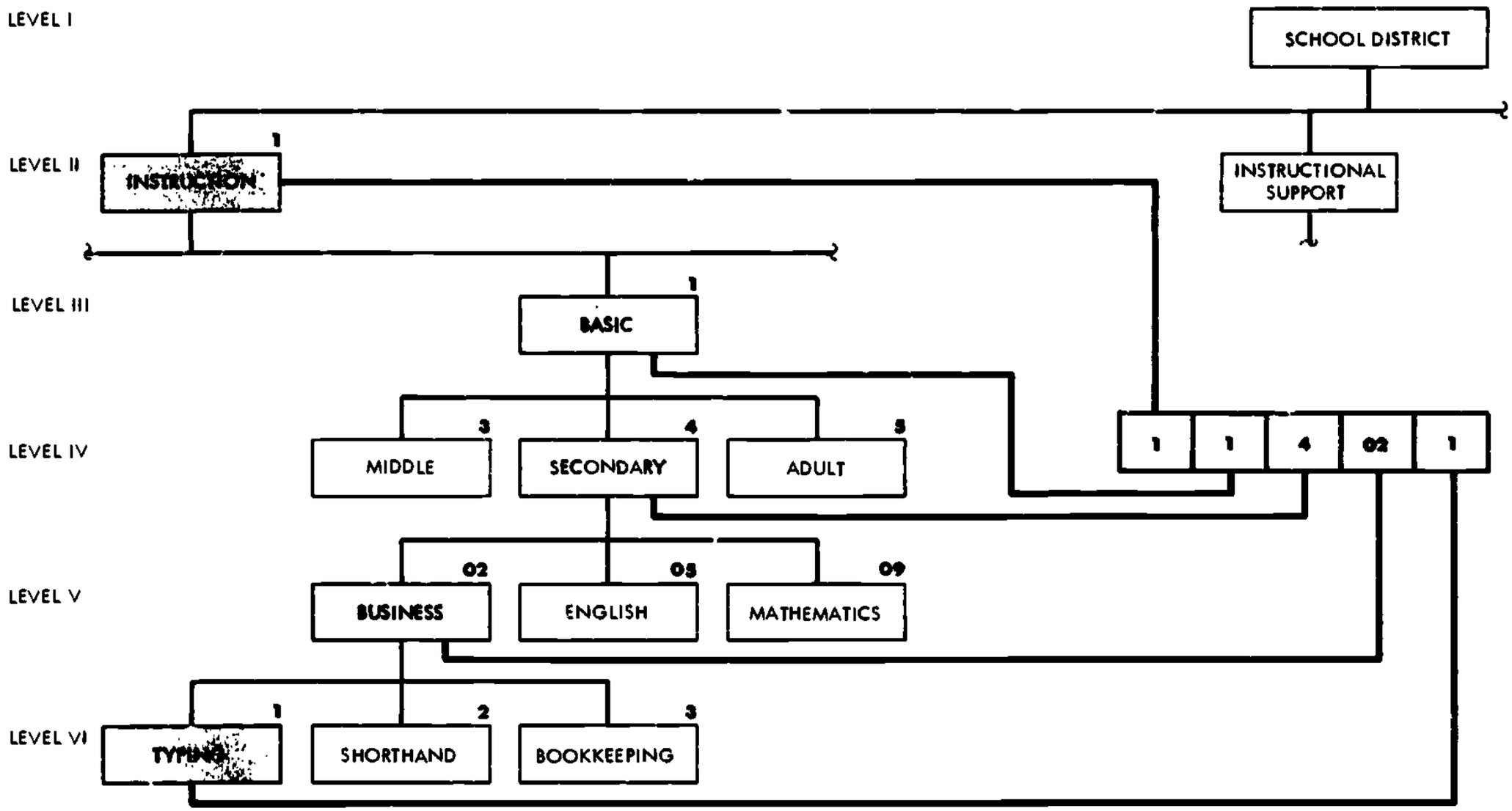


**Figure 9. Program Coding Within the Program Structure**

**Program Bndget and Mnltiyear Financial Plan**

*Implementation phase.* Initially, districts implementing PPBS will be required to preserve the ability to cast district bndgets both in a PPBS program-oriented format and in the state-mandated fnnction/object-oriented format (J-41). This reqnirement is described more fnlly nnder the next heading to follow, "Program Cost Acconnts," page 46. The following describes the steps necessary to prepare the program budget and the multiyear financial plan (MYFP).

The program description packages for all of the individual programs comprise the sonrce of information for the program bndget and the multiyear financial plan. As discussed earlier in this section, these packages will inclnde a program data sheet and documents showing, in addition to the program description narrative, the following information abont the resources reqnired:

- Estimated stndent enrollment
- Nnmber of teaching honrs or positions reqnired
- Estimate of textbook, other books, snpplies, and/or equipment replacements reqnired
- Snpport program direct service reqnirements snch as stndy trips, guidance, testing, and the like
- Eqnipment replacements
- Any other proposed expenditnres related to the program
- New eqnipment or facility reqnirements
- Revenne source classified by federal, state, connty, or district
- Source of financing if other than general fnnd

Identifying the resources reqnired for a program will reqnire close coordination between the program personnel and the business personnel of the district. The business office shonld convert the reqnired resources into dollars for the bndget year and record the resnlts on the program data sheets.

The PPBS reqnires that financial data be developed in the detail required for the bndget for the bndget year only. When data have been developed for the bndget year, it will be necessary to project financial data for fonr fntnre years for the mnltiyear financial plan (MYFP). The techniqnes used here will vary bnt must inclnde an allowance for such factors as anticipated changes in teacher pay scales, enrollment, and eqnipment replacement. The last fonr years may be planned at the total direct cost level, bnt school districts that desire additional data are encouraged to develop more detail. Although the business office will have the primary responsibility for developing these cost projections, program personnel shonld be kept informed of the resnlts.

An example of the results of identifying and costing program resonrces is shown in Figure 10, "Sample of Program Data Sheet." The steps for prodncing this information are described as follows:

Line 3. *Certificated salaries* – May be compnted in one of two ways:

a. Mnltiply the nnmber of positions reqnired (line 2) by the average salary rate for the district.

b. From personnel records, analyze personnel program assignments and allocate each specific salary to the applicable programs.

Line 4. *Classified salaries* – May be compnted in the same manner as for certificated salaries.

Line 5. *Employee benefits* – Determine the percent that total employee benefit dollars bear to total salaries and wages for the year. Multiply lines 3 and 4 by this percent and enter the estimated employee benefit cost for each program.

Line 6. *Books and supplies* – Enter the total of the tentative requisitions accompanying the program data sheet. Do not include amounts requisitioned for equipment replacements; these will be shown on line 7.

Line 7. *Equipment replacements* – Enter this amount from the tentative requisitions both for the budget year and for future years as indicated.

Line 8. *Support program services* – Compute an estimated unit cost rate for the particular support services requested and multiply the units of support services requested by this rate.

Line 9. *Other services* – Enter where applicable.

Line 10. *Capital outlay* – Enter estimated amounts for new books, equipment, sites, and the like, by year in which needed.

Line 11. *Other outgo* – Enter where applicable.

Line 12. *Total direct costs* – Enter the total of lines 3 through 11.

Line 13. *Total direct costs excluding lines 7 and 10 (equipment replacements and capital outlay)* – Subtract lines 7 and 10 from line 12 to arrive at total continuing costs.

Line 14. *Cost per a.d.a. excluding equipment replacements and capital outlay* – Divide line 13 by the estimated a.d.a. shown on line 1.

Line 15. *Projected cost increase per a.d.a.* – Enter for each year through the fifth year. The sources of this information may vary. In some cases it may be possible to obtain published projections of cost of living indexes, or the district may compute its own projection based on comparisons of its own historical cost information.

Line 16. *Projected a.d.a. cost* – Add line 15 for the projected year to line 16 of the prior year.

Line 17. *Projected a.d.a.* – Copy from line 1.

Line 18. *Projected cost excluding equipment replacements and capital outlay* – Multiply line 16 by line 17 and enter the totals for each year.

Line 19. *Equipment replacements and capital outlay* – Add lines 7 and 10.

Line 20. *Total projected direct costs* – Add lines 18 and 19.

Line 21 (through) Line 24 *Revenue sources* – Enter the anticipated revenue amounts on the appropriate line indicating source.

Line 25. *Total revenue* – Total of lines 21 through 24.

PROGRAM DATA SHEET

Mathematics — PROGAM TITLE
114090 — PROGRAM CODE
General — FUND
All Schools — LOCATION
V — PROGRAM LEVEL

| RESOURCE REQUIREMENTS | CURRENT YEAR QTY | CURRENT YEAR AMOUNT | BUDGET YEAR QTY | BUDGET YEAR AMOUNT | 2nd YEAR | 3rd YEAR | 4th YEAR | 5th YEAR |
|---|---|---|---|---|---|---|---|---|
| 1. ESTIMATED A.D.A. | 800 | | 1300 | | 1,500. | 1,500. | 2,000. | 2,000. |
| 2. TEACHER POSITIONS | 5 | | 9.5 | | 15. | 15. | 17.5 | 17.5 |
| 3. CERTIFICATED SALARIES | | $50,000. | | $100,000. | | | | |
| 4. CLASSIFIED SALARIES | | | | | | | | |
| 5. EMPLOYEE BENEFITS | 8% | 4,000. | 8% | 8,000. | | | | |
| 6. BOOKS AND SUPPLIES | | 2,500. | | 5,400. | | | | |
| 7. EQUIPMENT REPLACEMENTS | | | | 1,000. | | | 2,000. | |
| 8. SUPPORT PROGRAM SERVICES | | 800. | | 1,300. | | | | |
| 9. OTHER SERVICES | | | | | | | | |
| 10. CAPITAL OUTLAY | | | | 3,000. | | | 24,000. | |
| 11. OTHER OUTGO | | | | | | | | |
| 12. TOTAL DIRECT COSTS | | 57,300. | | 118,700. | | | | |
| 13. TOTAL DIRECT COST (EXCL. LINES 7 & 10) | | 57,300. | | 114,700. | | | | |
| 14. COST/ADA (LINE 13) | | 71.62 | | 88.23 | | | | |
| 15. PROJECTED COST INCREASE/ADA | | | | | 4.00 | 5.00 | 5.00 | 5.00 |
| 16. PROJECTED ADA COST | | | | 88.23 | 92.23 | 97.23 | 102.23 | 107.23 |
| 17. PROJECTED ADA | | | | 1,300. | 1,500. | 1,500. | 2,000. | 2,000. |
| 18. PROJECTED COST (EXCL. LINES 7 & 10) | | | | 114,700. | 138,345 | 145,845 | 204,460. | 214,460. |
| 19. EQUIP. REPLACEMENT & CAPITAL OUTLAY | | | | 4,000. | | | 26,000. | |
| 20. TOTAL PROJECTED DIRECT COSTS | | | | 118,700. | 138,345. | 145,845. | 230,460. | 214,460. |
| REVENUE SOURCES: | | | | | | | | |
| 21. FEDERAL | | 3,000. | | 7,700. | | | | |
| 22. STATE | | 3,000. | | 7,700. | | | | |
| 23. COUNTY | | | | | | | | |
| 24. LOCAL | | 51,300. | | 103,300. | 138,345. | 145,845. | 230,460. | 214,460. |
| 25. TOTAL | | 57,300. | | 118,700. | 138,345. | 145,845. | 230,460. | 214,460. |

RECOMMENDED BY: DATE

BOARD ADOPTION DATE

Figure 10. Sample of Program Data Sheet

In effect, the program data sheet is a program budget and multiyear financial plan for the specific program. The individual program data sheets must then be summarized by the business office into a tentative district program budget and multiyear financial plan such as the one shown in Figure 11. The columns labeled "Per output unit" in Figure 11 indicate program data in terms of cost per output unit. The choice of the particular unit used is at the discretion of each district consistent with the particular types of programs implemented. In the illustration, the output unit consists of pupil hours. The total cost of a program, as entered on the program data sheets, is divided by the total output units (pupil hours) to determine the output unit cost per program. For a support program, a.d.a. or some other unit of measurement may be more applicable.

*Operational phase*. After the initial program budget and the MYFP have been developed, it will be necessary to update the underlying program data sheets each year. This will require analysis and revision of the ongoing programs and the development of data for new programs. The MYFP must be available to assist in the decision-making process and, therefore, should be developed and approved on a schedule established by the school district consistent with its budget preparation schedule.

## Program Cost Accounts

*Implementation phase*. Once the tentative program budget and the multiyear financial plan have been adopted by the board, the business office must develop program cost accounts for recording encumbrances and expenditures both by program and by object of expenditure within a program.

Object classification: In the 1968 edition of the *California School Accounting Manual*, expenditures are classified by general function (such as administration and instruction) and by object (such as books, salaries, and supplies). In a PPBS the related program and the object of expenditure form the major classifications. The functional areas are identified by the program coding structure.

A great deal of research has been done by the Accounting Research Committee of the California Association of School Business Officials, Northern Section, in developing a basic chart of object classification codes. It is recommended that this chart, with minor modifications, be utilized in the PPBS.

In the modified chart shown in Figure 12, the object classification code has been designed as a three-digit number in which the first digit represents the object group, the second digit denotes the major object classifications, and the third digit is unassigned to allow more detailed classifications of objects if required by the districts.

Until current state reporting requirements are revised, it will be necessary to cross-reference the present state-mandated function/object account classifications with the program/object classifications in order to reconcile the district's program-oriented records with the monthly expenditure reports of its office of county superintendent of schools.

The most feasible method of maintaining this cross reference will vary, depending on the accounting system of the individual districts. In districts with data-processing capabilities, it will probably be more convenient to store both the function/object and the program/object account code numbers in the expenditure account record files.

In smaller districts with manual systems or mechanical bookkeeping equipment and a relatively low volume of warrants, it will be easier to double-code the warrant copies prior to submission to the office of the county superintendent of schools.

TENTATIVE BUDGET AND MYFP

BUDGET YEAR _____

| PROGRAM | | | ESTIMATED COSTS | | | | | | | | | | | | BUDGET YEAR REVENUE SOURCES | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | CURRENT YEAR | | BUDGET YEAR | | 2ND YEAR | | 3RD YEAR | | 4TH YEAR | | 5TH YEAR | | | | |
| LEVEL | DESCRIPTION | CODE | TOTAL | PER OUTPUT UNIT | TOTAL | PER OUTPUT UNIT | TOTAL | PER OUTPUT UNIT | TOTAL | PER OUTPUT UNIT | TOTAL | PER OUTPUT UNIT | TOTAL | PER OUTPUT UNIT | FEDERAL | STATE | LOCAL |
| II | INSTRUCTION | 1 | | | | | | | | | | | | | | | |
| III | BASIC | 11 | | | | | | | | | | | | | | | |
| IV | HIGH SCHOOL | 114 | | | | | | | | | | | | | | | |
| V | MATHEMATICS | 11409 | | | | | | | | | | | | | | | |
| VI | ALGEBRA | XX | $11,000 | $7.50 | $12,000 | $7.60 | $14,000 | $7.10 | $15,000 | | $16,000 | | $17,000 | | | | |
| VI | GEOMETRY | XX | 12,000 | 9.00 | 14,000 | 9.00 | 14,000 | 8.00 | 15,500 | | 16,000 | | 16,000 | | | | |
| VI | TRIGONOMETRY | XX | | | 8,000 | 5.00 | 11,000 | 4.00 | 12,500 | | 13,500 | | 14,000 | | | | |
| | SUBTOTAL | | $23,000 | $8.75 | $34,000 | $8.40 | $39,000 | $6.50 | $43,000 | $6.50 | $45,500 | $6.50 | $47,000 | $6.50 | $6,000 | | $28,000 |
| V | ENGLISH | 11405 | | | | | | | | | | | | | | | |
| VI | CREATIVE WRITING | XX | $15,000 | $9.00 | $16,500 | $8.53 | $17,000 | $6.00 | $18,000 | | $19,000 | | $20,000 | | | | |
| VI | LITERATURE | XX | 11,000 | 8.00 | 12,000 | 8.20 | 10,000 | 6.50 | 12,000 | | 13,000 | | 11,000 | | | | |
| | SUBTOTAL | | $26,000 | $8.15 | $28,500 | $8.30 | $27,000 | $6.40 | $30,000 | $6.40 | $32,000 | $6.40 | $31,000 | $6.40 | | | $28,500 |
| III | TOTAL BASIC | 11 | XXX | XX | | | | | | | | | | | | | |
| III | TOTAL SPECIAL | 12 | XXX | XX | | | | | | | | | | | | | |
| III | TOTAL VOCATIONAL | 15 | XXX | XX | | | | | | | | | | | | | |
| III | TOTAL COMPENSATORY | 16 | XXX | XX | | | | | | | | | | | | | |
| III | TOTAL CONTINUING | 17 | XXX | XX | | | | | | | | | | | | | |
| II | TOTAL INSTRUCTION | 1 | XXX | XX | | | | | | | | | | | | | |

**Figure 11. Sample of District Program Budget and Multiyear Financial Plan**

100 CERTIFICATED SALARIES

- 110 TEACHER'S SALARIES (FULL - PART TIME OR SUBSTITUTE, RESOURCE TEACHERS, READING SPECIALISTS, CERTIFICATED AIDES, TUTORS, ETC.)
- 120 PRINCIPALS' SALARIES (INCLUDING VICE PRINCIPAL, DEANS, ASSISTANT DEANS)
- 130 SUPERVISORS' SALARIES (COORDINATORS, DIRECTORS CONSULTANTS AND SUPERVISORS OF SPECIFIC AREAS OF CURRICULUM OR INSTRUCTIONAL PROGRAM)
- 140 LIBRARIANS' SALARIES
- 150 GUIDANCE, WELFARE, AND ATTENDANCE CONSULTANTS' SALARIES (INCLUDING SOCIAL WORKERS, AND ALL CERTIFIED PERSONNEL DOING PUPIL PERSONNEL WORK; PSYCHOLOGISTS AND PHYCHOMETRISTS; COUNSELORS)
- 160 NURSES' AND PHYSICIANS' SALARIES, AND OTHER CERTIFIED SALARIES OF HEALTH PROGRAM
- 170 SUPERINTENDENTS' SALARIES (DEPUTY AND ASSISTANT SUPERINTENDENTS' SALARIES)
- 180 OTHER CERTIFIED SALARIES OF DISTRICT ADMINISTRATIVE OFFICES (INCLUDES ADMINISTRATIVE ASSISTANTS, DIRECTORS OF PERSONNEL SERVICES, ETC.)
- 190 OTHER CERTIFIED SALARIES

200 CLASSIFIED SALARIES

- 210 TEACHER AIDES AND OTHER CLASSIFIED SALARIES FOR DIRECT TEACHING ASSISTANCE (INCLUDING TUTORS, TEACHING ASSISTANTS, READERS FOR BLIND, NOONTIME SUPERVISORS, CLASSIFIED HEALTH PERSONNEL, ETC.)
- 220 SCHOOL CLERICAL SALARIES (INCLUDING SECRETARIES, ATTENDANCE CLERKS, LIBRARY CLERKS, ETC.)
- 230 MAINTENANCE AND OPERATIONAL SALARIES (CUSTODIANS', MATRONS', GARDENERS', PAINTERS', CARPENTERS', AND OTHER CLASSIFIED SALARIES FOR OPERATION, MAINTENANCE AND REPAIR OF EQUIPMENT, BUILDINGS AND GROUNDS)
- 240 SCHOOL LUNCH EMPLOYEES' SALARIES
- 250 SALARIES OF DRIVERS, AND MECHANICS, AND RELATED EMPLOYEE ASSIGNMENTS FOR UPKEEP AND OPERATION OF DISTRICT-OWNED VEHICLES USED FOR TRANSPORTING STUDENTS. (INCLUDES BUS OPERATORS, FIELD COORDINATORS, GASOLINE PUMP ATTENDANTS, ETC.)
- 260 SALARIES OF WAREHOUSEMEN, DELIVERYMEN, TRUCK DRIVERS, AND OTHER PERSONNEL INVOLVED IN THE OPERATION OF A STORES SYSTEM
- 270 CLASSIFIED SALARIES OF DISTRICT INSTRUCTIONAL SUPPORT AND PUPIL SERVICE PERSONNEL
- 280 CLASSIFIED SALARIES OF DISTRICT ADMINISTRATIVE AND CLERICAL PERSONNEL (INCLUDES GOVERNING BOARD MEMBERS, AS WELL AS BUSINESS MANAGERS, CONTROLLERS, DIRECTORS, ACCOUNTANTS, COMPUTER OPERATORS, SECRETARIES, CLERKS, ETC.)
- 290 OTHER CLASSIFIED SALARIES

300 EMPLOYEE BENEFITS

- 310 STATE TEACHERS' RETIREMENT SYSTEM ANNUITY FUND
- 320 STATE TEACHERS' RETIREMENT SYSTEM PERMANENT FUND
- 330 STATE EMPLOYEES' RETIREMENT SYSTEM
- 340 OLD AGE AND SURVIVORS' INSURANCE
- 350 HEALTH AND WELFARE PLANS (INCLUDING GROUP LIFE INSURANCE)
- 360 WORKMEN'S COMPENSATION INSURANCE

400 BOOKS, SUPPLIES, AND EQUIPMENT REPLACEMENTS

- 410 "TEXTBOOKS" (IN ACCORDANCE WITH STATE REQUIREMENTS)
- 420 "OTHER BOOKS" (IN ACCORDANCE WITH STATE REQUIREMENTS. INCLUDES LIBRARY BOOKS)
- 430 INSTRUCTION SUPPLIES
- 440 SUPPORT PROGRAM SUPPLIES (CUSTODIAL, GARDENING, MAINTENANCE, AND OTHER SUPPLIES FOR OPERATION, REPAIR AND UPKEEP OF EQUIPMENT, BUILDINGS AND GROUNDS, VEHICLES, SCHOOL LUNCH, MEDICAL, ETC.)
- 450 OFFICE SUPPLIES
- 460 EQUIPMENT REPLACEMENTS

500 CONTRACTED SERVICES AND OTHER OPERATING EXPENSES

- 510 PERSONAL SERVICES OF CONSULTANTS, LECTURERS, AND OTHERS FOR DIRECT ASSISTANCE TO TEACHERS, PUPILS, OR THE CURRICULUM OR HEALTH PROGRAM. (INCLUDES WASC REPORTS, TESTING SERVICE, ETC.)
- 520 TRAVEL AND CONFERENCES, AND OTHER EXPENSES
- 530 DUES AND MEMBERSHIPS
- 540 INSURANCE
- 550 UTILITIES AND HOUSEKEEPING SERVICES (INCLUDES WATER, FUEL, LIGHT, POWER, TELEPHONE, GARBAGE DISPOSAL, LAUNDRY, AND DRYCLEANING, ETC.)
- 560 CONTRACT SERVICES, RENTS AND LEASES, ETC.
- 570 LEGAL AND AUDIT EXPENSES (INCLUDES ASSESSMENTS, JUDGMENTS, LAWYERS' FEES, ELECTION COSTS, ETC.)
- 580 OTHER SERVICES AND EXPENSE FOR ADMINISTRATIVE, DISTRICT-WIDE OPERATION (INCLUDES SURVEY, APPRAISALS, ADVERTISING, BOND SALES COSTS, ETC.)
- 590 INTERPROGRAM CHARGES AND CREDITS FOR DIRECT SERVICES

600 CAPITAL OUTLAY

- 610 BOOKS FOR NEW OR EXPANDED LIBRARIES
- 620 NEW EQUIPMENT
- 630 NEW SITES AND IMPROVEMENT OF SITES
- 640 NEW BUILDINGS AND IMPROVEMENT OF BUILDINGS
- 650 OTHER NEW FACILITIES

700 OTHER OUTGO

- 710 DEBT SERVICE (INCLUDING INTEREST AND REDEMPTION OF BONDS, LOAN INTEREST, ETC.)
- 730 OUTGOING TRANSFERS (INCLUDING REPAYMENTS OF STATE AND PUBLIC SCHOOL BUILDING FUND APPORTIONMENTS, TUITION, TRANSFERS, AND INTERFUND TRANSFERS, TRANSFERS TO OTHER DISTRICTS, ETC.)
- 780 UNDISTRIBUTED RESERVE

INCOME CLASSIFICATIONS AND CODES

800 INCOME

- 810 FEDERAL INCOME RECEIVED FROM FEDERAL SOURCES
- 820 FEDERAL INCOME RECEIVED FROM STATE SOURCES
- 830 FEDERAL INCOME RECEIVED FROM COUNTY SOURCES
- 840 FEDERAL INCOME RECEIVED FROM LOCAL SOURCES
- 850 COMBINED STATE AND FEDERAL INCOME
- 860 STATE INCOME
- 870 COUNTY INCOME
- 880 LOCAL INCOME
- 890 INCOMING TRANSFERS

GENERAL LEDGER CLASSIFICATIONS AND CODES

900 ASSETS, LIABILITIES, AND FUND BALANCES

- 910 CASH, INVESTMENTS, AND RECEIVABLES
- 920 STORES INVENTORIES AND PREPAID EXPENSE
- 930 OTHER CURRENT ASSETS
- 940 FIXED ASSETS
- 950 LIABILITIES
- 960 RESERVES
- 970 SURPLUS
- 980 BUDGETARY ACCOUNTS

**Figure 12. Three-Digit Object Classification Codes**

Expenditure ledger: The actual forms on which the program financial transactions are recorded in the expenditure ledger will vary among districts. A program cost ledger should include the following information for each program, object classification, and school or department:

- Date of transaction
- Posting reference
- Amount of appropriation
- Encumbrance amount
- Expenditure and abatement amounts
- Unencumbered balance

Figure 13 presents a sample program cost ledger card which might be used in a small district.

*Operational phase*. Charges to programs may originate through (1) salary expenditures; (2) other expenditures; and (3) support-service interprogram direct charges.

Recording salary expenditures: At the beginning of each year, the salary encumbrance summary should be analyzed in terms of personnel program assignments and an allocation of each salary made to the applicable programs. These encumbrances will then be posted to the program cost ledgers.

PROGRAM COST LEDGER CARD

PROGRAM: VOCATIONAL NO. 15-0000
OBJECT: SUPPLIES NO. 440

| | DATE | REFERENCE | (A) APPROPRIATION | (B) ENCUMBRANCE | (C) CUMULATIVE ENCUMBRANCE | (D) EXPENDITURES (ABATEMENTS) | (E) UNENCUMBERED BALANCE |
|---|---|---|---|---|---|---|---|
| (1) | 7/1 | AP. | $15.000.00 | | | | $15.000.00 |
| (2) | 8/1 | P.O. 8745 | | $4,500.00 | $4,500.00 | | $10,500.00 |
| (3) | 9/1 | P.O. 8745 | | ($90.00) | $4.410.00 | $4,410.00 | $10,590.00 |

(1) TO RECORD APPROPRIATION FOR VOCATIONAL EDUCATIONAL SUPPLIES.

(2) TO RECORD ENCUMBRANCE FOR PURCHASE ORDER ISSUED FOR SUPPLIES.

(3) TO RECORD PAYMENT OF P.O. 8745 TAKING 2% DISCOUNT AND DISENCUMBERING FOR THE DISCOUNT. IF THE EXACT AMOUNT ENCUMBERED HAS BEEN PAID NO ENTRY WOULD HAVE BEEN NECESSARY IN THE ENCUMBRANCE OR CUMULATIVE ENCUMBRANCE COLUMNS. - THE LEDGER AT SEPTEMBER 1 INDICATES $10,590 AVAILABLE (COLUMN (E)) AND NO ACCOUNTS PAYABLE (COLUMN (C) MINUS COLUMN (D)).

NOTE:
THE USE OF A CUMULATIVE ENCUMBRANCE COLUMN ELIMINATES THE NEED FOR AN EXTRA POSTING STEP TO DISENCUMBER AMOUNTS PAID. DISENCUMBERING NEED ONLY BE DONE IN THE CASES WHERE THE AMOUNT PAID DIFFERS FROM THE AMOUNT ENCUMBERED.

**Figure 13. Sample of Program Cost Ledger Card**

Allocations of salaries will be made on the basis of percent of time assigned to each program. The districts have the option of making the allocation either at actual individual salary rates or at a composite or weighted average rate for each salary classification. If the average rate method is used, the average should be computed on a districtwide basis.

Salary expenditures must be summarized from the payroll warrant register, or similar record, by program and object classifications. This summary should be posted monthly to the program cost ledgers.

Recording other expenditures: Generally, encumbrances and expenditures will be posted to the program cost ledgers directly from requisitions or purchase orders and warrants. The accounting copies of source documents (requisitions, purchase orders, vendors' invoices, and warrants) must itemize amounts by program and object codes. In small districts with a relatively low volume of purchase orders, a purchase order encumbrance register that shows the program codes, object codes, and purchase order amounts may be maintained. The register entries would be summarized by program and object codes and posted to the program cost ledgers monthly. Whether encumbrances are posted to the program ledgers from approved requisitions or from purchase orders is at the option of the districts.

Recording support service interprogram direct charges· When a support department provides services directly for other programs (such as the transportation department providing bus service for a study trip under a basic education program), an interprogram charge must be made. A "services billed" register to record the nature of the service, the program to be charged, and the amount charged should be established and maintained by the support service departments and transmitted to the accounting department. The information from the register should be posted to the program ledgers at least monthly.

The total cost of the service provided will be billed as direct charges to the program. Total cost might include a factor for service department overhead (such as department administration and clerical costs). The ratio of overhead costs to direct costs should be determined by the district for each support service and an overhead factor included in the interprogram billing rates.

The basis on which support program direct services are billed to instruction and community service programs may vary according to the nature of the service. In the 1968 edition of the *California School Accounting Manual*, several methods of prorating direct costs to special and regular programs are discussed. These same bases can be applied in the allocation of support program direct services to the programs served. The methods presented in the manual follow:

> Several methods may be employed for prorating *direct* expenses to each special and regular program, but the method to be used is determined by the local situation. In one case it may be appropriate to prorate on the basis of time served, while in other cases it may be more suitable to prorate on the basis of time-floor area, hour-consumption, number of pupils, or quantity consumed. These methods are defined as follows:
>
> *The time method consists of prorating expense paid to a given program or activity in proportion to the time spent*. For example, a person working one-fourth of his time as a regular teacher in classes for driver training and three-fourths of his time as a regular teacher for pupils enrolled in grades nine to twelve would have 25 percent of his salary charged to the automobile driver training program.
>
> *The time-floor area method is the proration of expenses to a given program in proportion to the gross floor area and the length of time such floor area is used*. For example, assume that $1,000 would be required for a floor treatment of an existing plant area of 60,000 square feet. If 20,000 square feet or one-third of the total is used in equal amounts of time by classes for adults and for grades thirteen and fourteen, the amount of expense distributed to classes for adults would be one-half of one-third of $1,000 or $166.67.

*The hour-consumption method is used when prorating a part of an expenditure to a given program in proportion to the length of time the facilities are in use for such program.* For example, if classes for the mentally retarded use certain school facilities, the expenditures for water, electricity, and heat could be prorated on the basis of the hours the building is used for the mentally retarded program in comparison with the amount of time the building is used for all types of classes.

*The number of pupils method consists of prorating expense to a given program in proportion to the actual number of pupils involved or to whom services may be rendered.* For example, assume that an individual counselor interviewed 50 pupils in classes for the mentally gifted and 150 pupils in grades nine to twelve of a high school district; one-fourth of the counselor's salary would be charged to the mentally gifted program.

*The quantity consumed method is used for prorating expense to a given activity in proportion to the actual amount of supplies or commodities consumed.* For example, assume that $100 worth of paper was purchased, and one-tenth of the paper was used by students enrolled in classes for the physically handicapped minors; $10 would be a proper charge to such activity. [Pages VI-7, VI-8.]

One of the five methods described in the foregoing should be used unless a more appropriate basis is clearly justified. It is important that, wherever possible, the support program costs for direct services to other programs be allocated on a direct basis. At the end of the year, any unallocated costs remaining in the support programs may be charged to the instruction programs on a prorata basis at the option of the district.

## Program Reporting and Evaluation

*Implementation phase.* In order to report information required for decision making, the decision-making roles within the school district must be determined. This is accomplished by examining the function and activities of each organization and individual involved in the decision-making process. The existing formal documentation, such as position descriptions and organization activity descriptions, should be analyzed and personal interviews conducted to determine the decision-making roles.

When the decision-making roles have been identified, it is necessary to determine what information is required to make the decisions. Decisions are choices between alternate courses of action. Accordingly, program performance indicators, such as costs, benefits, and trends relevant to the decision, must be identified.

After the information requirements are established, it will be necessary for the school district to develop a data base comprised of the following:

- Pupil statistics
- Program performance information
- Personnel assignments
- Facility usage
- Financial data
- Community profile data

*Operational phase.* After the required data have been collected, they must be arranged in report format that will facilitate their use by management. Therefore, a reporting system is required – one that will enable management to monitor and control program performance relative to the accomplishment of objectives within the budgeted cost and time frame. The reporting must be on a sufficiently timely basis to enable management to take corrective action if either performance or cost variances arise.

Personnel involved in the management process will require only those reports pertaining to their particular areas of activity and responsibility. A distribution list should be established for the various report documents consistent with the specified decision-making roles.

The frequency of reporting should also be established. Performance reporting may be on a weekly, monthly, or annual basis depending on the type of program, its objectives, and the evaluative criteria. Cost reporting may also vary, but most districts will probably find it desirable to report current budget status on at least a monthly cycle.

Figure 14 is a simplified flow diagram representing the typical input/output relationships of cost data. The program cost ledger is the source of the data needed to prepare the program budget status report (Figure 15), which is the primary cost control document.

To enable management evaluation of program expenditures, historical costs can be summarized and classified in a variety of formats. Cost totals should be expressed in a meaningful unit of measure, such as cost per pupil based on a.d.a. or cost per student hour of instruction.

The basic program cost report formats shown in figures 16 through 18 illustrate the various types that may be used.

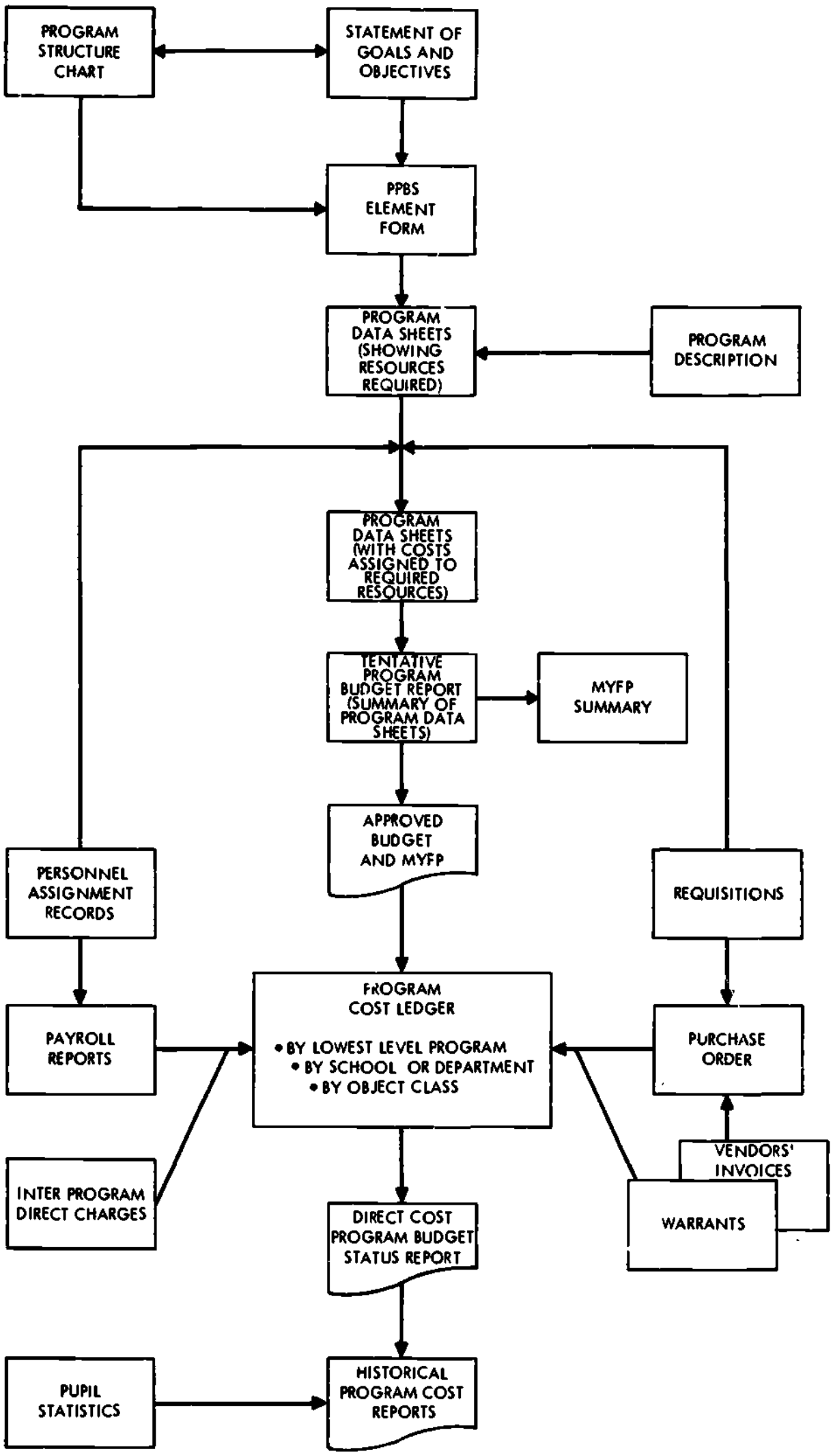


**Figure 14. Reporting Input/Output Flow Diagram**

BUDGET STATUS REPORT

DATE _____

| PROGRAM LEVEL | PROGRAM CODE | PROGRAM DESCRIPTION | BUDGET | TRANSFERS | YEAR TO DATE ENCUMBRANCES | EXPENDITURES | UNENCUMBERED BALANCE |
|---|---|---|---|---|---|---|---|
| II | 1 | INSTRUCTION: | | | | | |
| III | 1 | BASIC: | | | | | |
| IV | 4 | HIGH SCHOOL: | | | | | |
| V | 09 | MATHEMATICS: | | | | | |
| VI | | ALGEBRA | $ 12,000 | ($ 1,000) | $ 10,000 | $ 8,000 | $ 1,000 |
| VI | | GEOMETRY | 16,000 | | 15,000 | 14,000 | 1,000 |
| VI | | TRIGONOMETRY | 8,000 | 1,000 | 11,000 | 11,000 | (2,000) |
| | | SUBTOTAL | $ 36,000 | 0 | $ 36,000 | $ 33,000 | 0 |
| V | 05 | ENGLISH | | | | | |
| VI | | CREATIVE WRITING | $ 16,500 | | $ 16,000 | $ 15,500 | $ 500 |
| VI | | LITERATURE | 12,000 | | 11,000 | 11,000 | 1,000 |
| | | SUBTOTAL | $ 28,500 | | $ 27,000 | $ 26,500 | $ 1,500 |
| | | TOTAL BASIC | $ 198,000 | | $ 102,500 | $ 98,600 | $ 95,500 |
| III | 2 | SPECIAL: | | | | | |
| IV | 4 | HIGH SCHOOL: | | | | | |
| V | 30 | MR | $ 23,000 | | $ 18,000 | $ 16,000 | $ 5,000 |
| | 40 | MG | 18,000 | | 17,000 | 14,000 | 1,000 |
| | 50 | EH | 21,000 | | 17,000 | 17,000 | 4,000 |
| | | TOTAL SPECIAL | $ 84,000 | | $ 78,000 | $ 70,000 | $ 6,000 |
| | | TOTAL DISTRICT PROGRAMS | $1,785,000 | | $1,600,400 | $1,400,000 | $ 184,600 |

NOTE: SEQUENCE OF THE ABOVE PROGRAM LISTINGS IS FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL SEQUENCES USED BY A DISTRICT WILL BE DEPENDENT ON RESPONSIBILITY ASSIGNMENTS WITHIN THE DISTRICT.

**Figure 15. Sample of Program Budget Status Report**

LEVEL II PROGRAM COST REPORT

PERIOD ENDING _____

| CODE | OBJECT CLASSIFICATION | LEVEL II - PROGRAM | | | | | LEVEL I |
|---|---|---|---|---|---|---|---|
| | | 1 INSTRUCTION | 2 INSTRUCTIONAL SUPPORT | 3 PUPIL SERVICES | 4 GENERAL SUPPORT | 5 COMMUNITY SERVICES | TOTAL DISTRICT |
| | DIRECT COSTS | | | | | | |
| | CERTIFICATED SALARIES: | | | | | | |
| 110 | TEACHERS | $132,000 | | | | $ 2.000 | $134.000 |
| 120 | PRINCIPALS | | | | $10,000 | | 10.000 |
| • | • | | | | | | |
| 170 | SUPERINTENDENTS | | | | 20,000 | | 20.000 |
| | SUBTOTAL | $132,000 | | | $30,000 | $ 2.000 | $164.000 |
| | CLASSIFIED SALARIES: | | | | | | |
| 210 | TEACHING AIDES | $ 4.000 | $XXX | | | | $ 12.000 |
| | SUBTOTAL | $ 4.000 | $XXX | | | | $ 12.000 |
| 300 | EMPLOYEE BENEFITS | $ 9.200 | $XXX | $XXX | $XXX | $XXX | $ 26.000 |
| | BOOKS, SUPPLIES & EQUIPMENT REPLACEMENTS: | | | | | | |
| 410 | TEXTBOOKS | $ 600 | $XXX | | | | $ 7.000 |
| 420 | OTHER BOOKS | 400 | XXX | $XXX | | | 8.000 |
| 430 | INSTRUCTION SUPPLIES | 1,900 | XXX | | | | $ 21.000 |
| 440 | OPERATING SUPPLIES | | | XXX | $XXX | $XXX | XXX |
| 450 | OFFICE SUPPLIES | | XXX | XXX | XXX | XXX | XXX |
| 460 | EQUIPMENT REPLACEMENTS | 860 | | XXX | XXX | | 7.000 |
| 470 | EQUIPMENT REPAIRS | | | | | | |
| | SUBTOTAL | $ 3,760 | $XXX | $XXX | $XXX | $XXX | $ 42.000 |
| | SERVICES AND OTHER: | | | | | | |
| 510 | CONSULTANTS | | | | | | |
| 520 | TRAVEL | | $XXX | | $XXX | | $ 4,000 |
| 540 | INSURANCE | | | | XXX | | 18,000 |
| 550 | UTILITIES | | | | | | 26.000 |
| 590 | INTER PROGRAM CHARGES | $ 2,500 | | $XXX | | $ 4,000 | 0 |
| | SUBTOTAL | $ 2,500 | $XXX | $XXX | $XXX | $ 4,000 | $ 48,000 |
| | CAPITAL OUTLAY: | | | | | | |
| 610 | BOOKS | | | | | | |
| 620 | NEW EQUIPMENT | $ 1,000 | | | $XXX | | $ 4.000 |
| | SUBTOTAL | $ 1,000 | | | $XXX | | $ 4,000 |
| | OTHER OUTGO: | | | | | | |
| 710 | DEBT SERVICE | | | | | | |
| | SUBTOTAL | | | | $XXX | | $ 8,000 |
| | TOTAL DIRECT COSTS | $152.460 | $80.000 | $80.540 | $85.000 | $ 6.000 | $404.000 |
| | ALLOCATED INDIRECT COSTS | 115,000 | 80.000 | 38.000 | 85.000 | 12.000 | 0 |
| | TOTAL COSTS | $267,460 | 0 | $118,540 | 0 | $18,000 | $404,000 |

**Figure 16. Sample of Level II Program Cost Report**

LEVEL III PROGRAM COST REPORT

PERIOD ENDING _____

| CODE | OBJECT CLASSIFICATION | LEVEL III PROGRAM | | | | | LEVEL II |
|---|---|---|---|---|---|---|---|
| | | 05 BASIC | 10 SPECIAL | 15 VOCATIONAL | 20 CONTINUING | 25 COMPENSATORY | TOTAL PROGRAM GROUP |
| | DIRECT COSTS | | | | | | |
| | CERTIFICATED SALARIES: | | | | | | |
| 110 | TEACHERS | $ 20,000 | $ 4,000 | $ 8,000 | XXX | | $132.000 |
| | SUBTOTAL | $ 20,000 | $ 4,000 | $ 8,000 | XXX | | $132,000 |
| | CLASSIFIED SALARIES: | | | | | | |
| 210 | TEACHING AIDES | $ 4,000 | | | | | $ 4,000 |
| | SUBTOTAL | $ 4,000 | | | | | $ 4,000 |
| | EMPLOYEE BENEFITS: | | | | | | |
| 310 | STRS ANNUITY | $ 2,400 | $ 1,600 | $ 300 | | | $ 4,300 |
| 320 | STRS PERMANENT | 1,200 | 300 | 600 | | | 2,100 |
| 330 | SERS | 100 | 25 | | | | 125 |
| 340 | FICA | 300 | 75 | | | | 375 |
| 350 | H & W | 400 | 300 | 200 | | | 900 |
| 360 | COMPENSATION INSURAN. | 400 | 500 | 500 | | | 1,400 |
| | SUBTOTAL | $ 4,800 | $ 2,800 | $ 1,600 | | | $ 9,200 |
| | BOOKS SUPPLIES AND EQUIPMENT REPLACEMENT: | | | | | | |
| 410 | TEXTBOOKS | $ 600 | | | | | $ 600 |
| 420 | OTHER BOOKS | 300 | | $ 100 | | | 400 |
| 430 | INSTRUCTION SUPPLIES | 900 | $ 700 | 300 | | | 1,900 |
| 460 | EQUIPMENT REPLACEMENTS | 660 | | 200 | | | 860 |
| | SUBTOTAL | $ 2,460 | $ 700 | $ 600 | | | $ 3,760 |
| | SERVICES AND OTHER: | | | | | | |
| 590 | INTER PROGRAM CHARGES | $ 900 | $ 1,400 | $ 200 | | | $ 2,500 |
| | SUBTOTAL | $ 900 | $ 1,400 | $ 200 | | | $ 2,500 |
| | CAPITAL OUTLAY: | | | | | | |
| 620 | NEW EQUIPMENT | | | $ 1,000 | | | $ 1,000 |
| | SUBTOTAL | | | $ 1,000 | | | $ 1,000 |
| | TOTAL DIRECT COSTS | $ 32,160 | $ 8,900 | $11,400 | | | $152,460 |
| | ALLOCATED INDIRECT COSTS | 3,000 | 2,000 | 1,000 | | | 115,000 |
| | TOTAL COSTS | $ 35,160 | $ 10,900 | $12,400 | XXX | | $267,460 |

**Figure 17. Sample of Level III Program Cost Report**

DIRECT COST REPORT BY PROGRAM

| PROGRAM | DIRECT INSTRUCTION COSTS | DIRECT SUPPORT COSTS | | | TOTAL DIRECT COSTS OF INSTRUCTION | NET SUPPORT PROGRAM COSTS |
|---|---|---|---|---|---|---|
| | | INSTRUCTION SUPPORT | PUPIL SERVICES | GENERAL SUPPORT | | |
| INSTRUCTION: | | | | | | |
| BASIC: | | | | | | |
| ENGLISH | $ 82,400 | | | | $ 82,400 | |
| MATHEMATICS | 65,900 | $ 1,500 | | | 67,400 | |
| SOCIAL SCIENCE | 43,000 | 2,500 | | | 45,500 | |
| TOTAL BASIC | $1,420,800 | $ 7,000 | $ 4,000 | $ 6,000 | $1,437,800 | |
| SPECIAL: | | | | | | |
| MR | $ 53,000 | | $ 3,300 | $ 3,000 | $ 59,300 | |
| MG | 26,000 | | 1,000 | | 27,000 | |
| EH | 73,000 | | 2,000 | | 75,000 | |
| PH | 36,700 | | 1,000 | 9,000 | 46,700 | |
| TOTAL SPECIAL | $ 188,700 | | $ 7,300 | $ 12,000 | $ 208,000 | |
| TOTAL INSTRUCTION | $1,609,550 | $ 7,000 | $ 11,300 | $ 18,000 | $1,645,850 | |
| INSTRUCTIONAL SUPPORT | | | | | | |
| MEDIA | | $ 8,000 | | | | $ 8,000 |
| LIBRARY | | 5,000 | | | | 5,000 |
| TOTAL INSTRUCTIONAL SUPPORT | | XXXXXX | | | | $ 13,000 |
| PUPIL SERVICES: | | | | | | |
| HEALTH | | | $ 21,700 | | | $ 21,700 |
| GUIDANCE | | | 15,650 | | | 15,650 |
| TOTAL PUPIL SERVICES | | | XXXXXX | | | $ 37,350 |
| GENERAL SUPPORT | | | | | | |
| SCHOOL ADMINISTRATION | | | | $ 150,000 | | $ 150,000 |
| MAINTENANCE & OPERATION | | | | 324,700 | | 324,700 |
| DISTRICT ADMINISTRATION | | | | 121,650 | | 121,650 |
| TRANSPORTATION | | | | 44,800 | | 44,800 |
| FOOD SERVICE | | | | 6,500 | | 6,500 |
| TOTAL GENERAL SUPPORT | | | | XXXXXX | | $ 647,650 |
| TOTAL DISTRICT | $1,609,550 | $ 20,000 | $ 48,650 | $ 665,650 | $1,645,850 | $ 698,000 |
| | | | | | | $1,645,850 |
| TOTAL DISTRICT COSTS | | | | | | $2,343,850 |

**Figure 18. Sample of Direct Cost Report by Program**

## Part Four

## PPBS GLOSSARY

*Alternatives* – Possible objectives and/or means of achieving objectives. Alternatives are evaluated in terms of costs as related to outputs. Additional consideration includes the time required for implementing each alternative and the uncertainties inherent in selecting any one alternative.

*Budget document* – The instrument used by the budget-making authority to present a comprehensive financial program to the governmental unit. It includes a balanced statement of the revenues and expenditures of the governmental unit and other exhibits to report (1) the financial condition of the several funds of the governmental unit at the end of the preceding completed fiscal period; (2) the estimated condition at the end of the fiscal period in progress; and (3) the estimated condition at the close of the ensuing fiscal period, based on the financial proposals contained in the budget document. See also "program budget."

*Constraints* – Conditions that limit the range, level, or method of operations. These conditions can exist within and outside a system.

*Criteria* – Statements of preferred outcomes used as a basis of judgment when choosing among alternatives.

*Data* – A group of facts or statistics – to be distinguished from "information."

*Decision* – A choice made between alternative courses of action with the best available knowledge of the costs and benefits associated with each.

*Direct costs* – Those costs which can be charged directly as a part of the cost of a product or service, of a department, or of an operating unit; these are distinguished from overhead and other indirect costs which must be prorated among several products or services, departments, or operating units.

*Encumbrances* – Obligations in the form of purchase orders, contracts, salaries, or other commitments which are chargeable to an appropriation and for which a part of the appropriation is reserved. Encumbrances are liquidated when the obligation is paid or when the actual liability is set up. This control account represents the total amount by which appropriations have been earmarked for expenditure for specified purposes (contra to "reserve for encumbrance"). Details of encumbrances by classification or account are recorded in the same subsidiary appropriation ledger in which expenditures are recorded.

*Expenditures* – Amounts paid or liabilities incurred for all purposes. Accounts kept on an accrual basis will include all charges whether paid or not. Accounts kept on a cash basis will include only actual cash disbursements.

*Goal* – A statement of broad direction, general purpose, or intent. A goal is general and timeless and is not concerned with a particular achievement within a specified time period.

*Indirect costs* – Those costs necessary in the operation of the district, or in the performance of a support service, which are of such nature that the amount applicable to each instruction program cannot be determined readily and accurately.

*Information* – The relation of facts and statistics (data) in some logical form to provide insight and understanding on a specific question, function, or problem.

*Input* – Resources – human, financial, and material – that are used to achieve an objective.

*Model* – An abstract representation of reality through which actual problems may be simulated for evaluation and prediction. Models trace the relationship between inputs and outputs, resources and objectives, of the alternatives compared so that officials can predict the relative consequence of choosing any alternative.

*Multiyear financial plan* – The MYFP presents in tabular form, for a period of years, financial estimates of programs. These estimates should reflect the future financial impact of current decisions. The data in the MYFP should be organized along the lines of the program structure.

*Object* – As used in an expenditure classification, "object" applies to the article purchased or the services obtained.

*Objective* – A desired accomplishment which can be measured within a given time frame. Achievement of the objective advances the system toward a corresponding goal.

*Output* – The result(s) or end product(s) that should occur when resources or inputs are used through a strategy (usually a program) to achieve a specified objective. Optimum performance is achieved when actual output equals or surpasses the objective.

*Planning* – A process of deciding over a long period of time on the objectives of an organization, on changes in these objectives, on the resources used to attain these objectives, and on the policies that are to govern the acquisition, use, and disposition of these resources.

*Planning, programming, budgeting system (PPBS)* – A systematic approach to the allocation of limited resources for the accomplishment of priority objectives.

*Program* – A program is a unique combination of personnel, facilities, equipment, and supplies, which operate together to accomplish common objectives.

*Program budget* – The program budget in a PPBS is a statement of policy that relates costs to goals, objectives, and programs based upon a program structure classification. When the goals and objectives of a school district have been defined and the programs to meet these objectives have been documented, the estimated costs of these programs must be reported in the program budget.

*Program costs* – Costs which are incurred and allocated by programs rather than by organizations. Program costs should be those direct costs that are essential to maintain the program. See also "direct costs."

*Program structure* – The hierarchical arrangement of programs that represent the interrelationship of activities to goals and objectives. The program structure contains categories of activities with common outputs and objectives. Programs may cut across existing departments and agencies.

*Programming* – The development of programs to meet specified objectives, the analysis of alternative usages to accomplish the objectives, and the identification of organizational units to carry out the program.

*Prorating* – The allocation of parts of a single expenditure to two or more different accounts, in proportion to the benefits that the expenditure provides for the purpose or program area for which the accounts were established.

*Special studies* – The special study is a detailed, in-depth appraisal of an area of public need where the appropriate role of state activity needs further definition and understanding. The special study should spell out the costs and the effectiveness of current and proposed programs in reference to the need. In every case the special study will contain specific recommendations for future action. The special study may be summarized into the program memoranda to facilitate review by key decision makers.

*System analysis* – This activity is the process of evaluating the inputs, costs, and resources required of a program or programs as well as evaluating the outputs, the service, the benefits, and the payoffs.

## Part Five

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