A STUDY OF THE STATUS OF PROGRAM BUDGETING IN TEXAS SCHOOLS AS PERCEIVED BY SUPERINTENDENTS OF SCHOOLS

DISSERTATION

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By

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The problem of this study was to determine the status of program budgeting in selected Texas public schools as perceived by superintendents of those schools. The purposes were (1) to determine the implementation status of program budgeting in the major concept areas of systems analysis, multiyear planning, objective-based programs, cost inclusiveness, and administrative commitment and (2) to determine if the perception of the superintendents differed significantly depending upon the size of the school district they represent. Conclusions and recommendations for effective transition to a program budgeting system were then formulated.

The review of related literature was conducted to provide an understanding of the historical development of program budgeting systems and to provide an insight into the characteristics of an effective educational program budgeting system. The literature survey was also utilized to select a set of valid program budgeting criteria for use in the development of a questionnaire.

A set of thirty-three program budgeting criteria, developed and validated in a previous study, was utilized in
the development of a questionnaire for the study. A stratified random sample of 300 superintendents was surveyed using the questionnaire; the data accumulated through use of the questionnaire were used to analyze the current status of program budgeting in Texas school districts.

The development and findings of this study were presented in five chapters. Chapter I presents an introduction to the study. Chapter II offers a review of related literature. Chapter III contains details of the procedures used in collecting data. Chapter IV consists of the findings of the study. The summary, findings, conclusions, and recommendations of the study are presented in the last chapter.

It was concluded from the findings that program budgeting concepts are present in all sizes of school districts surveyed; however, the data failed to reveal a fully implemented system in operation in any of the districts. The moderate level of program budgeting implementation in school districts appears to be the result of mandated utilization of the program-oriented accounting system. The program budgeting concepts other than the program budget seems to be implemented only to the degree necessary to adequately operationalize the required accounting system elements. There were no significant differences for any of the concept items relative to the size of the districts. The review of the literature failed to reveal significant encouragement from the state level for
the full implementation of a program budgeting system in local school districts.

It was implied from the findings and conclusions that program budgeting should continue as a priority for Texas school districts, and efforts at all levels of education be expended to establish fully operational program budgeting systems in Texas school districts. Commitment to a state-wide program budgeting system for educational institutions will have to be substantially greater than was experienced during the last several years if the future is to accomplish the objective.

The implementation of a comprehensive program budgeting system for local school districts should be a developmental process, involving portions of the school's total operation. It would appear that the joining of experience and confidence in the system in an incremental fashion would provide encouragement to expand the system into the remaining areas of local districts.
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CHAPTER I

INTRODUCTION

In the 1970's the American people were confronted with a financial crisis of a proportion not experienced since the 1930's. Spiraling inflation resulted in dramatic increases in costs of both products and services; consequently, the American people began to challenge further demands on their financial resources.

The inflationary crisis had a decided effect on the bulk of American consumers, who as a group reacted in a definitive manner by curtailing spending. Less definitive, but just as effective, were the customers' attitudes concerning product quality compared to product cost. Public schools were not forgotten in the demonstrated concern for product cost and quality. In a survey of public attitudes toward education conducted in 1971, George Gallup determined that Americans' major concern for schools is that of a free education; it was further concluded that the public expects proof of school effectiveness (1, p. 1).

The public schools are presently beginning to feel taxpayers' pressure for accountability. Historically, schools have always been accountable to the public; however, the public has never, until recently, been so exacting in their
demands of the schools to justify their performance in all areas. To facilitate the accountability process, the public schools have found it necessary to devise a number of management techniques. One such technique currently gaining prominence in the public sector is that of Program Budgeting System.

The development of the Texas Education Management Information System has been the result of efforts by the State Board of Education and the Texas Education Agency to provide the state of Texas and local school districts with a system whereby quality education for children may be accomplished more effectively. One of the subsystems of the Educational Management Information System (EMIS) was a program-oriented accounting system to replace the traditional fund-object accounting system (8, p. vi). The implementation of the program-oriented accounting system in all districts of the state has provided the districts with the opportunity to implement, partially or fully, a Program Budgeting System.

The expansion of the required minimum aspects of program budgeting to a more complete utilization of such a management system is viewed by the State Board of Education as a realistic goal for educational institutions in Texas. The transition from the traditional fund-object technique of accounting to a program-oriented technique of accounting was mandated in 1973 for all Texas school districts by the State Board of Education. The full implementation of a program budgeting system is,
however, optional. It is with this optional nature of the system in mind that a study of the status of program budgeting is suggested (10).

Statement of the Problem

The problem of this study was to determine the status of program budgeting in selected Texas schools as perceived by superintendents of those schools.

Purposes of the Study

The purposes of the study were to (a) determine the implementation status of program budgeting in the major concept areas of Systems Analysis, Multiyear Planning, Objective-based Programs, Program Budget, Cost Inclusiveness, and Administrative Commitment as perceived by superintendents of Texas schools, (b) determine if the perceptions of the superintendents differed significantly depending on the size of the school district they represented, and (c) formulate conclusions and recommendations for an effective transition to a program budgeting system.

Background and Significance

Public education during the past two decades has experienced dramatic changes in all phases of its operation. A significant aspect of this remarkable developmental period has been the growth of education into one of the largest industries in this country (2, p. iii). The growth of any
public agency or organization naturally stimulates an increased demand on the fiscal resources of the society it serves and an increased requirement of operational and fiscal accountability. In response to these requirements, the educational community has sought a systematic approach to the planning, management, and evaluation of public school operations. The utilization of a planning, programming, budgeting system (PPBS) approach has become the most popular alternative to the traditional planning and budgeting operations of the public schools during the 1970's (3).

Many of the elements included in the concept of educational program budgeting have been utilized by private industry and public agencies for a number of years. The total program budgeting system concept was developed in its entirety by the "think tanks" of the RAND Corporation in the 1940's and the 1950's. The application of system analysis and program budgeting in the public sector began with use by the federal government in the early 1960's. Through the utilization of RAND Corporation ideas, program budgeting was applied to the operations of the Department of Defense in 1961 and the Department of Agriculture in 1962. In 1965, President Lyndon Johnson directed all agencies of the federal government to apply the concepts and procedures of program budgeting to their operations (4, pp. 14-21).

The implementation of program budgeting practices in the federal government served as the necessary influence in
encouraging some state and local governments to apply the principles of program budgeting to their own operations. Hartley, in 1968, identified several state and local governments in addition to various urban and suburban school districts that had initiated efforts for program budgeting implementation in their respective operations (2, pp. 100-124). Interest in program budgeting grew substantially from the mid-1960's through the early 1970's, however, few sophisticated program budgeting systems were made operational in the area of education during that period. Such reluctance of education to accept and fully implement the concepts of program budgeting is not unique to that field, for in a report issued by the Chase Manhattan Bank in 1968, it was noted that no sector of government had fully implemented PPBS, and that the reasons were related to difficulties imposed by changing systems and graduating from theory to practice (11, pp. 3-4).

The need for budgetary reform in local school districts has been the subject, for the past decade, of numerous articles in journals of education. The current emphasis in this area has been stimulated by increasing competition by public agencies for public funds. Fiscal responsibility in the field of education must now extend beyond the simple accounting of dollars to an integrated system of planning and cost accounting in order for the educational agencies to receive the requested and needed operational monies. In 1973
the State Board of Education of Texas recognized the necessity for improving public school monetary accountability practices when it adopted major goals, in three areas, for public education in Texas: student development, organizational efficiency, and accountability. The State Board of Education, in adopting accountability as a state-wide goal for education, emphasized that

a program of continuing planning and evaluation should be established for measuring the performance of the public school system in terms of the competence of its pupils, and the efficiency of its structure and processes (9).

The State Board of Education further extended its commitment for educational accountability by adopting nine educational priority areas for Texas, one of which is accountability. The stated objective for the accomplishment of this particular priority states that "by 1980, 80 percent of the school districts in Texas will have operational a system of planning, budgeting, and evaluation . . ." (10, p. 8).

Texas educators were introduced to a program-oriented system of fiscal accounting with the publication of Bulletin 679, Financial Accounting Manual, which was published by the Texas Education Agency in 1972. Bulletin 679 provides, for the state of Texas, the basic financial subsystem of EMIS; it was developed concurrently with the Texas EMIS study conducted by the Peat, Marwick, Mitchell, and Company, consulting firm which assisted the state of California in the development of
a statewide "Planning, Programming, Budget System" for education in the late 1960's.

The program-oriented accounting system, Bulletin 679, was instituted in pilot form by the Texas Education Agency in five Texas school districts as well as eleven Regional Education Service Centers in 1970 and 1971. Although the system was optional for school districts for the successive two years, all districts were mandated to implement the program-oriented accounting system by the 1973 and 1974 school year. All Texas schools have, at present, had a minimum of four full years of experience with program-oriented accounting practices; therefore, implementation of Bulletin 679 in all school districts has provided school administrators with sufficient experience in the utilization of program budgeting techniques to assimilate a more sophisticated system of program budgeting into the state school districts.

The processes have, then, been instituted for the statewide implementation of forms of program budgeting in Texas public schools. The significance of this study lies in the need for an assessment of the current status of program budgeting in the field of education in Texas for the purpose of promoting a more effective transition to an inclusive program budgeting system.
Definition of Terms

For the purpose of this study the following definitions were formulated.

Program Budgeting--Program Budgeting is an integrated system which provides educational decision-makers with more and better information for systematically addressing program planning and making choices among the optional ways funds can be allocated in order to achieve educational objectives. With the related costs grouped, program budgeting presents a more accurate figure for cost of achieving the goals of the particular school.

Planning, Programming, Budgeting System (PPBS)--This is a synonymous term with Program Budgeting, as defined above.

Superintendent of Schools--The chief school administrator of a public school district is a superintendent of schools.

Systems Analysis--The systematic analyzing of the fiscal and/or programatic alternatives available through the utilization of program budgeting techniques is termed as a systems analysis.

Multiyear Planning--The forecasting of the budget document to show expenditures for several fiscal periods, as opposed to one, as well as the projections of fiscal needs and program needs for two or more years is referred to as Multiyear Planning.
Objective-based Programs—A display of programs and activities stated in terms of measurable results is referred to as objective-based programs.

Program Budget—A program budget is a document in a programatic format on an annual or multiyear time frame that indicates an aggregation of expenditures around identified objectives.

Cost Inclusiveness—The process of determining the cost and progress toward meeting the purposes of the particular school through the utilization of alternative programs is referred to as cost inclusiveness.

Administrative Commitment—The administrative resolve to adopt a program budgeting system which articulates both the fiscal and the curriculum needs of the school is referred to as administrative commitment.

Methods and Procedures

The following methods and procedures were implemented in order to obtain appropriate data: (a) a comprehensive review of literature and supplemental data was conducted; (b) valid program budgeting criteria was selected; (c) the initial survey questionnaire was constructed; (d) the final survey questionnaire was constructed; (e) the sample was selected; and (f) the survey questionnaire was administered and the data were treated.
Limitations of the Study

The study was limited to a stratified random sample of 300 superintendents of schools in the state of Texas.

Basic Assumptions

It was assumed that superintendents of schools were the individuals best qualified to judge the status of program budgeting in Texas schools. It was also assumed that the respondents selected for the study would respond honestly to the items contained in the survey instrument and that the survey questionnaire itself was a valid instrument for the collection of data for this study.

The Survey Instrument

The survey questionnaire was developed in order to gather data relative to the perceptions held by practicing superintendents in Texas school districts of varying size concerning the status of program budgeting in their respective school districts. A set of Planning, Programming, Budgeting System (PPBS) criteria was utilized in the formulation of the survey questionnaire used in the study, criteria (see Appendix A) developed and validated as part of a research project conducted at North Texas State University, Denton, Texas, in 1971 (5).

The PPBS criteria were carefully reviewed by the researchers and compared to current program budgeting literature and found to be consistent with current literature, except for the use of the term Planning, Programming, Budgeting
Systems (PPBS) in place of the more contemporary term, Program Budgeting. The criteria were restated (see Appendix B) to reflect current terminology, and the response format was amended to enable the respondents to reply to any item on the questionnaire, regardless of the district's status concerning a concept, technique, or process of program budgeting. The revised criteria and the amended format for responses were incorporated in the final survey questionnaire (see Appendix C), used in collecting data for the study.

Procedures for Collection of Data

The population of this study consisted of superintendents of Texas public school districts. A stratified random sampling technique was used in the population selection (6, 7); the population was stratified by determining the number of students in average daily attendance (ADA) in the districts. The scale used in the stratification process was as follows: Group I, 5000 or more ADA; Group II, 1001 to 5000 ADA; Group III, 501 to 1000 ADA; and Group IV, 500 or less ADA.

A random selection of superintendents within each stratum was determined through the utilization of a table of random numbers. A sample of seventy-five superintendents was then selected from each group. It was determined that a return of 65 percent of the survey questionnaires would be adequate to support the objectives of this study.
Procedures for Analysis of Data

The data from the returned instruments were recorded on keypunch cards and processed by computer. Mean scores and standard deviations were computed for each respondent group for each item on the questionnaire, and mean scores and standard deviations were computed for each group for each of the six categories of the questionnaire. The Sheffé test was applied to the data in order to make all possible comparisons between respondent groups for each item and each of the six categories of the questionnaire. Mean scores, standard deviations, and F-values are presented in Chapter IV of this study.

The data collected for this study and a review of the literature were utilized to draw conclusions and recommendations concerning the status of program budgeting in Texas schools and the effective transition to a total program budgeting system.

A fully implemented system of program budgeting for Texas schools related all educational programs of the school to specific resources that were stated in terms of budget dollars. Both programs and resources were projected several years into the future. Emphasis on outputs, cost-effective methods, rational planning techniques, long-range objectives, and analytical tools for decision making constituted essential characteristics of a total program budgeting system.
Chapter Bibliography


CHAPTER II

A REVIEW OF THE RELATED LITERATURE

A review of the related literature is presented in order to provide an understanding of the historical development of Planning, Programming, Budgeting Systems in the field of education and to provide an insight into the characteristics of an effective educational Planning, Programming, Budgeting System. The materials reviewed include books, unpublished dissertations, professional journal articles and organization reports, and Texas Education Agency publications. The review of literature is presented in the following organizational sequence: (a) educational accountability, (b) economics and school finance, (c) origin and history of program budgeting, (d) components of program budgeting, and (e) program budgeting projects.

Educational Accountability

The term "educational accountability" is not listed in the Education Index prior to June, 1970. Subsequent volumes contain an increasing number of references to the educational accountability concept, and recent publications on the subject are numerous. For educators, accountability has indeed become a very important consideration in the 1970's.
Knezevich (53, p. 62) maintains that accountability is not a new matter; rather, it is the redirection of a concept that has been accepted in education for many years. Since the beginnings of public education, boards of trustees, administrators, and teachers have been accountable to the public for the budgeting and accounting of resources, management of the district, and the teaching of students. The "new" accountability changes the emphasis from input to results; hence, contemporary educational accountability requires that the schools be responsible for the results achieved as well as the traditional accounting for resources.

Definitions of Educational Accountability

Porter, as cited by Lessinger and Taylore (61, p. 42), defines educational accountability as a guarantee that all students will acquire the minimum skills necessary to function effectively upon completion of public schooling. Porter views accountability as a reversal of the traditional process of placing responsibility for educational success on the student, to one of placing the responsibility for educational success on the educational establishment itself. Accordingly, Landers defines accountability as "educational results, the allocation of responsibility for results, and the consequences to those held responsible for results" (57, p. 541).

Lessinger (59, p. 7) defines accountability as the continuing assessment of educational achievement in the schools
as that achievement relates to the goals and expectations of the school's patrons. Lessinger further explains means of accountability as being

the products of a process. At its most basic level, it means that an agent, public or private, entering into a contracted agreement to perform a service will be held answerable for performing according to agreed-upon terms, within an established time period, and with a stipulated use of resources and performance standards (60, p. 217). Performance contracting, then, is a direct product of this definition of educational accountability.

Alkin proposes that accountability is a negotiated relationship in which specified rewards and costs are accepted, based upon evaluative findings relative to the attainment of specified ends. Accountability, he says, is determined to have three different areas of participation and responsibility: goal accountability, program accountability, and outcome accountability. Each type of accountability addresses a different level of responsibility and tasks to be achieved (1, pp. 51-58).

Accountability is conceptually defined by Roush, Batten, and Gillin (80, p. 113) as a definitive delineation of the goals and functions of education which are described by behavioral objectives that can be related to student performance. It has been noted by Richburg that the efforts of Bloom in the development of the cognitive taxonomy and of Mager in the area of instructional objectives have contributed to the educational accountability movement (78, p. 6).
Behaviorally stated objectives are accepted in the accountability literature because of their emphasis on the assessment of student outcome data (29, 60, 62).

According to Catallozzi, educational accountability involves that "which is observable, demonstrable and can be objectively defined" (10, p. 22). He is critical of this mechanistic view of the human psyche which denies the existence of the individual's personality and the effect of occurrences outside the school on the individual. Catallozzi maintains that the vitalism of the human psyche precludes the possibility of comprehensive accountability in education (10, p. 23).

Bundy, another critic of educational accountability, maintains that such educational accountability is the application of industrial management technique to solve non-industrial problems. He also states that accountability is a contrivance of professional educators to perpetuate the educational status quo by remaining in control of what needs to be learned (6, pp. 176-180). Webster and Glasby point out that Bundy's challenge of the credibility of educational accountability is an inaccurate stereotype of an accountability model. They contend that Bundy's attack does not consider the dynamics of accountability when viewed as a social movement (94, pp. 181-182).

Accountability appears to appeal to a variety of groups and interests both within and outside the field of education.
Lessinger, as cited by Landers, emphasizes performance contracting, technological support, and systems analysis as essential elements of accountability. In addition, political activists find that increased community control of the educational system exists through educational accountability. Union leaders view accountability systems as methods of protecting effective teachers and assisting weak teachers in their quest for improvement. School administrators find positive aspects in the accountability movement in such areas as improvement of fiscal accounting, program audits, improvement in teacher performance, and public relations potential (57, p. 539).

The developmental progression of accountability that seems to be generally accepted by educators such as Woodington is that of "establishing goals, setting specific objectives, devising programs to meet the objectives, carrying out programs, measuring their degree of success, comparing cost and performance under alternate programs, revising and trying again" (98, p. 95). Accordingly, systematic application of these processes involves the utilization of various delivery systems and decision-making systems (62, pp. 55, 363-391).

Educational Accountability to 1969

Educational accountability was present even among the Sophists of ancient Greece and Rome (88, p. 438). As early as 1649, America exhibited accountability in the form of a
requirement by the Great and Central Courts of Massachusetts Bay Colony that each town teach its children to read the scriptures; communities that failed to comply were fined (13, p. 177).

Small notes that Victorian England provides an historical precedent of an accountability concept directly related to our current emphasis upon education results. In 1858 the Newcastle Report, which was commissioned by Parliament, provided a survey of the English elementary level educational system. The survey indicated that in a period of seven years Parliament granted funds to a variety of schools solely on the basis of school population. The school operating costs during the time surveyed increased more than 350 percent. The majority of students during that period dropped out of school by the age of eleven, and only 5.4 percent of those students who remained successfully completed elementary school (30; 88, p. 438).

The Parliamentary Commission recommended that public support of education be continued with modifications in the manner of distributing government funds to educational ends. As a result, Parliament passed into law, in 1861, an education code that provided for per capita grants on the basis of student age, attendance, and the results of formal examinations. The later revised code also stipulated the format and scope of examinations in reading, writing, and arithmetic (30).
The British Revised Code of 1863, which remained in effect from 1863 until 1897, represents possibly the earliest accountability legislation placing significant emphasis on educational results (30, 88). Educators at the time were highly critical of the process that linked their pay directly to the results of student evaluation. J. Kay Shuttleworth, a Victorian critic of education, determined that the system was detrimental to both the teacher training programs as well as to the efficiency of the school instruction. Matthew Arnold, the poet and school inspector, also criticized the accountability aspects of the code as being too restrictive (30; 88, p. 439). The Revised Code of 1862 and its "payment by results system" was brought to an end in 1897 when Parliament concluded that it was detrimental to the overall quality of British education (30). Callahan, as cited by Chapman, in a study conducted on the efficiency in the field of education, determined that educational accountability was nurtured during the early years of the twentieth century by the application of Frederick W. Taylor's Principles of Scientific Management to education. In addition, Chapman suggests that there are several interesting comparisons to be made between the efficiency of the early twentieth century education process and the accountability movement of today. Direct comparisons can be made on four issues: (a) the emphasis on the use of business techniques in school management, (b) a prevailing attitude favorable to educational reform,
(c) the presence of an atmosphere critical of education, and
(d) the acceptance of the concept that the application of
scientific management or accountability measures to the
school environment is a panacea for education (11, pp. 309-
316).

Huber contends that accountability has been a continuous
force through the history of education. The original three
R's should be the four R's of education, with the fourth R
being Responsibility (45, pp. 515-517). Landers advocates
the same concept of accountability by suggesting that con-
temporary accountability is "the packaging of old ideas in
new bottles for the cure of educational ills." Accountability
has become universally accepted, but, as Landers points out,
the proliferation and diversity of definitions and purposes
has produced professional and public confusion (57, pp. 539-
540).

The Elementary and Secondary Education Act of 1965 has
been cited by many writers, such as Forsberg and Richburg, as
the catalyst which promoted the contemporary interest in
accountability (22, p. 195; 30; 60, p. 217; 78, p. 6; 79,
p. 9). This measure required that local education agencies
report the progress of Title I programs to the state govern-
ments and to the United States Office of Education. According
to Richburg, Dryer has pointed out that the requirement for
evaluation, however, was not an accountability measure but
rather an accounting of how monies were expended and a report
of program evaluation results (78, pp. 2-3). Sciara and Jantz cite a change in policy of the Office of Education with regard to evaluation:

the U. S. Office of Education in late 1969 began audits for Title VII (bilingual) and Title VIII (dropout prevention) programs. Whereas programs funded through the USOE formerly required only fiscal audits, this new requirement audited the program through previously established student performance goals (83, pp. 3-4).

The influx of federal dollars for education as a result of the Elementary and Secondary Education Act of 1965 and the requirement of annual evaluations of programs funded with federal monies created an atmosphere conducive to the development of systematic accountability practices (3, pp. 41-47; 87; 100, pp. 29-52).

The National Assessment of Educational Programs project, established in 1964, has also been an influence on the evaluation of educational accountability. The purpose of the National Assessment project was to gather student attainment data and to provide a basis for education decision-making relative to cost effectiveness of educational practices. Mehreus indicates that the National Assessment data provided methods of reporting that present an account of education to the public (68, pp. 290-295).

Statewide assessment programs that have developed since the late 1960's represent a major trend in the accountability movement. Hottleman states that most statewide assessment plans have involved the development of a set of
minimum educational goals set for the entire state (42, p. 19). The development of statewide goals in many states, however, has been a complicated process. Texas, for instance, appointed a committee that worked from 1966 to 1969 toward the development of state goals for public education. The development of these goals involved a needs assessment program and a study of public attitudes in addition to the recommendations of educators (41, pp. 5-7). The establishment of statewide goals for educational outcomes has provided the foundation for accountability measures that may be implemented in the school systems of the state (98, pp. 95-97).

Factors Contributing to Contemporary Accountability Measures

The desire for the development and application of accountability measures to contemporary education appear to be rooted in the following areas: (a) public dissatisfaction, (b) federal government influence, (c) increasing cost of public education, and (d) cultural and technological influences.

Henry has stated that there seemed to be a general dis-enchantment with the "establishment" during the 1960's. Among the facets generally included in the "establishment" were business leaders, the judiciary, the military, and education (37, p. 287). Stenner agrees that education was identified by many Americans, particularly ethnic minorities, as part of a repressive American society (89, p. 33).
The deficiencies of education would have been exposed after World War I if the Depression and World War II had not hidden them by effectively curtailing the advancement of employment requirements. Education during the 1930's and 1940's was not challenged for its failures, for poor individuals left school to seek employment, and the very rich improved education for their children by sending them to private schools; the middle class was largely satisfied with the schools. The post-war years of prosperity changed the situation dramatically, as the weaknesses of education became glaringly more prominent (89, pp. 33-34).

Soon there was a growing feeling among Americans that every child should be afforded an adequate education. This feeling was quickly dampened by the realization that 25 percent of the students were leaving school prior to graduation. A further complication arose as the requirements of the job market continued to rise. Public dissatisfaction with the "record" of public school systems was, then, a contributing factor to the accountability movement (89, pp. 33-35).

Richburg has suggested that federal government influence is cited by most authors as an antecedent of the accountability movement. The requirements by the federal government for the development of goals, needs assessment, and program evaluations have provided education with an entrance into the world of systematic accountability practices. In addition to the formal requirements for annual audits, the federal
government has encouraged the involvement of parents and other community individuals in the planning and evaluating of federally funded programs for their local school districts (78, pp. 2-3).

Lessinger maintains that the way federal funds are delivered is as important as the amount. Such funds represent the developmental capital needed for the generation of new educational opportunities, and the federal government is the only viable source of sufficient funds to accomplish educational research and development (60, p. 223).

Wynne also supports this view of the relationship between federal government and educational research. School districts provide very little funding for research; research money comes almost entirely from the federal government. Nevertheless, the federal government allocates less than 1 percent of the total federal budget for education to research and evaluation. Wynne contends that the low priority of educational research is the result of a lack of commitment by educators. Ultimately, research challenges the status quo and poses a potential for the application of accountability measures (100, pp. 279-281).

The cost of education has continued to increase and the interest in accountability has escalated in a corresponding manner. Seltz indicates that parents faced with increasing taxes for schools have begun to demand an account of what their tax dollar is buying (87, p. 34). Richburg believes that the dramatic increase in voter rejection of bond issues
and the defeat of school budgets that include increased revenues are clear indications of public concern with the cost of education (78, p. 3). Morris concurs with this assessment of the public's concern about the cost of education, but feels that the resistance is not necessarily due to anti-education sentiment but a resistance to an increase in all taxes. School tax levies, however, happen to be more directly within the control of voters (69, p. 325) than many other forms of taxation.

Huber points out that the results of a 1970 Gallup poll found that the public was extremely concerned about the increasing cost of education, and that public opinion concerning schools generally tended to be in favor of holding the schools accountable for results. Another Gallup poll conducted in 1973 indicates that accountability activities in education have begun to narrow the credibility gap between the public and the public school (45, pp. 515-516).

Goodlad contends that American society, in general, experienced a developmental acceleration in social and technological areas during the late 1960's.

We have been through what probably was the most intensive period of probing, poking, and reforming in the history of our common schools. Schooling has been expected to ameliorate a succession of severe social problems. But by the end of the sixties, the problems appeared to have worsened: The Coleman Report was the primer in a growing folklore implying that schools make no difference; and Ivan Illich said that society should be deschooled (25, p. 108).
Goodlad maintains that the acceptance of the accountability movement can serve the educational community by shifting the emphasis from a negative external probe to a positive internal assessment for the purpose of improvement (25, pp. 109-111).

American education has moved from a protected environment as a result of (a) more demanding job requirements and the increase in technological complexity of modern employment, (b) the emergence of militance among ethnic minorities, and (c) the development of awareness of social injustices (89, p. 33). Morris suggests that during times when values are changing, society experiences uncertainties and confusion, is aware of contradictions, and begins a search for new values to replace the old ones. The last decade, for instance, has provided society with numerous problems.

... entanglements in Indo-China and the Middle East, poverty, race relations, drug problems, and violence on our campuses and in our streets is, to a very great extent, directed toward the educational institutions and accountability is the battle cry (69, p. 325).

**Current Accountability Measure**

According to Hartley, accountability in education received public recognition in 1970 when President Nixon announced his support of the concept. Nixon declared that "school administrators and school teachers are responsible for their performance, and it is in their interest as well as in the interest of their pupils that they be held accountable" (33, p. 17). The President's remarks were probably
influenced by Leon Lessinger, the Assistant Commissioner of Education and the recognized "father" of the doctrine of contemporary accountability.

The concept of accountability in education provides a promise of quality in education but which of the many accountability plans, models, or approaches will be proven the most effective? Sciara and Jantz adeptly summarize the current accountability milieu:

It becomes apparent that forms of applied accountability rise and fall according to the support or opposition they encounter from various concerned groups, and because of effectiveness inherent in that particular form of accountability applications. Although all forms of accountability have had to overcome some resistance from organized groups, those which have met the most opposition appear to be forms which pose the greatest threat to the present order of public education. Education vouchers and performance contracts would head the list (84, p. 232).

Leiberman feels that the primary concern of education is the determination of which approach to accountability will prevail (63, pp. 194-195).

**Performance Contracting**

The emphasis on the accountability movement and the general lack of success of compensatory education programs created an opportunity for private contractors to be paid to teach students. Payment of the contractors was partially based on the measurement of prespecified results (5, p. 83). Stucker and Hall maintain that "the performance contracting
movement is the foster child of discontent with our educational system coupled with the governmental struggle to improve procurement procedures" (90, p. 1).

The first performance contract for instruction in public education was established in 1969 between the Texarkana School District and a private contractor. The Texarkana Project was a dropout prevention program funded under Elementary and Secondary Education Act Title VIII. The performance contract was centered on the improvement of reading and mathematic scores on standardized tests (22, p. 195; 60, p. 219).

The Texarkana performance contract eventually received national exposure when an evaluator revealed that the test results were not valid because of direct teaching of the test items (43, pp. 262-263). The school district and the contractor disagreed with the adverse report, but a shadow remained which clouded the validity of the effort. Such adverse publicity did not, however, seriously diminish interest in performance contracting (80, p. 116). The Texarkana School District reported that more than 200 school districts seriously considered adopting a similar program, and that more than 100 districts implemented performance contracts during the 1970 and 1971 school year (26, p. 7).

Lessinger proposes that performance contracting provides an effective method of dealing with the serious problems of education. Performance contracting, according to Lessinger,
(a) facilitates targeting and evaluation of programs, (b) introduces more resources and variety into public education, (c) allows school systems to experiment with low costs and low political and social risks, (d) provides for the development and validation of reading programs, (e) assists in the desegregation of public education, and (f) creates dynamic tension and responsible institutional change within the public school system (60, pp. 219-220).

The use of performance contracting in public schools has not since reached the peak level experienced in 1970 and 1971 (19, p. 7; 26, p. 7). One cause of the lack of prolific diffusion of performance contracting was the opposition of teachers and teacher organizations (19, p. 7). Shanker, former President of the American Federation of Teachers, as cited by Lessinger and Taylore, charges that performance contracting is merely a case of false packaging. The field of education, he says, is so complex that any guarantee of student achievement is a form of quackery (61, pp. 72-73). The National Education Association has publicly warned that performance contracting should be studied very carefully and that teachers should be included in planning and implementation of performance contracting programs. Moreover, concern was expressed for the security of teachers' jobs and the provision for adoption of merit pay (19, p. 16).

Krystal and Henrie, in a report for the United States Office of Education, conclude that performance contracting
often addresses only the development of reading and mathematics skills, while creative and fine arts skills are sorely neglected. Other negative aspects of performance contracting identified include the loss of public control of educational policy; the tendency of education to become standardized, mechanized, and less humanistic; and the cost and complexity of the process precluding adoption by some districts. The Office of Economic Opportunity Report determined that the most effective utilization of performance contracting would be in the area of installation of complex innovative programs requiring substantial reorganization and the retraining of staff. Performance contracting has been found to have a positive effect on schools and school districts as a result of the required identification of goals, objectives, problems, and problematic solutions (55, pp. 15-17).

According to Feldmesser and Echternacht, the Office of Economic Opportunity (O.E.O.) has issued a report of the evaluation of the performance contract projects financed from 1969 through 1972. The O.E.O. report along with a report presented by the Battele Columbus Laboratories states emphatically that performance contracting is no more successful than traditional educational methods (19, p. 16). The negative evaluations of performance contracting by the O.E.O. and Battele have generated strong disagreement among contractors and public school officials (19, 26). The conflicts of
opinion have resulted in two studies of performance contracting, which were published in 1975. The Feldmesser and Echternacht report as well as the Gramlich and Koschel report confirmed the findings of the earlier O.E.O. Report of 1972 (19, pp. 104-116; 26, pp. 32-51). The evidence suggests that performance contracting has not been successful in accomplishing the stated goals and objectives of the project (26, p. 50-51).

**Educational Vouchers**

Educational voucher systems are another approach to the quest for a public education accountability plan. Hottleman offers the following description of the voucher concept.

... a proposal to give parents a credit equal to the amount of money spent on their child's education which can be used by the parents at a school of their choice (42, p. 18).

The proposal of the voucher plan by the Office of Economic Opportunity generated strong controversy within the educational community.

Christopher Jencks, who developed the voucher plan concept supported by the Office of Economic Opportunity, has been the focal point of much of the criticism directed toward the plan. According to Coyne, Jencks' plan is an intricate system which guarantees equal educational opportunity for all persons participating in the voucher plan (13, p. 178). The voucher plan also creates competition among schools for students. Richburg points out that the pilot projects, which
were begun in 1971 in Seattle; Alum Rock, California; San Francisco; and Rockland, Maryland, marked the O.E.O.'s initial experience with educational vouchers (78, p. 7).

Friedman, as cited by Coyne, contends that the Jencks' plan is unduly cumbersome, and the end result will be the promotion of further segregation (13, p. 179). The poor school would, moreover, be left with students whose parents did not have the knowledge or possibly the concern to effectively utilize the system (48, pp. 272-273). Clearly, education literature demonstrates that criticism of education voucher systems involves a wide range of concerns: the demise of the neighborhood school concept and promotion of segregation; a breakdown of the separation of church and state concept coupled with the legal ramifications of the use of public funds for nonpublic school purposes; and the compounding of problems related to staffing, budgeting, contracts, credentials and student transfers. The burden of educational self-determination would, then, have to be necessarily resolved by many parents. Moreover, the increase in the strain of public financing of education and a decline of public control over educational standards would be paramount (42, p. 18; 49, pp. 284-290; 67, pp. 269-270).

David Selden, as cited by Mecklenburger and Hostrop, former President of the American Federation of Teachers, had been one of the most outspoken opponents of the Office of
Economic Opportunity voucher plan during the initial stages of the development and implementation of such experiments. Selden's opposition was a matter of principle, and he maintained that the plan could, in effect, destroy the public school (67, pp. 86-106). The initial two years of the Alum Rock voucher experiment were, accordingly, viewed by Selden with critical interest. Subsequent to an on-site visit in 1975, however, he reversed many of his objections to the voucher plan. He then concluded that the use of vouchers as developed by Alum Rock encouraged the kind of innovation and creativity needed in the field of education (86, pp. 44-46).

The use of a voucher plan as an education alternative available to meet the individual needs and interests of students and their parents has become accepted by many educators, like Selden, as worthy consideration. According to Overlan, among others, the passage of legislation permitting voucher demonstrations in California and Connecticut, as well as the consideration of similar legislation in other states, has provided increased credibility for the possible use of voucher plans in other districts (74, pp. 20-22).

Economics and School Finance

The field of education is essential to the growth and development of the economy of a modern nation. The fact that Americans recognize this is demonstrated by the percentage of the gross national product allocated to education--an
amount, according to Johns and Morphet, increasing at the rate of .04 percent per year (50, pp. 85-91). Benson maintains, too, that education is a critical factor in any consideration of the nation's economy, even when the social, cultural, and individual benefits of education are not considered (4).

Benson identifies the central theme of economics as the allocation of resources and the principal concept as scarcity of resources (4, p. 15). Burkhead provides a more definitive analysis of the economics of educational finances.

Educational finance shares the same tax base—federal, state, and local—with other public functions. Taxes to support education have the same kinds of economic impacts as taxes to support other governmental functions. Citizen attitudes toward government, favorable or unfavorable, will come to influence taxes and expenditures for education in much the same fashion that such attitudes influence taxes and expenditures for national defense, for welfare, for health, and hospitals (7, p. 22).

Education finance, then, is influenced by the same variables that determine attitudes and decisions concerning all public and private economics.

Since economists began directing their efforts toward the study of long-range patterns of economic growth, they have discovered that the growth increases could not be explained on the basis of increased capital and increased work force size. This fact has prompted a search for a third factor, and education as an investment has consequently become a viable component in the study of national economics (7, p. 3).
Groves, as cited by Gauerke and Childress, expresses the belief that increased productivity is related to educational effort, and that the loss of human knowledge and skill has the same negative economic effect as does damage to property (23, pp. 29-30).

It has been established that the cost of education has a definite relationship to the goals and purposes established by the society it serves. Society's determination of the expected benefits to be accrued through education constitutes the primary factor in the development of educational goals. As educators develop new curricula, media, and methods to address progressively comprehensive and complex goals, the cost of education escalates and the tax burden increases. According to Burrup, the determination of an amount to be spent for education must be related to goals established for education by the society it serves (8, pp. 45-47).

Education is a "big business," and conversely, education constitutes a major consumer of the available economic resources (8, p. 48). As Burkhead explains, the allocation of economic resources for education and the equation of the allocated resources to the benefits derived provides a continuing source of study and concern.

A strict application of the principal of economic efficiency would provide educational spending up to a point where the benefits of additional spending were just equal to the burdens of the necessary taxation plus such amounts of foregone earnings as should be taken into account. The equating of
benefits and tax costs would be achieved for each individual and business which used educational services. In this view the benefits of education are reflected in the willingness of households and business firms to pay for various levels of elementary and secondary education provided in a community. Burdens are measured by the value to households of the increased consumption and saving they could have obtained from the funds taxed away for educational expenditures (7, pp. 10-11).

The pressure on taxpayers to provide adequate funds for a burgeoning education budget has provided impetus for public demand for increased efficiency in the operation of public schools. The President's Commission on School Finance has recommended that state and local agencies work toward improving systems of costs and benefits assessment of educational programs and organizational alternatives (76, p. xvii).

The political aspects of educational economics are considered by many educators to be essential knowledge to the development of adequate financial resources. Johns and Morphet suggest that education should be a part of the social and political processes of the country, with the assumption being that an informed public will make financial decisions resulting in maximum public benefits (50, pp. 58-60). The establishment of goals and objectives for education is necessarily a responsibility of both the economic and the political systems. The use of program budgeting, then, can provide the structure needed to accomplish the task. Moreover, the techniques of program budgeting will be accepted by school systems when systematic program analysis and budgeting
demonstrate improvement in economic responsibility (23, pp. 212-230).

Origin and History of Program Budgeting

The review of the literature relative to a systems approach to budgeting for education reveals a number of terms and/or acronyms used to identify similar systems. Knezevich (54) identifies a number of terms currently used to identify program budgeting concepts and techniques, several of which are derived from processes within the system: PPBS (planning, programming, budgeting system); PPBES (planning, programming, budgeting, evaluation systems); and PPBADERS (planning, programming, budgeting, analyzing, deciding, evaluating, and recycling system). Other acronyms which stress improved management and decision-making are ERMS (educational resources management system) and RADS (resource allocation decision system). In general, the literature reflects acceptance of the acronym PPBS as well as the word-title program budgeting (9, 32, 54, 71, 75).

Program budgeting is often viewed as a new concept; however, elements within the concept may be traced back in history for over 100 years in Europe (54, p. 15). Perkins, cited by Hirsch, noted that, in 1916, Dupont applied PPBS concepts to the operation of the General Motors Corporation, thus representing an initial application of these concepts to American industry. Knezevich maintains that the evolution of
PPBS has been traced from its beginnings in private industry to the federal government and, ultimately, to education (54). Firman points out that the Hoover Commission Reports of the 1940's provided the federal government with the stimulus to convert from a system devoted to accounting for spending to a system of accounting based on management and efficiency (20, pp. 136-137). The performance budgeting approach of the 1940's utilized in the federal government was developed independently of the RAND Corporation economists' efforts.

David Novick of the RAND Corporation is credited with the conceptual development of PPBS as a powerful management tool (54), according to Knezevich. The concept was tested by the Air Force in the 1960's and later formally applied in 1961 by the federal government under the direction of Secretary of Defense, Robert McNamara. PPBS techniques applied to federal agencies under the guidance of Charles Hitch progressed, in 1964, to the concept of zero-based budgeting.

President Johnson's directive in 1965, which extended the PPBS methods to all levels of the federal government, is consistently cited as a most significant event in the history and development of PPBS in public administration (18, 40, 54, 71, 85). In response to the President's directive, Novick has stated:

Even though there is a long history of program budgeting, even though it originated outside the federal establishment, even though there are some twenty-five years or more of history that one can ascribe to the activity within the federal establishment, the truth of the
matter is that the problem now being faced—the application of the PPBS concept to new areas of interest—is a new and very difficult one. One of the major problems is to identify the missions, the objectives, or the goals. . . . The same situation prevails at the state and local government levels (71, p. xxviii).

The implementation of PPBS practices by nondefense departments of the federal government provided encouragement to state and local governments for the study of program budgeting as an alternative to traditional practices. The Ford Foundation financed the State-Local Finances Project, which selected five states, five counties, and five cities as PPBS demonstration centers (8, p. 248). The "5-5-5" project and other studies in the late 1960's provided relevant data for state and local officials who were considering the adoption of PPBS techniques.

Knezevich (54, p. 22) reports that program budgeting in education has been motivated, in general, by the federal government; for example, federal motivation in the form of federal grants awarded to schools required that program budgeting be implemented for federally supported activities. Gibbs (24) has characterized the spread of PPBS from industry and national government as "a trickle" down to the schools. Burrup adds that the slowness of education to adopt program budgeting has generated criticism from numerous sources in the education community (8, pp. 247-248).

One of the most comprehensive studies of the adaptation of program budgeting concepts to the purposes of education was
conducted by the Research Corporation of the Association of School Business Officials and the Dade County, Florida, public schools. The PPBES project developed, tested, and disseminated concepts of program budgeting in a number of public elementary and secondary schools. The results of this study provided valuable information concerning the adaptability of program budgeting concepts to educational enterprises (46); results indicated that most of the program budgeting operations were, indeed, adaptable.

Program budgeting gained recognition during the 1970's as a possible method to be utilized in the improvement of the planning and budgeting practices of education. The demands for improved planning processes, systems analysis, and increased efficiency proved to be potent forces in the movement toward educational program budgeting (8, pp. 246-248).

Educational literature is prolific on the subject of program budgeting in education since the mid-1960's, reflecting the universal consensus that program budgeting is not a panacea to cure all the ills or shortcomings of education and that the implementation of program budgeting in a school district can not be accomplished instantaneously.

Perkins, as cited by Firman, has identified four essential elements that must be present if a program budgeting system is to succeed in education:
1. An output-oriented educational structure which presents data on all of the operations and activities of all the schools in categories which reflect the district's goals and objectives.

2. Analysis of possible alternative objectives of the schools and of the alternative programs for meeting these objectives.

3. Adherence to a time cycle within which well-considered information and recommendations will be produced when needed for decision-making and for the development of the budget and educational programs.

4. Acceptance by line officials, with appropriate staff support and responsibility for the establishment and effective use of the system (20, pp. 124-125).

Knezevich notes that in the early 1970's there was still a great deal more talk about implementing PPBS in education than there was actual action. One indication of the growing popularity and acceptance of PPBS in education is evidenced by the attack on the adoption of the concepts of PPBS by public education issued by some "ultraconservative extremists" (54, p. 23).

Components of Program Budgeting

Rath (77) asserts that program budgeting is much more than just a fiscal budget; it, instead, is a total process for local school operations. The total system is composed of six component parts: systems analysis, multiyear planning, objective-based programs, program budget, cost inclusiveness, and administrative commitment. Lea (58) later corroborated Rath's conclusion through a review of PPBS literature and a study of the evolution of program budgeting in the field of
education. Each of the six concepts is discussed in the ensuing sections.

**Systems Analysis**

Hartley describes systems analysis as the conceptual foundation for program budgeting and describes program budgeting as the expression of the detailed application of systems analysis (32, p. 69). Systems analysis techniques can be applied to local educational agencies regardless of their size, while the emphasis of systems analysis in education addresses the problems of implementation, evaluation, feedback, and revision, all of which are crucial because of the complexity of today’s educational process (50, p. 48).

According to Fisher, program budgeting must have in operation a systematic plan for the consideration of alternative courses of action necessary for sound decision-making. Systems analysis is designed to provide alternatives to complex problems and thereby assist in the decision-making process (21, p. 67).

Education has traditionally been viewed in a piecemeal fashion with problems and solutions considered in isolation. The use of a unitary or item-by-item approach to planning and decision-making can result in repercussions which would be felt by other areas of the school, particularly in the allocations of finances. There is a need, therefore, for the educational system to be viewed as an integrated, dynamic whole. Coombs
and Hallack propose that the most effective way to achieve a wide-angle view of educational cost allocation is through the application of systems analysis concepts to the educational system itself (12, pp. 78-79), and that systems analysis provides educational planners with the capacity to examine various cost determinants, thus allowing them to plan for the future by diagnosing previous cost determinants (12, p. 89).

Fisher states that systems analysis is a viable approach to resolving complex problems of choice. The process of selecting the best possible alternative involves the identification, the measurement, and the evaluation of alternatives in order to assess their costs and benefits (21, p. 24).

Clearly, as Novick points out, the heart of program budgeting is the requirement of systematic examination of alternatives (71, p. 310).

Steiner, as cited by Novick, in a study of program budgeting in government management, notes that cost utility analysis, or systems analysis, is not the only major tool necessary in order to assist managers in the selection from alternatives. Systems analysis does not make decisions nor does it provide the sole basis for decisions. It does, though, provide a process whereby alternatives can be placed in a logical array of importance. One role of systems analysis, then, is to sharpen the intuition and judgment of decision makers through objective, logical thought processes (71, pp. 310-311).
A principal concern of economists, school personnel, and the layman is optimum allocation of limited educational resources. Hartley submits that resource allocation problems can best be addressed within a framework of systems analysis. The primary objective of systems analysis is the orderly examination of problems of choice and improved assessment of alternatives. The costs of various alternatives are viewed as part of the total educational and organizational plan, rather than as independent variables (31, p. 41). Systems procedures are a means for achievement, not an end, in the quest for educational equality and excellence (33, p. 319).

Systems analysis, regardless of the source of definition, involves the selection of alternatives. Entboven and Smith, cited by Knezevich, define alternatives as balanced, feasible solutions to a problem that is realistic and one which provides the analyst with viable options (54, pp. 174-175). Quade, according to Lyden and Miller, similarly views alternatives as a way in which objectives may be obtained. An attitude of searching for feasible alternatives must replace the predilection to present only one way to achieve an objective (54, pp. 292-300). The analytic process, then, is only operative when more than one viable alternative is present. Also, Sabine notes that selectivity of issues to be analyzed is necessary in order to avoid overloading the process with analysis saturation (81, p. 24).
Systems analysis should identify important questions, compare benefits and costs of alternatives, and examine future needs of planned programs. Sabine supports this view by stating that analysis should identify major organizational objectives, review criteria, compare alternative programs, formulate cost-benefit relationships, and test the sensitivity of recommendations. As a result, analysis cannot occur in a vacuum; full consideration must be given to the political, social, and legislative constraints that relate to education. The analyst must search for the optimum allocation of resources within these existing constraints and provide information concerning the potential penalties of such resources (81, pp. 24).

Discussions of systems analysis proceed on the assumption that a total system is in place and the principle that heirarchical ordering is feasible; hence, a system can be defined as a set of components which are interrelated and share a unified direction toward the attainment of specific organizational goals. In this context, systems analysis is a method whereby the structure of the system may be dis-assembled into manageable activities. According to Williams, one of the objects of this form of analysis is to determine the relationship of the activities to the accomplishment of the stated goals (97, pp. 42-48).

Mathews (66) maintains that analysis techniques are essential to the full realization of the potential of a program
budgeting system. Analysis techniques may vary in sophistication from cost comparisons of equally effective programs and the determination of relative utility of equally effective programs to the determination of relative utility of programs with multiple objectives and undetermined effectiveness. The sophistication of analysis to be employed by an organization is determined by the established goals to be derived from the program budgeting system. Newton (70) agrees that the methodology of analysis and its applicability must be agreed upon in any organization as a requisite to effective utilization of program budgeting. Warner adds that the failure of program budgeting systems to produce desired outcomes may often be the result of an inability to produce cost/effectiveness data because of faulty or inadequate analytical processes (99).

**Multiyear Planning**

Long range planning derives significance in the program budgeting process through the focus of attention on long-term fiscal and program commitments. The inaccuracies inherent in multiyear projections do not diminish a basic principle of the long-range planning process, that is, the provision of a comprehensive view of alternative actions that may be taken by an organization (54). Dei Rossi defines planning for the purposes of the program budget as a means for the formulation, evaluation, and selection among future alternative courses of action (16, p. 49).
Knezvich maintains that program budgeting systems must possess future implications for action defined in detail. The planning process must include multiyear program and financial documents before the organization can profess to operate a program budgeting system. The level of explicitness of the projected expenditures and outcomes definitely influence the quality of resource allocation decisions. PPBS seeks to correct a defect of traditional budgeting, a limited time span, by emphasizing multiyear expenditure and outcome planning (54, pp. 34-35).

The planning phase of program budgeting has been defined as the selection by the particular institution of long-range objectives and the systematic analysis of alternative courses of action to achieve those objectives. In theory, PPBS attempts to develop a data base and to identify structural relationships required to allocate the scarce resources to competing users. Lamoureau maintains that, in reality, the successful accomplishment of stated objectives depends on the orderly development of multiyear input and output. The usefulness of multiyear planning is, in part, dependent upon analytical capabilities for examining alternatives (56, pp. 15-16).

Grossbard has identified three major documents necessary to the planning, program budgeting cycle. The primary document is the Multiyear Program and Financial Plan (PFP), which presents pertinent data relating to output, costs, and
financing of programs for a period of several years. Generally the PFP encompasses the previous fiscal year, the current fiscal year, the following fiscal year, and the four future years. Projections past the upcoming fiscal year are included to demonstrate future implications of current and past decisions; future projections, however, are not designed to predict future budget totals. The future aspects of the PFP, though, should serve as a guide for financial planning (27, pp. 12-13). Weathersby and Balderston concur with this assessment of multiyear planning by identifying systematic long-range planning as a key component of any PPB system (94, pp. 5-6).

Haggart has determined that program budgeting as a long-range planning tool has merit even without the budget control facet of the system, provided that systematic, analytical processes have been developed (28, p. 222). Computers and automated management systems are beneficial, but not pre-requisite for an effective program of systems analysis and long-range planning.

In an analysis of program budgeting in the federal government, Hovey notes that planning secures a sense of direction for program and budget development. Planning provides lead-time for better selection of alternatives and allows awareness of future consequences of decisions. In addition, a bridge between planning and budgeting is provided by the programming aspect of PPBS (44, pp. 68-76). Hartley feels that the emphasis placed on the programs of PPBS provides
the emphasis necessary for continual evaluation and time-phased systematic planning. The program budgeting process placed the source of budgeting with planning and analysis (32, pp. 3-6).

The original PPB system for the state of New York, Schick explains, was a planning process with budgeting as one of the components, not a budgeting process with the planning element added. The PPB cycle involved seven stages, with five stages being devoted to the development of long-range projections (82, p. 121). He concludes that budgeting and planning, which are limited to one year, normally reflect incremental revenue adjustments and that time is occupied with meeting current problems and pressures, not future program potentials and end results. Multiyear planning and analysis are essential to cost-effective programming and budget allocation (82, pp. 92-97).

According to Lyden and Miller, Dror views planning within program budgeting as a process that functions within a time frame that is not necessarily precise or predetermined. The determination of the time-span for planning activities depends on a combination of various factors, including the natural cycle of the subject, the urgency of the situation, the limitations of ability to predict the future, the evaluation of present versus future needs, and the desire of planning to serve as a guide for current actions (64, p. 106). Novick
points out that Ashen has identified three characteristics of program budgeting that contribute to realistic planning: The first characteristic is the prediction of future costs over a period of years; the second characteristic is the collection of budget items from the various departments of the organization; and the final characteristic is the encouragement of cost-utility analysis (71, p. 355).

The options available for education in the development of multiyear program budget projections are often more limited than most school officials prefer them to be. Hirsch states that educational changes over an intermediate period of five years or less are all too often small. The relative consistency of the educational community provides more ease in the construction of a projection model. A projection model for PPBS should involve the following guidelines: staff members and salaries, facilities and construction costs, plant maintenance and operating costs, and library books and costs. The parameters should be relative to factors such as the number of students, nature of the staff, subjects to be taught, and scheduling considerations (39, pp. 97-98) of the institution.

**Objective Based Programs**

The program structure is often classified as the central feature of a program budgeting system. Grossbard calls for the specification and analysis of basic program objectives as the first step in the implementation of a program budgeting
system (27, p. 6). Knezevich, too, identifies the clarification of objectives for major activities of the organization as the initial step in implementation of PPBS (54, p. 71).

Schick suggests that the inclination to distinguish the program structure as the principal element of PPBS has given rise to considerable distortion and misunderstanding. He supports this contention by citing two diametrically opposed views of the value of program structure in PPB systems. The RAND Corporation, he says, implies that the main benefits of program budgeting are attained when budget accounts have been established by programs, while Wilavsky maintains that the program structure is either harmful or useless (82, p. 91). A more tenable position concerning program structure may be that it is an important element of PPB, but it does not constitute the entire system.

Numerous definitions of PPB program structure are present in the related literature (72, 73, 82). Barro defines program structure as "a classification system that categorizes the activities of an organization according to their relationship to the organizational objectives" (2, p. 21). Weiss proposes that the program structure is only a model of the organization preparing to utilize a program budgeting system (96, p. 3). Knezevich, in addition, has identified a commonality that exists in many definitions of PPB program structure; that is, there must be an objective to serve as the focal point for organizing resources and activities, and the
output-oriented framework of the program structure must display data relative to all operations and objectives of the organization (54, pp. 72-73).

There is no uniform, recommended programmatic structure for program budgeting that has general applicability to educational organizations. Hartley contends that the lack of uniformity is more a virtue than a limitation of PPBS. If PPBS is to serve the state or school district as it is intended to do, each organization should develop programs and objectives to satisfy its own needs (32, p. 243).

Program development is a means to an end, according to Knezevich (54, p. 73). The intent of the process is to generate actions that facilitate the utilization of PPBS. Barro identifies two approaches to defining programs for PPBS, one prescriptive approach and one descriptive approach. The prescriptive approach defines programs and objectives based on what the school should be doing. The descriptive approach defines programs and objectives inductively from actual activities conducted by the school. A balance of the two concepts would serve the practical application of programming to school organization (2, pp. 30-31).

The statement of explicit objectives is an integral element of programming (20, 54, 51, 97). Hartley proposes the use of a taxonomy approach for the establishment of cognitive, affective, and psychomotor objectives. The
objectives of the organization should be stated operationally to provide administrators with a meaningful data base for program planning (32, pp. 157-160). According to Firman, Wickert (20) suggests that organizational objectives and sub-objectives should be stated in behavioral terms and should encompass both instructional and noninstructional activities.

Rath (77) explains that a multiyear plan is divided into programs, with each program combining those activities necessary to attain a specific objective. The structuring of an objective-based program should utilize all pertinent activities necessary to accomplish identified organizational goals, for as Curtis mentions, well defined objectives provide valid opportunities to assess the success of programs (14, p. 148). Likewise, Worner (99) indicates that a district without stated goals or objectives is in no position to assess the outcomes of any program.

At the national conference on PPBS held in 1970, Williams (97) reported that the definition of programs is a two-phase process, the first identifying current activities that contribute to the achievement of objectives and the second addressing what should be done to accomplish the objectives effectively and economically. Although formal program structures are relatively rare in most school districts, program structures covering the school's operation can usually be readily developed around basic educational
disciplines. Null (72, p. 6) has noted that the Fort Wayne, Indiana, Public School system has defined programs in the secondary school by subject areas and in the elementary school by grade levels. The various styles of program structure available to school officials must be considered very carefully, as the style decided upon will have significant effect upon the ultimate nature of the total PPB system for the district.

**Program Budget**

The traditional view of budgeting has been one of controlling expenditure requests. Knezevich indicates that education budgets transcend simple mathematical expenditure computations and attempt to address the missions and goals of the individual school district. The foundation of the educational budget has traditionally been a poorly defined educational plan that describes expenditure inputs. PPBS, on the other hand, emphasizes the importance of a well-developed educational plan as a basis for the budget. To be successful, the plan must be output oriented and based on sound planning and programming (54, pp. 110-119).

Budgets as a controlling device for governmental fiscal affairs have been in use for more than 100 years. The initial purpose of the budget had been to focus on objectives of expenditure with emphasis on accounting. The performance budget, developed during the 1950's, brought a new dimension
to budgeting, that of management efficiency and was designed to support the scientific management concepts of Fredrick W. Taylor. The evolution of budgeting was altered once again, this time in the 1960's with the advent of strategic planning through the use of Planning, Programming, Budgeting Systems (54, pp. 124-135).

According to Leydon and Miller, Schick (64, p. 37) maintains that the main goal of program budgeting is to rationalize policy-making in an organization. Knezevich concurs with this idea.

In PPBS the budget does more than control expenditure decisions and assess efficient work procedures. It becomes an instrument for strategic planning, that is, a process for deciding on objectives, priorities, resources needed to attain outcomes, and policies governing use and disposition of resources (54, p. 132).

Wright, as cited by Hinrichs and Taylor (38, p. 27), contends that the management science concepts are compatible with PPBS if combined with a comprehensive planning process, and the planning strategy for the program budget should begin with the identification of final products.

Experiments with performance budgeting influenced government agencies to accept PPBS. Schick mentions that PPBS enables state governments to complete the purposes of performance budgeting. The functional nature of the various information systems--i.e., Management Information Systems, Statewide Information Systems, Financial Information Systems, etc.--are a direct result of the pragmatic influence of
performance budgeting (82, pp. 105-106). Performance budgeting has provided a logical transition from the line-item budget practices that permeated public budgeting for decades to systematic budgeting processes which emphasize the outcomes resulting from resource budgeting.

Many school districts have adopted the accounting mechanics of program budgeting. As Dougharty points out, the resulting program budget is often accomplished with the benefit of the planning aspect of the integrated program budgeting system (17). Novick states that, at the federal level, the implementation of a program budgeting structure of general nature serves to facilitate and encourage rational planning for the budgeting process (71, pp. 353-355). Nevertheless, the existence of a program-oriented budget document does not ensure that the organization has utilized all of the components normally associated with a PPB system.

School districts in some states are required by statutory provision to display their operating budgets in a prescribed manner. A "crosswalk system" is utilized by those districts that must translate the program budget to another more traditional budget form (14, 17, 32, 54, 82). Dougharty has, in addition, identified some cases of "reverse crosswalk" in school districts; the district conducts traditional planning and budgeting activities and then translates the traditional budget to a program budget (17). The crosswalk system also provides a process for resolving the diversities that result
from the multiple purposes of budgeting. According to Schick, in a complete PPB system, the process occurs between the planning and the budgeting components of the system (82, pp. 203-206).

The program budget is a process which involves the final reconciliation of programs and resources with priorities and the budget documents. The budget also serves as an administrative tool for the management, accounting, and reporting of allocated resources (14). Hartley (32, p. 93) submits that the budget document be concise, complete, and clearly stated so that it might be understood by the public. The program budget provides a framework for the defining of alternatives and the creation of an information system which will aid in relating costs to accomplishments, purports Novick (71, p. 18).

Worner concludes that budgeting is probably the easiest understood of all the PPBS elements; it is also essential to the complete design for PPBS (99). Barro suggests that the program budget must contain a set of program categories, a time dimension, a set of resources, and cost categories (2, p. 46). When all elements of PPBS are fully implemented, the program budget can reveal priorities, costs of attaining objectives, and the comparison of costs and accomplishments. The program budget, according to Null, has the capacity to provide administrators with rational management (72, p. 6).

According to Hirsch, the Secretariat of the Organization for Economic Cooperation and Development has concluded that
the planning activities for program budgeting should be
developed for the purpose of providing relevant data concern-
ing the budget process. The congruence of the planning and
budgeting functions promotes a more pervasive utilization of
systematic management techniques. Program budgeting, applied
in a comprehensive manner, should provide for budgetary
procedures that incorporate periodic review of total programs,
which the traditional annual budgetary procedures do not pro-
vide (39).

Knezevich has identified several concepts as distinguish-
ing characteristics of a program budget.

1. Explicit statements of desired outcomes (objectives)
   are an integral part of the budget document.
2. Budget exhibits are organized around major programs
   of the organization, that is, there is a programmatic
   format with activities clustered around objectives.
3. Expenditures or operating costs are aggregated
   around program elements, subcategories or categories
   rather than around inputs unrelated to measurable
   outcomes or subject matter disciplines and instruc-
tional functions where objectives are nonexistent or
   obscure at best.
4. Benefits as well as costs are exhibited for major
   programs.
5. There is a multiyear costing framework projecting
   new program resource demands for at least five years.
6. Data are organized to facilitate resource allocation
   decisions by executives (54, p. 132).

In addition, Hirsch has proposed that the salient features of
a program budget should include an output-oriented budget
format, the extension of the budget down to the elements of the
organization that require resources, quantifiable output, and
an extended time frame for the consideration of future impli-
cations of budget decisions (39, pp. 93-95).
Cost-Inclusiveness

Grossbard (29) states that the PPBS staff must provide data on the total cost both direct and indirect, of programs. In addition, the costs should include figures for more than one year. A fully documented program budget, according to Dei Rossi, should prove data on objectives, enrollments, and design and operational characteristics of all programs. This supplemental data is necessary for the development of total cost estimates for programs in a program budgeting context (16, p. 58).

Until recently, educational institutions felt that they should not be concerned with the costs of services. Executives in the field of education considered cost accounting a threat to many of the intangible social contributions provided by their institutions. Knezevich and his coworker Fowlkes have attempted to refute this concept by defining cost accounting as the searching out and the reporting of all elements of cost utilized in executing a specific activity (54, p. 159). Macleod (65) notes that cost accounting in nonprofit institutions can assist in providing efficiency and cost control, planning and allocating of resources, and the determination of reimbursement costs for selected programs.

Rath (77) maintains that the structuring of data and programs of PPBS represents an attempt to reconcile inputs and outputs. Furthermore, PPBS must involve total costs of all parts of the educational system. Hartley (32) has stated...
that cost-effectiveness analysis for PPBS was created to assist administrators in making a choice on the basis of least cost and greatest effectiveness. Many educational benefits defy quantification, so attempts to quantify all objectives of the school serve to decrease the effectiveness of the total system.

Cost accounting on a program basis provides support to clarify the allocation of resources needed to achieve desired outcomes. Reflecting costs related to purposes and desired outcomes is an important aspect of the budgeting function of a PPB system (14). Schick (82) indicates that cost accounting and scientific management are derived from performance measurement and that both processes, when exercised in a coordinated manner, develop a concise delineation of quantified output.

One aim of PPBS is that of making cost comparisons among competing programs. A danger inherent in cost analysis is the temptation to judge merit solely on cost rather than in comparison of benefits. Cost analysis, then, becomes a limited tool if the economic element becomes fundamental to the exclusion of other factors such as social, cultural, or political considerations. Hartley maintains that distrust of cost-effectiveness techniques by educators is somewhat justified. Education can benefit by the application of cost analysis of educational costs if the analysis of benefits is
tempered to allow for those outcomes that are not immediately discernible (32).

If school budget officials are to be able to evaluate costs and benefits of alternative finance options, the program budget must focus on expenditure aggregates. The specifics of the budget process come into effect as they contribute to an analysis of the total system. The use of the marco-analytical techniques features comprehensiveness and grouping of data in order to facilitate comparisons among mixtures of expenditure.

Knezevich says that cost accounting can effectively serve PPBS, but it is not critical to the effective operation of the system. Cost analysis, or benefit analysis, better serves the purposes of PPBS through the generation of comparative data for decision-making (54). According to Burrup, the National Education Association (8, pp. 245-246) identifies the projection of entire program costs and the analysis of program cost and effectiveness as critical processes in the preparation of PPBS documents.

**Administrative Commitment**

Hinrichs and Taylor state that many factors influence the installation of a Planning, Programming, Budgeting System by school districts or other governmental agencies. The understanding of, sympathy for, and commitment to the principles of PPBS by the chief executive, plus the executive's
personality and management philosophy, are contributing factors to effectiveness of implementing a PPB system (38).

Novick (71) concurs with the premise that the critical factor in PPB is the authority and support of the organization head. If programming and administration diverge, the operation of the organization depends on the means employed by the administrative leader to ensure continuation as an executive tool.

Hartley indicates that PPBS can be viewed as an executive tool to facilitate the development of information for more rational selection of alternatives. The executive tool concept of the PPB system is enhanced by the variance available to the executive in the selection of administrative elements such as centralization, expertise, authority, and span of control. PPBS can, within reason, provide the chief administrator of a school district with the substance and the structure required to implement an administrative philosophy (32, p. 86).

Planning and programming are complex activities that must be accomplished prior to the implementation of PPBS in public school districts. Executives must pool their resources to determine goals, establish priorities, and interpret program features for the educational institution. Implementing program budgeting in an educational organization requires a concerted effort by the administrative team. Knezevich believes that the upper-echelon of the administrative staff must stimulate the developmental activities, as well as the appraisal and approval of new programs (54, p. 103).
Rath emphasizes administrative commitment in establishing PPBS in a school district by pointing out several of the administrative provisions that must be present:

(a) a formal system of budgeting, for one cannot have a program planning and budgeting system which varies its manner of operating and use from year to year on arbitrary basis;
(b) an organization-wide and coordinated system, for one cannot do a good job of program budgeting if the proper inputs do not come from all parts of the organization;
(c) a programming updating system, for PPBS cannot be static as conditions change (77, p. 55).

Knezevich proposes a change model to be used in implementing PPBS in school districts. The model includes five major stages: awareness, commitment, readiness, professional staff development, and operations. Commitment must manifest itself initially in the upper echelons of the administrative staff. Eventually, however, acceptance of PPBS as a viable system must occur with teachers and middle management personnel as well (54, pp. 254-257).

The intrusion of economics upon educational administration encourages greater concern for economic rationality and efficiency criteria. Hartley (32) states that PPBS directs attention toward administrative-related issues, such as administrative organization, board of education and community relations, management information, instructional administration, financial administration, staff and community communications, and the relationship of program budgeting to collective negotiations.
Hartley (32) also maintains that PPBS requires deliberate effort and planning in order to facilitate implementation in local school districts. General leadership must be supplied by the chief school officer and combined with the cooperation of other administrative personnel. Ultimate responsibility for the development of PPBS in the school district, however, will likely fall upon one man whose title will vary from district to district.

Wildavsky, cited by Haverman and Margolis, states that the principal requirement for effective policy analysis in a PPB system is that executive management desires it (36, p. 437). Marvin and Rouse, Knezevich maintains, assert that the attitude of the organization head is the single most important factor in the development of PPB and its integration into a decision-making system; for example, strong support by President Johnson and Defense Secretary McNamara provided the chief stimulus for the successful development of PPBS in the federal government (54).

In educational institutions, commitments from the board of trustees of the district, along with those of the district superintendent and administrative team, are imperative to the successful installation of PPBS, according to Knezevich (54). The complexity of PPBS precludes successful accomplishment by one person alone, although there must be a unified effort from all top executives.
Hartley (34) maintains that in most districts using PPBS procedures there is a definite need to clearly delineate the responsibilities of each person in the organization. Often, the roles of middle management personnel are not defined or the role descriptions are ambiguous; it is, therefore, imperative to the effective operation of PPB that the central staff establish concise working definitions for all management personnel in the district. Such definitions should necessarily include boundary conditions and clearly defined areas of responsibility.

The power and influence of boards of trustees and participation by members of the community in school affairs may increase as a result of implementing PPBS in school districts. Such increases, according to Hartley, should be viewed as an opportunity to unify all power and influence in behalf of improved education. A benefit derived from PPBS may well be the mobilization of school and community power for the betterment of educational programs and the reduction of devisiveness between competing groups within the district and the community (32).

Program Budgeting Projects

The Ford Foundation, in the 1960's, sponsored one of the most notable and successful projects to develop program budgeting procedures through the State-Local Finances Project at George Washington University. The project has been commonly
referred to as the "5-5-5 Project," because five states, five counties, and five municipal governments were selected to demonstrate the conceptual and operational practicality of PPBS procedures. Demonstration centers were the states of California, Michigan, New York, Vermont, and Wisconsin. The county demonstration centers were Dade County, Florida; Davidson County, Tennessee; Los Angeles County, California; Nassau County, New York; and Wayne County, Michigan. The municipal centers were Dayton, Ohio; Denver, Colorado; Detroit, Michigan; New Haven, Connecticut; and San Diego, California. Since the 5-5-5 Project was implemented subsequent to the federal government's PPBS project, it provided encouragement for continued development of PPBS for governmental agencies nation-wide (31).

Hartley (32, pp. 111-112) notes that private corporations have demonstrated interest in new planning strategies and that some have applied PPBS to business in creative ways. The International Mineral and Chemical Corporation has developed a noteworthy project through the use of a well-designed program structure as well as planning procedures. PPBS was provided a position in the corporate organization through the establishment of a Corporate Planning and Development Division. Some school districts have followed this example and have employed management specialists to facilitate implementation and operation of PPBS concepts in the individual districts.
Perhaps the most comprehensive, carefully planned, and widely publicized project applying program budgeting concepts and techniques to education was conducted jointly by the Research Corporation of the Association of School Business Officials and the Dade County, Florida, public school system. The "PPBES" Project sought to develop and field-test the concepts and practices of program budgeting in several public school districts across the nation (14, 15, 46). Curtis stated that the project had three primary targets: (a) the creation and dissemination of a PPBS design, (b) the demonstration of an operational system, and (c) the encouragement of local districts to use PPBS (12).

Knezevich (54, p. 22) has noted that, during the late 1960's, school districts in Baltimore; Chicago; Los Angeles; Memphis; New York; Philadelphia; Sacramento; Skokie, Illinois; and Pearl River, New York, revised their budget formats or implemented a PPBS type program. Curtis (15) lists several projects including those of the PPBS Commission Project for the state of California, the Washington State Department of Education, the Oregon Total Information System, and the Midwestern States Educational Information Project (thirteen midwestern states were involved). The state departments of education of Texas, Florida, Maryland, and New York have also been involved in extensive studies of PPBS.

In October, 1966, the California State Legislature established the Advisory Commission on School Budgeting and
Accounting. The commission employed a management consulting firm—Peat, Marwick, and Mitchell—to assist in the development of a pilot program and to draw up a detailed PPBS manual for use by the local school districts (52, p. 535). Curtis (15) has described the California plan as the largest and the most comprehensive state PPBS plan in operation. California's pilot project, in its second year, received 200 requests from other school districts which desired to be included in the second-year pilot group. Krist (52) attributes many of the requests to an attitude expressive of "it's the coming thing so it is best to get involved early." The California State Board of Education, in 1970, encouraged the development of statewide PPBS by ordering the state department of education to rewrite the budgeting and accounting manual within two years (by 1972). During the period from November, 1970, to May, 1972, the state legislature, under growing pressure from teacher groups and politicians, reversed its position and abandoned PPBS as a statewide-oriented accounting system; some school districts have, nevertheless, implemented PPBS on a local-option basis (52).

James has noted that the PPB experience of the borough of York, Canada, did reaffirm that change cannot be imposed successfully. The organizational structure of educational institutions which must deal with a systems approach must involve all levels of the system, for resistance to change must be overcome from within the organization (47).
The Texas approach to PPB is one of incremental development of a system approach to education planning for the state. The development of an education management information system to serve the informational needs at the state, regional, and local levels was the first step in the establishment of systems management in education for the state. The Texas Education Agency together with the consulting firm of Peat, Marwick and Mitchell developed a detailed manual, *A Design for a Texas Education Management Information System* (91), to guide the state toward a systematic decision-making process for the local and state level education agencies. The finance subsystem for the Texas Education Management Information System was the initial subsystem to be developed and implemented by the Agency and was designed to provide a program-oriented accounting system for school districts. The system is an integral part of the Education Management Information System. The program-oriented accounting system was mandated for use by all school districts in the state by September, 1973. The State Board of Education, in its *Goals for Public School Education in Texas* (92) and *Priorities of the State Board of Education* (93) has encouraged the development and implementation of the techniques and processes of Program Budgeting in Texas public schools and the Texas Education Agency.
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CHAPTER III
RESEARCH PROCEDURES

The problem of this study was to determine the status of program budgeting in Texas school systems as perceived by school superintendents. The following procedures were implemented in order to obtain appropriate data: (a) a comprehensive review of literature and supplemental data was conducted; (b) valid program budgeting criteria were selected; (c) the initial survey questionnaire was constructed; (d) the final survey questionnaire was constructed; (e) the sample was selected; and (f) the survey questionnaire was administered and the data were tabulated.

Comprehensive Review of Literature and Supplemental Data

The review of literature and supplemental data was undertaken for the purpose of providing an understanding of the historical development of program budgeting in American education as well as emphasizing the characteristics of the various components of the program budgeting system. Another purpose for review of literature and supplemental data was to select a set of valid program budgeting criteria for the purpose of developing the questionnaire used in this study.
Selecting of Valid Program Budgeting Criteria

A review of the literature revealed a study conducted by Lea for the purpose of developing a set of significant Planning Programming Budget System criteria applicable to the public school environment and procedures (1). The PBBS criteria developed by Lea served as the basis for the instrumentation of this study.

Lea developed a list of criteria which were assumed to be important to a Planning, Programming, Budget System for public schools; Lea's criteria resulted from a lengthy survey of professional publications, previous studies, and study of authoritative opinions (see Appendix A). The PPBS criteria were then placed in one of six categories: (a) Systems Analysis, (b) Multiyear Planning, (c) Objective-Based Programs, (d) Program Budget, (e) Cost Inclusiveness, and (f) Administrative Commitment.

A panel of three PPBS authorities was asked to judge Lea's criteria and rewrite, delete, or add criteria as they deemed necessary. A reactionnaire was then developed from the initial set of validated criteria. The reactionnaire was sent to twenty superintendents and business officials of schools using Planning Programming Budget Systems. They were asked to accept, rewrite, or add criteria they considered essential.

The reactionnaire was rewritten to include the suggested changes, and the final form was sent to authorities in the
field of public school PPBS, and superintendents of schools and chief business officials of those schools using PPBS. The respondents were asked to mark each criterion as either (a) significant or (b) insignificant. A group consensus was computed for each criterion using the Walsh General Probability Model for Bionomial Events. The selected value for \( \bar{p} (.80) \) with a confidence coefficient of 95 percent was established as the standard for the study. Criterion statements were selected for inclusion in the final set of criteria based on the individual probabilities for selecting ratings of significant, equal to or greater than .80 with a confidence coefficient of 95 percent.

The PPBS criteria were reviewed relative to current literature and were found to be appropriate for the development of an instrument to be utilized in this study.

Construction of the Initial Questionnaire

A review of current literature, careful study of the PPBS criteria, and consultation with practicing school administrators and Texas Education Agency personnel preceded the development of the initial questionnaire. Information from these sources was used to verify the contemporary nature of the previously formulated statements and to formulate the initial questionnaire.

The tentative questionnaire was discussed in conferences with college professors; practicing school administrators; and
the staff of a planning, evaluation, research, and development department of a state education agency. Several word changes were made as suggested by these professional persons. The current term program budgeting, was used in place of the term planning programming budget system and the acronym PPBS (see Appendix B). The criterion statements were rephrased to give the respondents the option of rating the status of program budgeting in their districts on a scale from "none" to "fully implemented." The questionnaire and the program budgeting criteria were submitted to the graduate committee for final review. Several items were rephrased for clarification, and the questionnaire was approved for use in this research project (see Appendix C).

Construction of the Final Survey Questionnaire

The final questionnaire was constructed (see Appendix C) using the responses received from the professional educators contacted during the initial phase of instrument development. The resulting thirty-three items were unanimously approved and ruled to be valid for inclusion in the final questionnaire.

The queries used in the final questionnaire, a cover letter, and a set of instructions for completion of the instrument (see Appendix D) were then typed on letter-sized paper and reduced for printing. The questionnaires, consisting of seven pages, were printed by off-set press in booklet form. Beige paper stock was selected to give the
The 1975-1976 Public School Directory was used to develop the list of Texas public school districts which was needed for the selection of a random sample of school superintendents for this study (3). The Texas Education Agency-published Directory, which uses the Superintendent's Annual Report as the source for its information, represents the latest published state-wide report currently available. In the Directory, the schools are grouped alphabetically by county, and the following information is included by district: (a) district name and county/district number, (b) current address of the school district, (c) name of superintendent(s) of schools, (d) the average daily attendance (ADA) for the district during the preceding year, and (e) the additional data not vital to the purposes of this study.

The stratification of the sample by the average daily attendance figures for the district was accomplished using the following strata scale: Group I, 5001 or more ADA; Group II, 1001 to 5000 ADA; Group III, 501 to 1000 ADA; and Group IV, 500 or less ADA. Four separate lists of school districts were prepared from the Public School Directory. The districts in each group were then numbered consecutively. Next, an impartial person drew two numbers between one and
fifty to provide the column and the row for the beginning number in the table of random numbers (2, pp. 133-134). The process was repeated for each of the four groups until seventy-five school districts were selected from each group, thus securing a total of 300 school districts.

Administration of the Survey Questionnaire

The questionnaires were administered to 300 superintendents of Texas public school districts. The first page of the survey booklet provided an explanation of the study's purpose and issued a request for the participation of the recipient. Instructions for completing and returning the questionnaire were printed on the second page. The remaining pages of the booklet contained the questionnaire. A booklet and an addressed, stamped envelope were mailed to each administrator selected in the sample.

A working list was then prepared for each of the respondent groups, with an identification number being assigned to each of the names on the lists and the identification numbers placed on the questionnaires prior to mailing. The numbers were checked off the working lists as the instruments were returned. Approximately fifteen days after the initial mailing, a follow-up survey was sent to non-respondents (see Appendix E). The follow-up consisted of a letter requesting participation in the study, a second copy of the questionnaire, and an addressed, stamped envelope for the return of the
instrument. After approximately fifteen days, the follow-up procedure was conducted a second time.

These procedures resulted in a return of 224 usable questionnaires, or a 74.7 percent return. The percent of return by group was as follows: Group I, 81.3 percent; Group II, 74.6 percent; Group III, 69.3 percent; and Group IV, 73.3 percent. The returns in each group exceeded the standard set of 65 percent, which was considered acceptable for the purposes of this study.

Following the deadline for returning the questionnaire, the data were recorded on keypunch cards for computer processing. Statistical analysis of the data included the computation of group means, standard deviations, f-ratios, and probability of differences among group means for individual response statements. The results of the data treatment are presented in Chapter IV.
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CHAPTER IV

PRESENTATION OF FINDINGS

The purposes of this study were to determine the status of program budgeting in Texas school systems and to determine if there were any significant differences in the status findings relative to the size of the school districts. The analysis of data was limited to the 224 usable responses of a random sample of Texas public school superintendents. The data presented in this chapter were obtained by compiling the results of the survey questionnaire, "A Research Study to Determine The Status of Program Budgeting in Texas School Districts."

The thirty-three response statements included in the survey instrument resulted from the adaptation of a reactionnaire developed by Lea. The instrument response statements were grouped into six major concept areas; data are presented in six tables which represent these major concept areas. The number of respondents, group means, standard deviations, F-ratios, and probability of differences among group means for individual response statements are presented in each of the tables.

Table I indicates a distribution of sample returns by respondent categories. A total of 300 superintendents of
Texas school districts were requested to participate in the study; the number of usable instruments returned for data treatment totaled 224.

**TABLE I**

DISTRIBUTION OF SAMPLE RETURNS BY RESPONDENT CATEGORIES

<table>
<thead>
<tr>
<th>Survey Groups</th>
<th>Number in Sample</th>
<th>Number of Returns</th>
<th>Percent Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group I 5001 or More ADA</td>
<td>75</td>
<td>61</td>
<td>81</td>
</tr>
<tr>
<td>Group II 1001-5000 ADA</td>
<td>75</td>
<td>56</td>
<td>75</td>
</tr>
<tr>
<td>Group III 501-1000 ADA</td>
<td>75</td>
<td>52</td>
<td>69</td>
</tr>
<tr>
<td>Group IV 500 or Less ADA</td>
<td>75</td>
<td>55</td>
<td>73</td>
</tr>
<tr>
<td>Total</td>
<td>300</td>
<td>224</td>
<td>75</td>
</tr>
</tbody>
</table>

Sixty-one of the superintendents in Group I (representing districts with 5001 or more students in average daily attendance), fifty-six superintendents from Group II (representing districts with 1001 to 5000 students in average daily attendance), fifty-one superintendents from Group III (representing districts with 501 to 1000 students in average daily attendance), and fifty-five superintendents from Group IV (representing districts with 500 or less students in average attendance).
daily attendance) responded to the questionnaire. The percentage of return from each respondent group and the total respondent return of 75 percent exceeded the 65 percent return considered necessary to support the purposes of the study.

Objective-Based Programs Concept of Program Budgeting: Survey Items 1.1 through 1.5

The data presented in Table II indicate the perceived implementation status of the five objective-based programs concept items relative to program budgeting as it exists in Texas public school districts.

Item 1.1, "To what extent have programs within the program budgeting framework been used to accomplish the school's educational plan objective," received mean scores within an inclusive range limited by 2.50 and 3.50. The range of mean scores indicates that this concept was perceived by superintendents to be moderately implemented by school districts in Texas. A mean score of 2.89 indicated that superintendents of Group II, rather than the other respondent groups, perceived this concept to have a greater level of implementation. The superintendents of Group IV perceived the concept as being implemented at the lowest level, with a mean of 2.78, while superintendents of Group I recorded a mean of 2.84 and the mean for superintendents of Group III was 2.79. The standard deviations ranged from a high of 1.30 by superintendents of Group IV to a low of 1.09 by Group II. Group I and Group III
### Table II

**Analysis of Five Items Relating to Objective-Based Programs**

<table>
<thead>
<tr>
<th>Item</th>
<th>Group I 5001 or More ADA</th>
<th>Group II 1001 to 5000 ADA</th>
<th>Group III 501 to 1000 ADA</th>
<th>Group IV 500 or Less ADA</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
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</table>
recorded standard deviations of 1.23 and 1.19 respectively. No significant differences among group means appeared at the .01 level.

Item 1.2, "To what extent have objective-based programs been used to encourage careful analysis of all the activities of the school system," received mean scores within an inclusive range of 2.50 and 3.50. The range of mean scores indicated that this item was generally perceived by superintendents to be moderately implemented by Texas school districts. A mean score of 2.80 for superintendents of Group I indicated that they, rather than the other respondent groups, perceived this concept to have a greater level of implementation. Superintendents of Group II perceived the concept to have the lowest level of implementation, allowing a mean of 2.66. Superintendents of Group III recorded a mean of 2.79, while the mean for superintendents of Group IV was 2.73. The standard deviations ranged from a high of 1.33, recorded by superintendents in Group IV, to a low of 1.05, recorded by Group II. Group I and Group III recorded standard deviations of 1.17 and 1.14 respectively. No significant differences among group means appeared at the .01 level.

Item 1.3, "To what extent have objective-based programs been used to reflect both the short-term and the long-term programs," received mean scores within an inclusive range of 2.50 and 3.50. This range of mean scores indicated that this item was perceived by the superintendents to be moderately
implemented by school districts in Texas. A mean score of 2.74 indicated that superintendents of Group I, rather than the other respondent groups, perceived this concept to have a greater level of implementation. Superintendents of Group IV perceived this concept to have the lowest level of implementation, reflecting a mean score of 2.60. Superintendents of Group II recorded a mean score of 2.69, and the mean score for the Group III superintendents was 2.63. Standard deviations ranged from a high of 1.27 by superintendents of Group IV to a low of 1.06 for Group II respondents. Group I and Group III recorded standard deviations of 1.20 and 1.09 respectively. No significant differences among group means appeared at the .01 level.

Item 1.4, "To what degree have the outputs of individual programs been identified," received mean scores within an inclusive range of 2.50 and 3.50. This range of mean scores indicated that this item was perceived by superintendents to be only moderately implemented by Texas school districts. A mean score of 2.83 for superintendents of Group III indicated that they, rather than respondents of the other groups, perceived this concept to have a greater level of implementation. The group IV superintendents perceived this concept to have the lowest level of implementation, relating a mean score of 2.53. The superintendents of Group I recorded a mean score of 2.70, while the mean score for Group II superintendents was 2.64. The standard deviations ranged from a high of 1.20
recorded by Group IV to a low of 1.02 exhibited by Group III. Group I and Group II recorded standard deviations of 1.19 and 1.16 respectively. No significant differences among group means appeared at the .01 level.

Item 1.5, "To what extent have objective-based programs been used to avoid overlapping or duplicated effort," received mean scores within an inclusive range of 2.50 and 3.50. The range of mean scores indicated that this item was perceived by superintendents to be moderately implemented by Texas school districts. A mean score of 2.85 indicated that the superintendents in Group III, rather than respondents of other groups, perceived this concept to have a greater level of implementation. Superintendents of Group II perceived this concept to have the lowest level of implementation, thus exhibiting a mean score of 2.59. Superintendents in Group I recorded a mean score of 2.80, and the mean score for Group IV respondents was 2.73. The standard deviations ranged from a high of 1.38 for Group IV respondents to a low of 1.16 for the Group II respondents. Group III and Group I recorded standard deviations of 1.24 and 1.19 respectively. No significant differences among group means appeared at the .01 level.

Program Budget Concept of Program Budgeting:
Survey Items 2.1 through 2.8

The data presented in Table III display the perceived implementation status of the eight program budget concept
<table>
<thead>
<tr>
<th>Item</th>
<th>Group I</th>
<th>Group II</th>
<th>Group III</th>
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</table>
items relative to program budgeting as it exists in Texas public school districts.

Item 2.1, "To what extent has the program budget been used to present the total direct costs of the individual school programs," received mean scores within an inclusive range of 2.50 and 3.50. The range of mean scores indicated that this item was perceived by superintendents to be moderately implemented by Texas public school districts. A mean score of 3.41 for superintendents of Group II indicated that for them, this concept was perceived to have a greater level of implementation than for the other responding superintendents. Superintendents of Group III perceived the concept to have the lowest level of implementation, exhibiting a mean score of 2.98. Superintendents of Group I recorded a mean score of 3.09, while the mean score for Group IV superintendents was 3.05. The standard deviations ranged from a high of 1.39 shown by superintendents in Group III to a low of .87 exhibited by Group II respondents. Group IV and Group I recorded standard deviations of 1.37 and 1.22 respectively. No significant differences among group means appeared at the .01 level.

Item 2.2, "To what extent have interested parties understood the program budgeting format of presenting the budget by program," received mean scores within an inclusive range of 2.50 and 3.50. The range of mean scores indicated that this item was perceived by superintendents to be moderately
implemented by Texas public school districts. A mean score of 2.87 for Group II respondents indicated that for them this concept was perceived to have a greater level of implementation than for the other respondent groups. Superintendents in Group IV perceived the concept to have the lowest level of implementation, showing a mean of 2.47. Group I superintendents recorded a mean of 2.79, while the mean for superintendents in Group III was 2.65. Standard deviations ranged from a high of 1.15 for Group III respondents to a low of .89 for Group II respondents. Group IV and Group I recorded standard deviations of 1.09 and 1.06 respectively. No significant differences among group means appeared at the .01 level.

Item 2.3, "To what degree have teachers' salaries been prorated to programs that utilize the teacher's time," received mean scores within an inclusive range of 2.50 and 3.50. The range of mean scores indicated that this item was perceived by superintendents to be moderately implemented by Texas public school districts. A mean score of 2.86 exhibited by superintendents of Group II indicated that for them this concept was perceived to have a greater level of implementation than for the other respondent groups. Superintendents of Group IV, indicating a mean score of 2.60, perceived the concept to have the lowest level of implementation. Superintendents of Group III recorded a mean score of 2.75, while the mean score for superintendents in Group I was 2.72. The
standard deviations ranged from a high of 1.41 for superintendents of Group III to a low of 1.17 for respondents of Group II. Group I and Group IV recorded standard deviations of 1.37 and 1.31 respectively. No significant differences among group means appeared at the .01 level.

Item 2.5, "To what degree has the program budget been used to facilitate the comparison of different programs," received mean scores within an inclusive range of 2.50 and 3.50. This range of mean scores indicated that this item was perceived by superintendents to be moderately implemented by Texas public school districts. A mean score of 2.89 shown by superintendents of Group II indicated that they perceived this concept to have a greater level of implementation than did the other groups' respondents. The superintendents of Group I perceived the concept to have the lowest level of implementation, exhibiting a mean score of 2.75. The superintendents of Group IV recorded a mean of 2.87, while the mean for superintendents in Group III was 2.83. Standard deviations ranged from a high of 1.28 for superintendents of Group IV to a low of 1.00 for respondents of Group II. Group III and Group I respondents recorded standard deviations of 1.18 and 1.12 respectively. No significant differences among group means appeared at the .01 level.

Item 2.6, "To what extent has the program budget been used to emphasize accomplishments rather than things purchased," received mean scores within an inclusive range of 2.50 and
This range of mean scores indicated that this item was perceived by superintendents to be moderately implemented by Texas public school districts. A mean score of 2.79 for superintendents in Group II indicated that they perceived this concept to have a greater level of implementation than did the other groups' respondents. The superintendents of Group I perceived this concept to have the lowest level of implementation with a mean of 2.57; the superintendents of Group III recorded a mean of 2.69, while the mean score for superintendents of Group IV was 2.63. The standard deviations ranged from a high of 1.25 by Group IV superintendents to a low of 1.00 for Group II respondents. Group I and Group III respondents recorded standard deviations of 1.12 and 1.09 respectively. No significant differences among group means appeared at the .01 level.

Item 2.7, "To what degree has the program budget been used to provide meaningful information on the relationship of outputs to inputs of programs," received mean scores generally within an inclusive range of 2.50 and 3.50, with one group falling below 2.50. This range of mean scores indicated that this item was generally perceived by superintendents to be moderately implemented by Texas public school districts. A mean score of 2.93 for superintendents of Group II indicated that they perceived this concept to have a greater level of implementation than did the other groups' respondents. The superintendents of Group IV perceived the concept to have the
lowest level of implementation, showing a mean of 2.42. The superintendents of Group III recorded a mean score of 2.65, and the mean score for superintendents of Group I was 2.52. The standard deviations ranged from a high of 1.15 for Group III and Group IV superintendents to a low of .91 for Group II respondents. Group I recorded a standard deviation of 1.03. No significant differences among group means appeared at the .01 level.

Item 2.3, "To what extent has the program budget been used to serve as a planning instrument rather than merely an accounting for objects of expenditures," received mean scores within an inclusive range of 2.50 and 3.50. This range of mean scores indicated that this item was perceived by superintendents to be moderately implemented by Texas public school districts. A mean score of 3.09 indicated that the superintendents of Group II perceived the concept to have a greater level of implementation than did the other groups' respondents. The superintendents of Group IV perceived the concept to have the lowest level of implementation, exhibiting a mean score of 2.65. The superintendents of Group III recorded a mean score of 3.06, while the mean for superintendents of Group I was 2.90. The standard deviations ranged from a high of 1.21 by Group III superintendents to a low of .98 by respondents of Group II. Group IV and Group I recorded standard deviations of 1.19 and 1.13 respectively. No significant differences among group means appeared at the .01 level.
The data presented in Table IV display the perceived implementation status of the five systems analysis concept items related to program budgeting as it exists in Texas public school districts.

Item 3.1, "To what extent has program budgeting been focused on outcomes to meet student needs," received mean scores within an inclusive range of 2.50 and 3.50. The range of mean scores indicated that this item was perceived by superintendents to be moderately implemented by Texas public school districts. A mean score of 2.83 for Group III superintendents indicated that they perceived this concept to have a greater level of implementation than did the other groups' respondents. The superintendents of Group I perceived this concept to have the lowest level of implementation, indicating a mean score of 2.56. The superintendents of Group IV recorded a mean score of 2.69, while the mean score for Group II superintendents was 2.68. Standard deviations ranged from a high of 1.39 exhibited by Group IV superintendents to a low of 1.13 exhibited by respondents of Group II. Group III and Group I respondents recorded standard deviations of 1.20 and 1.15 respectively. No significant differences among group means appeared at the .01 level.

Item 3.2, "To what extent has program budgeting been utilized in planning, that results in information available
<table>
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<tr>
<th>Item</th>
<th>Group I 5001 or More ADA</th>
<th>Group II 1001 to 5000 ADA</th>
<th>Group III 501 to 1000 ADA</th>
<th>Group IV 500 or Less ADA</th>
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<td>.99</td>
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<td>2.52</td>
<td>1.08</td>
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</table>
to evaluate the accomplishment of school objectives," received mean scores generally within an inclusive range of 2.50 and 3.50, with one respondent group recording a mean score below the level of 2.50. This range of mean scores indicated that Item 3.2 was generally perceived by superintendents to be moderately implemented by Texas public school districts. A mean score of 2.69 for Group III superintendents indicated that they perceived this concept to have a greater level of implementation than did the other groups' respondents. The superintendents in Group I perceived the concept to have the lowest level of implementation, exhibiting a mean of 2.34. Group IV superintendents recorded a mean of 2.64, while the mean for superintendents in Group IV was 2.53. Standard deviations ranged from a high of 1.25 by superintendents of Group IV to a low of 1.01 by respondents of Group I. Group III and Group II recorded standard deviations of 1.09 and 1.03 respectively. No significant differences among group means appeared at the .01 level.

Item 3.3, "To what extent has program budgeting been used to provide a framework within which the superintendent, school board, department heads, and teachers can make decisions on alternatives that have been documented to eliminate uncertainties and increase options," received mean scores within an inclusive range of 2.50 and 3.50. This range of mean scores indicated that this item was perceived by superintendents to be moderately implemented by Texas public school districts.
A mean score of 2.98 for superintendents in Group III indicated that they perceived this item to have a greater level of implementation than did the other respondent groups. Group I and Group IV superintendents perceived the concept to have the lowest level of implementation, exhibiting a mean score of 2.69. The superintendents in Group II recorded a mean score of 2.73. Standard deviations ranged from a high of 1.28 by superintendents of Group III to a low of 1.15 by the respondents of Group II. Groups IV and I recorded standard deviations of 1.22 and 1.19 respectively. No significant differences among group means appeared at the .01 level.

Item 3.4, "To what degree has program analysis been updated to reflect both the current and future budgeting figures," received mean scores within an inclusive range of 2.50 and 3.50. This range of mean scores indicated that this item was perceived by superintendents to be moderately implemented by Texas public school districts. A mean score of 2.80 for the Group III superintendents indicated that they perceived this concept to have a greater level of implementation than did the other groups' respondents. Superintendents of Group IV perceived this concept to have the lowest level of implementation with a mean of 2.58. Superintendents of Group II recorded a mean of 2.78, while the mean for superintendents of Group I was 2.66. Standard deviations ranged from a high of 1.34 by the superintendents of Group IV to a low of 1.22 by
respondents of Group II. Group III and Group I recorded standard deviations of 1.25 and 1.24 respectively. No significant differences among group means appeared at the .01 level.

Item 3.5, "To what extent has quantitative and qualitative analysis of resource allocation been conducted to determine the efficiency of accomplishment of school objectives," received mean scores generally within an inclusive range of 1.50 and 2.50, with two respondent groups rising above 2.50. The range of mean scores indicated that this item was generally perceived by superintendents to be minimally implemented by Texas public school districts. A mean score of 2.56 for Group III superintendents indicated that they perceived this concept to have a greater level of implementation than did the other groups' respondents. Superintendents of Group I perceived the concept to have the lowest level of implementation, exhibiting a mean score of 2.21. Superintendents of Group II recorded a mean score of 2.52, while the mean for Group IV superintendents was 2.31. Standard deviations ranged from a high of 1.16 by Group III superintendents to a low of .99 by Group I respondents. Groups IV and II recorded standard deviations of 1.15 and 1.08 respectively. No significant differences among group means appeared at the .01 level.
Multiyear Plan Concept of Program Budgeting: Survey Items 4.1 through 4.5

The data presented in Table V display the perceived implementation status of the five multiyear plan concept items relative to program budgeting as it exists in Texas public school districts.

Item 4.1, "To what degree has multiyear planning been used to project the total resources and dollar needs," received mean scores generally within an inclusive range of 2.50 and 3.50, with one group's scores falling below 2.50. The range of mean scores indicated that this item was generally perceived by superintendents to be moderately implemented in Texas public school districts. A mean score of 2.87 for Group III superintendents indicated that they perceived this concept to have a greater level of implementation than did the other groups' respondents. The superintendents of group IV perceived the concept to have the lowest level of implementation, exhibiting a mean score of 2.36. The superintendents of Group II recorded a mean score of 2.66, while the mean for superintendents of Group I was 2.51. Standard deviations ranged from a high of 1.27 by superintendents of Group I to a low of 1.08 by respondents of Group II. Groups IV and III recorded standard deviations of 1.22 and 1.16 respectively. No significant differences among group means appeared at the .01 level.
### TABLE V

ANALYSIS OF FOUR ITEMS RELATING TO THE MULTIYEAR PLAN

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<th>Group IV 500 or Less ADA</th>
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<td>N 55 M 2.24 SD 1.15</td>
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<td>.28</td>
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</table>
Item 4.2, "To what extent has multiyear planning been flexible and sensitive to population trends and the resulting requirements," received mean scores within an inclusive range of 2.50 and 3.50. This range of mean scores indicated that this item was perceived by superintendents to be moderately implemented by Texas public school districts. A mean score of 2.77 for Group III superintendents indicated that they perceived the concept to have a greater level of implementation than did the other respondent groups. Group IV superintendents perceived this concept to have the lowest level of implementation, with a mean score of 2.53. The superintendents of Group I recorded a mean score of 2.62, while the mean score for respondents of Group II was 2.60. Standard deviations ranged from a high of 1.66 exhibited by superintendents in Group III to a low of 1.14 exhibited by Group II. Groups IV and I recorded standard deviations of 1.25 and 1.21 respectively. No significant differences among group means appeared at the .01 level.

Item 4.3, "To what degree has multiyear planning been used on measurable objectives, using either objective or subjective evaluation," received mean scores within an inclusive range of 1.50 and 2.50. This range of mean scores indicated that this item was perceived by superintendents to be minimally implemented by Texas public school districts. A mean score of 2.46 for Group III superintendents indicated that they perceived this concept to have a greater level of
implementation than did the other groups' respondents. The superintendents of Group I perceived the concept to have the lowest level of implementation, with a mean score of 2.20. The superintendents of Group IV recorded a mean score of 2.42, and the mean score for superintendents in Group II was 2.41. Standard deviations ranged from a high of 1.16 by superintendents of Group III to a low of 1.06 by respondents of Group II. Groups IV and I recorded standard deviations of 1.15 and 1.11 respectively. No significant differences among group means appeared at the .01 level.

Item 4.4, "To what degree has total cost implications of long-range programs been expressed," received mean scores generally within an inclusive range of 2.50 and 3.50, with one respondent group's score falling below 2.50. The range of mean scores indicated that this item was generally perceived by superintendents to be moderately implemented by Texas public school districts. A mean score of 2.75 for Group III superintendents indicated that they perceived this concept to have a greater level of implementation than did the other groups' respondents. The superintendents of Group IV perceived this concept to have the lowest level of implementation with a mean score of 2.42. The superintendents in Groups I and II recorded a mean of 2.59. Standard deviations ranged from a high of 1.25 by superintendents of Group III to a low of 1.09 exhibited by Group II respondents. Groups IV and I recorded standard deviations of 1.17 and 1.15 respectively. No
significant differences among group means appeared at the .01 level.

Item 4.5, "To what degree have planners been able to forecast future needs in relation to changing cost variables such as inflation and bond market interest rates," received mean scores generally within an inclusive range of 2.50 and 3.50, with one respondent group's score falling below 2.50. This range of mean scores indicated that this item was generally perceived by superintendents to be moderately implemented by Texas public school districts. A mean score of 2.62 for Group I superintendents indicated that they perceived this concept to have a greater level of implementation than did the other groups' respondents. The superintendents of Group IV perceived this concept to have the lowest level of implementation, recording a mean score of 2.24. The superintendents of Group II recorded a mean score of 2.57, while the mean score for superintendents of Group III was 2.56. Standard deviations ranged from a high of 1.19 by superintendents of Group I to a low of 1.15 exhibited by Group IV respondents. Groups II and III recorded a standard deviation of 1.16. No significant differences among group means appeared at the .01 level.

Cost Inclusiveness Concept of Program Budgeting:
Survey Items 5.1 through 5.5

The data presented in Table VI display the perceived implementation status of the five cost inclusiveness concept
TABLE VI

ANALYSIS OF FIVE ITEMS RELATING TO COST INCLUSIVENESS

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<thead>
<tr>
<th>Item</th>
<th>Group I 5001 or More ADA</th>
<th>Group II 1001 to 5000 ADA</th>
<th>Group III 501 to 1000 ADA</th>
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<td>1.06</td>
</tr>
</tbody>
</table>
items relative to program budgeting as it exists in Texas public school districts.

Item 5.1, "To what extent have program costs been developed to include all significant and direct costs," received mean scores within an inclusive range of 2.50 and 3.50. This range of mean scores indicated that this item was perceived by superintendents to be moderately implemented by Texas public school districts. A mean score of 3.00 for Group I superintendents indicated that they perceived this concept to have a greater level of implementation than did the other groups' respondents. The superintendents of Group IV perceived the concept to have the lowest level of implementation, indicating a mean score of 2.64. The superintendents of Group III recorded a mean of 2.83, and the mean score for superintendents of Group II was 2.78. Standard deviations ranged from a high of 1.28 exhibited by superintendents of Group IV to a low of 1.17 exhibited by respondents of Group II. Groups III and I recorded standard deviations of 1.22 and 1.21 respectively. No significant differences among group means appeared at the .01 level.

Item 5.2, "To what extent have all costs and all parts of the educational system been covered in the program structure of program budgeting," received mean scores within an inclusive range of 2.50 and 3.50. This range of mean scores indicated that this item was perceived by superintendents to be moderately implemented by Texas public school districts. A
mean score of 3.02 for Group III superintendents indicated that they perceived this concept to have a greater level of implementation than did the other groups' respondents. The superintendents in Group II perceived this concept to have the lowest level of implementation, exhibiting a mean score of 2.68. Group I superintendents recorded a mean of 2.93, while the mean score for Group IV superintendents was 2.69. Standard deviations ranged from a high of 1.36 by superintendents of Group IV to a low of 1.17 by respondents of Group I. Groups II and III recorded standard deviations of 1.24 and 1.21 respectively. No significant differences among group means appeared at the .01 level.

Item 5.3, "To what extent has program budgeting made specific program costs more readily available to the superintendents," received mean scores within an inclusive range of 2.50 and 3.50. The range of mean scores indicated that this item was perceived by superintendents to be moderately implemented by Texas public school districts. A mean score of 3.15 for Group III superintendents indicated that they perceived the concept to have a greater level of implementation than did the other groups' respondents. Group IV superintendents perceived the concept to have the lowest level of implementation with a mean of 2.93. Group II superintendents recorded a mean of 3.04, while the mean for Group I superintendents was 3.03. Standard deviations ranged from a high of 1.32 by superintendents of Group II to a low of 1.26
by Group III. Groups IV and I recorded standard deviations of 1.30 and 1.28 respectively. No significant differences among group means appeared at the .01 level.

Item 5.4, "To what extent have all expenditures been classified by program category rather than conventional line-object classification," received mean scores generally within an inclusive range of 2.50 and 3.50, with one respondent group's score falling below 2.50. This range of mean scores indicated that this item was generally perceived by superintendents to be moderately implemented by Texas public school districts. A mean score of 3.07 for Group I superintendents indicated that they perceived the concept to have a greater level of implementation than did the other groups' respondents. The superintendents of Group IV perceived the concept to have the lowest level of implementation, exhibiting a mean score of 2.45. The Group III superintendents recorded a mean of 2.87, while the mean for the Group II superintendents was 2.86. Standard deviations ranged from a high of 1.36 by superintendents of Group IV to a low of 1.15 by respondents of Group II. Groups I and III recorded standard deviations of 1.34 and 1.27 respectively. No significant differences among group means appeared at the .01 level.

Item 5.5, "To what extent has consideration been given to the total system resources prior to making individual program allocations to insure the highest utility alternatives for all
the programs," received mean scores generally within an inclusive range of 2.50 and 3.50, with one group's scores falling below 2.50. This range of mean scores indicated that this item was generally perceived by superintendents to be moderately implemented by Texas public school districts. A mean score of 2.74 for Group I superintendents indicated that they perceived this concept to have a greater level of implementation than did the other groups' respondents. The superintendents of Group IV perceived the concept to have the lowest level of implementation, exhibiting a mean score of 2.49. The group III superintendents recorded a mean score of 2.69, while the mean score for superintendents of Group II was 2.68. Standard deviations ranged from a high of 1.30 for superintendents of Group IV to a low of 1.06 by respondents of Group II. Groups I and III recorded standard deviations of 1.18 and 1.16 respectively. No significant differences among group means appeared at the .01 level.

Administrative Commitment Concept of Program Budgeting: Survey Items 6.1 through 6.5

The data presented in Table VII display the perceived implementation status of the five administrative commitment concept items relative to program budgeting as it exists in Texas public school districts.

Item 6.1, "To what extent have timely and useful reports been provided by program budgeting procedures," received mean scores within an inclusive range of 2.50 and 3.50. This
### TABLE VII

**ANALYSIS OF FIVE ITEMS RELATING TO ADMINISTRATIVE COMMITMENT**

<table>
<thead>
<tr>
<th>Item</th>
<th>Group I (5001 or More ADA)</th>
<th>Group II (1001 to 5000 ADA)</th>
<th>Group III (501 to 1000 ADA)</th>
<th>Group IV (500 or Less ADA)</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1</td>
<td>N 61, M 2.84, SD 1.17</td>
<td>N 56, M 2.96, SD 1.17</td>
<td>N 52, M 2.88, SD 1.32</td>
<td>N 55, M 2.61, SD 1.22</td>
<td>.81</td>
<td>.49</td>
</tr>
<tr>
<td>6.2</td>
<td>N 61, M 2.98, SD 1.19</td>
<td>N 56, M 2.86, SD 1.07</td>
<td>N 52, M 2.79, SD 1.23</td>
<td>N 55, M 2.53, SD 1.25</td>
<td>1.51</td>
<td>.21</td>
</tr>
<tr>
<td>6.3</td>
<td>N 61, M 2.79, SD 1.29</td>
<td>N 56, M 2.75, SD 1.12</td>
<td>N 52, M 2.88, SD 1.32</td>
<td>N 55, M 2.58, SD 1.27</td>
<td>.54</td>
<td>.65</td>
</tr>
<tr>
<td>6.4</td>
<td>N 61, M 2.77, SD 1.23</td>
<td>N 56, M 2.93, SD 1.09</td>
<td>N 52, M 3.00, SD 1.28</td>
<td>N 55, M 2.62, SD 1.33</td>
<td>1.03</td>
<td>.37</td>
</tr>
<tr>
<td>6.5</td>
<td>N 61, M 2.80, SD 1.18</td>
<td>N 56, M 2.89, SD 1.17</td>
<td>N 52, M 2.92, SD 1.40</td>
<td>N 55, M 2.42, SD 1.36</td>
<td>1.83</td>
<td>.14</td>
</tr>
</tbody>
</table>
range of mean scores indicated that this item was perceived by superintendents to be moderately implemented by Texas public school districts. A mean score of 2.96 for Group II superintendents indicated that they perceived this concept to have a greater level of implementation than did the other groups' respondents. The Group IV superintendents perceived the concept to have the lowest level of implementation, exhibiting a mean of 2.61. The superintendents of Group III recorded a mean of 2.88, and the mean for superintendents of Group I was 2.84. Standard deviations ranged from a high of 1.32 by superintendents of Group III to a low of 1.17 by respondents in Groups I and II. The superintendents of Group IV recorded a standard deviation of 1.22. No significant differences among group means appeared at the .01 level.

Item 6.2, "To what extent have inputs from all parts of the organization been used to enable program budgeting to be updated and sensitive to changing conditions," received mean scores within an inclusive range of 2.50 and 3.50. This range of mean scores indicated that this item was perceived by superintendents to be moderately implemented by Texas public school districts. A mean score of 2.98 for Group I superintendents indicated that they perceived this concept to have a greater level of implementation than did the other groups' respondents. Superintendents of Group IV perceived this concept to have the lowest level of implementation, exhibiting a mean score of 2.53. The superintendents of
Group II recorded a mean score of 2.86, while the mean for superintendents of Group III was 2.79. Standard deviations ranged from a high of 1.25 by superintendents of Group IV to a low of 1.07 by respondents of Group II. Groups III and I recorded deviations of 1.23 and 1.19 respectively. No significant differences among group means appeared at the .01 level.

Item 6.3, "To what extent has program budgeting been used to give teachers the opportunity to share their ideas and contribute in the planning phase," received mean scores within an inclusive range of 2.50 and 3.50. The range of mean scores indicated that this item was perceived by superintendents to be moderately implemented by Texas public school districts. A mean score of 2.88 for Group III superintendents indicated that they perceived this concept to have a greater level of implementation than the other respondent groups. The superintendents of Group IV perceived the concept to have the lowest level of implementation with a mean score of 2.58. The superintendents of Group I recorded a mean of 2.77, while the mean for Group II superintendents was 2.75. Standard deviations ranged from a high of 1.32 by Group III superintendents to a low of 1.12 by Group II respondents. Groups I and IV recorded standard deviations of 1.29 and 1.27 respectively. No significant differences among group means appeared at the .01 level.
Item 6.4, "To what extent has increased planning of program budgeting been used to provide the best education for the resources expended," received mean scores within an inclusive range of 2.50 and 3.50. This range of mean scores indicated that this item was perceived by superintendents to be moderately implemented in Texas public school districts. A mean score of 3.00 for Group III superintendents indicated that they perceived the concept to have a greater level of implementation than did the other groups' respondents. The superintendents of Group IV perceived the concept to have the lowest level of implementation with a mean of 2.62. The superintendents of Group II recorded a mean score of 2.93, while the mean score for superintendents of Group I was 2.77. Standard deviations ranged from a high of 1.33 by Group IV superintendents to a low of 1.09 by Group II. Groups III and I recorded standard deviations of 1.28 and 1.23 respectively. No significant differences among group means appeared at the .01 level.

Item 6.5, "To what degree has program budgeting been used to serve the internal management purposes of reviewing personnel data, facilities data, output data, and resources data to enable the superintendent to assess performance and fix accountability," received mean scores generally within an inclusive range of 2.50 and 3.50, with one respondent group's scores falling below 2.50. This range of mean scores indicated that this item was generally perceived by superintendents to
be moderately implemented by Texas public school districts. A mean score of 2.92 for Group III superintendents indicated that they perceived this concept to have a greater level of implementation than did the other respondent groups. The Group IV superintendents perceived this concept to have the lowest level of implementation, exhibiting a mean of 2.42. Superintendents of Group II recorded a mean of 2.89, while the mean for superintendents of Group I was 2.80. Standard deviations ranged from a high of 1.40 by superintendents of Group III to a low of 1.17 by Group II. Groups IV and I recorded standard deviations of 1.36 and 1.18 respectively. No significant differences among group means appeared at the .01 level.
CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The movement toward the use of program budgeting as a management system by educational institutions is a product of social and economic changes that occurred during the past decade. There is general agreement among writers of educational literature and authorities in the field that the program budgeting movement gathered much of its impetus from the educational accountability movement. The implementation of program budgeting on the local school district level also received encouragement and direction from state and federal government agencies as an alternative to the traditional input budgeting techniques.

The evaluation of program budgeting in the United States can be traced from its origin in private industry to the federal government and, finally, to that of public education. The literature of the education field is prolific on the subject of program budgeting in education as a tool for the improvement of planning and budgeting practices; however, while there is insufficient information available in order to ascertain the degree to which school districts across the
nation have implemented program budgeting systems, it is clear that such systems have been instituted by many school districts in the United States.

Program budgeting for Texas educational institutions was initiated in the late 1960's with the development of the Texas Education Management Information System. The financial subsystem of the Education Management Information System (EMIS) was the first subsystem to be developed and implemented, and it provided the state with a program-oriented accounting system. All districts in the state were required to implement the program-oriented accounting system by the beginning of the 1973 fiscal year. The Texas State Board of Education further encouraged the development and implementation of program budgeting techniques and processes in Texas schools through the adoption of specific goals and priorities concerning program budgeting.

Virtually all of the states that have employed program budgeting systems have done so as a result of legislative mandate. Nationwide individual school district implementation of program budgeting has generally been the result of participation in special projects funded by state and federal government agencies or private foundations. Many of the efforts to establish program budgeting have been part of a planned program of accountability for education in the districts.
The primary purpose of this study was to determine the status of program budgeting in the major concept areas of systems analysis, multiyear planning, objective-based programs, program budget, cost inclusiveness, and administrative commitment, as perceived by superintendents of Texas public school districts. Secondarily, the study determined if these superintendents' perceptions differed significantly relative to the size of the school districts they represented. The implementation status of the concept areas resulting from this study provided needed data to formulate conclusions and develop recommendations relative to the eventual transition to a more complete program budgeting system for Texas public schools.

The study involved a review of literature in order to promote an understanding of the historical development of program budgeting in American education, to determine the component parts of program budgeting and of their characteristics. A review of supplemental materials was also conducted in order to select a set of valid criteria for the purpose of developing the survey instrument to be used in the study.

The review of the pertinent literature revealed a set of program budgeting criteria developed and validated in 1971 by Lea. Criteria statements were then carefully reviewed for the purpose of establishing consistency with current literature; these criteria were deemed to be appropriate for use as the basis for instrumentation. Accordingly, the final survey
instrument included the program budgeting criteria validated by Lea.

Utilizing the thirty-three-program budgeting criteria, a survey questionnaire was developed and copies mailed to 300 superintendents of Texas public school districts. The return of 224 usable survey instruments represented 74.7 percent of the selected sample; the return for each of the four respondent groups exceeded the 65 percent standard considered sufficient to support the purposes of the study.

The data presented in this study represent the perceptions of 224 superintendents of public school districts in the state of Texas. The data accumulated through the use of the survey instrument are presented in Chapter IV of the study.

Findings

Relative to the status of program budgeting in Texas public school districts, a summary of the findings pertaining to the purposes of the study is presented.

1. The data presented in Chapter IV revealed that the implementation status of systems analysis was generally perceived to be moderate, regardless of the size of the school district. The districts determined to be in Group III (501 to 1000 ADA), exhibited the highest degree of implementation, while the districts representing Group I (5001 or more ADA), indicated the lowest level of implementation. There
were no significant differences appearing among the group means on any of the systems analysis items on the survey.

2. In regard to the implementation status of the multi-year planning concept area, the data revealed that school districts determined to be in group IV (500 or less ADA) had only minimally utilized this concept area of program budgeting; the other school districts in the sample, however, reported moderate implementation. There were no significant differences among group means on any of the multiyear planning items of the survey instrument.

3. The data regarding the implementation status of the objective-based programs concept revealed that all of the groups perceived this concept area to be moderately implemented. The districts found in Group I (5001 or more ADA) and Group III (501 to 1000 ADA) appeared to maintain the highest level of objective-based program utilization. There were no significant differences among group means for any of the items related to objective-based programs.

4. The concept area of program budget was perceived by superintendents from all of the district classifications to have the highest level of implementation of all the major concept areas related to program budgeting. This concept area was found to be in the moderate range for all groups of school districts involved in the sample. There were no significant differences among group means for any of the program budget items on the survey questionnaire.
5. The concept area of cost inclusiveness was perceived by superintendents from all the district classifications to be moderately implemented in Texas school districts. The districts represented in Group I (5001 or more ADA) reported the highest level of implementation. There were no significant differences among group means on any of the cost inclusiveness items of the survey instrument.

6. The data regarding the implementation status of the administrative commitment concept area revealed that the concept is perceived by school superintendents to be moderately implemented. School districts found in Group III (501 to 1000 ADA) indicated the highest degree of implementation. There were no significant differences among group means related to the administrative commitment concept on the questionnaire.

7. Through a consideration of the six concept areas of program budgeting, the superintendents of schools found in Group III (501 to 1000 ADA) indicated the highest degree of implementation. Group means for the six concept areas indicated that school districts in Group IV (500 or less ADA) had the lowest level of implementation.

8. The following eleven items were rated by superintendents as being minimally implemented in at least one school district group classification. Minimal implementation was determined by a mean score which contained within a range of more than 1.5 and less than 2.5:
Item 2.2: To what extent have interested parties understood the program budgeting format of presenting the budget by program?

Item 2.7: To what degree has the program budget been used to provide meaningful information on the relationship of outputs to inputs of programs?

Item 3.2: To what extent has program budgeting been utilized in planning that results in information available to evaluate the accomplishment of school objectives?

Item 3.5: To what extent has quantitative analysis of resource allocation been conducted to determine the efficiency of accomplishment of school objectives?

Item 4.1: To what degree has multiyear planning been used to project the total resources and dollar needs?

Item 4.3: To what degree has multiyear planning been used on measurable objectives, using either objective or subjective evaluation?

Item 4.4: To what degree has total cost implication of long-range programs been expressed?

Item 4.5: To what degree have planners been able to forecast future needs in relation to changing cost variables such as inflation and bond market interest rates?

Item 5.4: To what extent have all expenditures been classified by program category rather than conventional line-object classification?
Item 5.5: To what extent has consideration been given to the total system resources prior to making individual program allocations to insure the highest utility alternatives for all programs?

Item 6.5: To what degree has program budgeting been used to serve the internal management purposes of reviewing personnel data, facilities data, output data, and resources data, which enables the superintendent to assess performance and fix accountability.

9. None of the survey items received a mean score within the range of 3.50 and 4.50, which would have indicated substantial implementation of the item. However, there were several items that received a mean score of 3.00 or more issued by at least one group of school districts:

Item 2.1: To what extent has the program budget been used to present the total direct costs of the individual school programs?

Item 2.4: To what extent has developing the program budget been used to serve as a planning instrument rather than merely an accounting for objects of expenditure?

Item 5.1: To what extent have program costs been developed to include all significant and direct costs?

Item 5.2: To what extent have all costs and all parts of the educational system been covered in the program structure of program budgeting?
Item 5.3: To what extent has program budgeting made costs more readily available to the superintendent?

Item 5.4: To what extent have all expenditures been classified by program category rather than line-object classification?

Item 6.4: To what extent has increased planning of program budgeting been used to provide the best education for the resources expended?

Conclusions

The conclusions reached as a result of this study pertaining to the status of program budgeting in Texas school districts are as follows:

1. Program budgeting concepts are present in all sizes of school districts in the state of Texas.

2. The state-mandated program budget concept appears to have formed the foundation for the implementation of the other five program-budgeting concept areas.

3. A preliminary assessment of the concept areas other than the program budget, i.e., objective-based programs, system analysis, multiyear planning, cost inclusiveness, and administrative commitment, when compared to the program budget concept appears to indicate that the higher the level of implementation the closer the relationship to the state-mandated aspects of the program budget concept. It was determined that the concept areas of cost inclusiveness,
administrative commitment, and objective-based programs must be operational to some degree prior to the implementation of the program budget concept, while the systems analysis and multiyear planning concept areas are dimensions of the program budgeting system that facilitate the operation of a system that extends beyond the mere accounting of expenditures.

4. The state-mandated program-oriented accounting system has encouraged school districts of all sizes within the state to implement program budgeting concepts beyond those required in order to be in compliance with the regulations and guidelines of the Texas Education Agency.

5. The results of this study did not identify a fully implemented system of program budgeting in any of the four school district groups included in this study.

6. A review of the pertinent literature failed to reveal evidence of significant encouragement or direction emanating from the state level to local school districts for the implementation of fully operational program budgeting systems. The absence of official direction and leadership from the Texas Education Agency or the legislature could well be a factor in the reluctance of local school districts to expand the program-oriented accounting system into a fully implemented program budgeting system.

7. The level of concept area implementation in most of the school districts appears to be developed only to the
degree necessary to adequately operationalize the required elements of the program-oriented accounting system.

Recommendations

On the basis of the findings which resulted from this study, the following recommendations may be made.

1. Program budgeting should be continued as a priority concern for Texas school districts.

2. Attempts to establish program budgeting as a fully implemented system in Texas school districts should include input from all levels of educational administration and governance.

3. Consideration should be given to the promotion of a state-wide program of staff development and information for superintendents of schools, public school business officials, and boards of trustees of local school districts for the purpose of developing common terminology relative to program budgeting and developing understanding of the benefits to be derived from the implementation of such a system.

4. The development of program budgeting to its fullest potential in Texas public school districts should include a strong commitment at the state level which would enhance the comprehensive management concepts of such a system. Commitment to a program budgeting system should be sufficient enough to transcend the current attitude which provides a basis for
the operation of the state-mandated financial accounting system.

5. The implementation of a comprehensive program budgeting system for local school districts should be a developmental process, initially involving only a portion of the school's total operation. Experience and confidence in the system should be gained through an incremental process and provide impetus to local districts for the expansion of the system into the remaining operational aspects of the district.

6. Further research should be conducted in order to more precisely define the possible developmental patterns for implementation of program budgeting in Texas public school districts.
APPENDICES
APPENDIX A

PROGRAM BUDGETING CRITERIA

Evaluative Criteria for Objective-Based Programs

1. How adequately do the programs within the PPBS framework accomplish the school educational plan objectives?
2. To what extent do the objective-based programs encourage careful analysis of all the activities of the school system?
3. How well does the program structure reflect both the short-term and the long-term programs?
4. To what degree can the outputs of the individual programs be identified?
5. How effective have the PPBS programs been in avoiding overlapping or duplicated effort?

Evaluative Criteria for the Program Budget

1. To what extent has the PPBS program budget presented the total direct costs of the individual school programs?
2. How well have interested parties understood the PPBS format of presenting the budget by programs?
3. How adequately have teacher salaries been prorated to programs that utilize the teacher's time?
4. How effective has developing the program budget been in encouraging careful examination of the entire school operation?

5. To what degree has the program budget facilitated the comparison of different PPBS programs?

6. To what extent has the PPBS program budget emphasized accomplishments rather than things purchased?

7. How well has the PPBS program budget provided meaningful information on the relationship of inputs to outputs of programs?

8. To what extent has the program budget served as a planning instrument rather than merely an accounting of objects of expenditures?

Evaluative Criteria for Systems Analysis

1. How adequately has the PPBS been focused on outcomes to meet student needs?

2. How well has the PPBS planning resulted in adequate information being available to evaluate the accomplishment of school objectives?

3. To what extent has PPBS provided the framework within which the superintendent, school board, department heads, and teachers can make a decision on alternatives that have been previously documented to eliminate uncertainties and to increase options?
4. To what degree has the PPBS program analysis document been updated continuously to reflect both the current and future budgetary figures?

5. To what extent have the quantitative and qualitative analyses of resource allocations made it possible to determine the efficiency of the accomplishment of school objectives?

Evaluative Criteria for Multiyear Plan

1. How well has PPBS multiyear plan projected the total resources and dollar needs?

2. To what extent has the PPBS multiyear plan been flexible and sensitive to population trends and the resulting requirements?

3. To what degree has the multiyear plan been based on measurable objectives, using either objective or subjective evaluations?

4. How adequately have total cost implications of long-range programs been expressed?

5. How effectively have planners been able to forecast future needs in relation to changing cost variables as inflation and bond market interest rate?

Evaluative Criteria for Cost Inclusiveness

1. To what extent have PPBS program costs included all significant and direct costs?
2. How adequately have all costs and all parts of the educational system been covered in the program structure of the PPBS?

3. To what extent has PPBS made specific program costs more readily available to the superintendent?

4. To what extent have all expenditures been classified by program category rather than conventional line-object classification?

5. How effective has considering the total system resources prior to making individual program allocations been in insuring the highest utility alternative for all the PPBS programs?

**Evaluative Criteria for Administrative Commitment**

1. How adequately have timely and useful reports been provided by PPBS procedures?

2. To what extent have inputs from all parts of the organization enabled PPBS to be updated and sensitive to changing conditions?

3. How adequately has PPBS given teachers the opportunity to share their ideas and contribute in the planning phase?

4. How well has the increased planning effort succeeded in providing the best education for the resources expended?

5. To what degree has PPBS program budgeting served the internal management purposes of reviewing personnel and
facilities data, output data, and resources data enabling the superintendent to assess performance and fix accountability?
APPENDIX B

REVISED PROGRAM BUDGETING CRITERIA

Objective-Based Programs

1. To what extent have programs within the Program Budgeting framework been used to accomplish the school's educational plan objectives?

2. To what extent has objective-based programs been used to encourage careful analysis of all the activities of the school system?

3. To what extent has objective-based program structure been used to reflect both the short-term and long-term programs?

4. To what degree has the outputs of individual programs been identified?

5. To what extent have objective-based programs been used to avoid overlapping or duplicated effort?

The Program Budget

1. To what extent has the program budget been used to present the total direct costs of the individual school programs?

2. To what extent have interested parties understood the program budgeting format of presenting the budget by programs.

3. To what degree have teachers' salaries been prorated to programs that utilize the teachers' time?
4. To what extent has developing the program budget been used to encourage careful examination of the entire school operation?

5. To what degree has the program budget been used to facilitate the comparison of different programs?

6. To what extent has the program budget been used to emphasize accomplishments rather than things purchased?

7. To what degree has the program budget been used to provide meaningful information on the relationships of inputs to outputs of programs?

8. To what extent has the program budget been used to serve as a planning instrument rather than merely an accounting for objects of expenditure?

Systems Analysis

1. To what extent has program budgeting been focused on outcomes to meet student needs?

2. To what extent has program budgeting been utilized in planning that results in information available to evaluate the accomplishment of school objectives?

3. To what extent has program budgeting been used to provide a framework within which the superintendent, school board, department heads, and teachers can make a decision on alternatives that have been previously documented to eliminate uncertainties and to increase options?
4. To what degree has program analysis been updated to reflect both the current and future budgeting figures?

5. To what extent have quantitative and qualitative analysis of resource allocations been conducted to determine the efficiency of the accomplishment of school objectives?

**Multiyear Plan**

1. To what degree has multiyear planning been used to project the total resources and dollar needs?

2. To what extent has multiyear planning been flexible and sensitive to population trends and the resulting requirements?

3. To what degree has multiyear planning been used on measurable objectives, using either objective or subjective evaluation?

4. To what degree has total cost implications of long-range programs been expressed?

5. How effectively have planners been able to forecast future needs in relation to changing cost variables as inflation and bond market interest rate?

**Cost Inclusiveness**

1. To what extent has program budgeting program costs been developed to include all significant and direct costs?

2. To what extent has all costs and all parts of the educational system been covered in the program structure of program budgeting?
3. To what extent has program budgeting made specific program costs more readily available to the superintendent?

4. To what extent have all expenditures been classified by program category rather than conventional line-object classifications?

5. To what extent has consideration been given to the total system resources prior to making individual program allocations to insure the highest utility alternatives for all the programs?

Administrative Commitment

1. To what extent have timely and useful reports been provided by program budgeting procedures?

2. To what extent have inputs from all parts of the organization been used to enable program budgeting to be updated and sensitive to changing conditions?

3. To what extent has program budgeting been used to give teachers the opportunity to share their ideas and contribute in the planning phase?

4. To what extent has increased planning of program budgeting been used to provide the best education for the resources expended?

5. To what degree has program budgeting been used to serve the internal management purposes of reviewing personnel and facilities data, output data, and resources data to
enable the superintendent to assess performance and fix accountability?
APPENDIX C

PROGRAM BUDGETING SURVEY INSTRUMENT

I. Objective-Based Programs

1.1 To what extent have programs within the program budgeting framework been used to accomplish the school's educational plan objectives? 

1.2 To what extent have objective-based programs been used to encourage careful analysis of all the activities of the school system? 

1.3 To what extent have objective-based programs been used to reflect both the short-term and the long-term programs? 

1.4 To what degree have the outputs of individual programs been identified? 

1.5 To what extent have objective-based programs been used to avoid overlapping or duplicated effort? 

II. The Program Budget

2.1 To what extent has the program budget been used to present the total direct costs of the individual school programs? 

2.2 To what extent have interested parties understood the program budgeting format of presenting the budget by programs? 

2.3 To what degree have teachers' salaries been prorated to programs that utilize the teachers' time?
2.4 To what extent has developing the program budget been used to encourage careful examination of the entire school operation?

2.5 To what degree has the program budget been used to facilitate the comparison of different programs?

2.6 To what extent has the program budget been used to emphasize accomplishments rather than things purchased?

2.7 To what degree has the program budget been used to provide meaningful information on the relationship of outputs to inputs of programs?

2.8 To what extent has the program budget been used to serve as a planning instrument rather than merely an accounting for objects of expenditures?

III. Systems Analysis

3.1 To what extent has program budgeting been focused on outcomes to meet student needs?

3.2 To what extent has program budgeting been utilized in planning that results in information available to evaluate the accomplishment of school objectives?
3.3 To what extent has program budgeting been used to provide a framework within which the superintendent, school board, department heads, and teachers can make decisions on alternatives that have been documented to eliminate uncertainties and to increase options?

3.4 To what degree has program analysis been updated to reflect both the current and future budgeting figures?

3.5 To what extent has quantitative and qualitative analyses of research allocations been conducted to determine the efficiency of the accomplishment of school objectives?

IV. Multiyear Plan

4.1 To what degree has multiyear planning been used to project the total resources and dollar needs?

4.2 To what extent has multiyear planning been flexible and sensitive to population trends and the resulting requirements?

4.3 To what degree has multiyear planning been used on measurable objectives, using either objective or subjective evaluation?

4.4 To what degree has total cost implications of long-range programs been expressed?
4.5 To what degree have planners been able to forecast future needs in relation to changing cost variables such as inflation and bond market interest rates?

V. Cost Inclusiveness

5.1 To what extent have program costs been developed to include all significant and direct costs?

5.2 To what extent have all costs and all parts of the educational system been covered in the program structure of program budgeting?

5.3 To what extent has program budgeting made specific program costs more readily available to the superintendent?

5.4 To what extent have all expenditures been classified by program category rather than conventional line-object classification?

5.5 To what extent has consideration been given to the total system resources prior to making individual program allocations to insure the highest utility alternatives for all the programs?

VI. Administrative Commitment

6.1 To what extent have timely and useful reports been provided by program budgeting procedures?
<table>
<thead>
<tr>
<th></th>
<th>Question</th>
<th>NONE</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>(XX)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.2</td>
<td>To what extent have inputs from all parts of the organization been used to enable program budgeting to be updated and sensitive to changing conditions?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(33)</td>
</tr>
<tr>
<td>6.3</td>
<td>To what extent has program budgeting been used to give teachers the opportunity to share their ideas and contribute in the planning phase?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(34)</td>
</tr>
<tr>
<td>6.4</td>
<td>To what extent has increased planning of program budgeting been used to provide the best education for the resources expended?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(35)</td>
</tr>
<tr>
<td>6.5</td>
<td>To what degree has program budgeting been used to serve the internal management purposes of reviewing personnel data, facilities data, output data, and resources data to enable the superintendent to assess performance and fix accountability?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(36)</td>
</tr>
</tbody>
</table>
Dear Fellow Administrators:

Your help is requested in a study of program budgeting in Texas public school districts. The study is being done as part of a doctoral dissertation under the direction of Dr. E. Vaughn Huffstutler, Professor of Educational Leadership, North Texas State University. The Planning and Evaluation Division of the Texas Education Agency has expressed an interest in this study as it relates to the strengthening of the planning, budgeting, and evaluation capabilities of local school districts. The questionnaire included in this booklet is being sent to a sample of public school superintendents in the state.

The purpose of the study is to determine the degree to which program budgeting practices and procedures have been voluntarily implemented in Texas school districts, and to formulate recommendations and conclusions concerning the future implementation of program budgeting by Texas schools. Due to the nature of the study, your response to the questionnaire items as they relate to your school district's operations is extremely important to the validity of this study. The completion of the questionnaire should require no more than twenty minutes of your time.

You can be assured that no personal or school identification will be revealed by fact or implication. Your consideration in returning the questionnaire to enable me to meet an April schedule will be greatly appreciated.

Thank you for your time and assistance in this endeavor.

Sincerely,

Wayne King, Administrative Consultant
Administrative Services Department
Region 10 Education Service Center
P. O. Box 1300
Richardson, Texas 75080
Directions for Completing the Attached Program Budgeting Survey Instrument

1. Using your knowledge and past experience as the chief school administrator of a Texas public school district as a basis for judgment, indicate the degree of current utilization of each program budgeting item in your school district by circling the appropriate number to the right of the item. A mark of five indicates that the item has been fully implemented as a part of the planning, budgeting and evaluation processes of the school district. A mark of one indicates that the item has not been implemented in the operation of the school planning, budgeting and evaluation processes. A mark of two, three, or four represents a degree of implementation ranging between none and fully implemented as part of the planning, budgeting and evaluation processes.

2. When you have completed the instrument, place it in the mail for return. No individual or school district will be identified as the results of this report are reported. The identification numbers in the top right hand corner of the first page of the instrument and those along the right hand margin in parentheses are for computer use and for determining the total number of instruments returned.
DATE:

TO: Administrator Addressed

FROM: Wayne King

SUBJECT: Enclosed Questionnaire

Several weeks ago you were mailed a copy of a survey instrument designed to collect data relative to the status of program budgeting in Texas public school districts. Our records indicate that the questionnaire has not been received in our office at this time.

Enclosed is a second copy of the questionnaire and a stamped, self-addressed envelope for your convenient return. We hope to receive input from as many as possible in order to increase the validity of the study.

Thank you for your consideration of this matter.

WK:mg
Enclosures
BIBLIOGRAPHY

Books


Articles


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