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A method of evaluating a planning, programming, budgeting system (PPBS) : a case study of Virginia Union University

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A METHOD OF EVALUATING A PLANNING, PROGRAMMING, BUDGETING SYSTEM (PPBS): A CASE STUDY OF VIRGINIA UNION UNIVERSITY

A Dissertation

Presented to

The Faculty of the School of Education

The College of William and Mary in Virginia

In Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

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by

Ruth Coles Harris

August, 1977

APPROVAL SHEET

A METHOD OF EVALUATING

A PLANNING, PROGRAMMING, BUDGETING SYSTEM (PPBS):

A CASE STUDY OF VIRGINIA UNION UNIVERSITY

by

Ruth Coles Harris

APPROVED	DATE
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Abstract

The purpose of this investigation was to examine the planning, programming, budgeting system (PPBS) at a small, private liberal arts college, with a view toward providing reliable information regarding its overall effectiveness and suggestions for modification in procedures and techniques.

It was also hoped that an exploration of procedural design and implementation, as well as the determination of probable reasons why the institution's stated objectives were or were not achieved, might provide some useful insights and information to others examining the potential consequences and implications of a program budgeting system.

The methodology involved process and performance evaluation, based on data collected through personal interviews with key administrators, a questionnaire survey of administrators and faculty (with a 100 percent response rate) and a study of relevant written documents. Unanticipated consequences were also studied. The Mann-Whitney U-Test was used to determine possible associations between ratings on the questionnaire and independent variables such as level in the organizational hierarchy; school affiliation; length of time at the University; and level of understanding of basic ideas, concepts and elements of the PPB System.

The main benefits accruing from the system were the development of more meaningful program goals and objectives, tied to overall institutional objectives, and improved quality of institutional planning.

The principal problems encountered were the need for better orientation among coordinators and faculty in terms of how PPBS operates and what it is expected to accomplish for the institution, and the need for increased access to computer facilities to improve the data base.

It was concluded that the implementation of a planning, programming, budgeting system is a difficult endeavor, requiring a great deal of effort and patience, but that it does have a great deal of potential. Although full implementation has yet to be achieved, the system was considered to be conceptually sound. While it has not proved to be a panacea for all problems, it has brought about substantial improvements in the decision making process.

The study tends to support the conclusions reached by Kademani and DeWoolfson, that the more successful PPB efforts will result from a gradual and cautious implementation process, as opposed to revolutionary change.

Little support, however, was found for the hypothesis advanced by Adams, Kellogg, and Schroeder, that extensive or sophisticated planning processes, such as PPBS, are unwanted and inappropriate for institutional management in small colleges.

Dedication

To my husband, John Benjamin Harris, who has been my greatest inspiration, for his constant support, understanding, and encouragement throughout my enrollment in the doctoral program.

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Sincere appreciation is expressed to Professors D. J. Herrmann, Robert B. Bloom, and Paul Unger, who were always available for consultation, guidance, and advice during the research and writing of this dissertation. Their assistance was invaluable.

Gratitude is also extended to the administrators and faculty of Virginia Union University for their cooperation and encouragement, and, in particular, to Dr. James B. Gunnell, Director of Institutional Research and Planning, for his assistance on numerous occasions.

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Chapter 1

PROBLEM STATEMENT

General Area of Inquiry

Despite the growing volume of literature on Planning, Programming, Budgeting Systems and the claims and criticisms surrounding it, very little is known about real life experience with the concept in higher education.

Although myriads of studies on educational PPBS have been published in recent years, they explore, for the most part, the theoretical and conceptual aspects of the system. While the literature is replete with assumptions and beliefs about the benefits as well as the problems, there is little empirical evidence in support of these suppositions. Most of the studies to date have followed the normative approach, which is concerned with how organizations should behave in order to achieve better results. There are far fewer studies directed toward describing what the actual consequences of the implementation of Planning, Programming, Budgeting Systems have been.

The Specific Problem

The purpose of this investigation was to evaluate the Planning, Programming, Budgeting System at Virginia Union University.

More specifically, the study was designed:

1. To detect any existing defects in the implementation of the PPB System in accordance with the procedural design
2. To assess the extent to which ends are being attained with respect to the University's stated objectives of the PPB System
3. To examine the unanticipated consequences of implementation of the PPB System.

Definition of Terms

Some terms used in this study lack a universal definition, or may, because of their technical nature, be unfamiliar to the reader. These terms are, therefore, defined below in order to make explicit their meanings as used in this study.

Evaluation - The measurement of the effects of the system against the goals it set out to accomplish and an examination of the unexpected consequences, as a means of contributing to subsequent decision making about the system and improving its future operation.

Planning, Programming, Budgeting System (PPBS) - There is no standard definition of PPBS, although there is general agreement with respect to its basic components. For this study, it is defined as follows: A process which will enable the college administrators to evaluate alternative uses of available resources in a systematic manner and derive a long-range plan which will include those academic and support service program plans that, in the judgment of the administration, best promote the overall goals of the institution. (The terms PPBS; program budgeting; and Planning, Programming, Budgeting System will be used interchangeably in this study.)

Planning - That component of the system which involves the selection from among alternatives of institutional goals, policies, procedures, and programs directed toward insuring "rational control of the future."

Programming - That component of the system which results in the generation of a series of alternative programs and/or activities designed to achieve stated objectives. Programming includes multi-year planning and program review.

Budgeting - That component of the system which involves the matching of programs with resources, or the allocation of funds among carefully conceived competing educational plans and programs.

Long-range Plan or Multi-year Plan - A five-year plan.

Program Budget - A fiscal plan which displays resource requirements by programs instead of the usual line-item categories of traditional budgets.

Key Administrators - Members of the Administrative Council and the Academic Affairs Committee, Chairman of the Planning Team, Chairman of the Analytical Studies Team, the Head Librarian, the Director of Counseling Services, and the Director of the Learning Resources Center.

Mission - Broad, overall, long-term purpose of the institution.

Goal - Something less remote than mission, more definitive and capable of achievement in a certain period of time, perhaps five to ten years.

Objective - A clear, concise, specific statement of an end to be accomplished, derived from mission and goal statements, and expressed in a form so there can be no question as to whether or not it has been met.

Limitations of the Study

This study is limited to the experience of one educational institution with the implementation of the Planning, Programming, Budgeting System. Because of this fact, the study should be considered as exploratory; no generalizations to other institutions are intended.

Although it is not claimed that Virginia Union University is representative of all educational institutions, or even of all small, private liberal arts colleges, it is felt that an exploration of procedural design and implementation, as well as a determination of probable reasons why objectives were or were not achieved, may provide some insights and information which will be useful to others examining the consequences and implications of this controversial innovation. Only through repeated investigations of actual situations will it be possible to specify with a high degree of confidence the conditions under which a PPB System is most likely to succeed or fail and the processes by which success or failure come about.

Finally, the study will suffer from the normal limitations of an ex post facto study.

Chapter 2

BACKGROUND OF THE PROBLEM

Need for the Study

Many students of educational administration have shown a growing interest in PPBS and have urged educational institutions to adopt it. Despite this fact, very little is known about the PPB System in operation. "The literature is characterized," as pointed out by Shani (1970), "by much prescription and little description" (p. 2).

The need for better information is emphasized in an editorial note from a public administration symposium report (Waldo, 1969), which reads, in part:

> To the extent that PPB presents us with new tools, we need to sharpen and to use them; to the extent it represents make-work and delusion, we need to know it. Both urgently. (p. 112)

Although this statement appeared eight years ago, the need today is just as great when applied to PPB in an educational setting. Though it has been recognized that the introduction of PPB is a long and difficult process, the literature has tended to concentrate on the PPB concept itself, rather than on the implementation of the system and on the evaluation of its consequences.

Aside from the general need for expanded knowledge with regard to the effects of PPB in an educational setting, there is a need for a given institution, having made the decision to implement a new tool, to assess its value.

The success of institutions of higher education today, particularly small, private liberal arts colleges with small endowments, is very likely to be dependent, in part, upon the ability to successfully employ techniques that hold promise of improving the decision-making process. If Virginia Union University is not only to survive but also to thrive, its top policy makers must have the kind of evaluative information which will enable them to address the issues: Should a given system be continued or discontinued? If continued, should it continue with the same procedures and techniques, or should it be modified? If modification appears feasible, in what ways should it be done? Reliable information with regard to the over-all effectiveness of the PPB system, implementation of which began six years ago, is now a necessity.

Assumptions

Confronted with the task of managing complex, expensive organizations, administrators at institutions of higher education have begun to turn their attention to tools of modern management. They are seeking new ways to make informed decisions, which will not only assure survival, but which will also sustain the quality of educational programs. It is assumed that the PPB model provides a viable alternative to the conventional decision-making processes.

It is further assumed that the true import of any refinement in the decision-making process lies not in the formulation of an elegant hypothetical model, but rather in a demonstration of its workability and relevance to achievement of organizational objectives.

Related Literature

The purpose of the literature review will be to examine the development of PPBS as a tool in higher education; to review the commentary, observations and recommendations of researchers in the field of PPBS; and to review writings which have a direct bearing on the proposed study.

Historical Perspective

Although PPB came into its own in the early 1960's when it was implemented in the Department of Defense under Secretary Robert S. McNamara, some authorities claim that the basic ideas came, in fact, from the business world (Cleland & King, 1968; Merewitz & Sosnick, 1971; Wieland & Ullrich, 1976). The question of where it originated is less important than is the recognition of the similarity of management problems faced by many complex organizations.

Traditional budgeting techniques had proved inadequate for the problems faced by the Defense Department in justifying budget requests. There was also a need for long-range planning. In 1961, Charles J. Hitch, Assistant Secretary of Defense and Comptroller, in response to these needs and with the encouragement of Secretary McNamara, prepared the first Defense budget in program terms. He utilized techniques developed by the Air Force Systems Command in cooperation with the RAND Corporation, an independent, nonprofit research and development organization established to focus on government problems. Hitch had previously been Chief Economist at RAND. Later, he became President of the University of California and established program budgeting procedures for the entire system of public colleges and universities in the State of California.

Following the initial success of PPBS in the Department of Defense, on August 25, 1965, President Johnson mandated its implementation in each department and agency of the Executive Branch of the federal government. He hailed it as a revolutionary new system, which would permit the selection of the most effective and least costly alternative to achieving American goals ("Johnson Altering U. S. Cost Control," 1965).

The apparent success of the PPBS experience in the Defense Department led to its adoption not only by other federal agencies, but also by state and local governments and business and medical organizations (Luthans, 1973; Wesolowski, 1974). In the words of Merewitz and Sosnick (1971), it "had become epidemic by 1968."

Enthusiasm for PPBS appears to have waned somewhat in recent years, although a number of systems are still functioning in one form or another; and Frank (1973) suggests that a systematic examination of these systems, as well as those which have been abandoned, would result in useful generalizations about the factors which contribute to success or failure. Refusal to examine the numerous PPB experiments, he adds, will result in a loss of valuable information on innovative decision-making techniques.

Educational PPBS

The Department of Defense pioneered in producing program budgeting concepts which were thought to be appropriate for education, but it was not until 1968 that the initial studies relating to PPB in higher education appeared (Newton, 1972). Since it has only recently become attractive as a planning and management tool in the field of higher

education, it has not yet been perfected and there is no standard model. Although a great deal is being written about management techniques appropriate to the solution of resource allocation problems, there is little empirical research from which conclusions about the actual status of PPBS in higher education can be drawn. Because of this fact, many research results have been largely supported by theory based arguments.

Among the writings which articulate conceptual schemes of what PPBS ought to be are those by Fielden (1973), Jellema (1972), Lamoureux (1975), and Wesolowski (1974).

The three basic concepts of any PPB system identified by Wesolowski are:

1. An analytic capability which carries out continuing, in-depth analysis of the college's objectives and its various programs to meet these objectives

2. A multi-year planning and programming process which incorporates and uses a computer based management information system to present data in meaningful form for management decision making

3. A budgeting process which can take program decisions and translate them into a financial plan in a budget form. (p. 6)

Jellema (pp. 12-17) describes the process of program budgeting in ten steps and discusses the probable impact of the system. These steps, briefly stated, are:

1. Establish goals and objectives.

2. Develop alternate programs that will accomplish the same goals.

3. Estimate resource requirements for each alternative.

4. Estimate benefits to be gained from each program alternative.

5. Develop an operating plan by selecting from among alternatives.

6. Test the long-range fiscal implication of the plan.

7. Compile the annual budget.

8. Evaluate the success of the program.

9. Review planning standards.

10. Repeat the cycle, to accommodate changes in objectives, goals, available resources, and the institution's environment.

Jellema suggests that resistance will be offered to program budgeting on the grounds that assessment of program benefits is too difficult, consequences of choices may be evasive, and mistakes are more easily rationalized if administrators "play it by ear."

Lamoureux lists ten similar steps summarizing a normal procedure to be followed under most circumstances, while recognizing that institutions vary in terms of implementation and accountability.

Fielden also identifies and examines component concepts and techniques of PPBS and concludes that if adopted it can ensure that a university's planning process conforms to a logical discipline.

Attempts at implementation of Planning, Programming, Budgeting Systems have met with varying results. Weathersby and Balderston (1972) concluded, after reviewing the experience with PPBS at the University of California, that PPBS' time had not yet arrived in higher education. This was true, they said, because too much emphasis had been placed on the mechanics and the formalism of PPBS and too little emphasis had been placed on the concepts and spirit of PPBS. The Department of

Defense model was deemed inappropriate for higher education in their view because educational institutions

> ...foster diversity, seek differentiated instead of homogeneous viewpoints, operate on a collegial system in which each faculty member considers himself primus inter pares, decentralize management to dozens of department chairmen and deans, and rarely attempt to determine institution-wide operational objectives. (p. 51)

On the other hand, Richter (1971) reported, on the basis of a study of two high schools, that the application of PPBS to education has great potential. In a dissertation which dealt with the establishment and implementation of a Planning-Programming-Budgeting System in the Niles Township High School System in Skokie, Illinois, his objectives were (1) to cite a case study of the inauguration of the program, and (2) to ascertain the effect of the system on teacher morale. Using a pretest-posttest control group design, he administered questionnaires designed to provide a measure of morale. The pretest responses, analyzed by the t-test, revealed no significant differences between the two groups, so it was assumed that the groups began from an equivalent base. The post-test responses showed some significant differences at the .05 level and others at the .10 level, favorable to the experimental group, which tended to confirm that PPBS implementation had a positive effect on teacher morale.

Richter described the PPBS model used in the experimental situation, and concluded that this method is inherently advantageous, since: (1) it involves all persons related to the system being studied, (2) problems are identified and objectives created that best meet the needs of all, and (3) all groups assist in devising methods to move toward

implementing the objectives by taking into account resources and constraints in the development of many alternative ways to reach the final goal. This enables decision makers to select the solutions which will be most effective and which will use resources most efficiently. In Richter's words:

> It seems axiomatic that with all persons related to the institution involved, PPBS will aid in increasing relevance, strengthening curriculum, utilizing objectives more effectively, and making those charged with execution of the plan more accountable for their actions. (pp. 172-173)

Andrew (1973), after analyzing two methods of implementing PPBS at the University of Utah, also contended that PPBS has a definite role to play in improving educational management. He believes, however, that the emphasis should be shifted from economic or system analysis to the definition of programs and missions and the organizational change required to "make programs happen."

The first of the two major efforts at Planning, Programming, Budgeting at the University of Utah involved a five-year plan for the total University. A mini management information system was developed in modular form so it could be enlarged efficiently as planning developments demanded, and quantitative analysis was used extensively in evaluating various programs for guidance in long-range planning and budget decisions.

In the second case, a very limited trial at intensive Planning, Programming, and Budgeting was undertaken. In this case, the University used systems analysis and the major theories of PPBS to develop a plan,

program, and budget for one major instruction and research program with several subprograms, defined by career and research needs.

In Andrew's opinion the latter approach, more fully than most, meets the explicit and implicit criteria of PPBS, including specific responsibility and authority for meeting organizational objectives. He also advances the idea that many studies and recommendations for PPBS in higher education have not given adequate attention to the problem of program definition and organizational change.

Shani (1970) found significant gaps between the blueprint and the operation of the PPB System, with only minimal operational results, in the New York State Education Department where it had been in operation for about five years. His findings were supported by DeWoolfson (1974) who also noted only moderate satisfaction with PPBS efforts in governmental and educational settings, although Brown (1974) observed an overall positive effect of PPBS on educational programs in public school districts, and Walsh (1975) was convinced that PPBS does help to achieve greater effectiveness and efficiency in Regional Education Centers.

Shani's study was basically exploratory and did not seek to test detailed hypotheses. The methodology involved a survey of relevant literature and field research, during which data were collected through a study of written documents, personal interviews, and a questionnaire survey. He traced the development of PPBS in the New York State Education Department and tested it against PPB theory. In addition, the information generated by the system was analyzed in terms of its

relevance (as determined by needs of decision makers). One of the major causes of the discrepancy between concept and practice was the strategy employed in the introduction of PPB. While there was no hostility or resentment among the organizational participants, there was dissatisfaction with the way in which it had been introduced. There had been insufficient training and orientation of personnel and no real attempt had been made to mobilize the support of the key persons involved.

Brown conducted a survey among school superintendents in fifty school districts operating within the PPBS context to determine how they perceived the effect of the Planning-Programming-Budgeting System on educational programs. To accomplish his objective, he tested several hypotheses, which stated that there would be no significant difference in the administrators' attitudes toward PPBS according to such variables as the number of years it had been operational, extent of in-service training, responsibility for operation, whether operational at the building level, and size of the school district. One of his major findings was that administrators from districts which had conducted in-service training sessions for administrators and teachers had a more positive attitude toward improvement of educational program articulation, elimination of duplicated instructional content in classrooms of their respective school districts, evaluation of pupil progress, and the contribution of PPBS to furthering innovation in the school district.

Details of the Walsh and DeWoolfson studies are discussed on pages 29 and 30, respectively.

Prescott (1972), writing on the allocation and reallocation of financial resources to university departments, felt that judgment of the value of PPBS should be reserved until more attempts at the implementation of program budgeting and other sophisticated techniques have been completed. This study represents another opportunity to judge the effectiveness of PPBS as a managerial tool in an educational setting.

Some authors have pointed out reasons why, from a theoretical standpoint, a PPB System may or may not be successful in a higher educational institution. Gillis (1975) mentions the fact that most educational objectives, for a variety of reasons, defy precise identification and quantification in their definition. In the same vein, Sire (1970) lists the difficulty of estimation of costs, and educational activities which are ambiguously defined and quantified.

The importance of proper planning for implementation of PPB in higher education was a subject covered in several writings. Three researchers (Gillis, 1975; Shani, 1970; Wesolowski, 1974) concluded that if PPBS is to be successfully implemented on the college level, intensive training and orientation programs must be conducted for those who will be involved.

Shani suggested that the introduction of a change as complex and sophisticated as PPBS would seem to require a preparatory period in which all organization members affected are thoroughly acquainted with the need for change and the basic objectives and implications of the system. It should also include an orientation to vocabulary and techniques which are probably unfamiliar to many of those who will be

directly or indirectly affected by it.

Wesolowski included in his list of concerns of educators attempting to implement PPBS in the Florida Community College System the lack of resources, particularly people to implement the system; lack of understanding of what the system should accomplish, how it will work, and who would be involved in it and how they should be involved; the lack of commitment on the part of some administrators; and lack of expertise available at some colleges.

Gillis stressed problems resulting from the frequent rotation of department chairmanships at many institutions, with resulting variations in degree of managerial skill over a period of time. He suggested that many chairmen do not possess the understandings and skills necessary in the use of management systems. He also pointed out the fact that the university president must be an ardent follower of the approach and must secure its application throughout the institution.

These three studies relate directly to one aspect of the proposed inquiry; viz., the identification of possible causes of success or failure.

Schroeder and Adams (1976) expressed the belief that although considerable effort has been expended on PPBS in recent years, the advantages have not been fully recognized to date in actual practice. They suggested that the failures were due in part to the "enormity of the problems in reforming a bureaucratic system." These positions were stated in a paper designed to provide academic administrators and researchers with a critical review of available managerial tools.

Other writers have tended to substantiate this thesis. Weathersby and Balderston concluded that the organization and political environment of most institutions of higher education effectively preclude full implementation of PPBS. The benefits, they said, "may not be worth the costs induced by the enormous machinery of PPBS, especially where the agency involved is subject to a wide variety of internal pressures and external conflicts." (p. 94)

Along the same lines, Lingenfelter (1975) pointed out, through the use of linear regression models, that stability is the dominant characteristic of the higher education appropriation process. Comprehensive planning techniques have not effected significant redistribution of resources, nor have they produced appropriation patterns which differ from those found in states not using comprehensive planning techniques. His findings indicated that final appropriations may be predicted extremely well by previous appropriation requests and governors' recommendations. Patterns did not differ in terms of whether or not the state used comprehensive planning techniques.

Shani, in evaluating certain aspects of a PPB System in the New York State Education Department, noted that PPB did not alter the manner in which resource allocation decisions were made within the Department because key elements outside the Department involved in the resource allocation process--the state legislature and the State Division of Budget--did not adapt their budgetary behavior to the requirements of the PPB System.

Lingenfelter stated that governors and legislators pursue sweeping changes because they believe a change is needed and/or because pursuing

change works to their political advantage. The depths of their convictions and their political power are much more important factors than the budgetary systems they use.

In some respects, then, these findings are only tangentially related to this study, since Virginia Union University is a private institution whose budgetary procedure is, therefore, not under the influence of a state coordinating agency, the governor, or the state legislature. Even so, they suggest the possibility of bureaucratic behavior as a factor which might limit the effectiveness of a PPB System.

In 1970, Farmer wrote:

> Some ten years after program budgeting was implemented on the federal level, virtually no institutions of higher education have viable program budgets. There is little evidence that full program budgeting can be implemented in the next few years. In this 'new environment,' however, the higher education community has little choice except to explore PPBS and similar planning systems, or lose their credibility as legitimate managers of a vital social function. (p. 6)

In raising the question as to whether the PPBS task is useful for higher education, Farmer hastened to point out that it should be answered in the context of the specific institution, but expressed the belief that it does have significant potential for institutional management. The purpose of the proposed study is to answer the question of usefulness for a specific institution--Virginia Union University.

It may be helpful, however, to look at case studies that have been conducted at other institutions, such as Ohio State University, Florida State University, and the New York Regional Education Center.

Eight years of experience with program budgeting at Ohio State University showed that the tests of continuity, compliability, and, to a certain extent, the test of credibility had been met (Baughman, 1972). Continuity was evidenced through the direction of resources to meet objectives over a long period of time based on six-year or four-year plans. Compliability was evidenced by the fact that the system grew, improved, and survived eight turbulent years as it responded to dramatic changes in resources, needs, and directions. In spite of reduced enrollments, negative changes in workload models, and the like, credibility was maintained since the fundamentals of long-range planning remained unchanged, with full implementation of an integrated system a major goal. Finally, credibility was evidenced by the fact that the system represented the facts of resource allocation at a given level and was endorsed by the resource allocators.

Florida State University adopted a modified program based on the WICHE (Western Interstate Commission for Higher Education) model. Several problems became apparent (Turnbull, 1972), among them the fundamental question of political strategy and the problem of reconciling the traditional formula approach (in which all allocations are tied directly to estimated student credit hours) with a program approach (in which decisions should be based on judgments of the desirable levels of output). Although Florida State began to think and act in program categories, it did not move very far down the road of predicting and evaluating educational outputs of its program.

A case study to determine if a PPBS management operation renders greater effectiveness and efficiency in achieving the intended outcomes

of programs in a Regional Education Center was carried out by Walsh. A nonempirical validation of criteria based on systems theory was accomplished by application of quotations from the literature on systems theory. For example, one criterion statement read, "There is wide participation in the planning and policy-making process." One of the supporting quotations from the literature was:

> According to Johnson, the planning process is one of spreading out the planning functions throughout the entire organizational system. There is strong evidence to suggest that creativity and innovation in planning is enhanced by an organization system which allows for diversity of ideas and inputs and does not attempt to structure human behavior totally. (p. 187)

Empirical validation consisted of distributing the criteria and supporting statements in a criteria validation questionnaire to a panel having expert knowledge of PPBS and of Regional Educational Centers. Their judgments were recorded on a Likert scale, indicating their agreement or disagreement as to the equivalency of the criteria statements and accompanying quotations from literature on systems theory. All of the statements were validated in this manner and were then used as questions when interviewing program directors. In addition, these statements were utilized as guides for investigating records and reports to substantiate the information derived from the interviews. Walsh concluded, on the basis of interview responses and written records and reports, that PPBS did help the management operation achieve greater effectiveness and efficiency and that the potential application of PPBS to the management operation of other educational organizations, therefore, appears relevant.

Because of a need to verify the theoretical advantages of PPB--accountability, increased staff involvement, improved communication systems, and improved staff satisfaction, Walker (1973) matched four PPBES and four non-PPBES elementary school districts and, by means of a survey questionnaire, attempted to measure perceived staff attitudes concerning these areas. The data collected were analyzed using the Mann Whitney U-test, chi square test, and rank order correlation test. The finding which appeared most significant to that researcher was that the more involved in the various processes of program budgeting, the more positive were staff attitudes in the areas under consideration.

Although this study did not include institutions of higher education, it is of interest since it deals with advantages of educational PPBS.

DeWoolfson developed a conceptual model of PPBS and examined the pitfalls experienced in installing and operating PPB Systems. Among his conclusions were the following: (1) pitfalls related to planning and implementation strategy are more commonly experienced than pitfalls related to PPB structure, tools, or separation of power and decision making authority; (2) federal, state, local, and educational practitioners tended to experience the same sorts of problems; (3) practitioners who view their organization's decision making as highly political are less likely to be satisfied with PPBS efforts than those who view decision making as highly scientific-normative; (5) pitfalls related to analytical aspects of PPBS are more often identified as

being important to avoid than pitfalls related to informational aspects. This information may serve to illuminate the reasons for success or failure at Virginia Union University.

Kademani (1973), in a preimplementation evaluation study utilizing the PPBS concepts developed by NICHE (Western Interstate Commission for Higher Education) and by the Office of Program Planning and Analysis at the University of Georgia, simulated a PPB system, the potential impact of which was demonstrated by comparative analysis of management practices under PPBS with existing management practices within the College of Business Administration at the University of Georgia. The comparison was made on the basis of availability of relevant information for effectively performing the three basic management functions --planning, organizing, and controlling--as they are applied to the instructional program. Although Kademani found that the impact of PPBS was clearly evident in planning systems, programming systems, program budgeting, and MIS under PPBS, as opposed to the absence of these under current practices, he acknowledged the need for empirical testing of this proposition, which he concluded would have to wait for some time until the system was actually fully implemented. While not directly relevant to this study, Kademani did offer a method for evaluation.

Sire (1970) points out the fact that the contemporary institution, particularly the small liberal arts college, finds itself confronted with the everyday problems of a competitive world and in order to survive and grow, it is compelled to provide more comprehensive,

sophisticated and complex programs of instruction, research and allied services than ever before to compete for students and faculty, to keep abreast of the advanced knowledge and technology, and to expand and modernize its physical plant. Success, he holds, for the less affluent is contingent, to some extent, upon the ability to successfully employ any and all techniques that promise to aid in the decision-making process, including PPBS, because such techniques successfully implemented give rise to efficient, informed, and coordinated effort. This suggests the importance of an evaluation of the system that is the subject of this inquiry.

In a study of ten small colleges (1,100 to 5,000 enrollment), public and private, Adams, Kellogg and Schroeder (Note 1) sought to determine the extent to which the schools were undertaking the fundamental step in planning--institutional goal setting. An analysis of data, collected by the use of a survey instrument in on-site interviews, revealed that only three of the ten conducted formal goal reviews on a regular periodic basis according to a predetermined plan. This was consistent with another of the study's findings in the area of budgeting. Only one school in ten prepared budget data in a program format, and that one only because it was required to do so by the state. Small colleges showed a definite reluctance to embrace such systems. The researchers suggested the testing of the hypothesis that planning systems have less relevance to small settings. Virginia Union University, with an enrollment of approximately 1,400 students, falls in this category.

Of particular interest is a framework for analysis of PPB success suggested by Frank (1973). In his article he draws upon the experience of several PPB programs and constructs a tentative analytic framework of success and causality, which he feels is potentially useful for analyzing PPB case reports. Frank points out the importance of studying both technical and behavioral dimensions of the system in attempting to determine the degree of success of any PPB experiments.

He suggests that in an empirical investigation of PPB, relative degrees of success should be recognized. He sets forth a typology of variants which will enable researchers to distinguish a range of success. He lists three components of the data configuration aspect --categorization by program category, multiyear impacts, and indirect impacts--with success of implementation to be measured in terms of achievement versus nonachievement. This removes the analysis from the constraint of having to make a single assessment of all the components and permits measurement of the degree of success between the two extremes, success or failure.

A similar method is suggested for analytic aspects using the three components of this variable--measures of output or effectiveness, examination of alternate programs, and examination of goals and objectives. This permits explicit empirical examination of the degrees of success achieved, in terms of the three variables examined.

A combination of the two, according to Frank, will provide for the possibility of the system achieving no success or partial success on the analytic dimension, while at the same time recognizing no success or a degree of success on the data configuration dimension.

In speaking of causality, Frank discusses the importance of technical considerations (goal identification, information flows, technology of measurement, program analysis) as well as behavioral aspects (implementation strategies).

A comprehensive search of the literature reveals a somewhat limited application of PPB to the field of higher education. While approaches are being implemented and evaluated in colleges, universities, and school districts, to date no studies have been located which have been directed toward the evaluation of an operational PPB System at a small, private liberal arts college. In that respect, this study may be unique.

Chapter 3

RESEARCH DESIGN

This study is consistent with the position of the Phi Delta Kappa National Study Committee on Evaluation (1972)--the purpose of evaluation is not to prove, but to improve.

According to Baughman, "Knowing why a system is needed is important to understanding and evaluating end products of the system" (p. 143). For this reason, background information on the University and factors leading to the implementation of the Planning, Programming, Budgeting System at Virginia Union University will be reviewed at the outset, based on information secured from interviews with administrators and from written documents such as correspondence, consultants' reports, and allied documents. Inasmuch as the chief executive officer at the time of the adoption of the system is now deceased, information was sought from the present chief executive officer, who was then Vice President of the University, and from the person who initially served as Chairman of the Planning Team.

The Sample

The population includes all faculty and administrators who are involved in the operation of the PPB System at Virginia Union University. They were sent a questionnaire (Appendix B), accompanied by two cover letters, one signed by the researcher and the other over the President's

signature (Appendix A). The following selected key administrators were placed on an interview schedule: members of the Administrative Council (5), members of the Academic Affairs Committee (7), Chairman of the Analytical Studies Team, Head Librarian, Director of Counseling Services, and Director of the Learning Resources Center. Those who responded comprised the sample to be used. Names of administrators and faculty were secured from the Office of Institutional Research and Planning to ensure that the list used was current.

Virginia Union University is a small, private liberal arts college with three undergraduate schools (Arts and Sciences, Business Administration, and Education and Psychology) and a graduate school of Theology, enrolling a total of close to 1,400 students. There are approximately eighty full-time and forty-five part-time faculty members. The Administrative Council is composed of the President, the Vice President for Administrative Affairs, the Vice President for Business Affairs, the Dean of Student Affairs, the Dean of the Graduate School of Theology, and the Chairman of the Academic Affairs Committee. The Academic Affairs Committee is made up of the Directors of the Schools of Arts and Sciences, Business Administration, and Education and Psychology; the Director of Continuing Education; the Registrar; and the Associate Dean of Student Affairs; and it is currently chaired by the Director of General Studies, who is also Assistant Vice President for Academic Affairs.

Since the study is limited to the experience of this one institution, no generalizations to other institutions are intended. It is

felt, however, that an exploration of procedural design and implementation, as well as the determination of probable reasons why objectives were or were not achieved, may provide some insights and information which will be useful to others examining the consequences and implications of a program budgeting system. Investigations of numerous actual situations may possibly lead to specification with a high degree of confidence of the conditions under which a PPB System is most likely to succeed or fail and the processes by which success or failure come about.

Subproblem 1. To detect any existing defects in the implementation of the system in accordance with the procedural design

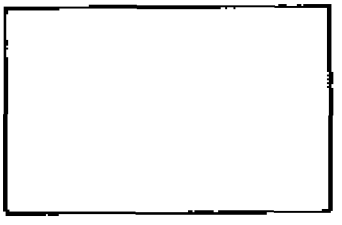
Snyder and Snyder suggest there is a strong relationship between the current stage of a project's development and the major emphasis or type of evaluation design that may be expected. In accordance with their recommendation, this researcher chose to conduct process evaluation and performance evaluation, which are deemed appropriate for the operational stage of the PPB System.

Process evaluation is defined by Snyder and Snyder as:

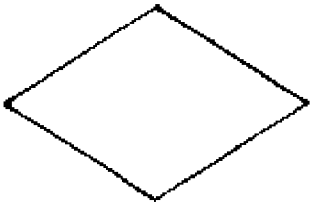
> ...the monitoring of program functions and operation to provide feedback for improvement of methods and procedures whenever possible. Interactions between persons and operations are assessed in light of expectations. Problem areas are predicted or identified, and alternatives are suggested to decision-makers. (p.6)

The first step in the evaluation was to prepare a flow chart, showing in detail the PPB model adopted at Virginia Union University, which is a modification of the NACUBO (National Association of College and University Business Officers) model. The purpose of the flow

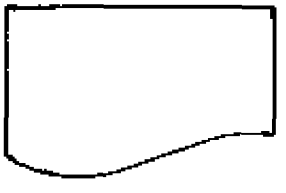
diagram was to aid in process evaluation by illustrating graphically how procedures and events are related and what tasks and decisions are required and by whom. The flow chart is particularly useful in mapping complex, repetitive procedures. A description of the meaning of the symbols used in the chart follows:



Indicates that something has to be done or that something occurs

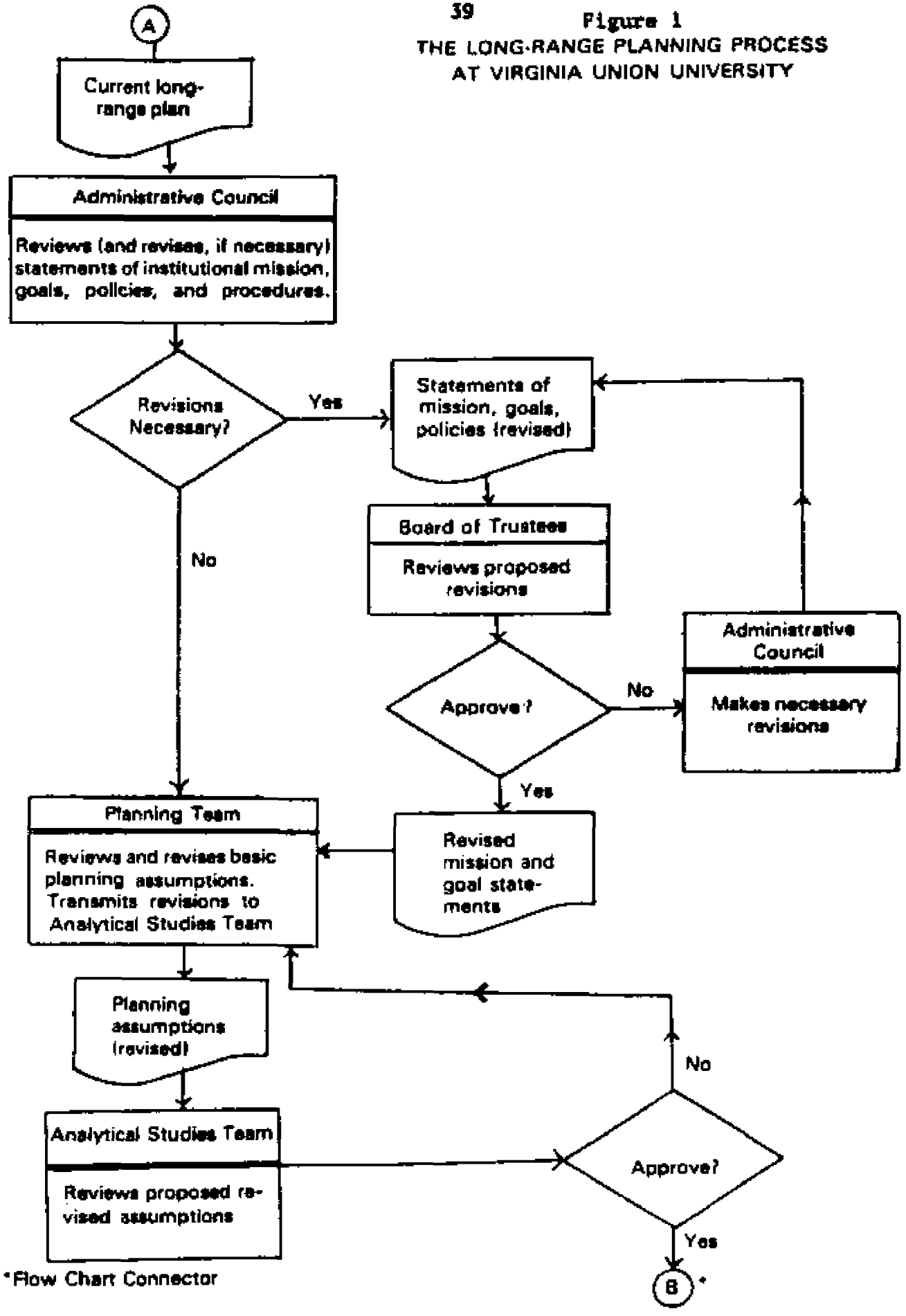


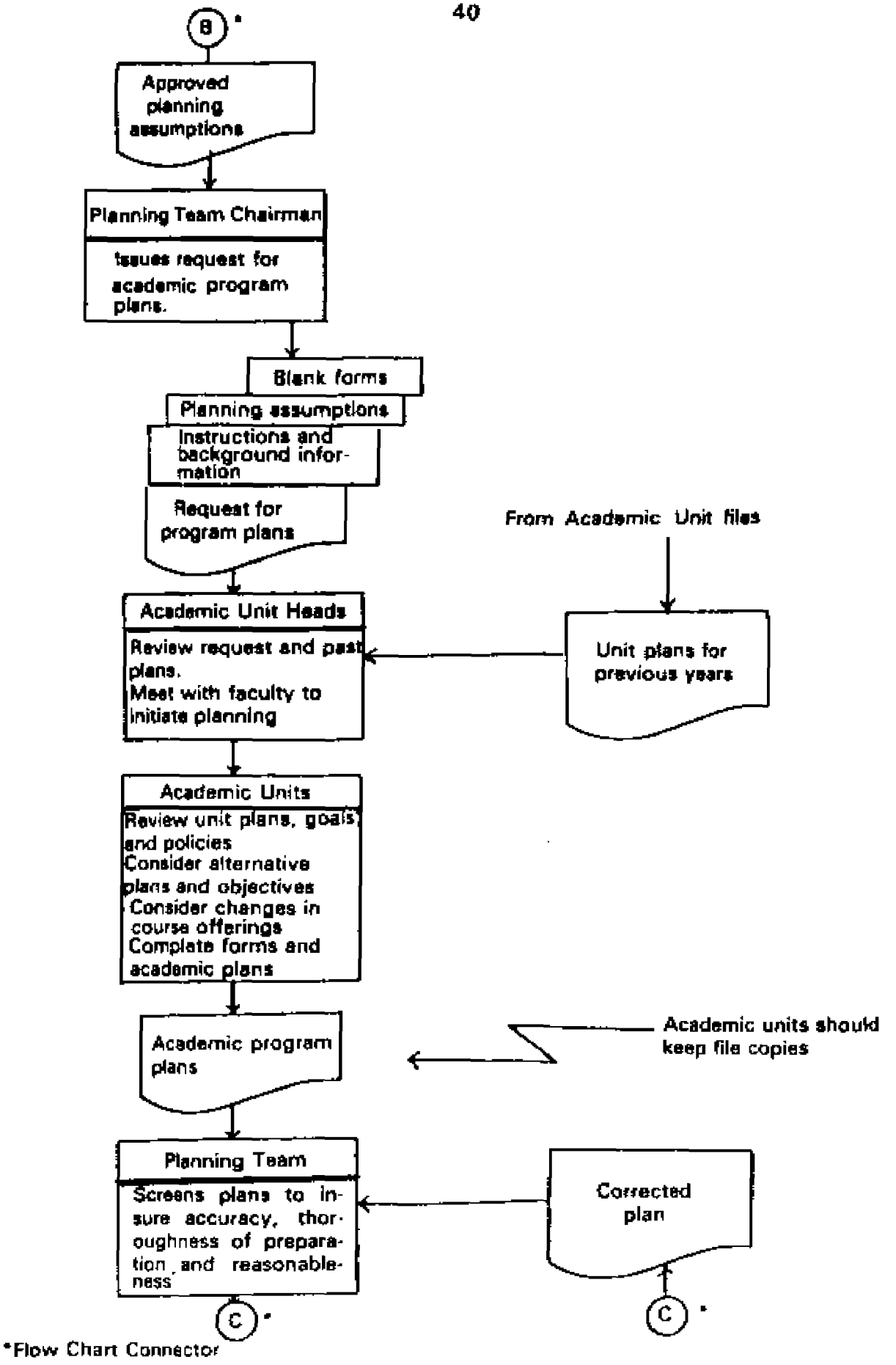
Indicates that a decision must be made which requires a "yes" or "no" answer



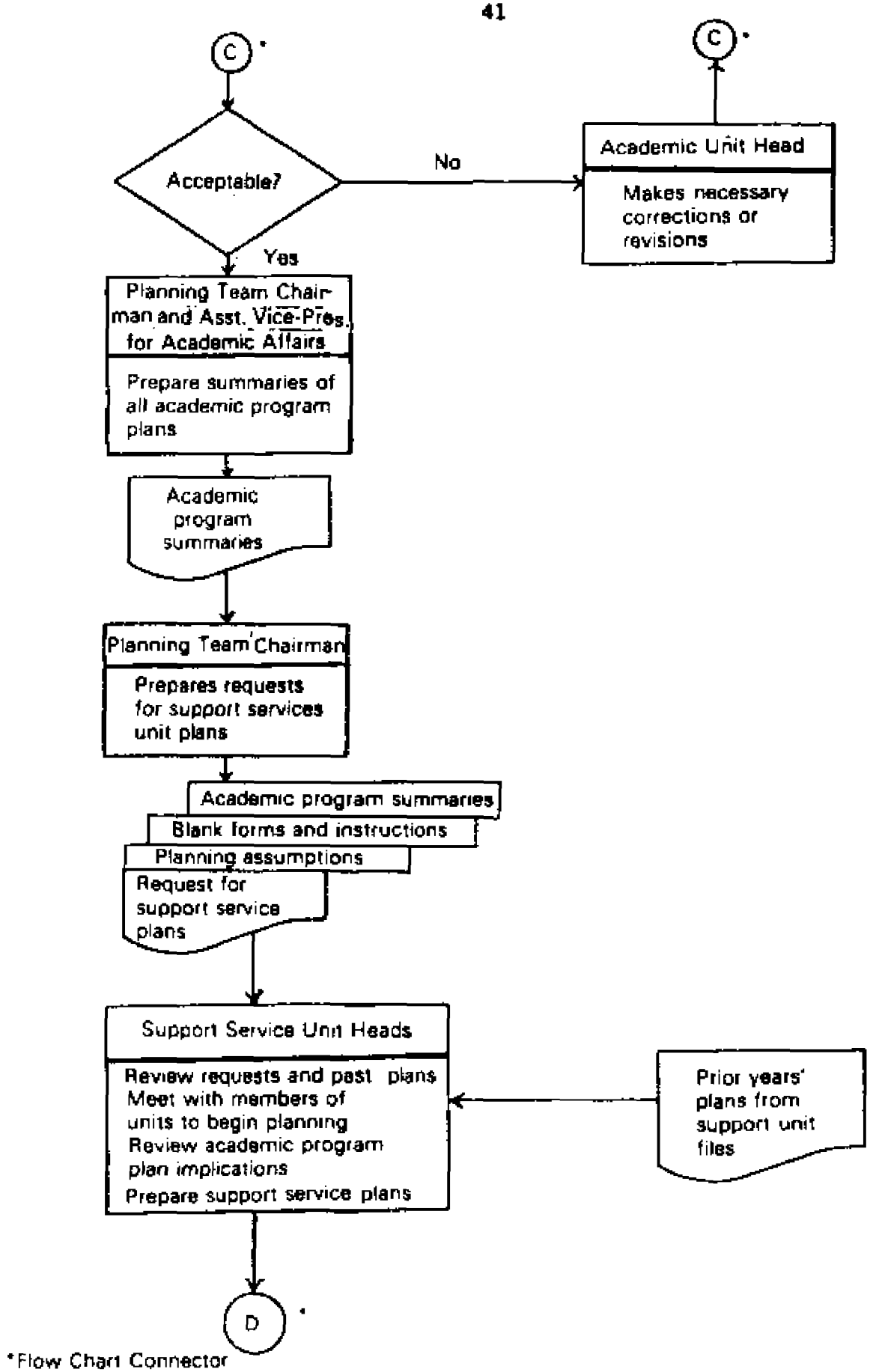
Indicates that information must be written or listed

Figure 1
THE LONG-RANGE PLANNING PROCESS
AT VIRGINIA UNION UNIVERSITY





*Flow Chart Connector



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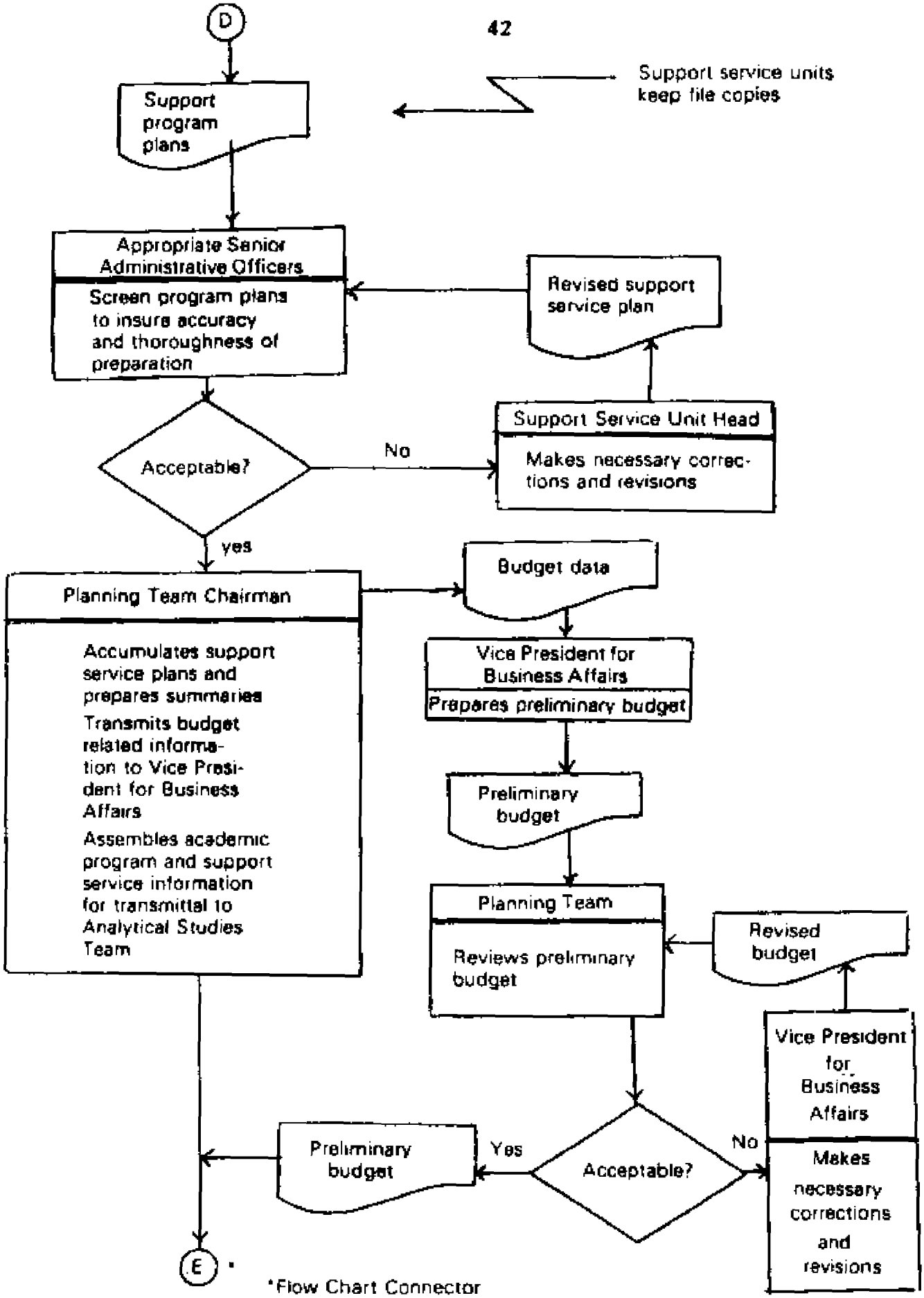
D
Support program plans
Support service units keep file copies
Appropriate Senior Administrative Officers
Screen program plans to insure accuracy and thoroughness of preparation
Revised support service plan
Support Service Unit Head
Makes necessary corrections and revisions
Acceptable?
No
yes
Planning Team Chairman
Accumulates support service plans and prepares summaries
Transmits budget related information to Vice President for Business Affairs
Assembles academic program and support service information for transmittal to Analytical Studies Team
Budget data
Vice President for Business Affairs
Prepares preliminary budget
Preliminary budget
Planning Team
Reviews preliminary budget
Revised budget
Vice President for Business Affairs
Makes necessary corrections and revisions
No
Acceptable?
Yes
Preliminary budget
E
*Flow Chart Connector

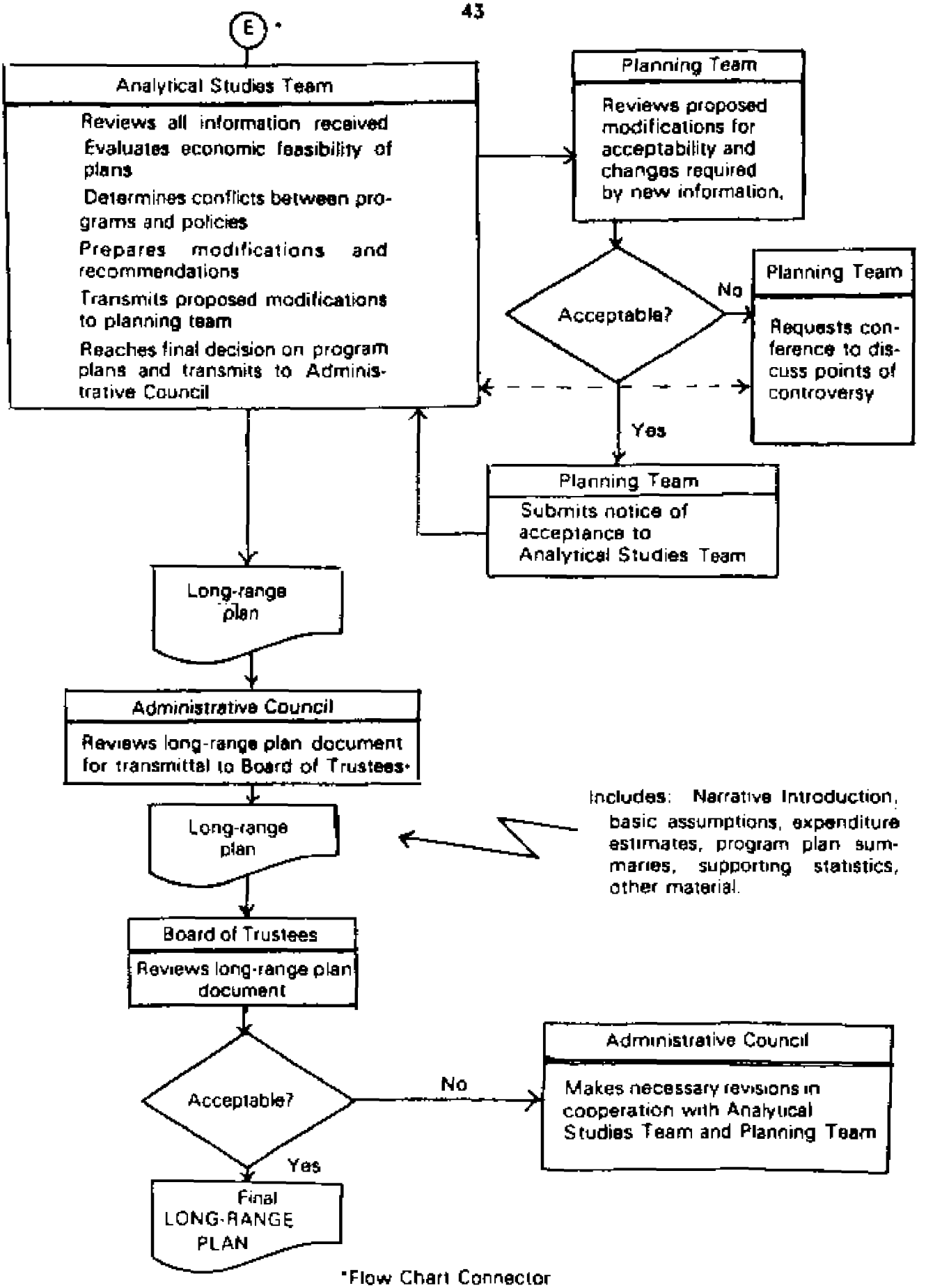

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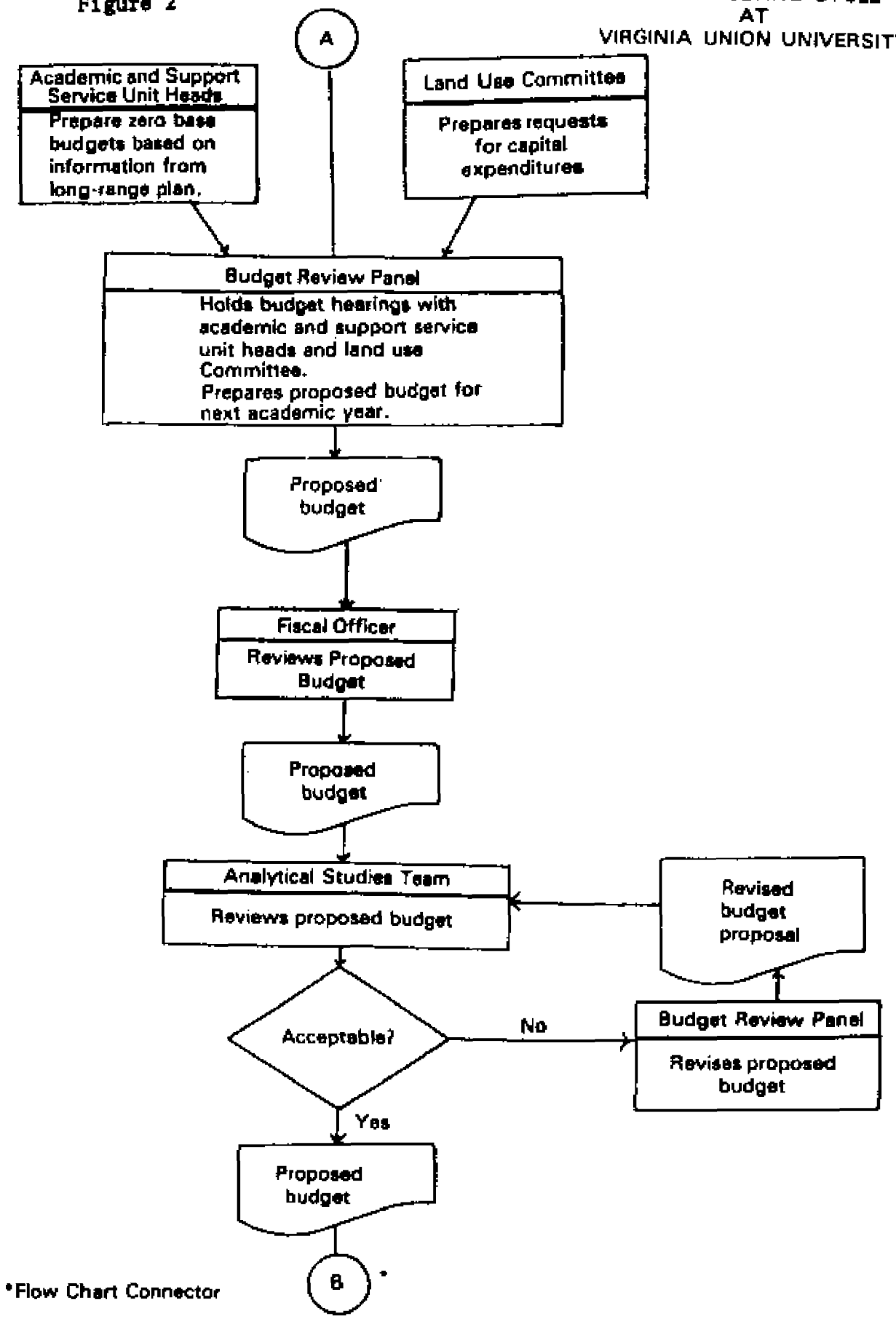
Figure 2

THE BUDGETING CYCLE
AT
VIRGINIA UNION UNIVERSITY



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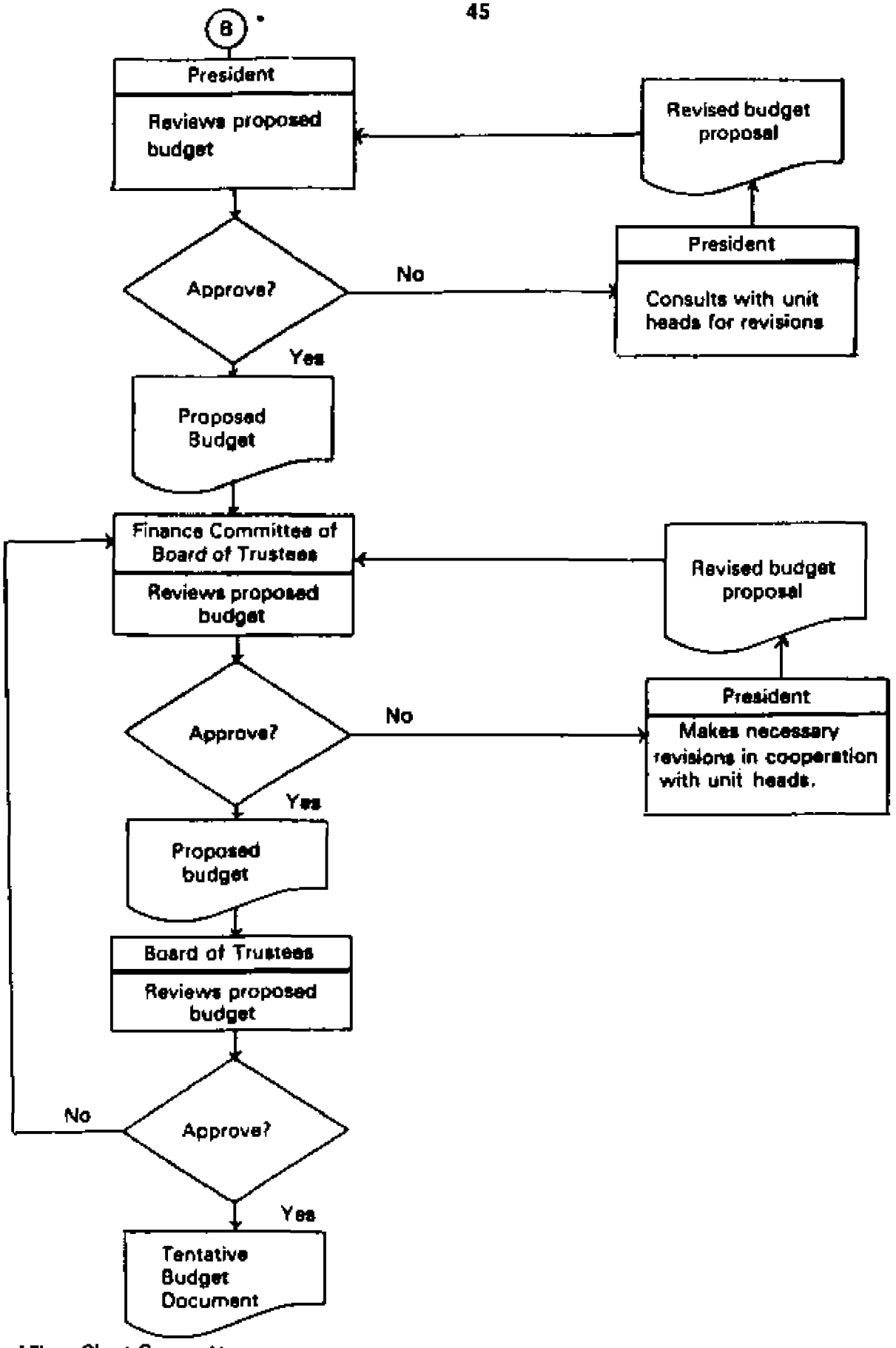


*Flow Chart Connector

Kinds and Sources of Data

The flow diagram was used as a basis for determining whether the system is fully operational by verifying the accomplishment of each step from beginning to end. Evidence of degree of implementation was secured through personal interviews and through an inspection of minutes, memoranda, program plans, and/or allied documents.

An open ended, partially structured interview was conducted by appointment, with the key administrators identified in the chart, in their respective offices. They were informed beforehand about the general purposes of the investigation and the specific purposes of the interview. An interview guide was developed by the researcher (see Appendix C), taking into consideration the recommendations set forth by Kerlinger (1973, pp. 485-486). It was believed that the limited free response would assure objectivity in gathering data.

Notes were taken during the interviews. Recognizing that "one of the most frequent sources of bias is the interviewer's tendency to shorten the respondent's reply and put it in his own words" (Sugden, 1973, p. 59), the respondents' exact words were recorded insofar as it was possible and practicable.

Since the interviewees were known to the investigator, it was expected that there would be no difficulty in establishing rapport and securing cooperation.

Permission for the study had been granted by the President of the University, and he had, by copies of his letter to this researcher, requested the cooperation of other administrators.

Treatment of Data

The data collected was classified according to the step in the process to which it related, was examined for bias and contradiction, and, where necessary, was validated by independent sources. Any breakdowns in the system or problem areas were pinpointed, and an attempt was made to identify the probable causes and effects. An analysis of the data will be presented in expository form.

Sub-problem 2: To assess the extent to which ends are being attained with respect to the University's stated objectives of the PPB System

Performance evaluation has been defined by Snyder and Snyder as a measure and interpretation of "the degree to which project objectives were met" (p. 6).

> If project objectives are missing or are so poorly stated as to offer no tenable basis for evaluation, the first task facing the evaluator is the preparation of a set of objectives for the project, acceptable to all concerned (Snyder & Snyder, p. 7).

In this instance, only goal statements were available. It was necessary, therefore, to formulate specific objectives to serve as a basis for deriving data parameters and evaluation methods.

Weiss (1972) recognized the fact that fuzziness of program goals is a common phenomenon and offered the following suggestions, among others:

> The researcher can pose the questions as to what the objectives are and wait for the program personnel to reach a consensus.
>
> He can set up a collaborative effort in goal formulation. Sitting with the program people, the evaluator can offer

> approximations of goal statements after which they are modified by the staff with discussion continuing until agreement is reached (p. 28).

In connection with this study, the goal statements were discussed by the researcher with the Chairman of the Planning Team at the University. Tentative statements of specific objectives were formulated by the Chairman. These were then submitted by him to the members of the Planning Team, who met as a group to refine them and return them as evaluative criteria to be used by the researcher in the evaluation process. The seventeen objectives, with related goal statements, appear below.

Goal Statement - PPBS will ensure a more meaningful set of goals and objectives for the college.

Objective 1: Mission and goal statements of the University will be clearly stated and reviewed periodically (annually) to determine their relevance in a changing society, and will be revised as needed.

Objective 2: The stated mission, goals, and objectives will be congruent with program plans; i.e., each program must be related to one or more specific goals or objectives.

Goal Statement - The PPB system will result in the establishment of well-conceived priorities before any resources are allocated to various programs.

Objective 3: Zero base budgeting will be adopted, requiring justification of all requests for funding in terms of projected programs.

Objective 4: Budget hearings will be held before any resources are allocated.

Objective 5: Unit heads will have the authority to revise line items within their program budgets in keeping with changes in unit priorities.

Goal Statement - The PPB System will provide the capability to review and analyze existing and alternative programs in terms of their relevance to the achievement of a predetermined set of objectives.

Objective 6: Each academic unit will clearly state its objectives and review them annually, making revisions where necessary.

Objective 7: Each academic and support service unit will prepare annually an updated five-year program, tied to predetermined objectives.

Objective 8: Program plans will be screened for accuracy and thoroughness of preparation by the Planning Team.

Goal Statement - The PPB System will establish the capability to analyze the interaction of the various college programs in order to develop an integrated plan that represents the best allocation of resources for meeting the institution's goals and objectives.

Objective 9: The Analytical Studies Team will evaluate economic feasibility of program plans; determine whether programs fit together in pursuit of common objectives; determine any potential conflict between program plans and college policies; develop and consider alternative program plans; examine relative cost and effectiveness in accomplishing objectives.

Objective 10: A comprehensive, college-wide five-year plan will be compiled by the Analytical Studies Team to be forwarded through the Administrative Council to the Board of Trustees for review and approval.

Goal Statement - The PPB System will improve coordination and communication due to the necessity for interrelating program elements.

Objective 11: Eighty percent of the faculty and 90 percent of the key administrators will perceive that PPBS has resulted in improved coordination and communication.

Goal Statement - The PPB System will create a greater awareness of the college's goals and objectives and produce a greater commitment to their achievement.

Objective 12: Eighty percent of the faculty and 90 percent of the key administrators will perceive that PPBS has

created a greater awareness of the goals and objectives of the college.

Objective 13: Eighty percent of the faculty and 90 percent of the key administrators will perceive that the implementation of PPBS has resulted in greater commitment to the achievement of institutional goals and objectives.

Goal Statement - The PPB System will result in improved budgetary procedures.

Objective 14: A comprehensive program budget will be submitted to the Board of Trustees for approval in March of each year.

Objective 15: All unit heads will be provided with current budget information (quarterly or, preferably, monthly budget reports) to facilitate the decision-making process.

Objective 16: Accurate, adequate budgetary information will be available for reporting to external agencies (HEGIS, UNCF, HEW, etc.) on a timely basis.

Goal Statement - The PPB System at Virginia Union University will be fully operational not later than the 1976-1977 academic year.

Objective 17: The system will be functioning in accordance with the blueprint, all steps having been implemented.

These objectives provided useful statements of anticipated outcomes and formed a basis for describing what the system expected to achieve and what actions should have been taken. They also served as a basis for careful, impartial assessment of the degree to which the system has succeeded in achieving its goals.

Kinds and Sources of Data

Objective 1: Mission and goal statements of the University will be clearly stated and reviewed periodically (annually) to determine their relevance in a changing society, and will be revised as needed.

Objective 2: The stated mission, goals, and objectives will be congruent with program plans; i.e., each program must be related to one or more specific objectives.

Objective 6: Each academic unit will clearly state its objectives and review them annually, making revisions where necessary.

Objective 7: Each academic and support service unit will prepare annually an updated five-year program, tied to predetermined objectives.

Kinds of Data: Written mission and goal statements indicating broad direction, purpose or intent; written statements relating program objectives to institutional mission and goals; evidence of systematic procedures used for their review and revision.

Sources of Data: Interviews with members of the Administrative Council and Planning Team, planning documents, and Planning Team minutes.

Objective 3: Zero base budgeting will be adopted, requiring justification of all requests for funding in terms of projected programs.

Objective 4: Budget hearings will be held before any resources are allocated.

Objective 5: Unit heads will have the authority to revise line items within their program budgets in keeping with changes in unit priorities.

Kinds of Data: Detailed and valid cost estimates for each program on a multiyear basis; systematic procedures used to establish priorities when considering alternatives and choosing courses of action; criteria, constraints or actual data that influence resource allocation decisions.

Sources of Data: Interviews with Vice President for Business Affairs and with academic and support unit heads; interoffice memoranda; planning documents.

Objective 8: Program plans will be screened for accuracy and thoroughness of preparation by the Planning Team.

Kinds of Data: Systematic procedures for reviewing program plans.

Sources of Data: Interviews with members of the Planning Team and minutes of Planning Team meetings.

Objective 9: The Analytical Studies Team will evaluate economic feasibility of program plans; determine whether programs fit together in pursuit of common objectives; determine any potential conflict between program plans and college policies; develop and consider alternative program plans; examine relative cost and effectiveness in accomplishing objectives.

Kinds of Data: Systematic procedures for determination of economic feasibility, potential conflict among plans or between plans and college policies, relative cost and effectiveness, commonality of objectives and evidence of consideration of alternative plans.

Sources of Data: Interviews with the Chairman of the Analytical Studies Team and the Chairman of the Planning Team, minutes, documents prepared by the Analytical Studies Team.

Objective 10: A comprehensive, college-wide five-year plan will be compiled by the Analytical Studies Team to be forwarded through the Administrative Council to the Board of Trustees for review and approval.

Objective 14: A comprehensive program budget will be submitted to the Board of Trustees for approval in March of each year.

Kinds of Data: Written comprehensive college-wide five-year plan; evidence that plan was forwarded through the Administrative Council to the Board of Trustees.

Sources of Data: Minutes; interviews with the chairmen of the Planning Team and/or Administrative Council and/or Analytical Studies Team.

Objective 11: Eighty percent of the faculty and 90 percent of the key administrators will perceive that PPBS has resulted in improved coordination and communication.

Objective 12: Eighty percent of the faculty and 90 percent of the key administrators will perceive that PPBS has created a greater awareness of the goals and objectives of the college.

Objective 13: Eighty percent of the faculty and 90 percent of the key administrators will perceive that the implementation of PPBS has resulted in greater commitment to the achievement of institutional goals and objectives.

Kinds of Data: Faculty perceptions with regard to the effect of PPBS on coordination and communication, awareness of the goals and objectives of the college, and degree of commitment to the achievement of institutional goals and objectives.

Source of Data: Responses to questions 5, 9, 12, 14, 16, 23, and 27 in the survey instrument administered to all key administrators and faculty involved in the PPB process. (See Questionnaire, Appendix C.)

Objective 15: All unit heads will be provided with current budget information (quarterly or, preferably, monthly budget reports) to facilitate the decision-making process.

Kinds of Data: Evidence of receipt by unit heads from Office of Business Affairs of budget information on a monthly or quarterly basis.

Sources of Data: Interviews with the Vice President for Business Affairs and the academic and support service unit heads; interoffice memoranda, where available.

Objective 16: Accurate, adequate budgetary information will be available for reporting to external agencies (HEGIS, UNCF, HEW, etc.) on a timely basis.

Kinds of Data: Evidence of receipt by Office of Institutional Research and Planning, Office of Federal Programs, Office of the Registrar, and Office of the Head Librarian of adequate, accurate, and timely information for reporting to external agencies.

Sources of Data: Interviews with Director of Institutional Research and Planning, Vice President for Administrative Affairs, Registrar, and Head Librarian.

Objective 17: The system will be functioning in accordance with the blueprint, all steps having been implemented.

Kinds and Sources of Data: The kinds and sources of data for this objective are found in Sub-problem 1, covering process evaluation.

Treatment of Data: The data secured in each case will be compared with the corresponding objective, and a judgment will be made as to the extent to which the objective has been met.

Sub-problem 3: To examine the unanticipated consequences of implementation of the PPB System

Opportunity for Discovery

According to Weiss (1972), programs often accomplish things other than the official goals, and the evaluator has a responsibility to take a look at these unexpected consequences, as well as the outcomes of stated objectives. He also has an obligation to determine what the basic essential features of the system are and what the unsuccessful elements were. In addressing these requirements, it was decided that

certain items of information not tied to the University's specific objectives should be studied. These items were selected on the basis of knowledge gained through a study of the literature and research to date on the topic.

Kinds of Data: The data secured, not specifically required by other aspects of this study, included opinions of faculty and key administrators with regard to their expectations of and attitudes toward the system (favorable or unfavorable impact on planning and resource allocation, quality of educational program, and job satisfaction). Data was also sought which might tend to suggest probable causes of success or failure.

Sources of Data: Interviews with key administrators (see particularly questions 1, 3, 4, and 5 of interview guide, Appendix C; and a survey instrument developed by the researcher, Appendix B.)

The Questionnaire

A pool of possible items for a questionnaire was developed on the basis of the literature review and on the basis of a study of instruments developed by other researchers to assess related areas of concern. A preliminary questionnaire was drafted, which was subjected to critical examination by knowledgeable individuals and piloted with a small group of administrators and faculty to secure feedback with regard to how well the instrument actually measured what it claimed to measure, adequacy of coverage, clarity, and length. Their suggestions were studied, and a final questionnaire was prepared.

The advantages and disadvantages of the questionnaire technique

were reviewed, and the potential of induced bias due to lack of return was acknowledged. This turned out not to present a problem, however, inasmuch as a 100 percent rate of return was experienced. Six of the 91 questionnaires were excluded from the analysis because of insufficient data. The respondents felt that they did not have sufficient knowledge of the system to rate the items.

As pointed out by Kerlinger (p. 496), the summated rating scale often seems to contain response-set variance. This possibility is also acknowledged, but the advantage of greater variance provided by this type of instrument was considered to outweigh the limitation.

The questions were answered on a five-point summated rating scale, with responses most favorable assigned a value of 5 and the least favorable assigned a value of 1. If there was no response to an item, a value of 3 was assigned.

Data Analysis. Summary tables were constructed from data secured from the questionnaire, showing the percentage of responses in each category. Medians and decile ranges were utilized to assist the researcher in expository analysis of the data.

In addition, the Mann-Whitney U-Test was used to determine whether groups of administrators differed significantly in their overall perception of PPBS. Where differences were found to exist, administrators were further classified in appropriate categories before proceeding with further analysis (for example, Administrative Council, Academic Affairs Committee, and selected support service unit heads).

The Mann-Whitney U-Test was also used to determine possible relationships between perceptions of and attitudes toward the system

and designation as administrator or faculty; school affiliation; length of time at the University; or level of understanding of basic ideas, concepts, and elements of PPBS.

Summation of the above, taken as a whole, was used to arrive at an estimate of the overall effectiveness of PPBS at Virginia Union University.

Chapter 4

HISTORICAL AND ORGANIZATIONAL CONTEXT

A modicum of background information and a description of the organizational structure of Virginia Union University should be helpful to the reader in understanding the experiences of the institution with programming, planning, and budgeting.

Origin of the PPB System at Virginia Union University

A review of administrative practices and procedures at Virginia Union University was conducted by a team of consultants from Peat, Marwick, Mitchell & Co., in 1968, as the first phase of a program for improvement under a grant to the University from the Ford Foundation.

Among other things, the review revealed a lack of coordination in planning and operation among the various organizational units, resulting in unnecessary duplication and a reduction of the total effectiveness of the University. It was also noted that the budgeting process did not include program planning and the development of budgets along program lines, nor was responsibility for remaining within the budget firmly fixed at the budget centers which participated in budget determination. Additionally, some disagreement was found to exist within the University with regard to its role, mission, and objectives.

The consultants indicated, however, that the members of the staff of the University were well qualified, and they were favorably

impressed by their loyalty to and concern for Virginia Union University. Thus, it was felt that as a management team, they should be able to provide effective leadership for the institution.

As a result of these findings, one of the recommendations was that budget procedures which included program planning and budget preparation along program lines should be developed. The decision was made to implement a detailed program planning and budgeting system, utilizing the model developed in 1969 by the National Association of College and University Business Officers (NACUBO), in cooperation with Peat, Marwick, Mitchell & Co., Certified Public Accountants.

As pointed out by NACUBO (1975):

> The...consultants were aware that there were already in existence numerous budgeting systems and many monographs about planning. However, most of these systems were not applicable to a small economically deprived college. Such an institution was not ready to contemplate the use of computer simulation modeling or to develop a sophisticated output-oriented program planning budgeting system (PPBS). (Preface)

The NACUBO model evolved from a study of ten selected colleges, most of which were private, liberal arts colleges without significant graduate, research or public service programs. As a result of its broad acceptance during the first four years, as evidenced by workshops presented to more than 1,000 individuals at 500 institutions, a revised edition of the manual was produced by the National Association of College and University Business Officers in the late spring of 1974, with funding by the Ford Foundation.

As pointed out by NACUBO, the original manual was written to assist consultants, assuming that necessary elaboration would be done

by them, while the revised edition is designed for use without the assistance of consultants. (NACUBO, Preface) The current PPB System at Virginia Union University is a modification of the NACUBO model, reflecting its adaptation to the University's unique characteristics.

The leadership provided in the development of the Virginia Union University PPB System was under the direction of Peat, Marwick, Mitchell & Co., and the firm's representatives provided the initial training for administrators and selected staff and faculty members.

The first academic and support service program plans were prepared in 1970 for the five-year period 1972-1977. The concepts and techniques incorporated were designed to insure optimum use of limited resources.

Organizational Framework Within Which the PPB System Operates

In order to provide a better understanding of how the PPB System is designed to function at Virginia Union University, an organizational chart of the institution is presented in Figure 3.

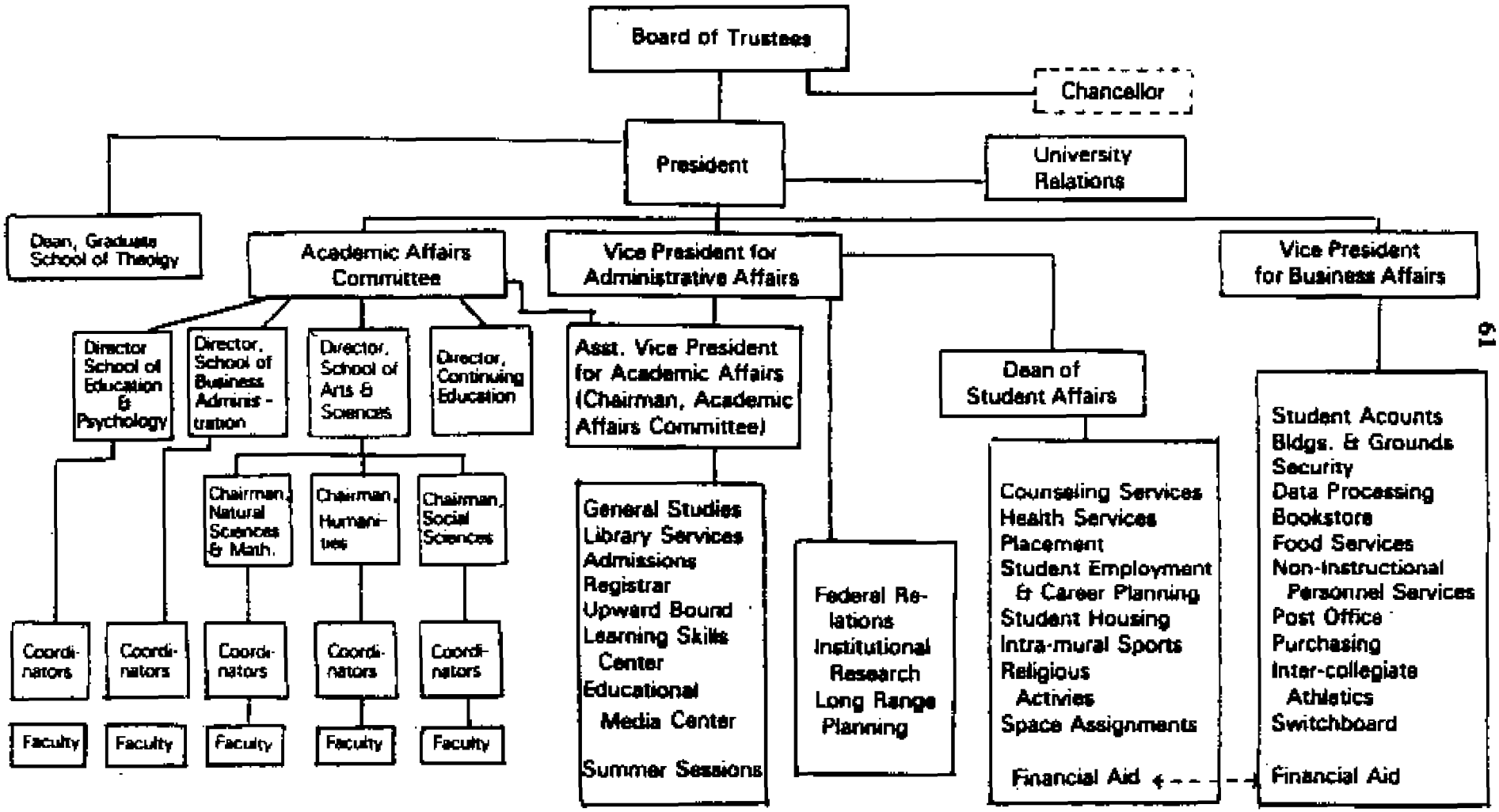
Duties of administrators, as set forth in the Faculty Handbook, are described below.

The President, as chief executive officer, recommends to the Board of Trustees the major plans and policies for the University, including the annual budget and revisions, development plans, and major curriculum proposals approved by the faculty.

The Administrative Council acts as an advisory council to the President and meets weekly to review and evaluate programs and policies, to project new concepts for consideration, and to further continuous lines of communication with the total University community. The

Figure 3

ORGANIZATIONAL STRUCTURE FOR THE UNIVERSITY



members of the Administrative Council include the President, the Vice President for Administrative Affairs, the Vice President for Business Affairs, the Dean of the School of Theology, the Dean of Student Affairs, and the Chairman of the Academic Affairs Committee. (For purposes of this study, the Chairman of the Academic Affairs Committee has been included with the Academic Affairs Committee, rather than with the Administrative Council, since it is his function to represent the views of the Academic Affairs Committee in Administrative Council sessions.)

The University's organizational structure is somewhat unusual, in that there is no Academic Dean or Vice President for Academic Affairs, as is customarily found in most institutions. Each school has a Director, who works in cooperation with an Academic Affairs Committee, which is the chief agency where all proposals and recommendations relating to academic policies and procedures are made that will be submitted to the President, through the Administrative Council, for approval. This Committee is also responsible for coordinating the academic programs of the University.

The Academic Affairs Committee is made up of the Directors of the three schools; the Director of Continuing Education; the Registrar; the Director of General Studies, who is also Assistant Vice President for Academic Affairs; the Associate Dean of Students; and students selected annually.

The Division of General Studies and the Division of Continuing Education offer academic programs in conjunction with the three schools.

A Curriculum Committee functions within each of the three academic schools. The following operational procedures are currently implemented:

> On all curricular matters (program, course offerings, etc.) that are reflected in the approved Five-Year Academic Program Plans of the school, the Curriculum Committee may make recommendations directly to the Academic Affairs Committee for approval and subsequent submission to the Administrative Council. Those curriculum matters approved by the Council will be presented to the University faculty for final approval.
>
> On all curriculum matters (program, course offerings, etc. that are not reflected in the approved Five-Year Academic Program Plans for the school, the Curriculum Committee of the school must present the proposal to the Planning Team and the Analytical Studies Team for review and recommendations prior to submission to the Academic Affairs Committee for approval. (PPBS Committee, Note 1)

The Planning Team is one of the essential elements in the formal planning process. It is the body charged with the responsibility for the review of the work of the responsible administrative heads and committees who develop the assumptions, plans, and budget summaries. The Team proposes revisions in the preliminary plans and approves the final Comprehensive Five-Year Planning Document before it goes to the Administrative Council.

Its membership includes the Director of Institutional Research and Planning, who serves as Chairman; the Vice President for Administrative Affairs; the Vice President for Business Affairs; the Dean of the School of Theology; the Dean of Student Affairs; the Directors of the Schools of Arts & Sciences, Business Administration, and Education & Psychology; the Director of Continuing Education; the Assistant Vice President for Academic Affairs, who is also Director of General Studies; the Head Librarian; and the Director of Admissions. The

President serves as ex officio Chairman, since his heavy schedule does not permit him to assume the day-to-day functions of the chairmanship of the Planning Team. Students are to be selected annually to serve on the Team.

A unique component of the system examined is the Analytical Studies Team, with its five members drawn from a cross section of the faculty --three from the School of Arts & Sciences, one from the School of Business Administration, and one from the School of Education & Psychology. Student representatives are to be selected annually.

This team is responsible for a critical review of the preliminary plans and budget to determine their validity in terms of institutional goals and objectives and budget realities. The team serves as a check and balance in the operation of the formal planning and budgeting process, and is responsible for preparing final recommendations for the President.

Chapter 5

FINDINGS

Planning Process Evaluation

The long range planning process, as described in the Flow Chart (Figure 1), is one of the processes being evaluated in this study.

An examination of written documents, Planning Team minutes, and interviews with members of the Administrative Council, members of the Academic Affairs Committee, and several support service unit heads provided the data which served as a basis for this evaluation.

The Planning Team, at its first meeting in mid-September, 1976, adopted a schedule of planning activities for the 1976-1977 fiscal year.

The initial step in the process involved a review and revision of the statement of institutional mission and goals. During the fall of 1976, a faculty committee was delegated by the Administrative Council the responsibility for reviewing and revising the existing statement, which had been approved by the faculty in the spring of 1972. The proposed revision was presented to the Planning Team for its reaction, then submitted to the Administrative Council, where it was approved and shared with the faculty. Approval of the Board of Trustees followed.

Planning Team minutes indicate that the institutional mission and goal statement has been under constant review since the inception of the system and has been revised whenever it was deemed appropriate.

The Planning Team, in the meantime, reviewed and revised the basic planning assumptions, dealing with both external environmental factors and internal factors and institutional policies.

The external environmental assumptions considered to have an effect on planning at Virginia Union University were: the international situation; veterans' benefits; prices of goods and services; national faculty salary trends; national attitudes toward higher education; competition between private and public higher education, state aid to private higher education, alternative educational patterns; continuing education; federal programs; tuition trends; technological influences; private support of colleges--capital campaigns; and national and regional enrollment trends.

The internal assumptions which were considered dealt with teaching methods; course objectives and competencies; the college calendar; availability of student services; enrollment; staff support; faculty; fringe benefits; administrative structure; economic background and academic qualifications of student body; student aid; auxiliary enterprises; research projects; gift income; public services; campus morale; grievance procedures; crime on campus; and campus construction projects.

Each of the Directors of academic programs presented a Five-Year Academic Program Plan. Included in the plans were statements of departmental objectives, expenditure estimates, estimates of income from restricted current funds, course and project data, faculty staffing requirements, physical facility requirements, other resource requirements, and budget documentation.

The course and project data included a listing of courses or projects by beginning year, content, objectives, and changes in resources required (additions, deletions, and suggested alternatives). Also included were anticipated enrollment; student credit hours projected; preferred section size; number of sections projected; and staffing needs, by rank.

The analysis of faculty manpower requirements was described in terms of faculty rank, percent of time projected to be spent in instruction, academic counseling, research, public service, and administration.

Physical facilities requirements included instructional and research space classified according to seminar rooms, classrooms, lecture halls, laboratories, offices, department library, conference rooms, storage space, etc. Other resource requirements included library resources, computer services, and audio visuals.

Academic unit heads indicated that they had met with chairmen, coordinators, and/or faculty to review prior year unit plans, goals and objectives and to initiate the updated program plans.

It is significant to note that although every academic unit head presented a completed plan, fewer than one-third of the faculty, coordinators and chairmen felt that they thoroughly understood the basic ideas, concepts, and elements of PPBS. Fewer than half of them perceived that PPBS had increased faculty involvement in the determination of the curriculum for their academic units, increased their involvement in the determination of resources needed to accomplish

objectives, or increased faculty involvement in generating alternative programs for achievement of institutional goals and objectives. (See Table 1.) Yet, one of the major features of a properly implemented PPB System is its ability to involve the entire faculty in the planning process, rather than have decisions reached by a small group of administrators, without the benefit of wider based input.

Upon receiving the academic departments' draft program planning documents, the Planning Team screened them for accuracy, thoroughness of preparation, and reasonableness, and made suggestions for modification. Plans were then revised, completed, and turned in by the Directors to the Chairman of the Planning Team who, with the assistance of the Assistant Vice President for Academic Affairs, compiled a summary of the Five-Year Academic Program Plans.

The process for the preparation of support service plans was basically the same as that for the preparation of academic plans. The information from the Academic Plan Summary was included with the basic planning assumptions sent to the support departments for consideration as they prepared their plans, thus allowing them to plan better to serve the academic programs of the institution.

The data requested of the support services included a list of activities performed by the unit; anticipated changes in terms of level of activity, standards, etc.; expenditure estimates for personnel, equipment, supplies, travel and other expense; anticipated income from restricted current funds; and physical facilities and other resource requirements (private office space, working space, storage space, reception and other space, computer service).

Table 1

Perceived Impact of PPBS Implementation on Faculty Involvement in the Planning Process

Level \ Rating	Greatly Increased	Somewhat Increased	Neither Increased Nor Decreased	Somewhat Decreased	Greatly Decreased	No Response
Has PPBS increased faculty involvement in determination of curriculum for their academic units?						
Administrative Council (n=5)	60.0%	40.0%	--	--	--	--
Academic Affairs Committee (n=6)	16.7%	83.3%	--	--	--	--
Chairmen and Coordinators (n=23)	8.7%	26.1%	52.2%	4.4%	--	8.7%
Faculty (n=47)	10.6%	34.0%	21.3%	12.8%	2.1%	19.2%
Has PPBS increased faculty involvement in determination of resources needed for accomplishment of objectives?						
Administrative Council (n=5)	40.0%	60.0%	--	--	--	--
Academic Affairs Committee (n=6)	--	66.7%	33.3%	--	--	--
Chairmen and Coordinators (n=23)	4.4%	34.8%	39.1%	17.4%	--	4.4%
Faculty (n=47)	8.5%	31.9%	29.8%	4.3%	--	25.5%
Has PPBS increased faculty involvement in generating alternative programs for the achievement of institutional goals and objectives?						
Administrative Council (n=5)	40.0%	60.0%	--	--	--	--
Academic Affairs Committee (n=6)	--	50.0%	50.0%	--	--	--
Chairmen and Coordinators (n=25)	8.7%	26.1%	60.9%	--	--	4.3%
Faculty (n=47)	8.5%	34.0%	34.0%	2.1%	2.1%	19.2%

The support services include academic support (Library, Learning Resources Center, Fundamental Learning Skills Center), institutional support (Research and Planning), Student Services, and Business Affairs.

Support service unit heads, with the aid of members of their staffs, prepared support plans. Some unit heads indicated that they did not have the benefit of academic program summaries to assist them in their planning and surmised that the senior administrator in charge of that area had received the information but failed to pass it along.

The preparation of support service plans ran behind schedule, and with other delays in Planning Team meetings, the process was not completed according to the blueprint.

The cycle was interrupted at this point when the academic year came to a close before support service plans could be summarized and a projection of revenue and expenditure estimates on a multi-year basis could be prepared.

The Board of Trustees received in March only a planning document which outlines the PPB process and stated the specific objectives as adopted by the Planning Team.

As a result of failure to adhere to the established time table, two critical steps in the process had been omitted. The plan which will ultimately reach the Administrative Council for this year will not include the multi-year budget projection, nor will it have been subjected to review by the Analytical Studies Team.

The Analytical Studies Team, although appointed by the President and ready to assume its responsibilities, was unable to function because the total planning document was not completed and made available for review and analysis before the end of the academic year.

As indicated in the flow chart (Figure 1), the Analytical Studies Team was to have had the responsibility for evaluating the economic feasibility of plans, determining conflicts between programs and policies, and making recommendations to the Administrative Council, after reaching agreement with the Planning Team with regard to proposed modifications.

The investigator also noted that although the blueprint called for student participation, no students had been appointed to either the Planning Team or the Analytical Studies Team. In fact, the only point in the process at which students were reportedly involved was in providing input for the academic program plan of one of the three schools.

Problems Encountered by Administrators in Carrying Out Their Respective Roles

Members of the Administrative Council, members of the Academic Affairs Committee, the Head Librarian, the Director of the Learning Resources Center, and the Chairmen of the Planning and Analytical Studies Teams were interviewed with regard to problems encountered by them in carrying out their assigned roles in connection with the PPB System.

The problem most frequently mentioned in connection with the planning cycle was one of time. As one administrator put it, "We must find a way to let the chief executive know that it is just impossible

for us to be effective in one role without letting something else go lacking." Other administrators expressed similar views. Typical of their comments are the following:

> Key personnel involved in PPBS are tied up with too many activities; other personnel should be trained to carry on some of their functions.
>
> The administration seems unaware that directors have to do too many things. They have to act in concert with other directors as a Dean of the College, in addition to taking care of details like approving add-drops and "I" grade removals, while also trying to look at broad areas without any help--little secretarial help and no administrative help. It is difficult to do this completely and well. We must have administrative assistants to do all of this.

Persons interviewed were unanimous in their belief that the time element was the principal factor leading to the omission of two crucial steps in the PPB process--preparation of the Five-Year Revenue and Expense Projection Summary to accompany the program plans and the omission of the functions of the Analytical Studies Team.

The second most frequently mentioned problem was the lack of a sufficient data base. Said one administrator, "We really need computer service on campus for more adequate information, or we should go to some other kind of system, since this system requires that you be able to get information when you need it."

Another added, "The information system is not adequate because too much has to be done manually. If we were more computerized, I really think we would get much better results."

Some of the interviewees found their tasks complicated by the fact that their predecessors had not left prior years' planning information in the files, and much time was lost because of the necessity for establishing new baseline data.

A further indication of feelings with regard to the adequacy of information at all levels may be gleaned from responses to the question: Is adequate information available to satisfy your needs in connection with your role in PPBS? These responses are summarized in Table 2.

Only the members of the Administrative Council felt that adequate information was available to them. At no other level did more than a third of the other administrators and faculty feel that information was adequate. None of the members of the Academic Affairs Committee or support service unit heads, and fewer than 7 percent of chairmen, coordinators, and faculty considered that the information was very adequate for their needs. The fact that a significant number of respondents checked uncertain perhaps reflects their uncertainty concerning the role they are expected to play.

Table 2

Adequacy of Information Available
To Support the PPB System

Level \ Rating	Very Adequate	Somewhat Adequate	Uncertain	Somewhat Inadequate	Very Inadequate	No Response
Administrative Council (n=5)	60.0%	40.0%	--	--	--	--
Academic Affairs Committee (n=6)	--	33.3%	16.7%	33.3%	16.7%	--
Support Service Unit Heads (n=4)	--	25.0%	50.0%	25.0%	--	--
Chairmen and Coordinators (n=23)	4.4%	21.7%	30.4%	34.8%	4.4%	4.4%
Faculty (n=47)	6.4%	21.3%	23.4%	23.4%	21.3%	4.3%

Budgetary Process Evaluation

The Budgeting Cycle, as depicted in Figure 2, was followed to a great extent, with the one major exception being the omission of the Analytical Studies Team review. The Chairman of the Analytical Studies Team was invited to sit in on the budget hearings, with the hope that the experience would be beneficial in carrying out the assigned responsibilities in the future.

The researcher was told that although the Land Use Committee of the Board of Trustees had functioned in past years, it had apparently not done so during the current year and did not, therefore, provide any input for the current budget proposal.

The budget hearing component of the system was instituted for the first time during the 1976-1977 academic year. Academic and support service unit heads were asked to submit their budget requests for the 1977-1978 fiscal year before a Budget Review Panel, consisting of the Vice President for Business Affairs, the Assistant Vice President for Academic Affairs, the Comptroller, and the Chairman of the Planning Team, using the concept of zero base budgeting and justifying each item requested.

Inasmuch as the planning cycle is always a year ahead of the budgeting cycle, the first year of the long-range plan becomes the basis for the next year's operating budget. The planning activity continues to extend five years into the future, adding increased precision as each year draws closer, with the projection finally becoming the basis for the current operating budget.

The chief fiscal officer reviewed information received at the hearings and forwarded a proposed budget for the coming year to the President. Necessary revisions were made by the President, in consultation with appropriate unit heads.

The budget proposal was then sent to the Finance Committee of the Board of Trustees, who reviewed and approved it and sent it to the full Board, where it received tentative approval. Final approval was delayed until the fall meeting of the Board after the fiscal realities related to actual student enrollment have become clear. The final budget, then, will not be distributed to unit heads until after the fall Trustee Board meeting.

Problems Encountered by Administrators in Carrying Out Their Roles

There was widespread agreement among those who were interviewed that the most serious problem in connection with the budgetary cycle was lack of essential budgetary information.

The delays in securing necessary data were brought about by changes from one data processing system to another, with the new system not fully operational and much of the record keeping on a deferred schedule.

The second problem related to the budget cycle is the fact that the Board of Trustees has for the past several years waited until their fall meeting to approve the budget for the fiscal year which had begun the preceding July 1. This was necessitated by the effects of an unstable economy and an attempt to prevent a mounting deficit by waiting until actual enrollment figures were in and tuition income was known

before making final budgetary commitments. In the words of the President, "This is a terrible procedure." Yet, he felt that it was, perhaps, a necessary one until the economy recovers to the extent where the Board feels it can more realistically anticipate what the actual revenue will be. This year the Trustees did approve a conditional budget, to be finalized in the fall if circumstances warrant it, or to be revised before approval, if deemed necessary at that time.

It should be pointed out that plans cannot be successfully implemented without adequate budget controls. Without periodic operating reports showing current monthly expenditures and a summary of year-to-date expenditures, unit heads cannot function effectively as decision makers on a day-to-day basis, nor can the chief business officer monitor activities and prepare meaningful reports for the chief administrative officer. In the absence of appropriate controls, effective utilization of resources is difficult to achieve.

Summary

It is obvious from the foregoing discussion that the system was not fully implemented during the 1976-1977 fiscal year. Progress in this direction was noted, as evidenced by the fact that budget hearings were held for the first time. In addition, the Analytical Studies Team was appointed, and reference to the work of this Team appeared in the planning calendar for the first time, although lack of adherence to the schedule made it impossible for the Team to function.

Performance Evaluation

It is very possible for a process to be carried out without actually realizing all of the goals which the process was designed to achieve. But when the process itself is lacking in certain respects, it is very likely that some of the objectives will not be fully achieved.

This section will be devoted to an evaluation of the extent to which the seventeen stated objectives were actually achieved.

Goal Statement I. PPBS will ensure a more meaningful set of goals and objectives for the college.

Objective 1: Mission and goal statements of the University will be clearly stated and reviewed periodically (annually) to determine their relevance in a changing society, and will be revised as needed.

Objective 2: The stated mission, goals, and objectives will be congruent with program plans; i.e., each program must be related to one or more specific goals or objectives.

Planning Team minutes indicate that since the Planning, Programming, Budgeting System was first initiated at Virginia Union University consideration has been given annually to the mission and goal statement. A revision approved in the spring of 1972 remained in effect until the current year, when, after careful study by a faculty committee, recommendations were made to the Planning Team and the Administrative Council with regard to changes and modifications that reflect more accurately the present mission and goals of the institution. After approval of both groups, the statement was shared with the full faculty and adopted by the Board of Trustees in the fall of 1976.

The program plans prepared during the current academic year were reviewed and found to contain statements of the units' objectives, each tied to the stated overall mission, goals, and objectives of the University.

A survey conducted among key administrators indicated they were unanimous in their opinion that since the implementation of PPBS a better job is being done of identifying program goals and objectives, indicated in Table 3, which also reveals that more than two-thirds of the faculty shared this opinion.

Goal Statement II - The PPB System will result in the establishment of well conceived priorities before any resources are allocated to various programs.

Objective 3: Zero base budgeting will be adopted, requiring justification of all requests for funding in terms of projected programs.

Objective 4: Budget hearings will be held before any resources are allocated.

Objective 5: Unit heads will have the authority to revise line items within their program budgets, in keeping with changes in unit priorities.

A review of program plans and interviews with administrators revealed that zero base budgeting was utilized in each program plan --academic and support service--with detailed cost estimates set forth on a multi-year basis. Unit heads were required to justify all expenditures proposed for the 1977-1978 fiscal year at formal budget hearings held in March, 1977, before a tentative budget was formulated and sent to the Board of Trustees. The budget requests were based on information appearing in the preceding year's Program Plan.

Table 3

Perceived Impact of PPBS Implementation on Identification of Program Goals and Objectives

Since the implementation of PPBS we do a better job of identifying the goals and objectives of our programs.

Level \ Rating	Strongly Agree	Agree Somewhat	Uncertain	Disagree Somewhat	Strongly Disagree
Key Administrators n = 16	43.8%	56.2%	--	--	--
Faculty n = 69	18.9%	50.7%	10.1%	14.5%	5.8%

According to the Vice President for Business Affairs, it is official University policy for unit heads to have authority to revise line items within their program budgets in keeping with changes in unit priorities. This fact apparently had not, however, been formally communicated to all unit heads, inasmuch as there were differences of opinion (about equally divided) among them as to whether or not this latitude was permitted them. Moreover, some unit heads indicated that they did not receive official notification of their approved budgets in time for this option to have any real significance. The delay was apparently caused by the Board's failure to approve the final budget until its fall meeting, while the fiscal year had begun on July 1. Further delays in the Office of Business Affairs, attributed to changes in the data processing system, have already been discussed.

Goal Statement III - The PPB System will provide the capability to review and analyze existing and alternative

programs in terms of their relevance to the achievement of a predetermined set of objectives.

Objective 6: Each academic unit will clearly state its objectives and review them annually, making revisions where necessary.

Objective 7: Each academic and support service unit will prepare annually an updated five-year program, tied to predetermined objectives.

Objective 8: Program plans will be screened for accuracy and thoroughness of preparation by the Planning Team.

Each academic unit did clearly state its objectives, as evidenced by unit program plans which were prepared and submitted to the Planning Team. According to the unit directors, these objectives are reviewed annually and revised as necessary.

The Five-Year Program Plans are tied to the predetermined objectives. A complete listing of present and proposed courses or programs is set forth, showing for each an enumeration of objectives, as well as changes in resources needed. Where existing courses or programs are deemed to no longer fulfill the requirements of current goals and objectives, recommendations are made for deletion, or possible alternatives are proposed.

All completed academic plans were presented to the Planning Team, where they were screened for accuracy, thoroughness of preparation, possible duplications, and potential conflicts.

Support service unit plans are, indeed, tied to their objectives and, where appropriate, are planned in keeping with the summaries of program plans of the academic units which they support.

Completed support service unit plans were screened for accuracy and thoroughness of preparation by the appropriate administrative

officer, with few exceptions. One administrative officer reported that plans for two support service units were returned directly to the Planning Team Chairman, with a copy of each coming to him.

Inasmuch as a few support service unit plans were not submitted according to schedule, the support service summary was not compiled by the Planning Team Chairman before the end of the academic year.

It is the hope expressed by the President that if any units are not submitting plans as required, peer pressure would cause them to do so. Failing that, the responsible individuals, he indicated, should be dealt with harshly at the level of the chief administrative officer, and such cases should be called to his attention by the Planning Team Chairman.

Goal Statement IV - The PPB System will establish the capability to analyze the interaction of the various college programs in order to develop an integrated plan that represents the best allocation of resources for meeting the institutions' goals and objectives.

Objective 9: The Analytical Studies Team will evaluate economic feasibility of program plans; determine whether programs fit together in pursuit of common objectives; determine any potential conflict between program plans and college policies; develop and consider alternative program plans; examine relative cost and effectiveness in accomplishing objectives.

Objective 10: A comprehensive college-wide five-year plan will be compiled by the Analytical Studies Team to be forwarded through the Administrative Council to the Board of Trustees for review and approval.

These two steps were not implemented.

As indicated in the discussion of Objective 8, at the close of the academic year, some work remained to be done in connection with

several support service unit plans. Thus, the Analytical Studies Team was not in a position to function. Since the members of that team were nine-month personnel, Objectives 9 and 10, stated above, could not be met during the current fiscal year.

This was unfortunate, inasmuch as the realization of these objectives is considered to be crucial to the success of the system. It would have provided an opportunity for direct faculty input at the highest level, which would have assured greater faculty influence in the final decision making process.

Although a team had been appointed, the membership of which was drawn from the three schools, the suggestion was made by some administrators that team membership should be expanded in the future to include persons knowledgeable in the areas of economics and accounting, as well as to include one or more representatives from the support services, as a means of strengthening the committee's ability to effectively carry out its functions.

There was no well defined set of systematic procedures set forth to serve as guidelines for the Analytical Studies Team in carrying out its responsibility, since there has been no prior experience with this task to serve as a guide.

Because the comprehensive long range planning document was incomplete at the time of the meeting of the Board of Trustees, it was not possible for it to be submitted to them. The Planning Team Chairman did, however, make available to the Board a copy of a document entitled, "Long-Range Academic and Supportive Services Planning

Process" (Revised), which incorporated all of the components necessary for full implementation of the process.

Goal Statement V - The PPB System will improve coordination and communication due to the necessity for interrelating program elements.

Objective 11: Eighty percent of the faculty and 90 percent of the key administrators will perceive that PPBS has resulted in improved coordination and communication.

Administrators and members of the faculty were surveyed to determine their perceptions of the impact which the system has had on coordination and communication. The institution fell short of achieving its objective in totality, although it was achieved with reference to some groups.

An examination of Table 4 reveals some interesting differences between perceptions of administrators and faculty. While almost 94 percent of the key administrators felt that PPBS had resulted in improved coordination of overall institutional planning, only 58 percent of the faculty shared this belief. Slightly more than 80 percent of the key administrators and 70 percent of the faculty felt that meetings of representatives from various program areas has resulted in more effective program coordination. It is significant to note that members of the Academic Affairs Committee were unanimous in their agreement on both points. This was to be expected, inasmuch as the Directors of academic units are obviously the individuals who engage in the most dialogue during the planning process, both in meetings of the Academic Affairs Committee and as members of

the Planning Team. For that group, then, the objective was achieved.

By way of contrast, a somewhat smaller percentage of administrators (68.8%) and a much smaller percentage of faculty (29%) felt that any meaningful program coordination across unit lines has taken place under PPBS. This would suggest that more dialogue is taking place below the level of director with regard to programs within a given school but probably not between faculty members of the various schools.

Table 4

Perceived Impact of PPBS Implementation on Coordination

Level \ Rating	Strongly Agree	Agree Somewhat	Un-certain	Disagree Somewhat	Strongly Disagree
PPBS has resulted in improved coordination of institutional planning.					
Key Administrators n = 16	31.3%	62.5%	--	6.2%	--
Faculty n = 69	7.3%	50.7%	13.0%	18.8%	10.1%
Since the implementation of PPB, meetings with representatives from various program areas have resulted in more effective coordination of programs.					
Key Administrators n = 16	12.5%	68.8%	6.2%	12.5%	--
Faculty n = 69	10.1%	34.8%	14.5%	23.2%	17.4%

With regard to communication, the institution came close to achieving its objective at the administrative level. As shown in Table 5, 87.5 percent of the key administrators, although only 46.4

percent of the faculty, felt that communication and interaction aimed at achieving university goals and objectives had improved as a result of PPBS. Members of the Administrative Council unanimously agreed with the statement.

Table 5

Perceived Impact of PPBS Implementation on Communication

Communication and interaction aimed at achieving university goals and objectives have improved as a result of PPBS.

Level \ Rating	Strongly Agree	Agree Somewhat	Uncertain	Disagree Somewhat	Strongly Disagree
Key Administrators n = 16	25.0%	62.5%	--	12.5%	--
Faculty n = 69	20.3%	26.1%	7.2%	27.5%	18.8%

A smaller percentage sensed that channels for communicating ideas to top level administrators had become more effective--62.5 percent of the administrators and 36.2 percent of the faculty--as indicated in Table 6.

Table 6

Perceived Impact of PPBS Implementation on Communication Channels

Level \ Rating	Much More Effective	Somewhat More Effective	Unchanged	Somewhat Less Effective	Much Less Effective	No Response
Key Administrators n = 16	37.5%	25.0%	31.3%	6.3%	--	--
Faculty n = 69	8.7%	27.5%	40.6%	7.2%	5.8%	10.1%

This should be considered in light of the fact that the full PPB cycle has not yet been completed. As a result, the channels which exist on the blueprint at this stage have never really been fully opened up, and full opportunity has not been provided for faculty input to the top level administrators.

Goal Statement VI - The PPB System will create a greater awareness of the college's goals and objectives and produce a greater commitment to their achievement.

Objective 12: Eighty percent of the faculty and 90 percent of the key administrators will perceive that PPBS has created a greater awareness of the goals and objectives of the college.

Objective 13: Eighty percent of the faculty and 90 percent of the administrators will perceive that the implementation of PPBS has resulted in greater commitment to the achievement of institutional goals and objectives.

Neither awareness nor commitment has been realized to the extent anticipated. While all of the members of the Administrative Council perceived that PPBS had created a greater awareness of goals and objectives of the college, other key administrators viewed it differently. Only 81.3 percent of the group taken as a whole agreed with the statement, with only 62.5 percent strongly agreeing. (See Table 7.)

The fact that only 65.2 percent of the faculty perceived a greater awareness suggests that many faculty members have not been actively involved in discussions of institutional mission, goals and objectives in a meaningful way, either before or after the statement was revised.

Table 7

Perceived Impact of PPBS Implementation
On Awareness of Goals and Objectives

The implementation of PPBS has created a greater awareness among administrators and faculty of the University's goals and objectives.

Level \ Rating	Strongly Agree	Agree Somewhat	Uncertain	Disagree Somewhat	Strongly Disagree
Key Administrators n = 16	62.5%	18.8%	6.2%	12.5%	--
Faculty n = 69	30.4%	34.8%	8.7%	17.4%	8.7%

As might be expected in light of the above, a relatively small percentage of faculty felt a greater commitment toward achievement of the institution's goals and objectives. Only 46.3 percent gave a positive answer. The entire Academic Affairs Committee, on the other hand, expressed a feeling of greater commitment, as did 80 percent of the Administrative Council members. Only 50 percent of the support service unit heads felt a greater sense of commitment, leading to an overall 81.3 percent figure for key administrators taken as a whole. The objective, then, was not achieved for the group as a whole, as shown in Table 8.

Goal Statement VII - PPBS will result in improved budgetary procedure.

Objective 14: A comprehensive program budget will be submitted to the Board of Trustees for approval in March of each year.

Table 8

Perceived Impact of PPBS Implementation on Degree of Commitment Toward Achievement of Institutional Goals and Objectives

Level \ Rating	Much Greater	Somewhat Greater	No Change	Somewhat Less	Much Less	No Response
Key Administrators n = 16	25.0%	56.3%	18.7%	--	--	--
Faculty n = 69	13.0%	33.3%	40.6%	2.9%	4.3%	5.8%

Objective 15: All unit heads will be provided with current budget information (quarterly or, preferably, monthly budget reports) to facilitate the decision-making process.

Objective 16: Accurate, adequate budgetary information will be available for reporting to external agencies (HEGIS, UNCF, HEW, etc.) on a timely basis.

A comprehensive program budget was submitted to the Board of Trustees in March. As indicated in the section dealing with process evaluation, budget hearings were held prior to the preparation of the proposed budget by the chief fiscal officer and approval, with necessary modifications, by the President. It was not, however, subjected to the scrutiny of the Analytical Studies Team for reasons already stated.

Interviews with the Vice President for Business Affairs and the unit heads revealed that current budget information was not available on a quarterly or monthly basis. This was mentioned by all of the

unit heads as being a major problem faced by them in carrying out their roles.

In the areas mentioned in Objective 16, special reports were prepared on an ad hoc basis; but the necessary information was not routinely made available on a timely basis, with the exception of data related to programs and activities funded under special grants.

The explanation given for this was the fact that the University is now going through a transition period in connection with its data processing and information system, which has not yet been fully implemented. Much of the accounting, as a result, has remained on a deferred basis. It is expected that the situation will be improved during the next fiscal period.

Goal Statement VIII - The PPB System at Virginia Union University will be fully operational not later than the 1976-77 academic year.

Objective 17: The system will be functioning in accordance with the blueprint, all steps having been implemented.

The entire section of this study dealing with Process Evaluation addresses itself to this objective. As has already been pointed out, the objective was not achieved.

Two critical components of an effective program budgeting system lacked implementation. Major deviations from the established timetable made it impossible for the Vice President for Business Affairs to complete the task of providing the revenue and expenditure projection in proposed budget form for the five-year period 1978-1983. In addition, failure to meet scheduled deadlines made it

impossible for the Analytical Studies Team to function at all, with the exception of sharing in the approval of planning assumptions and providing an opportunity for the Chairman of the Analytical Studies Team to sit in on budget hearings.

While the present system encompasses only academic and support service planning, future plans are to include capital outlay projections as well.

Other Findings

Findings presented to this point relate directly to an evaluation of the extent to which the process was carried out and the extent to which specifically stated objectives were achieved. Other meaningful facts were uncovered, however, during the course of the investigation. They are discussed in this section, with the hope that they will shed additional light on the current status of the system and how it might be improved.

Focus of the System

It was surprising to find at the outset how little agreement exists as to where the primary emphasis of the PPB System at Virginia Union University lies. Yet, an interview with the President revealed that he was unaware of this major division of opinion. He indicated that he felt it important for everyone to share the same basic philosophy about the system and perceived it as his responsibility to ultimately give the interpretation in the event that disagreement did exist.

PPBS is viewed by some primarily as a planning system; others see it as a management system; and still others perceive the primary emphasis as that of a budgetary system. A somewhat smaller group did not respond to the question, a probable indicator that they were unsure of where the emphasis should or could lie. These differences of opinion are reflected in Table 9. Even among the five top level administrators, there was lack of unanimity in terms of basic philosophy.

Table 9

Perceived Primary Emphasis of PPBS at VUU

Level \ Rating	Planning System	Management System	Budgetary System	No Response
Administrative Council n = 5	60.0%	40.0%	--	--
Academic Affairs Committee n = 6	50.0%	33.3%	16.7%	--
Support Service Unit Heads n = 4	75.0%	25.0%	--	--
Chairmen and Coordinators n = 23	30.4%	30.4%	34.8%	4.4%
Faculty n = 47	42.6%	27.7%	19.1%	10.6%

Perceptions of Overall Effectiveness of the PPB System

Measures of perceptions of and attitudes toward PPBS were obtained by the researcher through the use of a questionnaire. (See Appendix B.) With a possible range of scores from 30 to 150 (with 30 being the least favorable and 150 the most favorable), actual scores ranged from a low of 51 to a high of 143.

Because the range was so wide, the investigator sought to determine possible associations between the dependent variable, ratings on questionnaire, and independent variables such as level in the organizational hierarchy; school affiliation; length of time at the University; and level of understanding of basic ideas, concepts, and elements of the PPB System. For this purpose, the Mann-Whitney U-Test was used. Where samples were very small, U values were calculated and probabilities were determined from tables of critical values of U. Where the number of respondents in a group exceeded 20, a z score was computed, and the z table was used to determine the probability of such a score occurring between the two groups by chance alone.

Comparison of perceptions of and attitudes toward PPBS according to level in the hierarchy of the organizational structure.

H_0: Perceptions of and attitudes toward the Planning, Programming, Budgeting System are equally as favorable for the Administrative Council and the Academic Affairs Committee.

Applying the Mann-Whitney U-Test, $U = 0$, $p = .002$. The null hypothesis may be rejected at the .01 level.

H_0: Perceptions of and attitudes toward the Planning, Programming, Budgeting System are equally as favorable for the Academic Affairs Committee and the Support Service Unit Heads.

Applying the Mann-Whitney U-Test, U = 11; p = .457. The null hypothesis is accepted.

H_0: Perceptions of and attitudes toward the Planning, Programming, Budgeting System are equally as favorable for the Academic Affairs Committee and Support Service Unit Heads when compared with Chairmen and Coordinators.

Applying the Mann-Whitney U-Test, z = -1.666; p = .0475. The null hypothesis may be rejected at the .05 level.

H_0: Perceptions of and attitudes toward the Planning, Programming, Budgeting System are equally as favorable for Chairmen and Coordinators when compared with Faculty.

Applying the Mann-Whitney U-Test, z = -.2814; p = .3897. The null hypothesis is accepted.

The results suggest that top level administrators have a significantly more favorable overall perception of and attitude toward the PPB System than do middle level administrators. It appears also that middle level administrators perceive the system more favorably than do chairmen, coordinators, and faculty.

Comparison of perceptions of and attitudes toward PPBS according to length of time at the University. Primarily because of recent program expansion under the Advanced Institutional Development Program, approximately 25 percent of the respondents have been at the University for two years or less. Nearly 45 percent have been

affiliated with the institution for more than five years.

Coordinators were the most stable group, with nearly three-fourths of them having been at Virginia Union more than five years.

Length of time at the University did not, however, appear to be a significant variable. A comparison of those who had been at the institution two years or less with those who had been there for more than five years yielded a z score of -.9815, with a probability of .1635. On that basis, the following null hypothesis is accepted: Perceptions of and attitudes toward PPBS do not vary according to length of time at the University.

Comparison of perceptions of and attitudes toward PPBS according to school affiliation.

H_o: Perceptions of and attitudes toward PPBS are equally as favorable for directors, chairmen, coordinators, and faculty affiliated with a business or professional school and for those affiliated with the School of Arts and Sciences.

Using the Mann-Whitney U-Test, $z = -2.416$; $p = .0078$. The null hypothesis may be rejected at the .01 level.

Evidence appears to support the hypothesis that administrators and faculty in the Schools of Business Administration and Education and Psychology are more favorably impressed with the system and the effects of its implementation in general than are their counterparts in the School of Arts and Sciences.

Comparison of perceptions of and attitudes toward PPBS according to level of understanding of basic ideas, concepts, and elements.

The most significant variable found to influence overall perceptions of and attitudes toward the system was the level of understanding of basic ideas, concepts, and elements of PPBS, as indicated below.

H_o: Perceptions of and attitudes toward PPBS are not affected by the level of understanding of the basic ideas, concepts, and elements.

Applying the Mann-Whitney U-Test, $z = 5.30$; $p < .00003$.

The chances that the two groups--those who said they had an excellent or good understanding of the system and those who felt that their level of understanding was fair or poor--were drawn from the same population is extremely remote.

Only 7 percent of all respondents felt that their training related to PPBS had been very adequate, while another 32 percent felt it had been somewhat adequate. A substantial number, then, perceive the need for more adequate orientation to the system. This point was made emphatically clear by many respondents in their written comments.

One individual wrote, "Training workshops have, for the most part, been poorly planned and haphazardly executed. Frustration levels are high as a result." Other typical comments were: "More briefing sessions are needed, particularly within departments. More overall involvement of the entire faculty is needed in small group sessions."

"I am not very well acquainted with this program, but I feel the coordinator of each academic program should make us more aware of its goals and objectives."

Perceptions of Impact on the Decision Making Process

The data in Table 10 show that the opinions of the top level administrators are at great divergence with those of middle level administrators and faculty in terms of whether program plans have been used in important decision making and whether or not PPB has effected a significant redistribution of resources or produced allocation patterns which differ from those under the traditional budgeting process.

Eighty percent of the members of the Administrative Council thought the plans had been used in important decision making, as compared to only 40 percent of middle level administrators, and fewer than 36 percent of the faculty.

Sixty percent of the top level administrators thought the system had produced resource allocation patterns which differ from those under the traditional budgeting process, while fewer than one-third of the middle level administrators and faculty believed this to be true.

During the interviews, some members of the Administrative Council, the Academic Affairs Committee, and support service unit heads described their feelings as they related to this area; and several respondents wrote comments on the questionnaires.

A representative group of comments appear below:

> The process is simply an exercise which has informational advantage to me...It caused me to organize and, having gone through this process, I am in a much better position to respond to requests and to think about where we are headed. I feel that the process is a good exercise for those who generate it [the plan]; it helps them, but it is not used when important considerations are made, particularly with regard to allocation of resources. This is a part of the development process, and I hope that we will continue to develop it until the

Table 10

Perceived Impact of PPBS on
the Administrative Decision Making Process

Level \ Rating	Strongly Agree	Agree Somewhat	Uncertain	Disagree Somewhat	Strongly Disagree
Although a great many hours have been spent in preparing program plans, as far as I know they have rarely, if ever, been used in important decision making.					
Administrative Council n = 5	20.0%	--	--	40.0%	40.0%
Academic Affairs Committee and Support Service Unit Heads n = 10	50.0%	10.0%	--	40.0%	--
Chairmen, Coordinators and Faculty n = 70	18.6%	34.3%	11.4%	28.6%	7.1%
PPBS has not effected significant redistribution of resources nor produced allocation patterns which differ from those under the traditional budgeting process.					
Administrative Council n = 5	--	40.0%	--	60.0%	--
Academic Affairs Committee and Support Service Unit Heads n = 10	30.0%	40.0%	10.0%	20.0%	--
Chairmen, Coordinators, and Faculty n = 70	15.7%	38.6%	14.3%	24.3%	7.1%

> Analytical Studies Team is used, and the administration will rely on the PPB System to a greater extent in their deliberations.
>
> The concepts underlying PPBS are valid; the local approach is workable; the [institutional research] staff is very good, even though their efforts are scattered in more directions than is good for PPBS. The basic defect of PPBS, as currently practiced here, is that decisions are either not made at all or are not made with enough reference to the data base we are supposed to have accumulated.
>
> PPBS is an excellent system, but in order for it to function effectively, final decisions should be based to a greater extent upon what goes through the system.
>
> We have the capability, but we are not utilizing it. The biggest problem is the fact that we know what the basic needs of the academic program are, but it appears that some administrative decisions are not based on this knowledge.

Another comment was to the effect that without having completed the cycle, especially as it relates to the activities of the Analytical Studies Team, the administration is not receiving sufficient information and advice to enable the allocation of resources to be made on the basis of well thought out priorities.

These responses should not be taken as conclusive evidence of the fact that the administration is not influenced by the content of the comprehensive program plans. The President did relate to this researcher several specific instances where decisions were based totally on such information.

A possible explanation for the differences in opinion is the problem of communication. By and large, questionnaire respondents and interviewees indicated that too little feedback takes place in the whole process. This is stressed in the verbatim comments

which follow:

> A problem I have with PPBS is that, following meetings in which recommendations for the programs of the University are made, meetings with regard to which much creative effort has been expended, there is relatively little apparent follow-through or feedback. The net result of experience with such meetings is disillusionment and feelings of frustration. It would seem desirable that the PPB System be more openly administered, to avoid the result indicated above. There are undoubtedly good reasons for the disposition of recommendations arrived at; these need to be communicated.
>
> Lines of communication are only open from bottom upward, but not vice versa.
>
> The weakest link in the process is the mechanism for feedback. For some strange reason, you never hear about the results of your input. The process is so involved that by the time you finish one round of planning, it's time to begin the next round; perhaps this accounts for the ineffective system of feedback.
>
> There is too little feedback on PPBS progress and decision making.

Perceived Effect of PPBS on Quality of Educational Program

Basic to the success of any educational institution is the quality of its academic program. Inasmuch as this factor should be of vital concern, respondents were asked to indicate what effect the PPB System has had on the quality of the educational program. The responses have been summarized in Table 11.

Degree of Satisfaction in Terms of Efforts Expended

While all of the top level administrators are satisfied that the efforts expended in implementation of PPBS are worthwhile, only 70 percent of the middle level administrators share this satisfaction,

Table 11

Perceived Impact of PPBS
on Quality of Educational Program

Level \ Rating	Greatly Increased	Somewhat Increased	Neither Increased Nor Decreased	Somewhat Decreased	Greatly Decreased	No Response
Administrative Council n = 5	20.0%	40.0%	20.0%	--	--	20.0%
Academic Affairs Committee and Support Service Unit Heads n = 10	--	60.0%	10.0%	--	--	30.0%
Chairmen, Coordinators, and Faculty n = 70	4.3%	35.7%	38.6%	8.6%	1.4%	11.4%

and fewer than 50 percent of the faculty indicated their satisfaction. Table 12 summarizes the responses to the question: Are you satisfied that the efforts you have expended in the implementation of PPBS have been worthwhile?

Implications for the Future of PPBS at Virginia Union University

In spite of the somewhat negative perceptions of and attitudes toward the system expressed by a large percentage of the faculty, it is significant to note that more than 3/4 of them (with nearly half strongly agreeing) feel that all faculty members, regardless

Table 12

Degree of Satisfaction With Efforts Expended in Connection With PPBS

Level \ Rating	Very Satisfied	Somewhat Satisfied	Somewhat Dis-satisfied	Very Dis-satisfied	No Response
Administrative Council n = 5	80.0%	20.0%	--	--	--
Academic Affairs Committee and Support Service Unit Heads n = 10	40.0%	30.0%	30.0%	--	--
Chairmen, Coordinators, and Faculty n = 70	8.6%	34.3%	22.9%	20.0%	14.3%

of whether they have administrative responsibilities, should be involved in the PPB process. The views of administrators and faculty in this regard are set forth in Table 13.

Practically all of the top and middle level administrators and more than half of the coordinators and chairmen believe that there is sufficient expertise on our campus to make the system workable (Table 14); by and large, both administrators and faculty believe that when compared with the conventional planning and budgeting techniques, PPB is a better system (Table 15); and a majority also believe that PPBS will continue to be utilized at Virginia Union in the immediate future (Table 16).

Table 13

Involvement in PPBS of Faculty Members
Without Administrative Responsibilities

All faculty members, including those with no administrative responsibilities should be involved in the PPB process.

Level \ Rating	Strongly Agree	Agree Somewhat	Uncertain	Disagree Somewhat	Strongly Disagree
Administrative Council n = 5	80.0%	20.0%	--	--	--
Academic Affairs Committee and Support Service Unit Heads n = 10	100.0%	--	--	--	--
Chairmen, Coordinators, and Faculty n = 70	48.6%	31.4%	4.3%	10.0%	5.7%

Table 14

Availability of Expertise on Campus

Although the concept of PPBS is desirable, there is a lack of expertise on our campus to make it workable.

Level \ Rating	Strongly Agree	Agree Somewhat	Uncertain	Disagree Somewhat	Strongly Disagree
Administrative Council n = 5	--	--	--	40.0%	60.0%
Academic Affairs Committee and Support Service Unit Heads n = 10	--	10.0%	--	20.0%	70.0%
Chairmen and Coordinators n = 23	17.4%	26.1%	--	39.1%	17.4%
Faculty n = 47	14.9%	34.0%	19.2%	21.3%	10.6%

Table 15

Comparison of PPBS With
Conventional Planning and Budgeting Techniques

Compared with the conventional planning and budgeting techniques, is PPB a better system?

Level \ Rating	Much Better	Somewhat Better	Neither Better Nor Worse	Somewhat Worse	Much Worse	No Response
Administrative Council n = 5	60.0%	40.0%	--	--	--	--
Academic Affairs Committee and Support Service Unit Heads n = 10	60.0%	20.0%	10.0%	--	--	10.0%
Chairmen, Coordinators, and Faculty n = 70	21.4%	35.7%	24.2%	5.7%	2.9%	10.0%

Table 16

Prospects of Future Utilization of System

In a few years, PPBS will no longer be heard of at Virginia Union University.

Level \ Rating	Strongly Agree	Agree Somewhat	Un-certain	Disagree Somewhat	Strongly Disagree
Administrative Council n = 5	--	--	--	--	100.0%
Academic Affairs Committee and Support Service Unit Heads n = 10	10.0%	20.0%	--	40.0%	30.0%
Chairmen, Coordinators, and Faculty n = 70	12.9%	24.3%	10.0%	31.4%	21.4%

A great deal of optimism was detected during the seventeen interviews. It was obvious that all of the key administrators felt that the system had great merit, even though many felt that the value was more potential than actual. Some of the viewpoints expressed include the following, which are representative of the entire group:

> We haven't arrived yet; but we are on the way.
>
> The system is helpful in assessing problems and effectively planning solutions. Traditionally, people who feel they are not part of something complain and leave it up to someone else to effect solutions. If one is a part of the team, he becomes responsible to see what needs to be done to alleviate the problems. The system provides for step by step planning of solutions to problems of major concern to everybody in the University. They should at least be given the opportunity to participate whether they participate or not.
>
> I would like to see us get to the point where we can really utilize the Analytical Studies Team. When we get to that point in the paradigm, we will have a better feel for the extent to which this system is going to help Virginia Union. We have gone a long way. We have gotten very close to it.
>
> We have not begun to realize the full import of the system, but people are thinking and working together and seeing how the pieces all fit together. Attitudes have been developed favorable for a full blown system to become fully operative.
>
> The system has gotten many people doing things together with a sense of common purpose and common focus so we move together as a team rather than operating as a disjointed series of programs having no relationship to each other.
>
> Even though we sometimes get frustrated in the process, we still think it is the best thing for us.

Comments such as these suggest a strong commitment on the part of the key administrators to make the system work. There is no indication that this effort to fully implement the system will be abandoned.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This study has focused on an examination of the Planning, Programming, Budgeting System (PPBS) at a small, private liberal arts college. The primary purpose was to provide reliable information with regard to the overall effectiveness of the system and to make suggestions for modification of procedures and techniques.

The research was also undertaken with the hope that an exploration of procedural design and implementation, as well as the determination of probable reasons why the institution's stated objectives were or were not achieved, might provide some useful insights and information to others examining the potential consequences and implications of a program budgeting system.

The methodology involved process and performance evaluation, based on data collected through personal interviews with key administrators, a questionnaire survey of administrators and faculty (with a 100 percent response rate) and a study of relevant written documents. Unanticipated consequences were also studied. The Mann-Whitney U-Test was used to determine possible associations between ratings on the questionnaire and independent variables, such as level in the organizational hierarchy; school affiliation; length of time at the

University; and level of understanding of basic ideas, concepts, and elements of the PPB System.

Process evaluation revealed that while substantial progress had been made toward full implementation of the PPB System, two steps in the cycle had been omitted. First, although all program plans covered a five-year period, the projection of resources and expenditures was still being made on an annual basis. Secondly, the Analytical Studies Team did not function. These difficulties apparently resulted from two major causes: an unrealistic timetable for completion of activities in the planning and budgeting cycles, and the need for a more adequate information system.

Performance evaluation revealed that the utilization of program budgeting procedures had resulted in the following beneficial effects: a greater awareness on the part of administrators and faculty of University goals and objectives and a somewhat greater commitment toward their achievement, a better job of identifying program goals and objectives, improved communication and interaction among key administrators, improved coordination of institutional planning, and more realistic budget requests in terms of resources needed to achieve specific objectives.

In spite of these achievements, participation by faculty in the planning and policy making process was not as great as had been expected, and many felt that the system had not effected a significant redistribution of resources nor produced allocation patterns which differed from those under the traditional budgeting process. This is not surprising

in light of the fact that the system has not yet been fully implemented.

Perceptions of and attitudes toward the system were generally more favorable at the upper levels in the organizational hierarchy than at the lower levels. One reason for this is probably a weakness in the communication process involving feedback to participants at the lower levels.

Length of time at the University did not appear to be a significant variable. Administrators and faculty in the Schools of Business Administration and Education and Psychology were more favorably impressed as to the system and the effects of its implementation in general than were their counterparts in the School of Arts and Sciences. The most significant variable found to influence overall perceptions of and attitudes toward the system was the level of understanding of basic ideas, concepts, and elements of PPBS--the higher the level of understanding, the more positive the attitudes.

A strong commitment was found to exist on the part of key administrators to make the system work, and there was every indication that efforts toward full implementation will continue.

Conclusions

The implementation of a Planning, Programming, Budgeting System is a difficult endeavor, requiring a great deal of effort and patience. This study has disclosed both the perplexities and the potential associated with the introduction of PPB at Virginia Union University. While it has not proved to be a panacea for all problems, the system appears to have brought about substantial improvements in the decision

making process.

Although full implementation is yet to be realized and some of the desired outcomes remain to be achieved, PPBS appears, nonetheless, to be viewed by those who have experienced it as conceptually sound. There is no question that the system has encouraged a more critical evaluation of institutional mission, goals, and objectives, as well as a broader and longer range view of programs than was the case prior to the 1968 review of administrative practices and procedures.

It has posed questions which might not have been asked otherwise and forced answers that, perhaps, might not have been offered. Additionally, it has focused attention on gaps in pertinent information, which might have gone unnoticed.

Perhaps equally as importantly, it has elicited widespread concern about planning, programming, and budgeting, as evidenced by the high degree of interest expressed in this study and the 100 percent cooperation on the part of both administrators and faculty in responding to the questionnaire and interview requests.

The results of this inquiry tend to support the judgments reached by Kademani (1974) and DeWoolfson (1975). Kademani concluded that if results are to be achieved PPBS implementation must be firmly supported by management and the process must be gradual and cautious.

Similarly, DeWoolfson concluded that the more successful efforts will result from a piecemeal approach, implying an "evolutionary development," as opposed to "revolutionary modification." He anticipaged that five to ten years would be needed for extensive implementation of a PPB System.

The investigation, on the other hand, lends little support to the hypothesis advanced by Adams, Kellogg, and Schroeder (Note 1) that extensive or sophisticated planning processes, such as PPBS, are unwanted and inappropriate for institutional management in small colleges. On the contrary, a system tailored to meet the needs of a given institution can have great potential and acceptance.

Recommendations For Target Institution

Since the main purpose of this research was to provide reliable information with regard to the overall effectiveness of the PPB System at Virginia Union University and to suggest modifications in procedures and techniques, this section has been devoted to a summary of the weaknesses detected, with suggestions for improvement.

While the most significant achievements appear to have occurred in the planning and programming components of the system, alternative programs do not appear to have been generated to any great extent. In many instances, then, administrators have been presented with no option other than to accept or to reject a given proposal. Where feasible, alternatives should be prepared for the accomplishment of objectives, giving anticipated costs and anticipated outcomes for each of the proposed courses of action.

The study revealed that students have played almost no part in the system to date. In the event that the Student Government Association fails in the future to name students to the Planning and Analytical Studies Teams, some other means of selection should be considered to provide for student input.

Although it was generally agreed that all faculty members should be actively involved in the PPB process, a substantial number felt that their orientation to the process had been inadequate. Thus, some felt a sense of dissatisfaction and perceived the system far less positively than did others who had an excellent or good understanding of the process. It is imperative that each individual have a more comprehensive understanding of his or her role as it relates to PPBS.

At an early date, the basic philosophy underlying the system in terms of its major focus should be interpreted by the President to the Planning Team. All members of the Administrative Council and all academic unit heads are members of the Planning Team, and it should then be their responsibility to follow through with small group sessions within the various units to better acquaint all persons in their respective areas with the basic concepts of PPBS, how it operates, and what it is designed to accomplish for the University.

In the academic areas, directors should meet with coordinators first, to be followed by sessions for faculty held by coordinators, with the assistance of the directors, if needed. Each coordinator should be familiar with the NACUBO manual, A College Planning Cycle: People, Resources, Process.

Inasmuch as timing was a crucial factor in preventing full implementation of the system during the current fiscal year, consideration should be given to more realistic scheduling of activities. The NACUBO Model assumes a twelve-month cycle. An examination of the Planning Calendar revealed that activities were scheduled for the

period September 28, 1976 through March 22, 1977 (approximately six months). The cycle could, conceivably, be condensed into ten months with careful planning and monitoring. However, the six-month period appears overly ambitious, and with activities scheduled so close together the system has minimal chances of successful implementation in its entirety.

The Planning Calendar should be revised, with steps such as formulation of the planning assumptions and preparation of the five-year revenue projections being completed prior to mid-September. Adequate time must be provided for the accomplishment of each step in both the planning and budgeting cycles. PPB personnel are involved in too many other activities to expect them to be able to complete the entire cycle in six months and effectively carry out their other duties as well.

Improved access to computer services on campus should be given high priority, realizing that adequacy of both quantity and quality of information utilized in the process greatly influence its effectiveness. Few participants felt that their information needs were being adequately provided for.

More timely budgetary information must be provided to assure more adequate budgetary control. While it has been noted that the institution is now going through a transition period as it completes the change over from one data processing system to another, emphasis must be placed on the necessity for dissemination of accurate, timely budgetary information to all unit heads, to become effective with the beginning of the next fiscal year or as soon as is possible thereafter.

Moreover, a written statement should accompany the approved budgets sent to unit heads informing them of the official university policy which permits them to make adjustments to line items in keeping with changes in unit priorities.

The NACUBO model provides for publication and wide dissemination to faculty, staff, and students of the comprehensive plan, once it has been approved by the governing board. Whether or not the administration sees fit to adopt this procedure, there is a clear need for some type of feedback mechanism.

There is nothing in the blueprint for the process being implemented at Virginia Union University to indicate that results of the process are fed back to those who have participated at the various levels to bring the plan to fruition. Some way must be found to alleviate the perceived problem of communication and feedback so participants at the staff and faculty levels will know whether their efforts have been considered worthwhile or satisfactory, the extent to which their recommendations were accepted, and reasons for revisions in their proposed plans.

If these suggestions are followed, full implementation is likely to become a reality and PPBS will, no doubt, hold great promise for the future at this institution.

Recommendations For Others Considering Implementation of PPBS

Although this study was conducted with primary reference to a specific institution, the researcher was sufficiently impressed with the results to urge others seeking more effective resource allocation

methods to consider program budgeting.

There are several suggestions which the writer believes would be helpful to those who may be contemplating the implementation of a PPB system.

The chief executive must thoroughly understand the system and must be totally committed to it. This implies a willingness to make decisions from a new perspective involving consulting the program budget and following its logic. To do otherwise would be to risk the loss of credibility of the system and, along with that, loss of support for it.

Moreover, a climate must be created which will promote acceptance of, rather than resistance to, the system. PPBS works best in a setting where all involved in the process have some appreciation for analytical tools and techniques. Unless there is a strong belief that the system will make a positive contribution, program budgeting will probably not be a rewarding experience.

There should be a period of orientation during which the probable impact of the system is considered and discussed and faculty and staff motivation takes place. The involvement at the outset of people who will be affected by change, selling them on the merits of the system, is preferred to merely imposing the system from above without creating a favorable predisposition to its use.

Initial training of key faculty and staff members is not enough. There is a necessity for continuous orientation as new people join the organization.

Program budgeting also requires availability of adequate information. Where a new system is implemented with high expectations and an

inadequate data base exists to fulfill these expectations, dissatisfaction with the system is likely to result. To facilitate effective management, adequate relevant information must be available on a timely basis.

Finally, good communication is essential. Interaction among all segments and at all levels of the organizational hierarchy will promote success. A lack of the same will, no doubt, invite failure.

Implications For Further Research

Since the evaluation deals with a particular institution, it is difficult to know how far the observed results can be generalized to other situations. A group of institutions utilizing a similar PPB model could, however, be studied to get an overall indication of the system's effect. This would eliminate the effects of any unique factors or extreme positions, non-system related, deriving from a particular situation. The results would then have greater external validity.

A group of small, private liberal arts colleges utilizing a PPB System could be compared with a similar group of institutions without such a system to determine whether the system demonstrates a potential for a more effective and efficient decision making process.

In addition, further evaluation of this particular system should be made, once all of the steps have been implemented, to determine whether objectives have been fully attained and to determine whether the outcomes are worth the effort expended.

Reference Notes

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Appendix A

Cover Letters for Questionnaire

Box 401
Virginia Union University
Richmond, Virginia 23220
March 4, 1977

Dear

As a part of a dissertation research project at The College of William and Mary in Virginia, I am conducting a survey among administrators and faculty at Virginia Union University. The purpose of this research is to evaluate our Planning-Programming-Budgeting System. It is hoped that the results of the study will provide information which will be useful to those who have the responsibility for determining the future of the PPB System on our campus.

I know you are very busy; but the questionnaire is short, and the few minutes you give to it will contribute substantially to the accuracy and meaningfulness of this research. The data will be treated confidentially and will be reported in summary form only.

Will you be kind enough to complete the enclosed survey instrument and return it, in the addressed envelope provided for your convenience, not later than March 15.

Thank you very much for your assistance.

Sincerely yours,

Ruth C. Harris

Enclosures: 2

VIRGINIA UNION UNIVERSITY
1500 NORTH LOMBARDY STREET
RICHMOND, VIRGINIA 23220

March 4, 1977

Dear Colleague:

The enclosed questionnaire has been prepared for use in a doctoral dissertation research project at The College of William and Mary by Mrs. Ruth C. Harris. It is being sent to you with my personal endorsement.

I believe that your assistance to Mrs. Harris will be of assistance to those who have the responsibility for the implementation of the Planning, Programming, Budgeting System at Virginia Union University. I hope that you can find the time to complete the survey instrument.

Sincerely yours,

Allix B. James
President

Appendix B

PPBS QUESTIONNAIRE

Section I.

A. What is your present position at Virginia Union University?
Member of Administrative Council ___ Support service unit head ___
Academic program unit director ___ Faculty ___
Academic program chairman or coordinator ___

B. If you checked "faculty" in "A", please indicate the school with which you are affiliated.
Arts & Sciences___ Business Administration___ Education & Psychology___

C. Please check one of the following, if applicable.
Member of Planning Team ___ Member of Analytical Studies Team ___
Member of Academic Affairs Committee ___

D. How long have you been employed at Virginia Union University?
Less than one year ___ 3 to 5 years ___
1 to 2 years ___ More than 5 years ___

E. Have you attended any training or briefing sessions directly related to PPBS?
Within the past year ___ More than a year ago ___ Not at all ___

Section II.

Please check the most appropriate column for each statement below.

	Strongly Agree	Agree Somewhat	Disagree Somewhat	Strongly Disagree
1. The quality of institutional planning has improved as a result of PPBS.				
2. Since the implementation of PPBS, we do a better job of identifying the goals and objectives of our programs.				
3. Although a great many hours have been spent in preparing program plans, as far as I know they have rarely, if ever, been used in important decision making.				
4. In a few years, PPBS will no longer be heard of at VUU.				
5. The implementation of PPBS has created a greater awareness among administrators and faculty of the University's goals and objectives.				
6. The desired outcomes of our academic programs are expressed in such intangible terms that objective measurement is virtually impossible.				

	Strongly Agree	Agree Somewhat	Disagree Somewhat	Strongly Disagree
7. Because of the improved documentation and analysis required for PPB, budget requests are more realistic in terms of resources needed to achieve specific objectives.				
8. PPBS has not effected significant redistribution of resources nor produced allocation patterns which differ from those under the traditional budgeting process.				
9. Communication and interaction aimed at achieving university goals and objectives have improved as a result of PPBS.				
10. There is wider participation by faculty members in the planning and policy-making process of the University as a result of PPBS.				
11. There is a lack of understanding on the part of the faculty of what the PPB System should accomplish for the college, how it works, and who should be involved in it and how.				
12. PPBS has resulted in improved coordination of institutional planning.				
13. The academic program plans prepared as a component of PPBS are not realistic, either because of over optimism or over cautiousness.				
14. Because each academic and support service unit is basically so concerned with preserving or enlarging its own program, little, if any, meaningful program coordination across unit lines has taken place under PPBS.				
15. Although the concept of PPBS is desirable, there is a lack of expertise available on our campus to make it workable.				
16. Since the implementation of PPBS, meetings with representatives from various program areas have resulted in more effective coordination of programs.				
17. A significantly increased burden has been imposed on us as a result of numerous meetings and increased paper work required for PPB.				
18. All faculty members, including those with no administrative responsibilities, should be involved in the PPB process.				

Section III. Please check the response which best represents your feeling.

19. Compared with the conventional planning and budgeting techniques, is PPBS a better system?

Much better	___	Somewhat worse	___
Somewhat better	___	Much worse	___
Neither better nor worse	___		

20. To what extent has PPBS enabled you to learn about the University's operation and to see your own work in better perspective?

A very great extent	___	To some extent	___
A great extent	___	Not at all	___
Uncertain	___		

21. Is adequate information available to satisfy your needs in connection with your role in PPBS?

Very adequate	___	Uncertain	___	Very inadequate	___
Somewhat adequate	___	Somewhat inadequate	___		

22. Do you feel that you understand the basic ideas, concepts, and elements of PPBS at Virginia Union University?

Excellent understanding	___	Fair understanding	___
Good understanding	___	Poor understanding	___
		Do not understand at all	___

23. As a result of PPBS, do you feel a greater commitment toward achievement of the institution's goals and objectives?

Much greater	___	No change	___	Somewhat less	___
Somewhat greater	___			Much less	___

24. Has PPBS increased faculty involvement in generating alternative programs for the achievement of institutional goals and objectives?

Greatly increased	___	Somewhat decreased	___
Somewhat increased	___	Greatly decreased	___
Neither increased nor decreased	___		

25. Has PPBS increased faculty involvement in determination of the curriculum for their academic units?

Greatly increased	___	Somewhat decreased	___
Somewhat increased	___	Greatly decreased	___
Neither increased nor decreased	___		

26. Has PPBS increased faculty involvement in determination of resources needed for accomplishment of objectives?

Greatly increased	___	Somewhat decreased	___
Somewhat increased	___	Greatly decreased	___
Neither increased nor decreased	___		

27. Has PPBS resulted in more effective channels for communicating ideas to the top level administrators?

Greatly increased	___	Somewhat decreased	___
Somewhat increased	___	Greatly decreased	___
Neither increased nor decreased	___		

28. Has the planning process involved in PPBS resulted in improved quality of the academic program?

Greatly increased	___	Somewhat decreased	___
Somewhat increased	___	Greatly decreased	___
Neither increased nor decreased	___		

29. Are you satisfied with the amount of in-service training you have received related to PPBS?

Very adequate	___	Somewhat inadequate	___
Somewhat adequate	___	Very inadequate	___

30. Are you satisfied that the efforts you have expended in the implementation of PPBS have been worthwhile?

Very satisfied	___	Somewhat dissatisfied	___
Somewhat satisfied	___	Very dissatisfied	___

Any comments you might care to make on these items will be very helpful. Please use the space below for further remarks.

Thank you for your cooperation.

(Please return completed questionnaire in enclosed envelope to Mrs. Ruth C. Harris, Box 401 or to Room 103 Pickford Hall.)

Appendix C

Interview Guide

1. Do you perceive PPB as being of actual or potential value to Virginia Union University? If so, please describe what you consider to be the benefits. If not, why not?

2. Please describe your role as it relates to the PPB System at Virginia Union University.

3. What difficulties, if any, have you encountered in carrying out your duties and responsibilities in connection with PPBS?

4. What suggestions, if any, would you make for revising the PPB System at Virginia Union University?

5. Would you care to make any other comments with regard to the PPB System?

(The guide was modified as necessary to insure that the interview produced the kinds of data needed to solve the problem.)

Vita

Name: Ruth Hortense Coles Harris

Date of Birth: September 26, 1928

Place of Birth: Charlottesville, Virginia

Education:

1944 - 1948 Virginia State College, Petersburg, Virginia
Bachelor of Science degree in Business Administration

1948 - 1949 New York University Graduate School of Business Administration, New York, New York
Master of Business Administration degree in Accounting and Management

1952 (Summer) Virginia State College, Petersburg, Virginia

1965 (Summer) University of Virginia, Charlottesville, Virginia

1968 - 1969 Virginia Commonwealth University, Richmond, Virginia (part time)

1974 - 1977 The College of William and Mary in Virginia, Williamsburg, Virginia
Certificate of Advanced Graduate Study in Education
Candidate for the Doctor of Education degree in Higher Educational Administration

Professional Certification: C.P.A. Certificate, Commonwealth of Virginia, 1963