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An Analysis of Budgeting Processes and Strategies in Selected Illinois Baccalaureate Nursing Schools

Linda Cruz Agustin-Simunek
Loyola University Chicago

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AN ANALYSIS OF BUDGETING PROCESSES AND STRATEGIES
IN SELECTED ILLINOIS BACCALAUREATE
NURSING SCHOOLS

by

Linda Cruz Agustin-Simunek

A Dissertation Submitted to the Faculty of the Graduate School
of Loyola University of Chicago in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy

April

1978

Linda Cruz Agustin-Simunek

Loyola University of Chicago

AN ANALYSIS OF BUDGETING PROCESSES AND STRATEGIES

IN SELECTED ILLINOIS BACCALAUREATE

NURSING SCHOOLS

The purpose of this study was to identify, analyze, and compare the tasks, actors, structure, technology, environment, and strategies associated with the preparation, presentation, authorization, implementation and evaluation of budgets as described in the literature between 1964-1976, and as practiced in ten Illinois baccalaureate nursing schools in relation to their 1976 fiscal year budgets.

To generate data from the literature, a comprehensive review of publications on budgeting from the fields of business, management, public administration, economics, organization theory, and higher education, between 1964-1976 was undertaken. A field study of ten selected baccalaureate nursing schools in Illinois was conducted to obtain data on actual budgeting practice, through interviews with nursing administrators involved in budgeting, and the study of documents pertinent to the 1976 fiscal year budget in each school.

A comparative analysis of the literature and field study findings revealed that: (1) There are several years lag between the literature and actual budgetary processes and strategies in the schools investigated; (2) There are differences between private and public schools in the presentation and authorization of budgets; (3) All the schools investigated showed indications of compliance with statutory guidelines pertinent to allocation of resources essential for the operation of baccalaureate nursing programs; (4) In all the schools investigated, students did not formally

participate in the budgetary process; (5) Among the budgetary processes, budget evaluation received the least attention in the schools investigated; (6) There was a favorable environment for the funding of baccalaureate nursing programs; (7) The structure for the budgetary processes in each nursing school reflected the placement of the nursing program in the organizational structure of its parent institution; (8) There is a ripple toward collective bargaining in nursing schools in Illinois; (9) There is a trend toward formalized planning in the ten institutions studied; (10) There was no attention given to the education of nursing administrators on the budgetary processes and strategies within each of the institutions investigated.

Several recommendations are offered as a result of this study, including: (1) Continuing education workshops on budgetary processes and strategies with emphasis on technological approaches should be conducted by professional nursing organizations and by colleges and universities; (2) Nursing schools through interinstitutional cooperative efforts should conduct cost-analysis and cost-effective studies and develop cost standards for nursing education. Several recommendations for further study are offered including: (1) Replication of this study using a national sample; (2) Investigation of the role of administrators, faculty and students in budgeting in nursing schools and their parent institutions; (3) Investigation of the resultant effects of collective bargaining on budget preparation, presentation, authorization, implementation, and evaluation; (4) Investigation of the relationship between the formalization, configuration, centralization, standardization, and flexibility of an organization with each of the budgetary processes.

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VITA

The author, Linda Cruz Agustin-Simunek, is the daughter of the late Inocencio Grospe Agustin and Isidra Fernando Cruz. She was born July 28, 1942, in San Andres, Nueva Ecija, Philippines.

Her elementary education was obtained in the public schools of Nueva Ecija, Philippines, and secondary education at Mapa High School, Manila, Philippines, where she graduated with high honors in 1957.

In June, 1957, she entered the University of the Philippines, and, in April, 1962, received the degree of Bachelor of Science in Nursing with a major in public health nursing.

In February, 1963, she entered De Paul University, Chicago, and, in February, 1969, received the degree of Master of Science with a major in teaching in medical-surgical nursing.

She served as a delegate to the Quadrennial Congress of the International Council of Nurses, held in Frankfurt, Germany, in 1964, and in Mexico City, in 1968. In 1976, she was cited by the government of the Republic of the Philippines as "Outstanding Filipino Overseas in Education."

In 1978, she was appointed to the Illinois Committee of Nurse Examiners and to the Board of Directors of the Region Nine Health Systems Agency of Illinois. Since August, 1974, the author has served as professor and dean of the Lewis University College of Nursing, in Lockport, Illinois.

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CHAPTER I

INTRODUCTION

The fact that public and private institutions of higher education are having serious financial problems which will probably continue throughout the eighties is well documented in the recent studies of the Carnegie Commission on Higher Education and others.^{1,2,3,4} The Commission predicts the necessity of a twenty percent reduction in total institutional expenditures of higher education in 1980.⁵

Beginning about 1970, a number of factors changed which affected the financial stability of colleges and universities. Eurich and Tickton cite these factors as:

1. Inflation, at a faster rate than had been expected
2. Unemployment, causing many people to review what they were spending money for
3. Student unrest, influencing many disillusioned donors and legislators to put money elsewhere

¹Carnegie Commission on Higher Education, The More Effective Use of Human Resources: An Imperative for Higher Education, (New York: McGraw-Hill Book Co., 1972), p. 1.

²Alvin C. Eurich and Sidney G. Tickton, Long Range Planning and Budgeting at Colleges and Universities, (Washington, D.C.: Academy for Educational Development, Inc., 1972), p. 4.

³Board of Regents, Program Budgeting: Universities, (Columbus: Ohio Board of Regents, 1974), p. 15.

⁴Earl F. Cheit, The New Depression in Higher Education, (New York: McGraw-Hill Book Co., 1971), p. 5.

⁵Carnegie Commission, The More Effective Use of Human Resources, p. 1.

4. Excess space. State institutions which were abreast of their construction programs for the first time in years could now accommodate most or at least a great many of the students that private students used to enroll
5. The dip in the stock market, dampening the generous attitude of some foundations and rich donors
6. A tight federal and state budget situation
7. The surplus of Ph.D.'s and highly trained engineers and scientists
8. The actual closing of a number of colleges⁶

In the face of limited resources, the basic problem that colleges and universities must address themselves to is how best to allocate the institution's limited resources. Benacerraf and others state that:

The whole of higher education faces growing financial problems of a seriousness unprecedented since the depression of the 1930's. It is obvious that, now, as never before, every effort must be made to make effective use of available resources--both to protect educational objectives threatened by insufficient funds and to persuade possible sources of additional funds, private and public that new monies would be used widely.⁷

A similar concern was expressed in a statement embodied in a report prepared by the Illinois Board of Higher Education: "...higher education is confronted by an array of demands and constraints that signal the great need to utilize more effectively all existing resources available to this State..."⁸

The ubiquitous depression faced by colleges and universities underscores the need for educational administrators to take a new look at the primary instrument for allocating resources--the college budget.

This research investigation is concerned with the comparative analysis of budget planning processes and strategies as described in

⁶Eurich and Tickton, Long Range Planning and Budgeting, p. 4.

⁷Paul Benacerraf et. al., Budgeting and Resource Allocation at Princeton University, (New York: Ford Foundation, 1972), p. 345.

⁸Illinois Board of Higher Education, Master Plan-Phase III, (Illinois:Board of Higher Education, May, 1971), p. 3.

in contemporary literature and as practiced in the 1976 fiscal year budgets of selected Illinois baccalaureate nursing schools.

Statement of the Problem

The following questions will serve as the focal points of the study:

1. What tasks, actors, structures, technologies, environments and strategies are involved in the preparation, presentation, authorization, implementation, and evaluation, of budgets as described in contemporary literature?
2. What tasks, actors, structures, technologies, environments, and strategies were operant in the preparation, presentation, authorization, implementation, and evaluation, of the 1976 fiscal year budgets of selected Illinois baccalaureate nursing schools; individually, and in the aggregate?
3. What commonalities, similarities, and differences exist between the tasks, actors, structures, technologies, environments and strategies involved in the preparation, presentation, authorization, implementation, and evaluation, of budgets as described in contemporary literature and as operant in the 1976 fiscal year budgets of selected Illinois baccalaureate nursing schools; individually and in the aggregate?
4. What accounts for the commonalities, similarities, and differences between the tasks, actors, structures, technologies, environments, and strategies involved in each phase of the budget cycle as described in contemporary literature, and as operant in each phase of the budget cycle of selected Illinois baccalaureate nursing schools; individually and in the aggregate?

Purpose of the Study

This study will:

1. Investigate, identify, and analyze the contemporary literature on budgeting processes and strategies.
2. Investigate, identify, and analyze the operant processes and strategies underlying the 1976 fiscal year budgets of selected Illinois baccalaureate nursing schools, individually and in the aggregate.
3. Compare and contrast the budgeting processes and strategies as described in contemporary literature and as operant in the 1976 fiscal year budgets of selected Illinois baccalaureate nursing schools, individually and in the aggregate.
4. Formulate conclusions and recommendations regarding budgeting in Illinois nursing schools.
5. Identify areas for further research investigation.

Definition of Terms

1. Budget - the details of management plans for operations expressed into money units, so that the results may be projected into expected financial statements.⁹
2. Process - a series of actions or operations conducing to an end.¹⁰
3. Strategy - the science and art of employing the political, economic, psychological, social, and other forces in an organization to effect the optimal attainment of goals and objectives.¹¹

⁹William J. Vatter, Operating Budgets, (California:Woolsworth Publishing Co., 1969), p. 16.

¹⁰Webster's Seventh New Collegiate Dictionary, G & C. Merriam, Co., 1971, p. 68.

¹¹Ibid., p. 867.

3. Strategy - the art and science of employing the political, economic, psychological, social, and other forces in an organization to effect the optimal attainment of goals and objectives.¹¹
4. Budget Cycle - the continuous and iterative process of preparing, presenting, authorizing implementing, and evaluating a budget.
5. Tasks - are the things to do and for the school and its constituents; the performance variables which are generated from an organization's general reasons for existence and continuance.¹²
6. Actors - are the doers of tasks: administrators, teachers, para-professionals, students or machines.¹³
7. Structures - are the roles and positions, communication networks and work flow utilized by actors in performing tasks.¹⁴
8. Technologies - are the problem-solving inventions and developments which seek greater rationality and greater efficiency in organization life and organization functioning.¹⁵
9. Environment - the aggregate of surroundings internal and external to the school which affect its existence, i. e.: human relations of individuals and groups, community-school relations, politics of education and assorted concerns about the financing of schools.¹⁶
10. Baccalaureate Nursing School - state-approved nursing programs based in a senior college or university for the purpose of preparing professional nurses; maybe a separate school, a division, or department within a college or university.

¹¹Ibid., p. 867.

¹²J. H. McGrath, Planning Systems for School Executives: The Unity of Theory and Practice, (San Francisco: Intext Educational Publishers, 1972), p. 49.

¹³Ibid., p. 91; ¹⁴Ibid., p. 65; ¹⁵Ibid., p. 138 ¹⁶Ibid., p. 159

11. Nursing School Administrator - the chief administrative officer of a nursing school; may carry the title of dean, director, chairman, or, coordinator.

Significance of the Study

This study will:

1. Provide nursing school administrators with an updated and organized reference to the contemporary literature on processes and strategies related to the preparation, presentation, authorization, implementation, and evaluation of school budgets.
2. Provide a means of sharing budgeting processes and strategies of selected Illinois baccalaureate nursing school administrators.
3. Provide practical and useful recommendations to improve budgeting processes and strategies in nursing schools.
4. Generate recommendations for further research investigation.

Limitations of the Study

The following delimit the study:

1. Only ten out of sixteen baccalaureate nursing schools were included in the population studied.
2. Only the nursing school administrators who were involved in the preparation of the nursing school's 1976 fiscal year budget and still employed in the same institution in a teaching or administrative capacity at the time of the study were included in the study sample.
3. One of the schools included in this study was administered by this researcher.

4. The review of the literature was limited to the period covered by the years 1964-1976.
5. The weaknesses inherent in the use of the interview technique.

Research Procedures and Methodology

The research procedures that were used in this study included:

1. A review of related literature.
2. Selection of the study sample.
3. Developing and pre-testing the interview guide.
4. Field study of selected nursing schools utilizing a modified case study approach which involved site visits to the sample schools.
5. Collection of data.
6. Presentation and analysis of data.
7. Summary, conclusions, and recommendations.

Review of the Literature

A comprehensive review of the literature on budgeting processes and strategies was conducted. For the purposes of this study, the literature search was limited to the years between 1964-1976. This time frame was selected because the "dollar squeeze" which confronted higher education in the mid-sixties triggered the search for less costly methods for meeting institutional responsibilities as evidenced in the increased attention given to budgeting processes and strategies within the last decade.¹⁷ Since the focus of the comparative analysis in this study is the 1976 fiscal year budgets of nursing schools, limiting the review of the liter-

¹⁷John Lombardi, "Meeting the Financial Crisis," New Directions for Community Colleges, 2 (September, 1973), pp. 110-111.

ature provides a uniform baseline for comparison between the literature and actual budgeting practice.

The purpose of the literature review was: to expand upon the context and background of the study; help further define the problem, and, to provide a framework for the subsequent analysis of data collected from the field investigation of selected nursing schools.

Some of the sources that were investigated were books and monographs, journal and periodical articles, dissertations, government reports and unpublished manuscripts. Relevant books and monographs were located through the card catalog in the library particularly as referenced by subject. Journal and periodical articles relevant to budgeting were identified through index sources such as the Education Index (N. Y.: W. H. Wilson Co., 1929) and the Reader's Guide to Periodical Literature (N. Y.: W. H. Wilson Co., 1901), each of which indexes by subject.

Additional sources of journal references used were abstracting journals, reviewing journals, e.g.: Review of Educational Research (Washington, D.C.: American Educational Research Association, 1931) and Current Index to Journals in Education, (N.Y.: CCM Information Corp., 1969). A computerized search of ERIC and DATRIX listing of articles and dissertations greatly facilitated the identification of publications relevant to budgeting.

The Study Sample

The population from which the sample for this study was selected was the 1975-77 listing of state-approved baccalaureate nursing schools and their respective administrators, issued by the Nursing Division of the Illinois Department of Registration and Education.

The administrators in the list who met the following criteria were selected for the study:

1. The administrator must have been involved in the preparation, presentation, implementation, and evaluation of the nursing school's 1976 fiscal year budget.
2. The administrator must at the time of the study still be employed in the same nursing school in an administrative or teaching capacity.
3. The administrator must be willing to participate in the study.

A survey of baccalaureate nursing school administrators conducted during the October, 1977 meeting of the Illinois Council of Nursing Deans held in Chicago revealed that ten schools had administrators who qualified and were willing to participate in the study. The school administered by this researcher was included in the study sample because at the time this study was conducted, it had the only nursing program in the state whose faculty was organized for collective bargaining.

The Interview Guide

The interview was the technique chosen to obtain relevant data on the processes and strategies involved in the preparation, presentation, implementation, and evaluation of the 1976 fiscal year budgets of the schools studied. Since the budget is the responsibility of the chief administrative officer of the nursing school, the nursing school administrator served as the respondent for the interview.

Developing the Interview Guide

An initial review of the literature resulted in the identification of four processes in the budget cycle: (1) preparation, (2) presen-

tation, (3) authorization, (4) implementation, and (5) evaluation.¹⁸ It also resulted in the identification and selection of McGrath's "General Model of an Organization Systems Network."¹⁹ This model provides for the holistic view of an organization, and facilitates the appropriate focus on components and their interactions within the domain of school administration. This model which is comprised of five components--tasks, actors, structure, technology and environment--was used as the framework for developing questions pertinent to each of the four processes in the budget cycle. The interview guide was developed from this framework.

The guide listed in the desired sequence the questions that were asked during the interview. An attempt was made to design the interview guide to achieve a semi-structured level of questioning. A series of structured questions were developed. Additionally, open-ended questions were included to enable the interviewer to probe more deeply and to obtain more complete data.

In constructing the questions included in the interview guide, the following criteria suggested by Isaac and Michael were considered:

1. Is the question related to the research problem and objective?
2. Is the type of question the right and appropriate one?
3. Is the item clear and unambiguous?
4. Is the question in any way leading?
5. Does the question demand knowledge and information that the respondent does not have?
6. Does the question demand personal or sensitive information that the respondent might resist?
7. Is the question loaded with social desirability?

¹⁸Stephen J. Knezevich, A Resource Allocation Decision System for Budgeting: Program Budgeting, (PPBS), Berkeley, California: McCutchan Publishing, 1964), p. 113.

¹⁹McGrath, Planning Systems, pp. 3-5.

8. Does the question have construct validity--that is, does it measure what it intends to measure?²⁰

A tentative interview guide was constructed based on the above criteria.

Pre-testing the Interview Guide

Four pilot interviews with nursing administrators who did not participate in the study were conducted to identify the strengths and weaknesses of the interview guide, and, to assess the effectiveness of the interview technique in generating desired data. Additionally, problems related to recording the interview and the subsequent translation and coding of data gathered during the pilot interviews.

The interviewees were enthusiastic about the study and gave helpful suggestions on phrasing questions. The interview time was pared down from three hours to one hour as a result of the pilot interviews.

Validating the Interview Guide

Based on the consistency of the nature of the answers given by the respondents during the pilot interviews, it was concluded that the content of the interview guide had construct and content validity. A final interview guide was constructed with editorial revisions and was further validated by a jury of experts in budgeting consisting of:

(1) the dean of the College of Business of Lewis University, (2) the vice-president for business affairs of Lewis University and (3) the vice-president for the Glen Ellyn Campus of Lewis University. They concurred that the questions generated the desired data for this research study. A copy of the interview guide is shown in Appendix A, pp.

²⁰Stephen Isaac and William B. Michael, Handbook in Research and Evaluation, (California: Robert R. Knapp, 1972), pp. 82-84.

Modified Case Study of Selected Schools

A modified case study approach was utilized in the field study of selected schools. Isaac and Michael describe case studies as:

...in-depth investigations of a given social unit resulting in a complete well-organized picture of that unit. Depending on the purpose, the scope of the study may encompass an entire life cycle or only a selected segment; it may concentrate upon specific factors or take in the totality of elements and events.²¹

The locus of investigation in this study was the baccalaureate nursing school. The aspects of the nursing school operation that were investigated were the preparation, presentation, implementation, authorization, and evaluation of the nursing school's 1976 fiscal year budget. The organizational elements that were focused upon were the actors, tasks, structures, technologies, environments, and strategies involved in each phase of the budget cycle.

The modified case study approach revolved around activities that were carried out prior to, during, and, after the site visit of sample schools.

Pre-visit activities included: (1) Setting up and confirming interview dates and arrangements with the nursing school administrator, (2) Obtaining and studying relevant documents, i.e., school bulletin, accreditation reports, organizational charts, job descriptions, faculty minutes and budget documents. The purpose of studying the school bulletin was to familiarize the researcher with the history, mission, philosophy, and objective of each nursing school and its parent institution.

Activities during the site visit included: (1) Conducting a taped interview based on the validated interview guide, (2) Content

²¹Isaac and Michael, Research Handbook, p. 20.

tent analysis of relevant documents such as: job descriptions, organizational charts, budget manuals, accreditation reports and budget documents. The purpose of the study of relevant documents was to validate data gathered during the interview and to obtain data not generated during the interview.

Post-visit activities included: (1) Transcribing the taped interviews, (2) Coding and summarizing the data gathered from the interview transcripts, content analysis of relevant documents, (3) Mailing copies of the transcribed interview to participating administrators and obtaining feedback and additional data needed, within two weeks of the mailing date, and, (4) Revising coded and summarized data as indicated by feedback from the respondents.

Data Collection

The data necessary for this study were collected through the review of related literature, interviews with selected nursing school administrators and content analysis of relevant documents. To facilitate the analysis of data collected from this study, the findings from the literature and field study were summarized in tabular forms.

Data Presentation and Analysis

The data generated by the review of the literature, the field study and content analysis of relevant documents were synthesized and presented in tables. An analysis of the findings was carried out to answer the focal questions raised in this study.

Summary, Conclusions, and Recommendations

The findings of the study were summarized and pertinent conclusions and recommendations for further research investigation were presented.

Organization of the Study

This study is organized into five chapters:

Chapter I, the introduction, presents the problem to be studied and provides background for the study. It delineates the purpose of the study, defines the operational terms for the reader, discusses the significance of the study to educational administrators, outlines the research procedure and methodology, and comments on the limitations of the study.

Chapter II reviews the literature related to budgeting processes and strategies with special emphasis on budgeting in higher education. A review of related research literature is included. A summary of the findings are presented in a table at the end of this chapter.

Chapter III presents the data gathered from the field study of selected schools. The findings related to the processes and strategies utilized by the nursing school administrators in budgeting for 1976-77 are presented in modified case studies of the ten schools. The field study findings are summarized in tables at the end of this chapter.

Chapter IV presents a comparative analysis of the budgeting processes and strategies as described in contemporary literature and observed during the field study. An explanation of what accounts for the commonalities, similarities, and differences among the individual schools and as compared with the literature description of budgeting processes and strategies is included.

Chapter V summarizes the findings, lists conclusions and offers recommendations for further research investigation.

CHAPTER II

REVIEW OF RELATED LITERATURE

The review of the literature expands the context and background of the study, and serves as a framework for the analysis of findings from the field study. Ideas, concepts, theories, and research study findings on budgetary processes and strategies as presented by theorists and practitioners in the fields of business, management, public administration, economics, organization theory, and higher education within the years 1964-1976 are reviewed and synthesized.

In the first part of this chapter, an overview of theoretical perspectives on budgeting including budget definitions, budget functions, and the budgetary processes are offered. Additionally, historical perspectives and research studies related to budgeting in higher education in general, and, in nursing education in particular, are presented.

To generate the data that serve as the framework for the comparative analysis between the literature and actual practice of budgeting, the second part of this chapter focuses on the organizational elements of tasks, actors, structure, technology, environment, and strategies, associated with the processes of budget preparation, presentation, authorization, implementation, and evaluation.

Theoretical Perspectives and Research
Studies on Budgeting

This section expands on the background and context of the

study by presenting an overview of theoretical perspectives on budgeting with an emphasis on: (1) budget definitions, (2) budget functions, (3) budgetary processes, (4) historical perspectives on budgeting in higher education, and (5) historical perspectives on budgeting in nursing education. Research findings, if any, related to each of these areas are also presented.

Budget Definitions

Steiner gave the following account on how the word budget came about:

The word budget is derived from the French bougette, meaning a leather bag or briefcase. In the last century the British Chancellor of the Exchequer was in the habit of presenting tax needs for the coming year by opening his briefcase before the House of Commons. About 1870 the word budget attached to the paper he withdrew from his bag.¹

Various definitions of a budget were offered by Wildavsky, Cotton, and Steiner including the following:

1. A device for comparing what is being done with the estimates of what should be done
2. An accounting technique to control costs through people
3. A forecast which tells a manager whether or not the predetermined level of efficiency is being maintained
4. A forecast which tells a manager where he is likely to be
5. A coordinated plan of action for an organization
6. A financial plan that serves as a pattern for control
7. A financial plan that serves as a systematic plan for using manpower, material, or, other resources
8. A plan covering all phases of operations for a definite period in time
9. A formal expression of policies, plans, objectives, and goals laid down in advance by top management for the concern as a whole and for each subdivision thereof
10. An operations plan expressly for coordination of resource

¹George A. Steiner, Top Management Planning, (London: Collier-Macmillan Ltd.) 1969, p. 294.

acquisition and use, reflecting the comprehensive plan and particular program governing it, and generally focusing upon the short range interval

11. A link between financial resources and human behavior
12. A network of communication
13. A strategy
14. Mutual obligations and control
15. A series of goals with price tags
16. An instrument for ensuring efficiency
17. A political act²

The various definitions attached to a budget emphasize its future orientation, concern for systematic planning, and the allocation of resources among competing resources.

Budget Functions

According to Steiner, budgets can serve as instruments for planning, coordinating and controlling.³

The Budget as an Instrument for Planning

The Ohio Board of Regents describes the planning function of the budget by referring to the budget as:

- ...nothing but the institutional plan expressed in monetary terms
- ...a scheme for allocating resources under the guidance of explicitly formulated judgements of value in a way which maximizes the productivity of programs.⁴

Ackoff's outline of the parts of a plan vividly demonstrates

²Aaron Wildavsky, The Politics of the Budgetary Process, (New York: Little, Brown and Co., 1964), pp. 1-5 as cited by William Federsen, "Developing Criteria for Evaluating Budgeting in Public Community Colleges," (Ed. D. dissertation, Columbia University, 1973), p.31; Donald Cotton, Company-Wide Planning: Process and Practice, (New York: Macmillan Co., 1970), p. 136; Steiner, Top Management Planning, pp. 294-295.

³Steiner, *Ibid.*, p. 297.

⁴Ohio Board of Regents, Planning: Universities (Columbus, Ohio: Board of Regents, 1973) p. 19.

the relationship between planning and budgeting. Ackoff posits that a plan consists of:

1. Ends - specification of objectives and goals
2. Means - selection of policies, programs, procedures, and practices by which goals and objectives are to be pursued
3. Resources - determination of the types of amounts and resources required, how they are to be generated or acquired, and how they are to be allocated to activities
4. Implementation - design of decision-making procedures and way of organizing them so that the plan can be carried out
5. Control - design of a procedure for anticipating or detecting errors in or failure of, the plan and for preventing or correcting them on a continuing basis⁵

It is highly evident from the above outline that the allocation of resources — budgeting, is part of the planning process, but, not all of it. By virtue of its nature as the scheme for allocating resources, the budget serves as the cutting edge of planning.

The Budget as an Instrument for Coordination

According to Litterer, coordination "principally concerns the relationships between tasks or activities which must fit both form and time into an integrated accomplishment of some overall goal or purpose."⁶

In this context, the budget serves as an instrument for coordination in the sense that it specifies what resources — manpower, facilities, money — are available at a given point in time.

The Budget as Instrument for Control

Control is a multidimensional term which is closely related to

⁵Russell L. Ackoff, A Concept of Corporate Planning, (New York: Wiley-Interscience, 1970), p. 6.

⁶Jospeh A. Litterer, The Analysis of Organizations, 2nd. ed. (New York: John Wiley & Sons, Inc., 1973), pp. 447-455.

coordination and planning. Litterer perceives control as being concerned not only with events directly related to the accomplishment of major purposes but also maintaining the organization in a condition in which it can function adequately to achieve these major purpose. He identifies three types of control practices differentiated on the basis of the time relationship between the controlling effort and the act being controlled.

These control practices consist of:

1. Precontrol - when the controlling effort takes place prior to the act. Much precontrol is concerned with avoiding or preventing undesired things from occurring, and frequently this means eliminating, removing the possibility of, or in some way preventing an undesired act from taking place.
2. Current control - is concerned with the adjustment of performance still taking place in order to achieve an objective or standard. Current control is likelier to consist in a person or machine making its own adjustment than to have some outside influence becoming involved with control, as usually occurs with precontrol.
3. Postcontrol or evaluation - occurs when there is an effort to check on whether events did come out as desired. It involves checking after the fact, which means that information may be gathered regarding where people stand, but may not permit any corrective action to take place in regard to the performance completed. It provides an opportunity to evaluate and adjust the parameters of the system for future operations⁷

The control function of the budget is best described by Steiner in the following paragraph:

Budgets provide a powerful means for managers to discharge their responsibilities in controlling performance. Budgets set standards from which actions can be measured. Reporting systems, evaluation techniques, and performance measures usually associated with budget operations permit managers to manage by exception.⁸

⁷Ibid., p. 529.

⁸Steiner, Top Management Planning, p. 299.

Research Studies Related to the
Functions of the Budget

Among the studies done on budget functions were investigations conducted in business and local government. Three of these studies are presented here:

Cone's Study on the Budget as an Instrument for Managerial Planning

Cone's study was aimed at finding out how the budget works in practice, and restate budget theory as reflected in current literature.

Among the research findings and conclusions made by Cone were:

1. The budget is of greater assistance to planning than to control, contrary to popular academic notions
2. Its full potential for resource planning and communication is not being realized
3. Budgeting needs to be continuous. Planning should be continuous and budgeting is an integral part of the planning process
4. There are serious rigidities and bias toward "business as usual" in budget practice
5. Major gaps or lack of depth exists in the literature in areas such as budget review, lead time, standards, pricing, pre-control and post-control activity, dollar variance problems, budget change process and multiple company budget operations
6. While planning activities are integrated through budget activity, control activities and information are not
7. Budget responsibility and subsequent reporting may need reassignment
8. A great need exists for more and better training and education in the budgetary role, concepts, preparation, use and the human relations involved⁹

Dunbar's Study on Interaction Between Budgets and People

Focusing on the consequence of budgetary control mechanisms for the beliefs and behavior of organization members, Dunbar conducted a study comparing the effects of "goal budgets" and "constraint budgets".

⁹Paul R. Cone, "The Budget as an Instrument of Managerial Planning and Control," (Ph. D. dissertation, University of California, Los Angeles, 1964.)

Goal budgets set a goal for the amount of incoming resources the individual is responsible for to insure the organization receives. Constraint budgets set limitation on the funds which the individual may spend in his particular organizational sub-unit. Dunbar's study revealed that for both types of budgets, the improved performance is contingent on the acceptance of the budget by the budgeted individual.¹⁰

Friedman's Study on Budget Function in Selected Cities

As part of a larger study of municipal credit ratings, Friedman analyzed information about budget making patterns for the 1974 fiscal year, obtained from a questionnaire sent to the chief budget officers of 88 cities throughout the United States with populations of 50,000 and over. The existence of control, management and planning systems of budgeting were measured by the organizational arrangements associated with the preparation, adoption and implementation of the city budget ordinance. The particular institutional practices that served as operational indicators of each approach were suggested by the general literature on governmental budgeting as those most closely identified with one budgetary purpose or another. Friedman's study revealed that among the 88 cities:

1. Control budgeting which seeks to assure fiscal accountability and limit spending discretion was most prevalent
2. Management budgeting which is concerned with the operational direction of the bureaucracy and the efficient delivery of services to the community was next most frequently employed
3. Finally, planning, which seeks to utilize the budget as a vehicle to decide among alternative courses of action and is closely associated with the movement for a planning, programming, system is least evident

¹⁰Roger L. M. Dunbar, "Some Characteristics of the Interaction Between Budgets and People," (Ph. d. dissertation, Cornell University, 1970.)

Friedman also made the observation that the three budget making approaches are complementary and that although complementary and compatible, the three patterns are not necessarily co-equal.¹¹

The Budgetary Processes

The development of a budget plan involves a series of actions or operations which Knezevich describes as a time consuming process with specific phases of a cyclical nature related to its development¹² including:

1. Preparation of the budget document, usually an executive responsibility
2. Presentation of the prepared document usually to a legislative or regulative body such as a school board or a board of trustees; submission of the plan for resource procurement and expenditures for a given fiscal period is likewise an executive function.
3. Adoption or authorization for implementation of the budget; typically a function of a board of control or legislative body, but such legislative actions are not meaningful until appropriation are made for each segment on the budget and approval registered for the revenue or resource procurement plan
4. Administration or execution of the authorized budget; an executive act. (In this paper, this process will be referred to as implementation.)
5. Appraisal or evaluation of the budget document; a combined executive legislative activity with primary responsibility resting with the legislative body which assesses how well the resource procurement plan was fulfilled and how carefully resource expenditures followed those planned earlier and approved¹³

For the purpose of this study, these phases of the budget cycle preparation, presentation, authorization, implementation and evaluation,

¹¹Lewis C. Friedman, "Control, Management and Planning: An Empirical Examination," Public Administration Review, (November/December, 1975) pp.625-628.

¹²Knezevich, PPBS, p. 113.

¹³Ibid.

will be synonymous and used interchangeably with the term "budgetary processes."

Analyzing the basis for the preparation of a budget document and the time plan for producing the budget document will greatly enhance one's understanding of the budgetary processes. At this juncture, the budget document and the budget calendar are briefly looked at.

The Budget Document

The budget document is a synthesis of three significant factors: (1) the educational plan, (2) the expenditures plan, and (3) the financing plan. The educational plan is an expression of educational objectives to be satisfied and related activities. The realization of the educational plan calls for the generation of an expenditures plan. The revenue plan relates to the procurement of resources to liquidate liabilities incurred in the expenditure process.¹⁴

The Budget Calendar

The budget calendar is the time plan and strategy for producing the budget document. It is the period of time allotted for the completion of a budget cycle. It ranges from six months to a year or more of preparation before adoption and execution of the budget.¹⁵

¹⁴Ibid., p. 114.

¹⁵Ibid.

Budgeting in Higher Education:
Historical Perspectives

In the field of education, the budget is considered as the fiscal translation of the educational program. The varied and changing approaches to the fiscal translation of the educational program was succinctly described by Schick in postulating that the budget reform in education took on the following stages: (1) an underdeveloped and non-standardized budget format, (2) the object-of expense budget format, (3) function-object format, and (4) the program budget format with system analysis.¹⁶

Knezevich cites that historically, "the establishment of budgeting in the United States came with the passage of the Budget and Accounting Act of 1921, which took place about 100 years after the adoption of governmental budgeting in Britain."¹⁷

Knezevich's comparison of essential characteristics of the three types of budgets will enhance one's understanding of the evolution of the budget from a traditional or object-of-expense format in the 1930's, and to the program budget format characteristic of the 60's, and is presented below:

1. Primary Mission of the Budget

Traditional	-	Disciplined expenditures control
Performance	-	Work-cost data accumulation and expenditure control
Program	-	Fiscal implications of objectives attainment of data and expenditures control

¹⁶Allen Schick, "The Road to PPB: The Stages of Budget Reform," Public Administration Review, 26 (December, 1966) pp.243-258.

¹⁷Knezevich, PPBS, p. 112

2. Primary Concern of Budget Officers

- Traditional - Safeguarding funds for assigned uses; stewardship and protection of fiscal resources
- Performance - Gathering information on costs of various functions or work process in organization
- Program - Determining relationship between objectives and expenditures for each alternative

3. Perception of the Budget as Fiscal Instrument

- Traditional - Instrumental for fiscal control
- Performance - Instrument for cost-analysis and efficient promotion
- Program - Instrument for planning and analysis needed for resource allocation decisions

4. Prime Roles for Budgetary Agency and Officials

- Traditional - Fiduciary-fiscal tool developments; responsibility for fiscal control operations or items
- Performance - Maintenance of efficiency processes, activities or work
- Program - Fiscal definition of purposes of resources allocated

5. Budgetary Processes Stressed

- Traditional - Execution and appraisal
- Performance - Preparation and execution
- Program - "Pre-preparation" preparation and appraisal

6. Budget or Fiscal Elements of Major Importance

- Traditional - Uniform classification of receipts and expenditures
- Performance - Prorating procedures: cost accounting systems and unit cost analysis; what it "costs" to furnish services
- Program - Cost-effectiveness analysis; benefits received for resources consumed

7. Classification Unit Basic Budget Emphasizes

- Traditional - Expenditure objects; line items
- Performance - Costs organized in terms of functions or activities
- Program - Fiscal data organized in terms of programs; programmatic structures related to objectives or target groups

8. Duration of Budget Period

- Traditional - One fiscal period only (single fiscal year planning)
- Performance - One fiscal period only (single fiscal year planning)
- Program - At least one and as many as five fiscal periods (multiyear fiscal planning)

9. Budget Execution Emphasis
- Traditional - Tactical-operational activities
 Performance - Tactical-managerial functions
 Program - Strategic planning and administration
10. Operational Skills Emphasized
- Traditional - Technical fiscal operations (accounting and auditing)
 Performance - Supervisory activities for 2nd and 3rd echelon
 Program - Leadership and executive (top-echelon) level skills in program planning
11. Focus on Implementation Skills
- Traditional - Accounting and auditing activities
 Performance - Efficiency computations; unit cost analyses studies
 Program - Economics and systems analysis techniques (quantitative analysis)
12. Disciplines Contributing Most to Budget Development
- Traditional - Accounting
 Performance - Engineering (efficiency) or administration
 Program - Economics and Systems Analysis
13. Information Focus or Important Units Within Budget
- Traditional - Items of Expenditures
 Performance - Processes or work functions
 Program - Performance or measurable objectives
14. Approach Used to Arrive at New Cost Estimates
- Traditional - Incremental (amount requested over previous year's budget)
 Performance - Incremental
 Program - Zero-base (justification of total new resource requests)
15. Planning Emphasis in Budget Development
- Traditional - Assuring that estimated expenditures do not exceed estimated receipts for fiscal period; "balanced budget" concept
 Performance - Ascertaining unit costs for various functions or work; costs of work accomplished
 Program - Developing expenditure proposals in light of objectives

16. Budgeting Output

- Traditional - Fiscal control
- Performance - Work efficiency determination
- Program - Prudent resource allocation

17. Criterion Used for Appraisal of Budget Decisions

- Traditional - How resources planned for various activities actually used
- Performance - Frequency of use of most efficient functions or lowest cost activities
- Program - Quality of alternatives generated and frequency of selecting desirable alternatives as determined by cost-effectiveness analysis

18. Relationships of Prime Concern

- Traditional - Between planned and actual expenditures and receipts
- Performance - Between activity accomplished and costs incurred for doing work
- Program - Between programs (activities related to objective) and fiscal implications¹⁸

The budget reform movement toward program budgeting was attributed by Knezevich to such factors as: the growing complexity of educational institutions, the scarcity of resources available for educational programs, and the growing public demand for evidence of what results can be expected for increased fiscal inputs, all of which became evident in the 1960's.¹⁹

Knezevich emphasizes that the program budget was conceived as a vehicle for national policy making by providing data on benefits and costs of various alternatives and is distinguished by the following

¹⁸Ibid., pp. 136-138.

¹⁹Ibid., p. 144.

features:

1. Statement of objectives within the budget document
2. A programmatic format for budget exhibits
3. Expenditures aggregated around program elements and categories
4. Benefits and costs exhibited for major programs
5. Multiyear costing of new program expenditures
6. Data organized to facilitate resource allocation decisions²⁰

Research Study Related to Historical Development of Budgeting

A study that was specifically designed to trace the development of budgeting practices in the Baltimore public schools between 1930 and 1966 was conducted by Kiser to determine the extent to which the 20th century aspects of scientific management corresponded to these budgeting arrangements. Kiser noted that of 22 concepts of scientific management considered in his study, 13 or 60 percent eventually corresponded to school budgeting arrangements. He reported that most concepts appeared in school fiscal practice between 1950-1966. Kiser's findings revealed that the correspondence between all the relevant scientific management concepts and school budgeting practices became apparent for efficiency concepts in five decades; for human relations concepts in two decades and for the systems concept in one decade.²¹

Budgeting in Nursing Education: Historical Perspectives and Related Research

A search of the literature on budgeting in nursing education

²⁰Ibid., p. 144.

²¹Chester L. Kiser, "Analysis of School Budgeting Practices in a Large City," (Ed.D. dissertation, Stanford University, 1967).

revealed that within 1964-1976, no studies in this area have appeared in nursing journals or other publications. There appears to be no research study done specific to nursing schools prior to this investigation. However, historical developments related to the movement of nursing education into higher education, and events which influenced the sources of funding for nursing education were described in the literature. The most significant developments are described here since they are essential to the understanding of budgetary processes and strategies used in nursing schools. To facilitate the reader's appreciation of these events, a general background on nursing education is presented first.

An Overview of Nursing Education

Unlike many professions, nursing has a variety of programs for basic or preservice education. Kelly describes three routes of preparation for licensure and practice as a registered nurse: (1) diploma programs operated by hospitals, (2) the baccalaureate degree programs offered by four year colleges and universities, and (3) the associate degree programs offered by junior community colleges.²²

At one time, diploma schools educated the largest number of nurses. Over 72 percent of the total number of schools in 1964 were diploma programs. The consistent movement of nursing programs into higher education is evidenced by the following statistics: between 1968 and 1972, associate degree programs increased by 211 to 541,

²²Lucie Young Kelly, Dimensions of Professional Nursing, 3rd. ed. (New York: Macmillan Publishing Co., 1975), pp. 165-173.

baccalaureate programs increased to 293, and diploma programs decreased by 84 to 543.²³

The first baccalaureate program in nursing was established in 1909 under the control of the University of Minnesota. Since then, baccalaureate programs have become an increasingly important part of nursing education. By 1974, according to National League for Nursing records, there were 574 associate degree programs, 305 baccalaureate, and 494 diploma programs.²⁴

State approval is required and national accreditation is available for all basic programs. Every school of professional nursing must meet the standards of the legally constituted body in each state authorized to regulate nursing practice and education in that state.

In Illinois, minimum standards for professional nursing education are embodied in the "Rules and Regulations for the Administration of the Illinois Nursing Act", and include requirements related to:

1. Accreditation of colleges or universities by the North Central Association of Colleges and Secondary Schools
2. The organization and administration of the nursing education program
3. Faculty qualifications
4. Nurse administrator qualifications
5. Faculty workload
6. Physical facilities for instruction
7. Students
8. Curriculum

²³Carrie Lenburg, "Educational Preparation for Nursing - 1972," Nursing Outlook, 21 (September, 1973), p. 586.

²⁴Kelly, Dimensions of Professional Nursing, p. 173.

9. Records and reports
10. Evaluations
11. Cooperating agencies²⁵

National accreditation is available through the National League for Nursing (NLN). Accreditation by the League is a voluntary matter, not required by law. Guidelines for accreditation are directed at the same criterion measures stipulated by the State. Increasing numbers of schools seek accreditation because it represents nationally determined standards of excellence.

This research investigation focuses on the baccalaureate degree programs in nursing where a student enrolled in a program obtains both a college education culminating in a bachelor's degree and preparation for licensure and practice as a registered professional nurse.

The baccalaureate degree program includes three types of courses: (1) general education and liberal arts, (2) the science germane to and related to nursing, and (3) nursing courses themselves. In some programs the student is not admitted to the nursing major and therefore has no nursing course per se, until the conclusion of the first two years of college study. In other nursing programs nursing content is interwoven throughout the entire four years.²⁶

A combination of historical developments influenced the movement of nursing education into institutions of higher education. Foremost among these were: (1) The National Commission for the Study of Nursing's investigation of nursing education on a national basis in 1963,

²⁵"The Illinois Nursing Act, Ill. Revised Statutes 1975" Illinois, 1976.

²⁶Kelly, Professional Dimensions of Nursing, p. 173.

(2) The American Nurses Association's Committee on Nursing Education's Paper of 1965, (3) Passage of the Nurse Training Act of 1964 (Title VIII of the Public Health Service Act), and (4) The adoption by the Illinois Board of Higher Education of the Illinois Implementation Commission on Nursing's (IICON) blueprint for nursing education.

The investigation of nursing education on a national basis was undertaken as a spinoff from a document "Toward Quality in Nursing" issued by the Surgeon General's Consultant Group on Nursing.²⁷ The final report the national commission's recommendations appeared in a book title "An Abstract for Action" referred to as the Lysaught Report.²⁸

The Commission held that change in nursing could be visualized in terms of four basic priorities:

1. Increased research into the practice of nursing and the education of nurses
2. Improved educational systems and curricula based on the results of research
3. Clarification of roles and practice conjointly with other health professions to ensure the delivery of optimum care
4. Increased financial support for nurses and for nursing to ensure adequate career opportunities that will attract and retain the number of individuals required for quality health care in the coming years²⁹

The ANA's Committee on Nursing Education's Paper of 1965 recommended that "minimum preparation for beginning professional

²⁷Surgeon General's Consultant Group on Nursing, "Toward Quality of Nursing," (Washington, D.C. Government Printing Office: U.S. Public Health Service), 1963.

²⁸Jerome P. Lysaught, An Abstract for Action, (New York: McGraw Hill Book Co.), 1970.

²⁹Ibid., p. 155.

nursing practice should be baccalaureate degree in education."³⁰

The Nurse Training Act of 1964 was promulgated to increase the number of nurses through financial assistance to nursing schools, students, and graduates taking advance courses and thus help to assure more and better schools of nursing, carefully selected students, a high standard of teaching and better health care for the people. The Nurse Training Act provided \$287.6 million for a five-year program and was signed into law by President Lyndon B. Johnson on September 4, 1964. Subsequently, aid to students and schools of nursing were continued for two years under Title II of the Health Manpower Act of 1968. The enactment of the Nurse Training Act of 1971 was expanded and extended federal aid to nursing education until June 30, 1974, and has been consistently extended by Congress every two years.³¹

In 1971, Illinois was designated by the National Commission for the Study of Nursing and Nursing Education as one of its nine target states to considered as model implementation and demonstration areas for testing of the Commission's findings and recommendations. Through the Illinois Implementation Commission on Nursing (IICON), a report which included recommendations and a "blueprint" for nursing education development which subsequently became part of Master Plan Phase III of the Illinois Board of Higher Education was issued in 1975. Among IICON's recommendations were:

³⁰Josephine A. Dolan, Nursing in Society: A Historical Perspective, Philadelphia: W.B. Saunders Co., 1973, pp. 284-285.

³¹Kelly, Professional Dimensions of Nursing, p. 255.



1. That all nursing education programs in Illinois become part of the mainstream of the educational system and that all preparatory programs for registered nurses be located in institutions of higher education
2. The hospital board of trustees, administrators, and faculties of diploma schools conduct through evaluations of the viability of their schools and of possible alternatives for the educational use of their clinical facilities
3. The the priorities for financial support of nursing education programs in Illinois be as follows: first, graduate programs; second, baccalaureate programs; third, associate and diploma programs³²

Up to this point the review of the literature has focused on theoretical and historical perspectives as well as research studies related to budgets and budgeting in general, budgeting in higher education, and developments influencing the revenue and educational base of nursing programs.

The second segment of this chapter on the review of the literature is directed at the identification of tasks, actors, structure, strategies, technology and environment associated with the processes of budgetary preparation, presentation, authorization, implementation and evaluation.

Since the nature of the environment external and internal to the institution of higher education exerts a pervasive effort on the other organizational elements, and on all of the budgetary processes, the environment surrounding higher education within the 1964-1976 time frame is presented first.

Theoretical Perspectives and Research Studies on the Budgetary Processes

The aggregate of environmental factors which are political, technological, social and economic in nature impacting on higher education

³²IICON "The Master Plan for Nursing Education in Illinois," (Chicago: Illinois, 1965).

in general and nursing education in particular have been alluded to in earlier sections of this study. As cited in Chapter I of this study, Eurich and Tickton posited eight major factors which led to what Cheit described as the new depression in higher education.

Additionally, as chronicled in the discussion on the historical perspectives on budgeting in nursing education, it appears that the era of new depression in the general field of higher education, marked the beginning of a golden decade for nursing education, as evidenced by the favorable climate toward funding for nursing education in both the national and state levels.

It is also common knowledge that the 60's and the 70's are marked by a ferment in societal push for equal rights in all fronts: civil rights, equal rights in education and employment, right to health, women's rights, rights to due process, consumer rights among others, and by an unprecedented demand for human services in a rapidly changing technocratic world. A combination of these forces spell out an environment that is supportive to nursing education by virtue of the fact that society's demand for nursing services is greater than the supply available.

The financial crunch confronting higher education brought about a changing relationship between higher education and the governmental-political arena. This changing relationship was described by former Illinois House Representative Nowlan in analyzing the politics of higher education in Illinois. A precis on Nowlan's observations is outlined below:

1. The experience of Illinois in recent year suggests that political involvement in higher education has become more intense, and that the Academy is no longer "out of bounds" for politicians

2. Creation of the Board of Higher Education (BHE) was an admission of the lawmakers' limited competence. (A coordinating Illinois Board of Higher Education (IBHE) was established by the legislature in 1961, with responsibility for making recommendations to the governor and legislature on budgeting and master planning for all higher education. Public colleges and universities are required to present new program proposals to the coordinating board for approval, rejection, or modification.)
3. Illinois lawmakers generally concur that the legislative function vis-a-vis higher education should be limited to budgetary considerations and the broadest policy guidelines
4. The Illinois legislature is content to allow major policy decisions concerning higher education to be developed and agreed upon by other political actors (governor's office, IBHE, and university systems), whereupon the legislature will play a ratifying role when necessary
5. The governor remains the most important single decision-maker. He has not only unequalled prestige of office, informational resources, and access to public through the media, but also broad and strong veto powers
6. The Illinois General Assembly is becoming a more important factor in higher education policy-making. Legislative sessions extending throughout each year, a larger staff which understandably seeks to justify itself through aggressive analysis and monitoring, and a conscious desire on the part of the legislative leaders to increase the efficacy of the branch all combine to expand the legislative presence in matters of higher education
7. The Academy should take the initiative in filling the information gap through such measures as: (a) appointment of top echelon administrator by each of the university systems who would be responsible for direct and continuing liaison with legislative leaders, higher education specialists in the legislature, and pertinent staff personnel; (b) faculty and student groups initiating a "reactor" relationship, wherein an individual living in or near the district of a legislator or having similar interest, would offer to provide at least one perspective and in other ways respond to questions related to higher education
8. The lawmakers expressed less appreciation for the research and public service functions of higher education than for the more traditional instructional role
9. Both lawmakers and the Academy must recognize the changing relationships of the past few years, and yet build upon the substantial consonance of attitudes and perspectives which exists between the two worlds³³

³³James D. Nowlan, The Politics of Higher Education: Lawmakers and the Academy in Illinois (Chicago: University of Illinois Press, 1976), pp. 93-100.

In summary, the environment external to the institution of higher education in the 60's and the 70's is characterized by an egalitarian social philosophy, increasing governmental involvement with planning, coordinating and evaluating higher education programs (which in turn have legal ramifications), technological advances, societal demand for health services, competition for dwindling resources, all of which impacts on the processes of budgetary presentation, preparation, authorization, implementation, and evaluation. It is interesting to note that the environment for nursing education is conducive to growth and expansion because of social priority given to health care and the ensuing financial support extended by the federal and state governments for the initiation and maintenance of nursing programs.

Specific influences of external environmental forces upon which educational institutions are contingent upon the environment internal to the institution. The internal environment of an institution derives from several factors: (1) private or public sponsorship of the institution, (2) expressed mission, goals and objectives, (3) structural organization for management and academic governance, (4) diversity, morale, and commitment of its constituents, (5) its degree of technological sophistication, (5) age, (6) size, (7) quality and quantity of educational offerings, (8) financial base, and, (9) the ability of the organization to adapt to change.

These internal environmental forces are highlighted in the discussion of the organizational elements of tasks, actors, structure, technology, and strategies. Their impact on the processes of budget preparation, presentation, authorization, implementation, and evaluation, are also covered in detail in the following sections.

Tasks Involved in Budgeting

Budgeting involves a series of activities that lead to the development of a resource allocation plan which consists of: (1) the operating budget and (2) the capital budget. The operating budget component details how income and expenses will be acquired and utilized to support the educational plan.³⁴

Researchers, educators, and administrators concur that the operating budget plan should cover at least three budget years:

1. The preceeding year which is the latest year in which actual expenditure figures are available for comparison and analysis.
2. The current budget figures which are not actual expenditures but act as a guide to the level of expenditure authorized for a given department or program.
3. The planned year which uses the foregoing budgets and other information to determine future needs.³⁵

The capital budget component details how income and expenses will be acquired and utilized to support the physical development plan. It, too, covers a three year period.

To facilitate the preparation of the budget plan, planning premises must be established. Steiner states that premises means literally that which goes before, previously set forth, or stated as introductory, postulated or implied. He classified premises based on whether they are:

1. Implied premises - these come from the many implications and inferences derived from philosophies, former actions of top management, the way in which the organization is perceived by those doing the planning, the way in which the environment is perceived, and the network of intricate interrelationships of people in and outside the organization.
2. High impact premises - these are critically important pre-

³⁴Ohio Board of Regents, Program Budgeting: Universities, pp. 60-61.

³⁵Harry J. Hartley, Educational Planning-Programming Budgeting: A Systems Approach, Englewood Cliffs, N.J.: Prentice Hall, Inc., 1968,

mises that can cover any number of possible developments in the institution's environment or outside of it such as: values, ideas, conclusions and policies which top management has expressed.

3. Low impact premises - these are assumptions made without much study or are derived from generally available sources.
4. Analytical premises - these are statements about both the wanted and unwanted consequences resulting from choosing one course of action over another.
5. Procedural premises - these are standardized procedures, policies and the like.³⁶

The most salient planning premises in developing the budget are those pertinent to resource requirements of the educational program, the resources available to the program, and the resource allocation framework used by the institution.

Resources have been defined as personnel, space, materials and equipment. One of the most important considerations in developing a resource allocation plan is to decide upon a systematic approach. As the Ohio Board of Regents (OBR) puts it, "successful planning doesn't just happen, it must be planned."³⁷ They cite six pre-requisites for successful planning including:

1. An information data base
2. A well defined planning process
3. A well defined planning organization
4. Planning and resource allocation aids and techniques
5. Cooperative planning with other institutions
6. Utilizing outside experts where needed³⁸

An information data base is described as a collection of discrete items of information called data elements which describe specific systems, e.,g. faculty and students. In order to obtain a good idea of data

³⁶Steiner, Corporate Planning, p. 200.

³⁷Ohio Board of regents, Planning: Universities, p. 63.

³⁸Ibid.

base requirements, the OBR suggests the development of a matrix from the following elements:

Total number of departments, programs by levels, majors, courses, sections
 Total enrollment (headcount)
 FTE enrollment
 Average class size by program level
 Total faculty (headcount) (FTE)
 Student/Faculty ratio
 Faculty load (total credit hours taught) (average contact hours)
 Total credit hours offered
 Number of student dropouts, transfers
 Number of degrees earned
 Number of graduates attaining jobs; going on for advanced degrees
 Number of graduates going in public services
 Number of graduates not accounted for
 Number of graduates from out of state; from out of state who stayed in the state
 Average income generated by each student graduating from the program
 Average expenditures for each student graduating by program
 Faculty salaries
 Average FTE salaries
 Faculty benefits
 Average FTE benefits³⁹

The above data elements could serve as a base for projecting income and expenditures. To demonstrate how these data elements could be viewed in arriving at resource allocation decisions, a conceptual model formulated by Dressel and Simon that can serve as a framework for equitable departmental funding is described below.

Dressel and Simon suggests the use of four types of variables representing the principal features of a departmental typology and budgeting systems and the determination of decision rules for their operation:

- (1) process variables, (2) role variables, (3) cost variables, and
- (4) staffing variables.

Process variables are described as variables interrelated with the disciplines and the preferences of the faculty that make a department.

³⁹Ibid., pp. 63-65.

They tend to describe the intrinsic structure of a discipline and its instructional modes. They arise from such questions as:

1. What is unique about the discipline?
2. Are certain modes of instruction (laboratory, group interaction and cooperation required or strongly indicated) by the discipline?
3. Is there a required number (or core) of specialization that must be represented to have a "legitimate" department in the discipline?
4. What are the competencies and knowledge to be acquired by the students? Are the outcomes defined clearly enough that the success of the department can be appraised? Does the acquisition of these skills reflect or determine the internal processes of the department?

Role variables reflect characteristics that may be assigned to a department by the institution or by a state-wide system. Dimensions that should be considered include:⁴⁰

1. Mix between graduate and undergraduate programs
2. Size, quality
3. Public service
4. Research
5. Service (major vs. nonmajor)
6. Priority

Cost variables include both direct and indirect costs that stem from process or role variables. Input costs for courses and department programs.

Direct costs include instructional services expended in direct instruction, course planning, student evaluation, development of media and money spent in the acquisition of materials and special equipment and facilities.⁴¹

Indirect costs include office space and equipment, equipment

⁴⁰Paul Dressel and Lou Anna Kimsey Simon, "Departmental Clusters, Models, and Costs," Allocating Resources Among Departments: New Directions for Institutional Research, with a foreword by Frederick Dew. Bolman, 3 (Autumn, 1976), p. 35.

⁴¹Ibid.

costs, repair costs, replacement costs, extra departmental support personnel including clerical, technical and administrative, and governance. Meaningful cost measures are technically difficult because of variant delivery systems and staffing policies within departments.⁴²

Staffing variables reflect both workload and rank distributions. Faculty workload measures include unique preparations, contact hours, or credit hours. The number of faculty required is a function of the average workload assigned and the workload variations among faculty within departments. Since average salaries vary with rank, the faculty-rank distribution is also an important component of costs.⁴³

Dressel and Simon's approach to the analysis of the entire range of departmental functions from perspectives of both the institution and the department facilitates program definition which precedes the determination of required sources.

According to the OBR, systematic resource planning must be concerned with questions such as the following:

1. Given that certain output (in terms of realization of goals and objectives) is desired, and given that a certain program configuration is the optimal means for achieving the desired output what minimum resources are required?
2. Assuming that a fixed amount of resources are available, how can maximum output be achieved,⁴⁴

In order to deal with such questions, it is necessary to have

⁴²Ibid.

⁴³Ibid.,, p. 36.

⁴⁴OBR, Planning: Universities, p. 33.

some idea of the amount of resources which programs should be expected to consume. Dressel and Simon offer the following arguments for basing the general fund allocation on the instructional load of a department:

1. Student course enrollments are estimated by course levels, i.e., freshman, sophomore, junior, senior, master, graduate professional, doctoral.
2. These enrollments are converted into staff requirements by any of several procedures:
 - a. setting student credit hour per full time equivalent faculty member productivity requirement to be met on the average by the department;
 - b. translating course enrollments into sections on the basis of class size specifications and then into staff requirements by credit-or-class hour load specifications which may vary with the course or student level.
3. If load specifications do not already take into account time for research, advising, committee service, administration and noninstructional services provided by the department additional positions for these functions may be allotted, e.g.:
 - One research FTE for every four graduate FTE (assumes 20% of faculty time committed to research)
 - One advising FTE for every nine instructional FTE (assumes 10% of faculty time)
 - One administrative FTE for every twenty faculty FTE
 - One nonacademic support position for the first ten academic personnel and one half for each additional ten.

The additional academic positions allocated by these calculations should generally be used to reduce the load of selected faculty members to engage in research, advising, and other functions, rather than as either one full-time research professor or a reduction in teaching load for everyone.
4. Supplies and services allocations can be developed out of an allotment of a specific number of dollars per faculty member and per student served.
5. Labor and student payroll allotments can be based on staff size, projected enrollments, or a specific set of functions to be performed.
6. Annual equipment allocations can be related to staff size or student served, but occasional major one-time allocations will be required to add new equipment or replace worn-out inefficient items.
7. If a preferred distribution of faculty over ranks (possibly varying with maturity and the nature of obligations of the department) are added to the above stipulations and procedures, and if appropriate salaries for each rank and position are specified, a workable budget for a department can be calculated.
8. The preceding steps result in basing the total general departmental allocations on its instructional activities. Additional research or other positions may be added if funds

from other sources available. An unnecessary but useful additional step in the above would break down the student enrollments by major so that the source of students for each level of instruction would be apparent.⁴⁵

After income and resource projections have been made, the OBR suggests that detailed attention should be focused on comparing resource requirements to available resources. They recommend that this types of comparison be made on a program basis. They suggest that the following questions be asked when comparing required resources to available resources:

1. Is the income projection reasonable?
2. What can be done to enhance the possibility of generating additional funds for this particular program?
3. Are the resource requirements (personnel, operating support, equipment and space) reasonable projections?
4. What can be done to reduce the need for resources while still maintaining the effectiveness of the program?⁴⁶

The OBR further suggests that within the framework of comparing required resources to available resources and the actual allocation of resources, it is highly desirable to establish priorities and consider alternatives. They define setting priorities as stating the relative importance of specific goals, objectives and programs. The first step in the assignment of priorities to goals and objectives is to draw the distinction between primary goals and objectives and support goals and objectives. This distinction is derived from an understanding of the essential mission of the enterprise. The OBR comments that support goals and objectives are by no means superfluous or expendable. They are, on the contrary, essential to the viability of the enterprise. The OBR cautions that the value and importance of support goals and

⁴⁵Dressek and Simon, "Approaches to Resource Allocation," Allocating Resources Among Departments, pp. 17-25.

⁴⁶Ohio Board of Regents, Program Budgeting, p. 33.

objectives must always be assessed by reference to their utility for advancing the primary purposes of the enterprise.⁴⁷

They cite that primary goals and objectives include: (1) instruction, (2) research, and creative activity, and (3) public service. Support goals and objectives include: (1) staff support, (2) student service, (3) physical facilities, (4) management, (5) communications and (6) external support.⁴⁸

The term "alternatives" as used in the planning process is perceived by the Ohio Board of Regents as referring to the concept of different programs accomplishing the same objective. Thus a choice between programs can be made based on cost effectiveness or other criteria. Generally, a "program" is thought of as encompassing a group of coordinated activities. In gearing up these activities, the Ohio Board of Regents cite that many alternatives may be considered including: alternative courses, alternative technologies of teaching, alternative admission and alternative testing and student counseling services. The "program" is the sum of all these selections of alternatives from each of these subsets.⁴⁹

After the resource requirements are identified, and compared with available resources, and, priorities and alternatives are established, resource allocation decisions must be made. The Ohio Board of Regents suggest that the budget plan must first be evaluated, and then resources allocated in accordance with the available funds.

Standards that may be used to evaluate the budget plan are described as any one or all of the following basis for control: (1) quantity

⁴⁷Ibid.; ⁴⁸Ibid.

⁴⁹Ohio Board of Regents, Planning: Universities, pp. 44-45.

(2) quality, (3) cost, and (4) time. The recommended approaches to the use of these standards are outlined below:

1. Quantity standards of the institution can be controlled with reference to the number of credit hours produced, the number of graduates, the ratio of faculty to students, etc.
2. Quality standards of the institution could be used as the control factor through standardized tests, number of graduates obtaining a job or going to graduate school, the number of dropouts, accreditation agencies, educational experience and level of faculty and administrators are often predetermined measures of quality.
3. Costs of graduate students could be predetermined and budgeted to keep expenses within desired limits.
4. Time can almost always be employed as a standard. A timetable or schedule can be worked out for achieving certain goals and objectives at certain dates. If actual performance deviates from the scheduled times, corrective action could be applied.⁵⁰

It is emphasized that all evaluative analysis of programs must be conducted within the framework of avowed goals and objectives. Criteria for measuring the effectiveness of the programs and specifying a direction of control can be formulated only if one knows what it is that is supposed to be accomplished through the programs.

Implicit in installing an effective allocation process are four major considerations cited by the Ohio Board of Regents:

1. Organization (s) and person (s) must be assigned responsibility for allocating resources
2. Systematic procedures must be delineated for allocating and approving resource requests
3. Criteria must be established to help ensure that rational consideration is given to a request for the use of resources
4. An orderly process must be developed to communicate the allocation decisions⁵¹

Some of the items that should be considered in the allocation of

⁵⁰Ibid.

⁵¹OBR, Planning: Universities, p. 38.

resource procedures are:

1. A manning table of responsibilities and due dates for submitting a request for resources
2. A flow chart that reveals the organizational direction of reviewing allocation procedures
3. Narrative statements or charts to identify the process of approving the use of resources, e.g., committee review, open hearings, Board of Trustees approval, etc.
4. Statements detailing the manner in which resources will be approved in committee meetings, administrators, etc.
5. The powers and authority to make decisions or recommendations must be clearly delineated for organizations and individuals involved in allocating resources⁵²

It is suggested that the budget plan should include: goals and objectives, priorities and constraints, program, inputs and outputs, resources, time frames, inter-relationships with other plans, and means of evaluation.⁵³

Evaluation is defined a systematic process for determining or estimating the effectiveness of a particular program. It is advocated by the Board of Regents that evaluation of programs be based on a comparison of actual results with pre-established objectives. An evaluation report which should be the basis for determining what statements and decisions can be supported by the evaluation findings are suggested by the Board of Regents. The following questions which could culminate in such an evaluation report should be developed:

1. Did the program operate as it was designed to operate?
2. Are the results attributable to the program?⁵⁴

The Regents recommend that the evaluation report should be short and direct and should include the following information:

⁵²Ibid., pp. 38-39.

⁵³Ibid., p. 22.

⁵⁴OBR, Budgeting, pp. 36-37.

1. A brief description of the program
2. A statement of the activities and objectives of the program
3. A report on which objectives were met, including a description of the measuring techniques employed, and a summary of the data
4. A report on which activities or events outline in the program plan were actually achieved by the operating program, which were incomplete or not in accordance with the design, or which did not work
5. A comparison of the program costs relative to a unit of output or other cost-effectiveness measures
6. Problems and difficulties of the project⁵⁵

In summary, a skeletal outline of the tasks involved in the preparation, presentation, authorization, implementation, and evaluation of a budget is outlined below in a timetable format. Implicit in the tasks are considerations given to planning, coordinating, controlling and evaluating based on program goals and objectives.⁵⁶

YEAR:	MONTH	TASKS	
1975	November	1. Set guidelines based on budget planning premises	
	December	2. Distribute submittal forms	
1976	January	3. Departments prepare budget	
	February	4. Deans and Vice-Presidents approve submittals	
	March	5. Budget Office process submittals	
	April	6. President and appropriate review boards approve budget	
	May	7. Budget office finalize budget	
	June	8. Budget presented to board	
	July	9. Board approves budget	
	August	10. Budget Office distribute approved budget document	
	September	11. Deans/Department Chairmen implement budget	
	October	12. Deans/Department Chairmen receive budget statement from Budget Office for month of	
			of September, and throughout the fiscal year. This cycle of budget development is then repeated indefinitely, revising the planning standards to meet new external and internal conditions with each repetition.

Actors in the Budgetary Process

As a guide for determining the question of involvement in the

⁵⁵Ibid., pp. 36-37.

⁵⁶OBR, Program Budgeting: Universities, pp. 60-61.

budgetary process the following questions can be asked:

1. What are the major groups affected by the process?
2. How is the group affected?
3. Who should represent the group that is affected?
4. How can those who are affected by the process participate?
5. What will be their responsibility and authority?

One way to answer the above question is look at the organization of the university. Perkins stipulates that the organization of the university is usually described in simple terms:

A board of trustees, which receives a charter from the state, appoints a president to administer, and approves a faculty to teach and to select the students to learn. The board, the faculty, the administration and the students together make up the academic community which embraces a familiar triumvirate of functions — teaching, research and public service.⁵⁷

Three roles are ascribed to the board of trustees: (1) that of the agent of its creator — the church or the state, (2) that of bridge between society and the university, and (3) as agent for the university community, particularly as court of last resort for the ultimate resolution of conflicts between the internal constituencies of the university.⁵⁸ In budgetary matters, the board of trustees carry out all of these roles. They are vested with the ultimate authority to make resource allocation decisions.

The responsibilities of the president and other administrative officers in the process of budgeting were described by Kenworthy in an article describing the step-by-step prescription for assigning responsibilities and achieving a three year fiscal plan in a small institution. Kenworthy's precis on the participants in budgeting and their responsi-

⁵⁷Ohio Board of Regents, *Planning: Universities*, pp. 59-61.

⁵⁸James A. Perkins, *The University as an Organization*, (New York: McGraw Hill Book Co., 1973), p. 3.

bilities is outlined below:

1. The president should establish a planning budgeting system supported by top administration, especially by himself.
2. The president should fix the responsibility for the one person who should be charged with the responsibility of viewing the institution's needs and all of its resources at the same time, e.g. the president himself, his designate, or chief fiscal officer.
3. The chief fiscal officer should coordinate the budget cycle from beginning stages through evaluation stage.
4. The fundamental responsibility for operating the budget system should rest with the chief academic officer because the institution's planning should center around its program.
5. The chief academic officer should have an assistant primarily responsible for budgetary and planning matters.
6. The president should confirm in writing the aims and purposes of the budget system and who is responsible for each phase.
7. The chief business officer's function in the budgetary process is to control expenditures for the entire institution and to supervise planning procedures in his own division.
8. The chief business officer must work closely with the chief academic officer in planning budget forms and reports because his control system must be compatible with the format of the final approved budget.
9. The chief business officer must see to it that a budget manual is developed and that the administrative, faculty and staff personnel are educated to its purpose and use.
10. The chief fiscal officer must establish a budgeting timetable and be tenacious about adhering to the deadline for each phase of the budget cycle.
11. The chief administrative officer must establish a communication network throughout the institution concerning what has happened, is happening and will be happening concerning the allocation of resources.
12. The chief fiscal officers must establish budget methods and techniques compatible and consistent with desired budgetary goals and objectives.
13. The chief administrative officers must establish goals and objectives of the budgetary process reflective of the institution's goals and objectives.
14. The chief administrative officers must establish uniform, standardized taxonomy of budgetary items, and establish cost centers to channel the documents required in financial control procedures and communications.
15. The chief fiscal officer must establish accounting and reporting systems that meet legal requirements and conform to standards for university and college accounting systems.
16. The faculty budget committee should advise the president in his evaluation of objectives presented by the heads of the various divisions, and, depending on the authority granted it, assist in deciding how to allocate resources to these

divisions.⁵⁹

The role of the faculty in budgetary matter is explicitly defined by the American Association of University Professors (AAUP). Among the stipulations advocated by the AAUP are:⁶⁰

1. That in making decisions on whether teaching and research programs are to be curtailed, financial considerations should not be allowed to obscure the fact that instruction and research constitute the essential reason for existence of the university. Among the various considerations, difficult and often competing, that have to be taken into account in deciding upon particular reductions, the retention of viable academic departments necessarily should come first.
2. That at institutions experiencing major threats to their continued financial support, the faculty should be informed as early and as specifically as possible of significant impending financial difficulty.
3. That the faculty should play a fundamental role in any decision which would change the basic character and purpose of the institution, including transformation of the institution, affiliation of part of the existing operation with another institution or merger, with the resulting abandonment or curtailment of duplicate programs. To the extent that budgetary considerations are involved in these decisions, the faculty should be given full and timely access to the financial information necessary to the making of informed choice.
4. That budgetary decisions affecting those areas for which the faculty has primary responsibility — curriculum, subject matter and methods of instruction, research, faculty and those aspects of student life which relate to the educational process — should be made in concert with the faculty.
5. That the faculty participate in the preparation of total institutional budget within the framework of the total budget in decisions related to the apportioning of specific fiscal divisions — salaries, academic programs, tuition, physical plant, grounds, etc.
6. That criteria for faculty salary raises and recommendatory procedures be designed by a representative group of the faculty in concert with the administrator, and open and clearly understood.
7. That the person or group who submits the initial salary recommendation usually the department chairman, singly or in conjunction with an elected executive committee or department should be informed of its status at each further stage of the salary determination process.

⁵⁹Walter Kenworthy, "A Program Budgeting Strategy for a Small College," New Directions for Higher Education, 1 (Summer, 1973) pp. 19-40.

⁶⁰AAUP. "The Role of Faculty in Budgeting and Salary Matters," AAUP Bulletin, 58 (Summer, 1972) pp. 170-172.

8. That faculty establish salary policies and in its primary responsibility for educational function of the institution to participate in the broader Budgetary matters primarily as these impinge on that action.

Specific responsibilities of participants in the budgetary processes are detailed by Kenworthy in describing the various steps to program budgeting, in the summary outline below:

1. Each department should have about a month to submit its proposed budget.
2. The budget should be reviewed by appropriate groups such as the faculty review committee.
3. The academic officer of the department or the college should provide documentation to support the proposed budget. A program element support sheet which should include the following data elements for each program is strongly recommended:
 - a. general description
 - b. goals of the unit
 - c. measurable objectives to be satisfied
 - d. alternative methods to be considered
 - e. resources allocated and committed — personnel, space, equipment, departments involved
 - f. assumptions used, including number of students, income expenses, etc.
 - g. relation to past and future years for the program
 - h. relation to rest of the university's plan
 - i. evaluation criteria and timetable
4. After the appropriate officer receives the budget proposal (dean, academic vice-president) the increment and percentage difference should be filled in by data processing officer.
5. The dean or academic vice-president should then review the the budget proposal and ask for details on the items that require explanation.
6. After the program element support sheets are received by the dean or academic vice-president, they should be gathered with budget forms for all departments to make a book.
7. For each program, the dean should write a supporting statement that includes his recommendation for any support levels which differ from those proposed by the department as well as his views on any unusual increases or decreases proposed by the department.
8. The dean should also write a supporting statement for the entire educational program category, explaining any changes in emphasis which cause changes in the relative levels of financial support for each program.
9. Allow for adequate lead time for presenting proposed budget to appropriate parties.

10. Final stage of the budget review begins when the president makes preliminary decisions about the levels of support available for the various programs.
11. The dean should review these decisions with the individual chairman, explaining all cases where the level assigned by the president differs from the department's proposed level.
12. Each chairman should have the opportunity to return to his department and discuss possible alternatives to any deletions or reductions proposed by the dean or the president.
13. Though the president and the dean should not modify the level support approved for a part of a program, they should be very flexible in allowing the department to propose alternative ways of reducing the overall program to the approved level of funding.
14. As soon as the dean and the department agree on the level of support for each program, the president should submit the budget to the trustees and have it approved in final form.
15. The entire review process should not take more than six months.⁶¹

The above steps are extended in public institutions of higher learning, where institutional budgets are presented to a statewide coordinating board such as the IBHE, for review and recommendations. After the budget review at this level, the budget is forwarded to the legislature and finally to the governor for official approval.

To summarize, actors in the budgetary process are comprised by constituents internal to the institution — president, administrators, faculty, students, and, groups external to the institution — board of trustees, statewide coordinating boards, regulatory and accrediting agencies, taxpayers and private philanthropists.

Structure for Budgeting

A look at the institution of higher learning as an organization is prerequisite to the understanding of its structure for resource procurement and resource allocation. Perkins states that "organizationally

⁶¹Kerworthy, Ibid.

the university is one of the most complex structures in modern society."⁶²

Pugh and others offer six structural dimensions that have been found useful in studying organizations. These dimensions include:

1. Specialization - the division of work within an organization the distribution of tasks or duties among positions. It is measured in the number of different positions or units the organization work is divided into.
2. Standardization - the establishment of rules and procedures for determining how to perform regularly occurring tasks or to handle regularly occurring problems.
3. Formalization - a measure of the extent to which rules, procedures, instructions, and communications are written.
4. Centralization - concerns the locus of authority to make decisions in an organization; decentralization is the opposite of centralization - authority being thrust down into an organization.
5. Configuration - the shape of the role structure: tall - where there are many hierarchical levels but few subordinates reporting to each superior, or flat - where the opposite exists.
6. Flexibility - the changes that occur in the organization.⁶³

An awareness of the distinctive organizational features of universities will facilitate the analysis of the structural dimensions of an educational institution. Kerr cites the following characteristics unique to universities:⁶⁴

1. Universities are unique in the way they combine basic missions - instruction and the advancement of scholarly exploration - with an imposing array of other services and activities required by society.
2. Universities are organizationally unique because no one has absolute authority within the organization. Presidents and faculty members operate in overlapping spheres of power and influence. New spheres of influence - overlapping the others - are now being occupied by students.
3. Ultimate authority for public and private institutions alike resides in governing boards whose membership comes from society at large or represents some other externally oriented constituency.

⁶²Perkins, The University as an Organization, p. 3.

⁶³D.S. Pugh, et. a., "Dimensions of Organizational Structure," Administrative Science Quarterly, 13 (1968) pp. 65-105.

⁶⁴Clark Kerr, "Foreword," in James A. Perkins, The University as an Organization.

4. Universities tend to encompass for many of their members not only the work-associated aspect of their lives but the social recreational aspects of their lives as well.
5. The outputs of universities are largely unmeasurable — their effectiveness cannot be assessed easily.
6. Although, legally, they are created by society, they stand quite apart from society in many ways. They are shielded to a considerable extent from external interferences with the teaching and learning processes that take place within them; they are withdrawn from society by tradition — that maybe faltering — of disengagement from social and political activism.

The division of work involved in budgeting was demonstrated in the discussion of the various actors involved in the budgetary process. The degree of centralization, standardization, formalization, configuration, and flexibility of each institution will vary from one institution to another.

Observations about the locus of authority in universities that are worth noting because of their significance in budgetary communications, work flow and decision-making are offered by Duryea and Garbarino. In tracing the evolution of university organizations Duryea concluded that one finds two bureaucracies within the univeristy: (1) a hierarchy of departments, schools and senates or executive councils well larded with a variety of permanent and temporary committees. This bureaucracy claims rights of control over the totality of academic function, and, (2) a separate hirearchy formed by administrators to grapple with the immense tasks of management of essential supportive services which maintain the university not the least of which are budget and finance.⁶⁵

Garbarino refers to this dual bureaucracy as the bureaucracy of management — the administrative direction and control of business and

⁶⁵E.D. Duryea, "Evolution of University Organization," in Perkins, University as an Organization, p. 35.

external affairs in which sections are taken primarily at the initiative of the administrators, and, the bureaucracy of academic governance — the structure and processes of decision-making primarily but not exclusively concerned with the academic matters of program and curricula.⁶⁶

Hodgkinson offers a remedy in reshaping the authority system to reconcile this dual bureaucracy, through "selective decentralization," a principle in terms of which decisions affecting individual's lives and commitments would be made in the smallest possible units, while matters of logistics and support services would be made in the largest context possible. Hodgkinson believes that such a principle recognizes that no single hierarchy structure can solve all problems confronting a university, but that the university will have to rely on more ad hoc decisions making by rapidly shifting groups.⁶⁷

The best way to summarize the relationship between organizational structure and budgeting is to cite the recommendation made by the Ohio Board of Regents regarding internal considerations to be observed in the implementation of a program budgeting model. The Regents urge that:

... it would be desirable for each university to create an advisory task force on program budgeting. This group should consist of representatives from the university administration, faculty, and student body... once the university task force is operative, it would be desirable to create college and departmental committees to develop and integrate their curriculum and instructional programs with the program budgeting process.⁶⁸

⁶⁶Joseph. W. Garbarino and Bill Aussieker, Faculty Bargaining: Change and Conflict, (New York: McGraw Hill, 1975), p. 24.

⁶⁷Harold L. Hodgkinson, "The Next Decade," in Harold L. Hodgkinson and L. Richard Meeth, eds. Power and Authority: Campus Governance in Transition, (San Francisco: Jossey Bass, 1971), pp. 150-151.

⁶⁸Ohio Board of Regents, Program Budgeting: Universities, p. 40.

Strategies for Budgeting

An understanding of the concept of strategy is essential to the full appreciation of the role of strategies in arriving at decisions for resource allocations. The literature on the nature of strategy is best described in the precis of Ansoff's views on strategy as a tool for coping with change outlined below:

1. Strategy is a set of decision making rules for the guidance of organizational behavior and implies thereby that the latter is more predictable as a result
2. Means by which goals may be attained
3. Strategy is a search heuristic
4. Strategy stimulates members of the organization to invent and find certain types of opportunities and suppresses invention of others
5. The selection of a strategy usually occurs under a very special informational environment
6. The process of strategy selection and strategy application is closely coupled with two-level decision process which feeds back information and mutual adaptation between concrete opportunities and the decision heuristic
7. Strategies and objectives are similar and yet distinct. The objectives represent ends which the firm seeks to attain; strategy the means to these ends
8. Strategies and objectives are interchangeable both at different levels of organization
9. The formulation of a strategy typically produces no immediate productive action
10. The formulation of a strategy is an expensive process in both managerial time and dollars
11. Strategy produces elements of rationality which are disruptive and threatening to the political processes
12. Organizational structures of most purposive organizations are not suited to strategic planning
13. Organizations typically do not have the capacity to handle not not motivational systems to encourage the use of strategy
14. Organizations lack information about themselves and their environment which is needed for strategic planning; nor do they have the managerial talents capable of formulating and implementing strategy
15. Strategy merits serious attention as a managerial tool. It is complex and potentially very powerful tool for coping with conditions of change which surround us today. Although complex, costly to use, and costly to introduce, it more than pays for itself.
16. Strategy must be used with an awareness that is neither natural nor welcome addition to political, behavioral processes with

human organizations.⁶⁹

Four types of strategies that may be used by constituents of institutions of higher learning in each phase of the budgetary cycle are offered by Mc Grath. He perceives these strategies as essentially fitting on a continuum of: (1) control, (2) power, (3) change, and (4) social influence.⁷⁰

Power Strategies

Three basic means of exerting power have been identified — physical, material and symbolic each creating a different type of power which Etzioni refers to as:

1. Coercive power, rests upon the application of the threat of application of physical sanctions such as infliction of pain, deformity, or death; generation of frustration through restriction of movement; or controlling through force the satisfaction of needs such as those for food, sex, comfort and the like.
2. Remunerative power, is based on control over material resources and regards through allocation of salaries and wages, commissions and contributions, "fringe benefits," "services" and "commodities."
3. Normative power, rests on the allocation and manipulation of symbolic rewards and deprivations through employment of leaders, manipulation of mass-media, allocation of esteem and prestige, administration of ritual and influence over the distribution of "acceptance" and "positive response."⁷¹

Litterer states that "although organizations may be in a position to use all three means of exercising power, they will typically tend to make one predominate."⁷²

⁶⁹H. Igor Ansoff, "Strategy as a Tool for Coping with Change," in Handbook for Strategic Planning, Barnard Taylor and Kevin Hawkins, eds. (London: Longman Group, Ltd., 1972) pp. 3-8.

⁷⁰Mc Grath, Planning Systems, p. 61.

⁷¹Amitai Etzioni, Modern Organizations, (Englewood Cliffs, New Jersey: Prentice Hall, 1964), pp. 59-60.

⁷²Litterer, Analysis of Organizations, p. 241.

A well-known classification of power types determined by the basis of the power of one individual has over another is proposed by French and Raven. They propose five different types of power"

1. Coercive power. This is power based upon fear. A subordinate perceives that failure to comply with the wishes of his superior could lead to punishment or some negative outcome.
2. Reward power. This is the opposite of coercive power. A subordinate perceives that compliance with the wishes of his superior will lead to positive rewards, either monetary or psychological. This type of power derives from the ability of one individual to provide desired outcomes to another individual in exchange for compliance.
3. Legitimate power. This type of power derives from the position of a manager in the organizational hierarchy and is sometimes referred to as the power of authority. Thus the subordinate believes that he "ought" to comply. Influence attempt based on legitimate power usually require supervision and must fall within defined areas appropriate for influence, otherwise the legitimate power base of the superior will be decreased.
4. Expert power. An individual with this type of power is one with some expertise, special skill, or knowledge. It is a function of the judgement of the less powerful individual that the other person has the ability or knowledge that exceeds his own. Influence attempts based on expert power are not likely to require supervision but are normally limited to the areas of perceived capability.
5. Referent power. This power is based on a subordinate's identification with a superior. The more powerful individual is admired because of certain traits and the less powerful individual is influenced because of his admiration. It is possible for an individual to comply with the desires of a referent power figure without being aware of it.⁷³

Etzioni posits that the need for formal control in organizations stems from the nature of formal organizations (such as colleges and universities) as artificial social units. He explains that:

⁷³John R. P. French and Bertram Raven, "The Bases of Social Power," in Dorwin Cartwright and A. F. Zander, eds, Group Dynamics, 2d. ed., Evanston, Illinois: Row, Peterson and Co., 1960, pp. 607-623, cited by Gibson, et. al., Organizations, pp. 287-288.

All social units control their members, but the problem of control in organizations is especially acute. Organizations as social units that serve specific purposes are artificial social units. They are planned, deliberately structured; they constantly and self-consciously review their performances and restructure themselves accordingly. In this sense they are unlike units such as the family, ethnic groups or community. The artificial quality of organizations, their high concern for performance, their tendency to be far more complex than natural units, all make informal control inadequate and reliance on identification with the job impossible. Most organizations, most of the time cannot rely on most of their participants to internalize their obligations, to carry out their assignments voluntarily, without additional incentives. Hence, organizations require formally structured distribution of rewards and sanctions to support compliance with their norms, regulations and orders.

To fulfill its control function the organization must distribute its rewards and sanctions according to performance so that those whose performance deviates from it will be penalized.⁷⁴

In an educational institution, the internal members of the social unit consist of its various constituents--central administrative and academic officers, staff, faculty, and students. External to the educational institution are members of regulatory, coordinating, accrediting, and labor relation boards, all of which exert control on the educational institution as a social unit.

Control Strategies

Ackoff cites four steps involved in the process of control:

1. Predicting outcomes of decisions in the form of performance measures
2. Collecting information on actual performance
3. Comparing actual with predicted performance
4. When a decision is shown to have been deficient, correcting the procedure that produced it and correcting its consequences where possible⁷⁵

⁷⁴Etzioni, *Modern Organizations*, pp. 58-59

⁷⁵Ackoff, *Corporate Planning*, p. 112

The application of the control process in higher education is reflected in the use of economic concepts in measuring outputs of higher education, "outputs being, uniquely, and economic concept."⁷⁶ Tollett suggests that one can speak of higher education in terms of providing or performing a series of services related to production. Tollett describes this production function as activities which entail discovering talent, instruction, and research. He points out that since other institutions engage in the same activities as higher education, "immediately the question may arise--how efficiently and effectively does it discover talent, instruct future workers, and do research compared to other institutions or to alternative ways of carrying out these activities?"⁷⁷

Astin views the process of higher education as comprising three conceptually distinct components: student outputs, student inputs and the college environment. He defines these components as:

1. Student Outputs. These consist of those aspects of the student's developments that the college either influences or attempts to influence: measures of the student's achievements, knowledge, skills, values, attitudes, aspirations, interests, daily activities, and contributions to society. Other terms that are sometimes used to refer to student outputs are dependent variables, criterion variables, outcome variables, and educational objectives.

⁷⁶Kenneth S. Tollett, "Higher Education and the Public Sector," in The Outputs of Higher Education: Their Identification, Measurement and Evaluation, Ben Lawrence, George Weathersby, and Virginia W. Patterson, eds. (Boulder, Colorado: WICHE, 1970) p. 61.

⁷⁷Alexander W. Astin, "Measuring Student Outputs in Higher Education," in B. Lawrence, et. al., Outputs of Higher Education: Their Identification, Measurement and Evaluation, p. 75.

2. Students Inputs. Student inputs are the talents, skills, aspirations, and other potentials for growth and learning that the new student brings with him to college. These inputs are, in a sense the raw materials with which the institution has to work. Some inputs may be simply "pretests" on certain student outputs (score on college admission tests for example), while others (sex and race, for example) may be relatively static personal attributes. Inputs can affect the outputs either directly or through interaction with environmental variables. It should be pointed out that economists and others interested in systems analysis or management information systems typically use the term "input" in a much broader sense than the one proposed here. Usually this includes what I have termed environmental variables as well as student inputs. In assessing the outputs of higher educational institutions however, it is useful, if not essential, to differentiate conceptually and operationally between measures of student inputs and measures of the college environment.
3. College environment. The college environment refers to any aspect of the higher educational institution that is capable of affecting student outputs. Broadly speaking, the term includes variables such as administrative policies and practices, curriculum, faculty, physical plant and facilities, teaching practices, peer associations, and other attributes of the college experience that might affect the student's development. These environmental variables can presumably, be changed or manipulated through reallocation of resources.

Astin recommends that a preliminary taxonomy of student-output measures would include three dimensions:

1. the type of outcome (cognitive versus affective)
2. the type of data (psychological versus sociological)
3. the temporal aspects of the measure (short term versus long term)⁷⁸

The need for more specific and more meaningful descriptions of the entire process of higher education, the need to see resource inputs, activities in the educational setting, and the need to see outputs of higher education as related parts of a whole, led to the proposal for an "accounting structure for the outputs of higher education" developed cooperatively by participants in a national training seminar on the outputs of higher education held in Washington, D.C., May 3-5, 1970. The accounting structure consists of instructional

outputs, institutional environment outputs, research outputs and public service outputs. ⁷⁹ The specific variables under each output category are listed in Table 1, pp. 108-112.

Measures of each of these outputs will facilitate the understanding of just how the contributions, activities and benefits of higher education may be shaped, modified, directed, and improved through intelligent decision making and informed allocation of resources. These measures can be used for cost analysis -- the determination of unit costs for programs, activities and processes, and facilitate the consideration of the benefits and effectiveness of the resources directly and indirectly used in the program being analyzed.

Change Strategies

The nature of change strategies is reflected in two change models that are presented as illustrative examples of this type of strategy. The first model presented is Guba-Clark's educational change model. The Guba-Clark Model has four stages and eight sub-components:

1. Research
2. Development
 - a. Invention: formulating new solutions
 - b. Design-engineering and packaging the invention
3. Diffusions
 - a. Dissemination-informing or creating widespread awareness of the invention
 - b. Demonstration - presenting the invention in an operational mode to enhance its image

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George Weathersby and Virginia W. Patterson, eds., "An Accounting Structure for the Outputs of Higher Education: One Proposal," The Outputs of Higher Education: Their Identification, Measurement and Evaluation, (Boulder, Colorado:WICHE, July, 1970), Appendix.

4. Adoption
 - a. Trial - try out or test the invention in a particular context
 - b. Installation - operationalizing the invention within an institution
 - c. Institutionalization - complete assimilation into the system as an ongoing program to reduce it to the status of non-innovation.⁸⁰

The second model, the PPB Change Model is offered by Knezevich.

It is based on five major steps:

1. The awareness stage - within this stage are activities whose purposes are to stimulate, excite, create interest in or communicate basic information about the invention to various target groups that the invention has great potential. Skills and understandings may be gained through experiences in externally directed preparation programs, such as those offered by universities or other agencies. Internally developed programs help build greater insights and skills on the foundation of initial preparation. The services of a consultant may also be used.
2. The stage of commitment - this stage comes when a decision has been reached to do something positive about the invention. It may be forced on the executive by a legislative body.
3. Stage of readiness - Strategies or sets of action plans are necessary to translate a commitment into reality. The organization must be ready to embrace and operate in a mode suggested. This is a most difficult but crucial phase. Another dimension of readiness is getting the resources in the form of staff, space, money and materials for the purpose of disseminating PPB. Consultants may be needed and the authority to hire and funds to employ should be available by the end of the readiness stage.
4. The operations stage - involves two basic strategies: "across the board" and "partial and evolutionary approach." The first strategy implies that facets and programs of the educational institution will begin to operate in the mode at the same time. It assumes that complete installation is feasible. Time lines would be established for the complete or partial installation in the second strategy. It would be akin to pilot testing necessary for "debugging" of operations. Experiences gained during this shakedown cruise during one or more fiscal year could be generalized and the implementation extended to additional departments in subsequent years.⁸¹

⁸⁰Egon G. Guba, "Methodological Strategies for Educational Change," Position Paper for the Conference on Strategies for Educational Change, Washington, D.C., November 8-10, 1965.

⁸¹Knezevich, PPBS, pp. 256-258.

Social Influence Strategies

The intensity, kind and direction of commitment and involvement of a member of an organization to some referent (the organization, the nursing program, a particular budgeting model) maybe described as one of compliance, identification or internalization. The characteristics of these social influence processes are described by McGrath:

1. Compliance involvement is characterized by an acceptance of a given relevant referent for reasons not basically related to the desired member commitment or involvement, whether it is concerned with the generalized commitment of a member or a group with the perceived involvement relating to a given situation. Acceptance reasons maybe any of a number of reasons: fear of disfavor or reprisal, inadequate understanding, lack of perceived rationality, to maintain membership in the organization or group.
2. Identification involvement or commitment is characterized by acceptance of a given referent because of another member's (often a superordinate) advocacy. The member who identifies co-opts or adopts another member's role. A change in sub-task performance or attitude will likely be observed, but it may be very superficial because understanding and rationality are not requirements for identification.
3. Internalization describes the utopic kind of commitment and involvement. It exist when an individual member or group accepts a particular referent (maintenance or change; person or otherwise) because it is rational and consistent with the individual or group perspective, and satisfactions and efficiency obtain. ⁸²

Thus far, four types of strategies which McGrath described as fitting into a continuum of power, control, change and social influence have been presented. At this point, it would be appropriate to look at the conditions under which recourse to strategy becomes essential within the context of budgeting. Ansoff describes two conditions which makes recourse to strategy highly desirable: (1) when very rapid or even discontinuous changes occur in the environment of the organiza-

tion, and (2) when the objectives of an organization undergo a drastic change, either because of a shift in the objectives of its participants or because of new demands imposed on it by society.

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For an educational institution, rapid and continuous change may be due to saturation of traditional markets, shift in funding base, drastic changes in technology, sudden influx of new competitors, change in statutory and accrediting requirements reflective of changing societal needs and priorities and the like. Under these conditions, established organizational traditions and experience lose much of their validity for coping with the new opportunities and new threats. Ansoff points out that "without the benefit of a unifying strategy, the chances are high that different parts of the organization will develop different and contradictory responses. The chances are therefore high that readjustment to the new conditions may be prolonged, turbulent and inefficient. Chances are equally high that recognition of need to readjust will come too late to guarantee survival of the firm in its present form.

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Ansoff further explains that under these conditions, the firm is confronted with two very difficult problems:

1. How to choose the right direction for further growth from among the many and imperfectly perceived alternatives;
2. How to harness the energies of a large number of people in the chosen direction.

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H. Igor Ansoff, "Strategy as a Tool for Coping with Change," in Handbook of Strategic Planning, Bernard Taylor and Kevin Hawkins, eds. London: Longman Group Ltd., 1972, pp. 7-8.

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Ibid.

Answers to these questions are the essence of strategy formulation and implementation. At this point strategy becomes an essential and badly needed managerial tool.⁸⁵

In choosing a particular strategy, Tilles offers six criteria for evaluation: (1) internal consistency, (2) consistency with the environment, (3) appropriateness in the light of available resources, (4) satisfactory degree of risk, (5) appropriate time horizon, and workability.⁸⁶

Faculty Collective Bargaining as a Strategy

According to Schuster, few developments in American higher education have caused much consternation, anxiety and frantic activity as the advent of faculty collective bargaining. He describes faculty collective bargaining as possibly the most potent change agent to confront the academic community in the 1970's.⁸⁷

Two factors are cited as making faculties less optimistic about shared authority and therefore more eager to try the union model: (1) the making of systems-wide decisions away from the campus, and (2) the new managerial techniques on the campus.⁸⁸

In higher education's brief experience with collective bargaining, some governance-related problems have surfaced. These were cited by Mason as: (1) the dependence of a unionizing faculty on such outside

⁸⁵Ibid.

⁸⁶Seymour Tilles, "How to Evaluate Corporate Strategy," in Taylor and Hawkins, Strategic Planning, pp. 48-64.

⁸⁷Jack H. Schuster, "Editor's Notes," in Encountering the Unionized Faculty, New Directions for Higher Education, 5 (Spring, 1974).

⁸⁸Henry L. Mason, "Faculty Unionism and University Governance," in Encountering the Unionized Faculty, New Directions for Higher Education, 5 (Spring, 1974) p. 7.

agents as labor relations boards or arbitrators, (2) the incorporation of governance provision into contracts, (3) the attempts in the contracts to resolve jurisdictional conflicts between governance organs, "management" rights, and union authority, and (4) the agency shop, the strike, and relations with the "consumers"--the students.⁸⁹

Mason also observes that agencies outside the university such as the NLRB for private institutions and state labor boards for public institutions have considerable impact on academic governance through their powers to shape bargaining units. These boards decide questions regarding unit membership. Highly formalized procedures, which include the possibility of final appeal to outside arbitrators, are among the most characteristic and certainly most time-consuming features of the unionized institution.⁹⁰

The appearance of management rights clauses in contracts of unionized institutions is perceived as an initial compromise between "management" and "employees" under which the faculty gains power in the economic sphere and the administration preserves a kind of supremacy in the governance sphere.⁹¹

The necessity of exclusive representation sparked intense competition among the various affiliates of NEA, AFT, AAUP, and local and state-wide groups because the issue of an agency shop makes the stakes of winning a campus extremely high.⁹² The strike as a weapon is bound to be present on the unionized campus, and its use-real, threatened, or at least implied by many precedents in the private and public sector-will at times provide leverage to faculties.⁹³

⁸⁹Ibid., pp. 8-24; ⁹⁰Ibid., p. 14; ⁹¹Ibid., p. 20.

⁹²Ibid., p. 21; ⁹³Ibid., p. 22.

The role that students are now beginning to play in collective bargaining process deserves closer attention. Early indications suggest that the future course of faculty bargaining will be influenced, perhaps significantly by student efforts, with respect to both the shape of the future legislation and the provisions of faculty union contracts. Schuster points out that the obstacles to broader student participation are formidable, for a dominant characteristic of collective bargaining is its bilateral nature. Two parties are involved, "employer" and "employee". However, increasingly, students are coming to recognize how directly their interests are affected by faculty collective bargaining, and student involvement in the bargaining process has begun.⁹⁴

Developments in student activity are highly evident in three multi-campus systems: the City University of New York (CUNY), the Massachusetts State College System, and the University of California. At CUNY, full-scale bargaining rights for students was proposed by the University Student Senate.⁹⁵ In contracts concluded for schools belonging to the Massachusetts State College System, provisions for student evaluation of teaching were included. A tripartite body of faculty, students, and administrators were involved in contract negotiations.⁹⁶

In its initial stand on faculty unionism, the University of California Student Body in Sacramento maintained by the nine UC student governments came down squarely in opposition to a conventional collective bargaining bill. They declare that:

To impose a rigid form of collective bargaining on higher education particularly UC, would quickly freeze students out of all partici-

⁹⁴Jack H. Schuster, "The Search for New Models in Faculty Bargaining: Encountering the Unionized Faculty," New Directions for Higher Education, 5 (Spring, 1974) p. 83.

⁹⁵Ibid., p. 87; ⁹⁶Ibid., p. 89;

pation in areas of legitimate concern to them. The history of collective bargaining in higher education has shown that students are almost totally excluded from any participation once contracts begin to be negotiated between unions and management...

In higher education working conditions for faculty cannot be separated from questions of educational policy that directly affect students and are thus legitimate concerns of students. Examples of these issues include class size, number of course offerings, availability of professors for independent student projects, student evaluation of teaching in relation to the promotion process, and the whole area of curriculum planning and innovation...⁹⁷

Schuster offers the following concluding statements regarding the dynamic and controversial issue of faculty collective bargaining:

In summary, faculty collective bargaining is emerging as a catalyst destined to redistribute influence on campuses across the land. The most crucial issues, those revolving around institutional governance, have yet to be resolved. But, unless new models for faculty bargaining are developed, the fragile academy may suffer irreparable harm in the years ahead.⁹⁸

The foregoing discussion on the impetus for collective bargaining and issues pertinent to the unionization of faculty in higher education was presented to demonstrate the potential application of the use of power, control, change, and social influence, as strategies for budgeting. In the same vein, a compendium of budgeting models offered by the Ohio Board of Regents is presented. Advantages and disadvantages associated with each budgeting approach are also included.

Budgeting Models

1. Incremental Budgeting

Traditionally, budgets have been developed almost solely on an incremental/line item basis. This model assumes the continuation of present program and proposes incremental changes. The increases and possibly decreases become the focus of analysis. The advantages and disadvantages of incremental budgeting may be listed as follows:

⁹⁷Ibid., p. 91.

⁹⁸Ibid., p. 97.

Advantages:

- a. Easy to understand. Widely accepted by boards of trustees, legislatures and other bodies
- b. Have to start somewhere in analysis. There is much to be said for focusing on increases. Can devote much time on a very important part of the budget
- c. Easy to prepare budget

Disadvantages:

- a. Incremental budgeting has a "bad" connotation
- b. Not forced to justify old programs. Irrelevant programs are not eliminated
- c. Very much politically oriented
- d. Not practical in periods of declining income

2. Open-ended Budgeting

In this model, cost centers submit budget requests at whatever level the unit thinks appropriate. The central budget office or senior administrative officers adjust the budget to meet the required limitation of resources. This is usually done in negotiation sessions.

Advantages:

- a. Feeling of freedom. People can express what they want
- b. Easy to prepare budgets

Disadvantages:

- a. Administrators developing departmental budgets are not faced with hard decisions
- b. Budget requests are almost always incompatible with resources
- c. Difficult to produce information needed for comparative evaluation of programs
- d. Decisions are often made on a political basis
- e. Generally takes two or three "budget rounds" to get the request in line with available resources
- f. Raise expectation too high

3. Zero-based Budgeting

The central concept of this model is complete and simultaneous evaluation of all programs. A zero-based budget is closely related to an open-ended budget. The difference is primarily associated with a traditional line-item budget, whereas a zero-based budget is associated with program planning and budgeting.

Advantages:

- a. Politically sound
- b. Theoretically ensures complete justification of programs
- c. Is commonly associated in the literature as a vital characteristic of program budgeting
- d. Enables an administrator to describe all the programs he would like

Disadvantages:

- a. Workload is tremendous—requires volumes of paper, and lots of time
- b. In actual practice little attention is focused on all the programs. Analysis is focused on increases
- c. Doubtful that zero-based budgeting is practically possible

4. Quota Budgeting

In this model cost centers are given a control figure and then requests to develop a budget based on this allotment. Control figures may be based on a dollar increase or decrease, percentage increase or decrease, last year's budget, etc. The control figures are generally arrived by the Finance Office and communicated through the Office of the President. Some of the advantages and disadvantages to consider in quota budgeting are:

Advantages:

- a. Cost centers can determine the total budget at an early date
- b. Administrators generally have flexibility to make decisions within control totals
- c. Elimination of unrealistic budget requests
- d. Entire university community is aware of the overall budget picture as reflected by quota figures
- e. Mitigates the effects of policies
- f. Budget can generally be prepared with one round
- g. Process is well controlled
- h. Minimizes the amount of paper work

Disadvantages:

- a. Tendency to base the new budget almost entirely on the old one
- b. Central administrators must decide what support level will be allowed for various cost centers. Sometimes this decision is made on an opinion basis
- c. Associated with formula budgeting ("The rich get richer")
- d. Quotas are generally placed on line items and not programs

5. Alternative Level Budgeting

This model requires that several alternative budget levels (generally two or three to be prepared.) The budget levels are generally designated by the administration. (For example, 10% below present budget level, 5% more than present budget level, 15 % more than present budget level.)

Advantages:

- a. Good method of obtaining extensive program evaluation and clarification of program priorities
- b. Provides fuller information for central budgetary planners
- c. Offers alternatives for decision makers
- d. Makes use of the judgment of personnel at the operating levels
- e. Forces administrators to be cognizant of program priorities

Disadvantages:

- a. May be unrealistic if it is known that income is to be down
- b. Analysis will generally concentrate on the most likely level
- c. Much work is involved in preparing various levels
- d. Central planning agency must set budget levels
- e. Preliminary hypotheses about the marginal utility of programs must be established
- f. Much uncertainty about the level that might be funded
- g. Hurts morale in that the person preparing a budget knows that as a general rule only one level will be examined and the other levels will represented wanted time

6. Expenditure Classification Model

This model combines features of several budget models. First, last year's budget is the starting point. Second, the organizational unit is "forced" to eliminate X% of Y dollars of old programs. Third, specific categories of "fixed", "semi-fixed" and "variable" increases and decreases are classified and defined for budget purposes. Fourth, new budget items are identified and, fifth, items that are to be transferred to another program are identified

- a. Decrease of low priority programs. Show how you would eliminate X% of last year's budget
- b. Fixed increase or decrease. Something a department has no control over. "Fixed" must be defined by central office. Examples might be mandatory Civil Service increases.
- c. "Semi-fixed" increase or decrease. Something a department has little control over. Examples might be an inflation factor, wage and price rollbacks, Civil Service step increase
- d. "Variable" increase or decrease. An expenditure that a department head has control over. Again, the term "variable" must be identified and agreed upon prior to budget preparation. Examples of variable increase or decrease might be: cutback of personnel, new positions for current programs, supply increases, decreases
- e. New budget items or an item no longer budgeted. For example, fees waived, insurance, workmen's compensation, capital improvement, etc. This category provides for a reasonable method to designate a new budget item, without being defensive of the budget increase
- f. Transfer of current budgeting responsibility. This is designated as an ongoing program that is being budgeted in a new organizational area. For example, a program that might be transferred to an academic department from a non-academic department area of the transfer might be inter-university. Again, this category from one department to another should allow for smooth transfer of budget responsibility without being defensive

An expenditure classification budget model can be adaptable to either a program budget format or a line-item department by department budget. A key item in the model is to identify and agree on the meaning of the expenditure categories before the budgeting process begins.

The advantages and disadvantages of an expenditure classification model are as follows:

Advantages:

- a. Gives a clear picture of the budget
- b. Can focus analysis on programs
- c. Provides a rational basis for explaining increases and decreases
- d. Offer alternative to the decision maker
- e. Budget priorities can easily be established

Disadvantages:

- a. A lot of work involved
- b. Somewhat arbitrary decisions must be made on the classification of expenditures. Must be complete agreement with all the units affected by the budget⁹⁹

The variety of budgeting models listed in the preceding compendium is testimony to the search for less costly methods for meeting institutional responsibilities while retaining acceptable levels of educational quality.

Research Studies Related To the Budgetary Processes

Two of the research studies typical of the investigations done on the budgetary processes in institutions of higher education were the studies conducted by McConnell and Feddersen.

McConnell investigated the budgeting procedures of selected Catholic colleges and universities in Pennsylvania with a view toward: (1) Identifying the budgeting procedures used in Catholic colleges and universities and how they compared with accepted procedural criteria, and, (2) evaluating how these procedures differ if any from those of other institutions of higher education. Six institutions chosen for geographical location, enrollment, and religious order were studied. McConnell's study revealed that:

⁹⁹Ohio Board of Regents, "Program Budgeting: Universities, (Columbus, Ohio: Board of Regents Press, 1973), pp. 55-57.

1. The process of preparing the annual budget encompasses two major areas: the actual preparation and formulation of the budget with its ultimate adoption and the execution and control of the budget which usually centers around budget revisions before and after final approval; control of expenditures so that they do not exceed the amount appropriated within the budget and final budget closing at the conclusion of the calendar year.
2. That the budgeting procedures as practiced by Catholic colleges and universities investigated do not differ significantly from those of non-Catholic institutions except: contributed services, annual provincial assessment, student and religious scholarships and religious approval of the budget¹⁰⁰

A self-evaluation checklist on budgeting consisting of evaluative questions pertinent to the three components of the budget document--the education plan, the expenditures plan and the revenue plan offered by Feddersen as a result of a study he conducted utilizing the Delphi technique to actually test these criteria, are of invaluable assistance to administrators and others involved in the preparation, presentation, authorization, implementation, and evaluation of budgets. The self-evaluation checklist follows.

1. Has the college established clearly stated institutional and budgetary goals and objectives which act as overall boundaries and guidelines for institutional and financial policy and decision making?
2. Has the college established institutional and budgetary objectives which are in some way subject to measurement?
3. Is the college's budgetary approach or any of its programs in conflict with stated goals and objectives?
4. Has the college established a priority ranking for objectives and programs?
5. Does the college have in writing and communicate to all budget-makers a list of standard definitions for all financial, budgetary, and academic terms?
6. Has a budget timetable which translates the budget cycle into sequential steps with dealines and assigned responsibility been established?

¹⁰⁰James Le Roy McConnell, "An Investigation of Budgeting Procedures of Selected Catholic Colleges and Universities," (Doctoral dissertation, Pennsylvania State University, 1967).

7. Does the college provide short-term inservice training for those involved in budgeting?
8. Does the college have a sound accounting and financial reporting system which is integrated with the budgeting system?
9. Does the college make use of the computer as a tool to ease the burden of analysis, calculation, and reporting?
10. When making budgetary and program decisions, does the college make unit cost measures such as FTE student cost, credit hour cost, and program cost, available as input information?
11. When allocating limited resources, are alternative plans for accomplishing given objectives considered?
12. When allocating limited resources, are life-cycle costs of programs and activities projected and considered?
13. When allocating limited resources, does the college weigh costs against potential benefits?
14. In addition to preparing an annual budget, does the college prepare long-range projection of future revenues and expenditures?
15. Does the college have a program information system for providing valid program profiles?
16. Has the college examined faculty production standards to see if it is possible for some of the increased budget costs could be offset by increased productivity?
17. Does the college have and utilize a phasing-out procedure for programs and courses that have outlived their usefulness?
18. Are revenues and expenditures related in the budget document, and are all departments and programs also included in this document and related to each other and the resources available?
19. Has one person been designated as being responsible for coordinating the entire budgetary process?
20. When a cost center's budget request requires cutting, is the person responsible for the cost center asked where the reductions should be made within the cost center?
21. Has a budget or priorities committee been established to review the total budget requests and make final appropriations recommendations to the president?
22. Is the budgetary process sufficiently democratic so that there is widespread contribution of necessary budget input information, and involvement in budget decisions by those affected by the decisions?

23. Does the college communicate as clearly as possible to trustees, faculty, staff, students, and the community, its goals, objectives, policies, priorities, program and program rationale, staffing, facilities, revenue, budget and expenditure information?
24. Does the college have sufficient talent to handle the complexities of budgeting and is this talent utilized effectively?
25. Is the possible effect on institutional morale considered by those responsible for allocating financial resources?
26. Does the college informally and formally evaluate the entire resource-allocation system? Are the results of evaluation used as feedback during the next budget cycle?
27. Does the college evaluate the extent to which objectives have been achieved? Are most short term objectives satisfied?
28. Is budgeting conducted on a continuous year-round cycle?
29. Is the budget prepared in sufficient detail so that responsibility can be decentralized and analysis made possible?¹⁰¹

The questions included in Feddersen's checklist for evaluating budgeting in colleges confirm the significance of the budget document as a tool for planning, coordination, control, and management. The checklist also conveys that the budget document itself has to be planned, coordinated and controlled, and, that the processes of budgeting and planning are interrelated, e.g., budgeting is an integral part of planning, and planning is an integral part of budgeting.

Thus far, the review of the literature expanded on the context of this study by presenting an overview of the budgetary processes, the budget document, the budget calendar, and historical developments related to higher education in general and nursing education in particular. Research studies related to budget functions, budgeting practices and procedures were briefly presented. The organizational elements of tasks, actors, strategies and environment have been looked at. A discussion of budgeting technology follows.

¹⁰¹William H. Feddersen, "Developing Criteria for Evaluating Budgeting in Public Community Colleges," (Ed. D. dissertation, Columbia University, 1973).

Technology and Budgeting

Technology has been defined in various ways. Perrow defines technology as "the actions that an individual performs upon an object with or without the aid of tools or mechanical devices, in order to make some change in that object."¹⁰² Technology can also be viewed as the application of science-based methods, information, data and know-how with the primary intentions that the technical objectives should be achieved economically and in a free market profitably.¹⁰³

Paraphrasing the above definitions, the technology of budgeting involves sets of activities, methods, processes, layouts, arrangements, patterns, equipment, machines or tools in identifying and assigning resources to transform what Astin referred to as "student inputs" and "environmental inputs" into "student outputs", in ways that are cost-effective.

Gibson and others posit that the choice of technology is related to the type of input which the firm processes and also to the output which is returned to the environment.¹⁰⁴ Litterer refers to two ways of evaluating technologies--instrumentally and economically. In evaluating a technology instrumentally, the question "Does it work" is asked. Economic criteria consider whether the desired outcome was accomplished with the most economical use of resources or if the greatest

¹⁰²Charles Perrow, "A Framework for the Comparative Analysis of Organizations," *American Sociological Review* 23 (April, 1976), p. 195.

¹⁰³Litterer, Analysis of Organizations, pp. 286-289.

¹⁰⁴James L. Gibson, John M. Ivancevich, James H. Donnelly, Jr., Organizations: Structure, Processes, Behavior, (Dallas: Business Publications, 1973), p. 107.

possible return was achieved. 105

A typology and listing of the wide array of technologies available to administrators for the identification, prediction, allocation, and evaluation of resources is offered by the Ohio Board of Regents as outlined below.

Aids to Resource Allocation

- I. Non-quantitative approaches - these consist of non-quantitative or subjective tools which are based on value judgment, experience and intuition. The operational description of these tools lies in the realm of behavioral science; they rely on individual or collective judgment.
 - A. Creative mental processes (hunches, creativity, intuition)
 - B. Finding the critical factors
 1. Simple decision chains and tables
 2. Asking the right questions
 3. Past experiences and knowledge
 - C. Organization per se
 - D. Rules of thumb
 - E. Simple problem-solving steps
 - F. Policies and procedures
 - G. General knowledge in the field

- II. General Systems Methods
 - A. Problem design
 - B. Non-quantitative simulation model building
 1. Logical-analytical frameworks
 2. Adaptive search
 3. Work flows
 - C. Accounting Systems and Models
 1. Responsibility accounting system
 2. Balance sheet and income statement, balance of funds
 3. Cash-flow analysis
 4. Accounting and budget ratio analysis
 5. Break-even analysis
 - D. Design of Information Systems
 1. Management Information Systems (MIS)
 2. Ohio Board of Regents Information Systems

III. Conventional Scheduling Models

- A. Timetables
- B. Manning Tables
- C. Gantt (Bar) chart
- D. Milestone charts
- E. Critical Path Method (CPM)
- F. Line of balance charts

IV. Quantitative (Mathematical-statistical)

- A. Older quantitative methods
 - 1. Quantitative forecasting
 - a. Trend extrapolation
 - b. Exponential smoothing
 - c. correlation analysis
- B. Newer Mathematical Techniques
 - 1. Probability theory
 - 2. Computer simulation
 - 3. Linear programming
 - 4. Network analysis (PERT Time and PERT Cost)
 - 5. Heuristic problem solving
 - 6. Game theory
 - 7. Cost-benefit analysis
 - 8. Decision trees
 - 9. Utility profiles
 - 10. Statistical probabilities
- C. Complex methods combining several tools
 - 1. Delphi technique
 - 2. Systems analysis
 - 3. CAMPUS
 - 4. Resource Requirements Prediction Model (RRPM)
 - 5. Student flow model
 - 6. PPBS¹⁰⁶

As a general background to a more detailed presentation of some of the specific systems-oriented technologies cited in the preceding outline, the methods of operation of systems approach is presented as described by Knezevich:

1. Organization as a system - viewing the organization as a system with an array of resources focused on a set of objectives to be

¹⁰⁶Ohio Board of Regents, Planning: Universities, p. 67.

- satisfied according to a predetermined plan.
2. Organization as a delivery system - considering an organization or an institution to be a delivery vehicle, that is, a means of converting inputs (resources) into more desirable outputs (results)
 3. Dynamic relationship among elements - recognizing that elements and subsystems within the total system are interactive and inter-dependent components.
 4. Mission orientation - emphasizing the identification and clarification of long-and-short-range objectives must be the first order of activities in operation of the organization.
 5. Inevitability of change - recognizing change as normal, and, therefore, that redefining goals and re-ordering priorities are continuing functions.
 6. Importance of models - creating models, which identify critical factors and establish patterns of relationships among them, to study any and all dimensions of the organization.
 7. Importance of alternatives - demanding a search to identify alternatives for attainment of each objective and analyzing the cost-benefit index for major alternatives.
 8. Importance of long-range planning - emphasizing long-range planning.
 9. Monitoring operations - establishing monitoring subsystems to determine deviations from targeted objectives.
 10. Interdisciplinary problem-solving - employing interdisciplinary problem-solving team.
 11. Scientific decision-making - implementing sophisticated, objective and scientifically-oriented procedures for decision making based on verified data and quantitative analysis.
 12. The evolving system - recycling operations to revise or improve procedures following experience and appraisal of experience.¹⁰⁷

McCanna states that the application of a systems-oriented technological resource allocation aid such as PPBS to any area of endeavor requires that solutions be found to problems in seven areas: program format or structure, analytical techniques, supporting information systems, process, organization, staffing and strategies.¹⁰⁸

Systems-Oriented Technologies

PPBS

The various phases of PPBS are summarized by Knezevich as:

1. Identifying and clarifying measurable and significant outcomes
2. Generation of a programmatic format based on such outcomes

¹⁰⁷Knezevich, PPBS, p. 110.

¹⁰⁸Walter Francis McCanna, "College and University Planning, Programming, Budgeting: Criteria for the Definition of Programs and Program Elements," (Ph.D. dissertation, The University of Wisconsin, 1969).

3. Searching for and acceptance of meaningful program alternatives
4. Identifying the type and magnitude of relevant resources demanded for the pursuit of the program alternative
5. Systems analysis of each alternative
6. Deciding on resource allocation using analysis results
7. Preparation of the program budget document
8. Appraisal of the preparation and execution of the program budget.¹⁰⁹

The growing popularity of PPBS is evident in the abundance of studies and publications related to this multi-dimensional planning and decision-making system. Some of these studies are presented in the review of related research.

Forecasting

A "forecast is defined as a prediction of future conditions based upon a realistically hypothesized environment and specified premises regarding the particular activity of interest."¹¹⁰ Forecasting techniques can be divided into two basic categories: (1) judgmental forecast techniques, e.g., judgmental forecasts, delphi and scenarion; (2) model-based forecasts, e.g., analytical models, simulation models, intrinsic models, (curve fitting, time series), extrinsic models (regression, econometric, input-output).

Judgmental Forecasts

Judgmental forecasts are the most fundamental and perhaps the most frequently used technique. Future values of a variable are predicted by directly specifying their level. A danger with judgmental forecasting is when inexperienced persons make forecasts and when individual forecasts are merged into "consensus forecasts."¹¹¹

¹⁰⁹Knezevich, PPBS, p. 112

¹¹⁰Ohio Board of Regents, Computer Services, (Columbus, Ohio: Board of Regents Press, 1974), p. 105.

¹¹¹Ibid.

Delphi Method

This technique has been used to forecast future technological events by a method of iterations. Basically, experts respond simultaneously to a well defined forecasting question. The responses are then statistically summarized, returned to the experts, and revised forecasts are prepared. The procedure ends when a consensus or total lack of consensus is achieved. The merit of the procedure lies in its ability to maximize the advantage of group dynamics in forecasting while minimizing the problems caused by dominant personalities and silent experts.¹¹²

Scenario

In this technique, the procedures are initiated by postulating a formal set of assumptions (a scenario) about the future environment. Logical arguments are then utilized to develop various specific consequences of these assumptions and these consequences form the basis for the forecast.¹¹³

Model Building Forecasts

The majority of model building forecast techniques involves a description of the situation in mathematical terms such that the outcomes of various change can be quickly and economically established through mathematical term computation. The computer is used in most model building forecasts if there is some complexity and this has led to the development of a number of simulation languages as well as application programs available in computer libraries. The simulation languages allow the fast development of the mathematical model of the process and this in turn

¹¹²Ibid.

¹¹³Ibid.

allows quick response to "what if" types of questions.

Some general types of application program provide detailed information regarding a number of areas of concern to computer services management, i.e., cash flow analysis, growth projections, linear regression, and PERT. The use of these programmed package is usually cost-effective since no development time need to be spent--all that is required is the submission of appropriate data and an understanding of the underlying assumptions in the model.¹¹⁴

Gaming

In gaming, the participants called players work in groups called teams, on a problem. They take decisions of an economic nature such as level of price, the rate of work or production and the allocation of resources. The results of these decisions are calculated somewhat as if the decisions were made in real life. Based on these results called feedback the teams make further decisions. In a sense then, this type of game is a decision making laboratory very much like a science laboratory. In it one can experiment such as not allowed in real life and make mistakes without the implications of the costs of such mistakes were they made in real life. The real world is simulated and imitated but inspite of the artificiality of the game world there is learning resulting from the playing of the game.¹¹⁵

¹¹⁴Ibid.

¹¹⁵K. M. Hussain, Gaming Models in Higher Education: Programs on Institutional Management in Higher Education, (Paris, France: Center for Educational Research and Innovation, October, 1974).

Research Studies Related to Budgeting Technology

The literature abounds with analytical studies related to resource allocation. Dissertation studies on designing and evaluating resource allocation models are presented to illustrate the increased attention given to forecasting techniques within the last decade. Some of the studies regarding models, PPBS and MIS follow.

Ames' A.I.D. Model

Ames developed a model called the "Administrative Instruments for Decision" (A.I.D.) system. Ames stipulated that the directions for improving budgeting decisions are aligned with three themes: (1) that educational budgeting could be improved by developing methods to define and measure objectives, (2) that more needs to be done to reduce the complexity and obscurity of the information used to make budgeting decisions and, (3) that there is a need to spend more time considering the future consequences of today's budgeting decisions.¹¹⁶

Vaughan's Process Model

Vaughan developed a process model integrating planning in a State Education Agency. Vaughan examined existing practices in the State Education Agencies and the literature on the theory of planning and budgeting. Indicators to test the integration of the planning and budgeting processes were generated and further verified by a panel of experts. The indicators were composed of processes, procedures, or overall consideration and include:

¹¹⁶Michael M. Ames, "Application of Certain Business Procedures to Budgeting in Higher Education," (Ph.D. dissertation, Claremont Graduate School and University, 1972):

1. Evaluation is formally used as input to planning
2. The organizational environment is graphically described and understood
3. Anticipated revenues are estimated early and are formally considered
4. Constraints are formally considered
5. Planning guidelines are formally developed, circulated, and utilized
6. Alternative programs are developed and costed
7. Priorities are established with their related costs
8. Results of planning are utilized in budgeting
9. Decisions are made by appropriate officials
10. A rational planning and management sequence is followed
11. Management controls are utilized
12. A program structure is established
13. Planning questions are formulated, updated and answered
14. Needed legislative changes are formally considered

To demonstrate how the agency planning and budgeting processes were integrated, the process model was tested with the indicators and found to meet the conditions specified.¹¹⁷

Weaver's AFCB Model

Weaver developed an "Alternative Futures Contingency Budget" (AFCB) model based on the notion of contingency planning. It is designed to accept the limited ability to significantly influence future states of the world. It offers an approach which improves the ability of the state government to respond rationally to whatever condition develops. A range of "Alternative Futures" each of which consists of detailed projections of relevant economic-political-social demographic characteristics is presented to decision-makers. The decision makers are to produce a long range and supporting budget called "Contingency Budget" for each of the "Futures."¹¹⁸

¹¹⁷Carol M. Vaughan, "A Process Model for Integrating Planning and Budgeting in State Education Agency," (Ph. D. dissertation, The University of Alabama, 1976).

¹¹⁸Rodger L. Weaver, "PPBS and Alternative Futures Contingency Budgets: A Comparative Theoretical Analysis," (Ph.D. dissertation, University of Utah, March, 1974).

Said's I.H.E. Model

Based on the observation that the present budgeting and accounting systems have been shown inappropriate for dealing with the complexities and peculiarities of the institutions of higher education. It allows for the treatment of conflicting goals, provides for consensus decision-making and lends itself to use for planning and control, as well as for description. By use of an abstracting principle called shadowing, the model schematizes an organization's utilization of resources and its impact on society external to itself. It generates alternative plans and forecasts the effects each would have on the organizational system as a whole, so that decision makers can choose courses of action on the basis of future effect when no one plan is obviously optimal by other criteria.¹¹⁹

Womack's Model for Predicting Departmental Maintenance Budgets

Womack developed a model for predicting departmental maintenance budgets and expenditures at the University of Arkansas. The study was designed to aid the equitable distribution of maintenance monies to departments based on objective data either by history or by judgment. It was hypothesized that significant multiple correlations existed between departmental maintenance costs and the size of the department in terms of classes, sections, and laboratories offered, the production of the department in terms of student-semester-credit hours produced and the number of degrees, in addition to other unique characteristics of academic departments. It was concluded that the variables for treatment

¹¹⁹Kamal el-Dien Said, A Budgeting Model for an Institution of Higher Education, (Texas: Board of Regents, University of Texas System, 1974).

did have a significant relationship to the budgets and expenditures of the academic departments of the University of Alabama and that funds for maintenance have generally been allocated in a rational basis using commonly accepted measures.¹²⁰

Lewis' CBS Model

Lewis developed a computerized costing and budgeting simulation model, the "Costing and Budgeting System for Higher Education" (CBS) which models the instructional setting in an institution of higher education. Lewis describes CBS as a management tool designed to assist administrators and planning committees in making rational decisions regarding the allocation and utilization of instructional resources. The model is limited to the calculation of direct costs of instruction, and may be driven with historical or projected data, i.e.:

1. Credit hour load on FTE major induces on each discipline
2. The total credit hour load that all students in a major collectively induce on each discipline
3. The percent of the total credit hour demand in a discipline that goes to support each program
4. The percent of total credit hours consumed from each discipline
5. The dollars that leave each discipline to support each FTE major
6. The dollars that leave each discipline to support collectively all students in each major
7. Unit costs per credit hour for each discipline
8. FTE definitions of faculty workload for each discipline
9. Student-teacher ratio for each discipline
10. Faculty productivity ratio for each discipline
11. Total number of faculty and total faculty salary dollars for each discipline
12. Total budget including line item expenses¹²¹

¹²⁰Farris W. Womack, "A Model for Predicting Departmental Maintenance Budgets and Expenditures at the University of Arkansas," (Ed. D. dissertation, University of Arkansas, 1972).

¹²¹Jack M. Lewis, "The Development of a Computerized Costing and Budgeting Simulation Model for Higher Education," (Ed. D. Dissertation, Virginia Polytechnic Institute and State University, April, 1976).

Kellogg's Study on Virginia's
State Budgeting Process

Kellogg examined the budgeting process of the state of Virginia in light of the national trend toward more centralized, formalized, and rational techniques for allocating funds to public institutions of higher education. Kellogg concluded that the state of Virginia became firmly committed to formal methods of budgeting as evidenced by:

1. Adoption and refinement of formula budgeting by both the Division of the Budget and the State Council of Higher Education
2. Development of Information Data Gathering System and Analysis System by the State Council
3. Purposeful development of an automated data processing capability by the State Council
4. Initiation of electronic data processing techniques by the Division of Budget
5. Adoption of functionally oriented Chart of Accounts representing a step in the direction of a program format
6. The combination of the concepts of program and budget review administered by the State Council in effect constituted a form of program budgeting itself, because the process involved establishing priorities of higher education.¹²²

Arnold's Study of the Status
of PPBS in Illinois

Arnold conducted a status study of Planning Programming Budgeting Systems in selected institutions of higher education in Illinois by focusing on the readiness and willingness of administrators to plan and manage affairs under the concepts embodied in PPBS. The opinions, perceptions, and attitudes of Governing Board Members, Institutional Presidents, and Vice-Presidents for Business Affairs of selected schools, about PPBS were surveyed. Arnold found that:

1. There appears to be a relatively low level of sophisticated knowledge about PPBS, and that the knowledge that is declared is founded on a weak intellectual, albeit practical base.

¹²²Richard Allan Kellogg, "State Controlled Higher Education in Virginia and the Budgeting Process, 1950-1972: A Move Toward Formal Methods," (Ed. D. dissertation, College of William and Mary, January, 1974).

2. There are high levels of positive agreement about issues relating to comprehensive institutional goals and the planning and resources necessary to support these goals
3. There is generally high and positive agreement that there is coordination of planning in the institutions and the flexibility, relevance, and vitality of institutional goals
4. The present budgetary procedures were highly appraised in their capacity to support change in the educational processes and to provide a basis for resource allocation
5. The present organization structures and staffing of the organization is appropriate
6. There is generally low assessment of the present management information systems and the capacity of these systems to support the decision-making and resource allocation processes
7. There is clear indication that institutional policies may impede the creative decision-making environment and that decision makers must rely too heavily on on-quantifiable information
8. All groups indicate that there may be some inequity of resource allocations among systems of institutions and among institutions
9. There is suspicion about the willingness of institutions to be compared and some doubt about the management of present resources being consumed
10. With the exception of Governing Board Members who demonstrate a mixed feeling about training there is very low appraisal of the level of training in PPBS methodologies and serious doubts about the adequacy of staffs with appropriate training to implement the system. Presidents are in almost unanimous agreement that staffs are not available
11. There is serious doubt about the conceptual development of PPBS for Illinois higher education
12. There is conclusive evidence that the outputs of higher education are not now sufficiently well developed so that rational resource allocation decisions can be made based primarily on economics.

Arnold cautioned that the foregoing conclusions do not suggest that there is a totally inhospitable environment for an operational PPBS. In that portion of the findings relating to the predicted or future status of issues surrounding PPBS it was found that planning would improve and be more disciplined under the system. There is also evidence that decisions would be made easier under PPBS and that management information system would be better. The issues of policy formulating and decision making does not appear to be of great concern.

Arnold concluded that while there are numerous indicators of positive agreement about both the present and future status of issues

surrounding PPBS, the negative elements are greater and that PPBS are not now appropriate to Illinois higher education. There is no indication that PPBS will at this time contribute to improved management and resource allocation decisions.¹²³

Edward's study of PPBS
Performance Planning Practices

Another study related to PPBS is Edward's analysis of the PPBS performance planning practices of selected school systems. Edward's study was designed to present information to school system performance planners that would be of use to them in implementing PPBS policy plans. His findings pertain to the attitudes of the superintendents of the schools examined in the study. The results are based on the subjective attitudes and perceptions of the superintendents of schools. Among the most noteworthy conclusions of Edwards' study are:

1. No significant relationship was found between the quality level of the PPBS performance plans and the extent to which the superintendent perceived himself as participating in the making of the initial decision to introduce PPBS into the school system.
2. The more favorable the attitude of the superintendent toward the PPBS performance planning activities, the higher the quality level of PPBS.
3. No significant relationship was found between the quality level of PPBS performance plans and average daily attendance, population of the community, and geographical location of the community.
4. No significant relationship was found between the quality level of PPBS performance plans and whether or not the superintendent perceives himself as voluntarily implementing PPBS or being forced to implement PPBS.
5. No significant relationship was found between the quality level of PPBS performance plans and the incidence of implementation problems occurring within the school system.
6. The age, education level of the superintendent did not affect the quality level of the PPBS performance plans. However, younger

¹²³Donald R. Arnold, "A Status Study of Planning, Programming, Budgeting Systems in Selected Institutions of Higher Education in Illinois," (Ph. D. dissertation, Carbondale: Southern Illinois University, 1967).

superintendents tended to have more favorable attitudes toward PPBS than did older superintendents. Superintendents with doctorates tended to perceive themselves as voluntarily implementing PPBS, while superintendents without doctorates tended to perceive themselves as being forced to implement PPBS¹²⁴

McGovern's Study on the Faculty Data Most Needed
for Management Control and Program Budgeting

McGovern determined the faculty data most needed for management control and program budgeting. Management control concerned operational (present) evaluations and administrative actions while program budgeting designated long-term evaluations and budgetary actions.

The Delphi method of iteration and feedback of group response between questionnaires was used to obtain a consensus for the choice of faculty data requirements. The faculty data categories included in the questionnaires consisted of 35 items:

- Degrees
- Origin of degrees
- Undergraduate major/graduate majors
- Title of dissertation
- Publication (titles and publishers)
- Awards and honors (descriptions)
- Courses taught previously
- Courses presently teaching
- Special interdisciplinary competence
- Level of students prepared to teach
- Courses can teach (present and future)
- Previous experience
- Years of teaching
- Rating as an advisor
- Rating as a member of college community
- Foreign travel
- Rating (success) as a researcher
- Salary/annum (day school)
- Hours taught last semester (part time)
- Hours taught last semester (full time)
- Nature of outside work
- Hours per week of outside paid work
- Faculty rank

¹²⁴Donald R. Arnold, "A Status Study of Planning Programming Budgeting Systems in Selected Institutions of Higher Education in Illinois," (Ph. D. dissertation, Carbondale: Southern Illinois University, 1967).

Tenure
 Sex
 Age
 Number of years since last degree
 Community affairs involvement
 Professional association memberships
 College innovative efforts (new courses)
 Student contact hours/week
 Number of thesis advisees 125
 Percentage of time (hour/week) in various activities

McGovern made the following observations regarding the priority ranking given by administrators of two-year colleges, four-year colleges, and graduate schools to these faculty data:

1. Two-year College Administrators. The two year college administrators gave the highest priorities to the most easily measured data. Of the three levels of higher education, they were the least interested in "subjective categories" such as: "awards", percentage of time in various activities, or rating as a teacher. Evidently, management control consisted mostly in determining courses taught previously, presently, and possibly in the future. "Professional association memberships", and "community affairs involvement" were also unusually low compared to the four-year and graduate schools. The priority rankings indicate that the qualities of the faculty are not half as important as the quantities such as how many courses they should or can teach.¹²⁶

McGovern posits that if the conclusions of the two year college administrators are accepted, then cost-effectiveness would suggest that faculty rank, research, light teaching loads, etc., are inappropriate at a two-year level; that consistent and effective management control should consist of such ratios as cost/course, cost/student, cost/major-student and the number of courses/department.

2. Four-year College Administrators. The four year college administrators displayed the greatest amount of agreement for each priority estimate. However, they also indicated the largest amount of concern for data categories related to promotion, e.g.: salary/

¹²⁵James J. McGovern, "A Study of Faculty Data Needed for Management Control and Program Budgeting: A Delphi Systems Analysis," (Ph. D. dissertation, New York University, 1973).

¹²⁶Ibid.

annum, faculty rank, and tenure status. Also, the fact that this group had the highest priority scores for such categories as student contact hours, and interdisciplinary competence indicates an attempt to use their faculty well.

3. Graduate School Administrators. As expected, most of the quality-assessment type of data were ranked highest in the graduate level, e.g: origin of degree, publications, awards and honors.¹²⁷

Summary

The foregoing review of research studies related to the technology of budgeting concludes the review of the literature. In this chapter, data related to tasks, actors, structure, technology, environment, and strategies related to the budgetary processes of preparation, presentation, authorization, implementation, and evaluation were gathered from publications and research studies done in the fields of business, management, economics, public administration, organization theory, and higher education.

The review of the literature represents the first phase of this study. Data gathered from the literature review are summarized and presented in Table 1, pp.

¹²⁷Ibid.

TABLE 1.--Summary of Literature Review Findings (1964-1976) on Tasks, Actors, Structure, Technology, Environment, and Strategies in the Preparation, Presentation, Authorization, Implementation, and Evaluation of Budgets

Budget Process	Tasks	Actors
Budget Preparation	<ol style="list-style-type: none"> 1. Establish budget planning assumptions 2. Project potential income based on all fund sources 3. Calculate resource requirements based on program goals and objectives 4. Establish priorities and alternatives based on institutional priorities 5. Check requested amounts against established guidelines or formula 6. Prepare documentation to support the budget plan 7. Consult financial experts as appropriate 8. Utilize electronic data services to facilitate analysis 	<p>President Chief Academic Officer Chief Financial Officer Controller Academic Dean Division Chairman Department Chairman Faculty Students Administrative Staff Statistician Systems Analyst Data Processor Auditor Financial Consultant</p>

Structure	Technology	Strategies	Environment
Centralized	Use of electronic data processing	Mode of computer use: Off-campus, centralized or decentralized Batch processing Interactive time sharing Dictated computer	End of the golden decade in higher education New depression in higher education arising from: Inflation Unemployment Student unrest Excess campus space Dip in the stock market Tight federal and state situation
Decentralized			
Dual bureaucracy Management Academic governance	General Systems Methods	Functional computer use: Teaching Problem solving Production processing	Surplus of Ph.D.'s and highly trained engineers and scientist Actual closing of a number of colleges Faculty unrest: collective bargaining Energy crisis Systems approach to management
		Problem design Nonquantitative simulation Model building Logical analytical frameworks Adaptive search Work flows Design of Information System Management Information Systems OBR Uniform Information Systems WICHE-NCHEMS Information Systems Conventional Scheduling Models Timetables Manning Tables Gantt (Bar) Chart Milestone Chart Critical Path Method Line of Balance Charts	
			Increased involvement of federal and state government in master planning and coordination of education Emphasis on statutory and accrediting requirements

TABLE 1.--Continued

Budget Process	Tasks	Actors
Budget Preparation		

Structure

Technology

Strategies

Environment

Faculty and student assertiveness in campus governance

Increased use of technology in planning, management, evaluation, and instruction

Decrease in the traditional 18-21 year old college student. Emphasis on lifelong learning for all ages. Increased enrollment in nursing.

Non-traditional approaches to teaching-learning

Golden decade in higher nursing education characterized by:
National studies on nursing resulting in recommendations for state planning, funding for nursing education with priority given to baccalaureate and higher degree programs

Use of media and computer assisted technology in nursing education

Passage of federal and state laws appropriating funds for nursing education

TABLE 1.--Continued

Budget Process	Tasks	Actors
Budget Presentation	<ol style="list-style-type: none"> 1. Provide review of the budget by appropriate groups 2. Submit budget request on time and meet with appropriate individuals to discuss budget request; consider possible alternatives to any proposed deletions or reductions 	Citizens Special Interest Groups Students Faculty Department Chairman Division Chairman Academic Dean Chief Academic Officer Chief Business Officer Budget Committees President Board of Trustees Board of Higher Education

Structure

Technology

Strategies

Environment

Vertical and lateral lines of communication and authority

As cited in the process of budget preparation

As cited in the process of budget preparation plus the following approaches:
 Non-quantitative approaches-consist of non-quantitative or subjective tools which are based on value judgment, experience and intuition. The operational description of these tools lies in the realm of behavioral science; they rely on individual or collective judgment.

Creative mental processes:

- Hunches
- Creativity
- experience
- Judgment
- Intuition
- Brainstorming

Finding the critical factors:

- Asking the right questions
- Simple decision

Political activism of nurses in lobbying for laws favorable to nursing

Push from professional nursing organization to move all nursing programs to mainstream of nursing education

As cited in the process of budget preparation plus the following factors:

External pressures acting on institutions such as:

- Relentless sweep toward egalitarian social philosophy
- The increasing needs of citizens to cope with change, preserve their identities against the massive machinery of contemporary civilization and live meaningful lives

- Public disenchantment with higher education's research priorities and failure to grapple with urgent social problems

- Increased demands for institution of higher education to

TABLE 1.--Continued

Budget Process	Tasks	Actors
Budget Presentation		

Structure

Technology

Strategies

Environment

chains and tables
 Past experiences
 and knowledge
 Organization per se
 Rules of thumb
 Simple problem solving
 steps
 Policies and proce-
 dures
 General knowledge in
 the field
 Control strategies:
 Coercion
 Remuneration
 Normative
 Power base strategies:
 Coercion
 Reward
 Legitimacy
 Expertise
 Reference
 Change strategies:
 Power
 Normative/re-
 educative
 Empirical/
 rational
 Social influence
 strategies:
 Compliance
 Identification
 Internalization

render community
service

Phenomenal growth
of junior community
colleges

Increased recognition
of role of private
education. Financial
aid to private edu-
cation from state
and federal agencies

Also, strategies cited
in the process of
budget authorization,
implementation and
evaluation

TABLE 1.--Continued

Budget Process	Tasks	Actors
Budget Authorization	1. Obtain official approval of the budget with adequate lead time for implementation	President Board of Trustees Board of Higher Education Legislature Governor Auditors Internal to the Institution Auditors External to the Institution

Structure	Technology	Strategies	Environment
<p>Vertical lines of formal communication and authority culminating in the ultimate power vested in the Board of Trustees in private schools and in the Office of the Governor in public schools</p>	<p>As cited in budget preparation and presentation</p>	<p>As cited under budget preparation and presentation plus the following approaches: Accounting Systems and Models: Responsibility and accounting system Balance sheet and income statement Balance of funds Cash-flow analysis Accounting and budget ratio analysis Break-even analysis</p>	<p>Priority given to education of health professionals</p>
<p>Legal authority vested in the IBHE to review and make recommendations on the budgets of public schools and allocate state capitation monies to private schools</p>		<p>Older quantitative methods: Quantitative forecasting Trend extrapolation Exponential smoothing Correlation analysis</p>	<p>Public demand for accessible, effective, acceptable, continuous health care delivery systems</p>
		<p>Newer mathematical techniques: Probability theory Computer simulation Linear programming Network analysis-PERT</p>	<p>Shortage of nursing manpower in Illinois</p>
			<p>Priority given to baccalaureate and higher degree programs in nursing</p>
			<p>Push for continuing education for nurses</p>
			<p>Increased recognition and involvement of nurses and nursing organization in politics and legislation</p>
			<p>Push for ratification of equal rights amendments in state laws</p>

TABLE 1.--Continued

Budget Process	Tasks	Actors
Budget Implementation	Administer the budget plan based on control measures and with provision for flexibility in implementation	Academic Dean Division Chairman Departmental Chairman Program Level Coordinator Controller Chief Financial Officer Chief Academic Officer President

 Structure

Technology

Strategies

Environment

Heuristic problem solving
 Game theory
 Cost-benefit analysis
 Decision trees
 Utility profiles
 Statistical probabilities

Complex methods combining several tools:

Delphi technique
 Systems analysis
 CAMPUS
 RRPM
 PPBS
 Alternative futures contingency
 Budgeting
 Student flow model

Also, the strategies cited in the process of budget evaluation

Reflects authority decentralized in departments

As cited in the process of budget preparation, presentation, and authorization

As cited in budget preparation, presentation and authorization

Also, strategies cited in process of budget evaluation

Apparent lack of internal control measures

Increasing compliance with control measures imposed by regulatory and accrediting and coordinating agencies

Structure	Technology	Strategies	Environment
Vertical and lateral lines of communication and authority resulting from the iterative and cyclical nature of the budgeting process	All of those cited in the preparation, authorization, and implementation of budgets as cited in the preceding columns	<p>As cited in the preparation, presentation, authorization, implementation of budgets, plus the following approaches:</p> <p>Accounting structure for the outputs of higher education:</p> <p>Instructional Outputs</p> <p>Cognitive Attributes of Students:</p> <ul style="list-style-type: none"> Level of general knowledge Level of knowledge in chosen field Basic language arts skills Critical thinking and reasoning General intelligence <p>Affective Attributes of Students:</p> <ul style="list-style-type: none"> Self concept Satisfaction with educational experience Citizenship Values Achievement motivation <p>Tangible Attributes of Students:</p> <ul style="list-style-type: none"> Earning power Awards Affiliations G.P.A. Level of educational attainment 	As previously cited, plus, increasing concern for accountability internal and external to the institution

TABLE 1.--Continued

Budget Process	Tasks	Actors
Budget Evaluation		

Structure

Technology

Strategies

Environment

Flexibility of
employment
Areas of career
interest

Institutional Environ-
ment Outputs

Academic Environment
Attributes:

Rate of student
success
Mean of time to
reach degree
Faculty turnover
Faculty availability
to students
Academic resources
available
Quality of
instruction
Academic aptitude
mix
Student stress
Faculty stress

Social Environment
Attributes:

Degree of social
activity on campus
Racial mix
Socio-economic mix
Family attitude
characteristics
Social involvement
of student body
Percent resident
(on campus) students
Rate of marriage
among students
Physical environment

Research Outputs:
Reorganization of

TABLE 1.--Continued

Budget Process	Tasks	Actors
Budget Evaluation		

Structure

Technology

Strategies

Environment

knowledge
New inventions and
developments
New ideas and concepts
Personal involvement
of students and others
(instructional spinoff)

Public Service Outputs:
Student involvement
in community
Faculty involvement
in community
Cultural activities
available
Recreation activities
available
Continuing education
activities
Social criticism
Personal services
Indirect community
benefits
Community psychic
income
Product testing

CHAPTER III

PRESENTATION OF DATA

The purpose of this study was to analyze and compare the literature on budgeting processes and strategies with the budgeting processes and strategies actually utilized in the preparation, presentation, authorization, implementation and evaluation of the 1976 fiscal budgets of ten selected Illinois baccalaureate nursing schools.

The focus of this study was to identify, analyze, and compare the commonalities, similarities, and differences in the: (1) tasks, (2) actors, (3) structure, (4) technology, (5) strategies, and (6) environment associated with budgeting as described in the literature and as actually practiced in the schools participating in the study.

Research methodology underlying this study involved two dimensions: (1) review of the literature between 1964-1976, and (2) a modified case study of ten schools. Review of the literature was confined to the years between 1964-1976 because the golden decade of education ended in the mid-1960s ushering in a new depression in higher education which sparked greater interest in budgetary processes and strategies. Since fiscal year 1976 was the locus for comparison between the literature and field study findings, limiting the review of the literature provided a uniform baseline for comparison.

The modified case study approach in this study took the form of site visits to each school for the purpose of interviewing the nursing school administrator and studying documents relevant to the budgetary process in each school.

To generate literature data on budgeting processes and strategies, a wide search and review of books, journals, and other publications in the fields of business, management, public administration, economics, and higher education was conducted.

A summary of the findings on tasks, actors, structures, technology, strategies, and environment associated with the preparation, presentation, authorization, implementation, and evaluation of budgets, as described in the literature between 1964-1976 is shown in Table 1, pp.

Data gathered from the field study phase of this research investigation were generated from: (1) responses given by the chief nursing administrators based on a validated interview guide, (2) study of documents such as organizational charts, job descriptions, minutes of meetings, planning documents, accreditation reports, budget documents and the school catalog, and (3) feedback from the respondents on the written transcript of the interview shared with them.

Findings from the field study are presented in modified case presentation of each of the schools visited. To maintain the anonymity of each school, the schools are referred to by letters in the alphabet rather than by their actual names.

The field study findings on the tasks, actors, structure, technology, strategies, and environment associated with the preparation, presentation, authorization, implementation, and evaluation of the 1976 fiscal year budgets of the sample nursing schools are summarized and presented at the end of this chapter, Tables 2-10, pp.232-250.

SCHOOL A

Institutional Background

School A was a state university located in the southern region of Illinois. In 1975, the university was 106 years old. Its nursing program was established 81 years after School A was founded in response to a felt need for such a program in the area. At the time of this study the nursing program had been in existence for 25 years.

Programs offered at School A led to the baccalaureate, masters, and doctoral degrees. However, only the baccalaureate and masters degrees were offered in nursing. Additionally, courses in continuing education were offered by the nursing program.

One of the nine schools in the university, the nursing school was administered by the dean of the school of nursing who reported directly to the academic vice-president and provost. In 1975, the undergraduate nursing program was fully accredited by the National League for Nursing (NLN); the graduate program was provisionally accredited, the total student enrollment was 445, and the school had a faculty of 27 excluding off-campus clinical preceptors.

Respondent's Background

The dean of the school of nursing served as the respondent in this study. In 1975, she had been on the job for two years. She had an earned doctoral degree. She had some experience in preparing a departmental budget in another school prior to her appointment as dean at School A. In 1977, she attended a national seminar on budgeting and planning in nursing schools, sponsored by professional nursing organizations. #

The Budgetary Cycle

Budget Preparation

Tasks

1. Establish Budget Planning Assumptions

During the 1975-76 academic year, the latter part of which coincided with the budget preparation for fiscal year 1976, there was no indication that the process of establishing planning assumptions for the university was undertaken. However, the school of nursing had a written formal plan of action encompassing all facets of the school's operations, i.e., curriculum, student life, faculty life, research and community service. From the responses given during the interview and from the study of such documents as the organizational chart, job descriptions, faculty minutes, faculty handbook, budget documents, and the school catalog, the following observations point to areas which impact on the process of establishing budget planning assumptions:

- (a) The mission, philosophy, goals and objectives of the university reflective of its multi-purpose and diversified nature designed to meet contemporary education for those it serves was in writing.
- (b) The purpose, philosophy, goals and objectives of the school of nursing reflective of the mission of the university was also available in writing.
- (c) The outcomes of the program offerings in the school of nursing were expressed in behavioral terms.

- (d) A university-wide planning council was operational with faculty representation from the school of nursing.
- (e) A budget manual was available.
- (f) As described in her job description, the dean served as the chief fiscal officer for the school of nursing.
- (g) The fiscal year extended from July 1 to June 30.
- (h) The budgeting horizon for fiscal planning covered a single year.
- (i) The university had computer and data processing services.

2. Project potential income based on all fund sources

Although the dean was able to identify the sources of income for the school of nursing as coming from: (a) student fees, (b) state appropriations, (c) federal capitation, (d) special project grants, there appeared to be no indication that the income from these sources were calculated as a formal step in the preparation of the budget.

3. Calculate resource requirements based on program goals and objectives and compare with available resources

Eight months before the start of fiscal year 1976, the dean of the school of nursing received a memo from the vice-president with instructions to prepare the 1976 nursing school budget. The memo stipulated that the 1976 budget was to be projected on the basis of a four percent reduction of the 1975 budget. Worksheets consisting of line-item budget expenditures, i.e. salaries, travel, equipment, commodities, services and telecommunications came with the memo.

Assisted by three assistant deans and three level coordinators the dean arrived at cost estimates for each of the line items. The basis for arriving at cost estimates for the planned fiscal year were: (a) the 1974 budget, the 1975 budget, (b) anticipated student enrollment and numbers of faculty needed for 1976, and (c) special projects related

to curriculum revision and evaluation and expansion of the continuing education program. Additionally, the dean used such documents as the NIN Faculty Salary Survey, retrospective and forecasting studies on student enrollment, as references in projecting cost estimates.

There was no indication that a formal and deliberate attempt was made to link the cost estimates with the program goals and objectives and available resources.

4. Check requested amounts against established guidelines or formula

Budget worksheets were completed so that the bottom line figure conformed with the directive to reduce the budget by four percent. Additionally, the dean exhibited a high degree of awareness of the statutory and accrediting guidelines related to faculty-student ration, faculty mix in terms of preparation and numbers in each clinical specialty, and other resources essential to a sound educational program.

5. Establish priorities and alternatives based on institutional priorities

The school of nursing's plan of action and statement of goals and objectives indicated that priorities and alternatives were considered by the total faculty as a whole. Priorities were given to curriculum evaluation and accreditation of the graduate program. These were in line with the university's priorities. The dean also cited that new programs in the university were reviewed by a university standing committee referred to as "The New and Expanded Committee." This served as a vehicle for providing faculty input on institutional priorities.

6. Prepare documentation to support the budget plan

A written narrative document explaining the rationale for the amounts requested on the basis of student enrollment, numbers of faculty and special projects, accompanied the budget request. The document was prepared by the dean of the school of nursing.

7. Consult financial experts as appropriate

The dean stated that she did not feel any need to consult any financial expert in preparing the budget; that, "there was no mystique" in preparing the budget and that it was a "cut-and-dried" process.

8. Utilize electronic data processing services to facilitate analysis

Internal to the school of nursing, there was no indication that any analysis were done in relation to budget preparation which required electronic data processing.

Actors

Participants in preparing the 1976 budget were: the academic vice-president-and-provost, the dean of the school of nursing, the assistant deans and level coordinators of the school of nursing. There appeared to be no active involvement by nursing faculty and students in the preparation of the budget.

Structure

The top-down vertical lines of authority and communication were reflected in the preparation of the budget as evidenced by the academic vice-president-and-provost forwarding the budget memo to the dean who is one level lower in the organization's chain of command.

Technology

Outside of the forecasting and retrospective studies on student enrollment which required compture analysis, there appeared to be no other technological approaches to the preparation of the budget. Conventional scheduling models, timetable and manning tables were used as references.

Strategies

The dean cited the following as strategies related to budget preparation: (a) writing grant proposals designed to expand the revenue base of the program, and (b) attendance at national workshops on budgeting in nursing schools. In addition, student enrollment, faculty workload and expansion of the program into continuing education served as the basis for projecting costs.

Environment

The tight state fiscal situation was evident with the mandate to reduce the 1976 budget by four percent. However, the availability of federal funds for nursing suggests an environment favorable to the financing of nursing education. There appeared to be no mechanism for democratic participation by nursing faculty and students in the preparation of the budget.

Presentation of the 1976 Budget

Tasks

1. Provide review of the budget by appropriate groups

The prepared budget request was presented by the dean to the executive committee of the school of nursing, a standing faculty committee whose functions include review of budgetary matters. The 1976 budget request was approved by the executive committee as presented by the dean.

2. Submit budget request on time and meet with appropriate individuals to discuss the budget request; consider possible alternatives to any proposed deletions or reductions.

One month after the budget worksheets were received, the completed budget request was submitted to the vice-president-and-provost. A meeting

was held with the dean and the academic vice-president-and-provost to discuss the budget request. No changes were made in the budget request as submitted.

The academic budget which included the nursing budget was forwarded to the program review committee, a university-wide faculty budget review committee. No revisions in the nursing budget were made at this level. From the program review committee, the budget request went to the administrative council advisory to the president, and from there to the president.

Actors

Participants in the presentation of the budget were the faculty, the dean, vice-president, other administrators in the vice-presidential level and the president.

Structure

The budget presentation process reflects the lateral and bottom-up vertical lines of communication among faculty and administrators. This decentralized form of communication was evident in the provision for faculty input into the budget request.

Technology

There appeared to be no technological approaches and devices used in the presentation of the nursing budget.

Strategies

The dean submitted a written documentation and met with the vice-president to explain and support the budget request.

Environment

Since no changes were made in the budget request, there appeared to be a favorable environment toward the nursing budget. Provisions were made for the democratic participation of the faculty in the review of the budget.

Authorization of the 1976 Budget

Tasks

Obtain official approval of the budget with adequate lead time for implementation

The institutional budget request of School A was submitted by the president to the Board of Southern Regents. From this group it went to the Illinois Board of Higher Education for review and recommendations. It was then forwarded to the general assembly of the Illinois legislature and finally to the governor for approval or veto. The budget was approved a month before the start of the fiscal year.

Actors

The approval process of the budget involved the president, the board of regents, the members of the board of higher education, the general assembly of the legislature and the governor.

Structure

The approval process reflects the ultimate power and authority vested in the governor and the participation of the actors external to the institution.

Technology

As far as the nursing school was concerned, there were no

technological approaches used in relation to the authorization of the budget.

Strategies

The school of nursing dean related that to encourage continued state funding for nursing education, she made a presentation in a public hearing sponsored by the Health Education Commission of the Illinois Board of Higher Education.

She expressed that nursing administrators should be sensitive to the statewide climate regarding health education. She made the observation that in the 70's education of health care professionals was given a high priority in the state which exerted some pressure to the university system to commit funds to nursing education.

Environment

The politics of working with a state coordinating board of higher education is a factor in the authorization of the budget. However, there appeared to be a favorable and supportive environment to nursing education.

Implementation of the 1976 Budget

Tasks

Administer the budget plan based on control measures and with provision for flexibility in implementation

At the beginning of the fiscal year, the dean received a computerized printout of the budget indicating the allocations for each line item. A monthly report indicating the levels of spending in each line item was issued by the business office. There were no indications of internal controls except for the provision that all budget requisitions were to be approved by the dean of the school of nursing. External

in the nursing budget, the environment appeared to be favorable to nursing.

Evaluation of the 1976 Budget

Tasks

Compare program costs with units of outputs reflective of program goals and objectives, and utilize results of evaluation as feedback for the next budget cycle

At the end of the fiscal year there was no formal evaluation of the budget. Although outputs of the nursing program such as: (a) number of degrees awarded, (b) credit hours produced, (c) research studies conducted, (d) community service projects, (e) number of graduates passing state boards, etc. were readily available, there were no attempts to link the program costs with these units of outputs.

The actual expenditures incurred in the line-item categories of the 1976 budget were used as the primary basis for projecting cost estimates for the 1977 fiscal budget. External auditors attested to the way grant awards to nursing were actually expended.

Actors

Since the evaluation of the budget took place only during the preparation phase, the participants in the appraisal of the budget were the same actors responsible for budget preparation: the academic vice-president-and-provost, the dean, the assistant deans, and level coordinators of the school of nursing.

Structure

Comparison between planned and actual expenditure receipts as the basis for cost projections of the planned fiscal year's budget.

Environment

Characterized by lack of accountability measures internal to the institution. Accountability measures and controls imposed by regulatory agencies external to the institution were observed in the disbursement of nursing funds.

Summary

School A was a state university with an NLN-accredited undergraduate nursing program and a provisionally accredited graduate nursing program, administered by the dean of the school of nursing who reported directly to the vice-president-and-provost, and who served as the chief fiscal officer of the school of nursing.

The budgetary cycle in School A involved planning for a single fiscal year. Budget preparation started eight months before the beginning of the new fiscal year with a memo from the academic vice-president and line-item budget worksheets with the directive to prepare the 1976 budget by a four percent reduction of the 1975 budget. Cost estimates were arrived by the dean with the assistance of three assistant deans and level coordinators on the basis of the 1974 and 1975 budgets adjusted by the anticipated student enrollment and numbers of faculty needed for 1976.

The budget request was presented to the executive committee, a standing faculty of the school of nursing for review. No changes were made. The budget request was submitted one month after receipt of the budget worksheets to the academic vice-president with attached documentation. A meeting was also conducted between the dean and the academic vice-president to discuss the budget request. There were no changes made at this level.

The academic vice-president submitted the academic budget to a university-wide budget review committee. From there it went to the administrative council advisory to the president, then to the president, the board of regents, the Illinois Board of Higher Education, and then to the legislature and finally to the governor for approval.

There was a noticeable lack of technological approaches and pre-planned strategies in the budgetary cycle in the school of nursing. However, it was apparent that no changes or problems related to the budget emerged, because of the environment favorable toward the funding and support of education of health care professions such as nursing.

SCHOOL B

Institutional Background

School B was a state university located in a town south of Chicago. In 1975, both the university and the nursing program have been in existence for six years.

Both the institution and the nursing school offered degrees at the baccalaureate and masters levels. At the time of this study, the nursing program was not accredited. Initial accreditation was scheduled for Spring, 1978.

Organized as a program within the science division of the college of environmental and applied science, the nursing program was administered by a nursing program coordinator who reported directly to the director of the science division, who in turn was responsible to the college dean. In 1975, the nursing program had a student enrollment of 122 and a faculty of seven, excluding off-campus preceptors for clinical instruction.

Respondent's Background

The nursing program coordinator, a registered nurse with an earned doctoral degree served as the respondent for this study. In 1975, she had been on the job for two years. She had no previous background in budgeting. She did not have an orientation or in-service training on the budgetary process at School B.

The Budgetary Cycle

Budget Preparation

Tasks

1. Establish budget planning assumptions

There were no documents which indicated that planning assumptions were established in a formal, deliberate manner. However, from the responses given during the interview and from the study of such documents as the school catalog, job descriptions and budget documents, the following observations were noted which according to the literature were areas related to the establishment of planning assumptions:

- (a) The institution had a written statement of mission, philosophy, goals and objectives reflective of its nature as a public institution established to provide capstone programs for transfer students and to offer self-paced learning and non-traditional instruction
- (b) Although the nursing program had no written long-range plans, there was a written statement of philosophy, goals and objectives for nursing, reflective of the university's mission
- (c) Educational plans for the various curricular offerings in nursing were well developed and outcomes were expressed in behavioral terms
- (d) Institutional planning within School B was coordinated by a committee reporting to the vice-president for research and innovation; the nursing program was represented to this committee by the nursing program coordinator

- (e) A budget manual was available
- (f) As outlined in the job description, the nursing program coordinator was responsible for fiscal matters affecting nursing
- (g) The fiscal year extended from July 1 to June 30
- (h) The budgeting horizon covered only a single fiscal year
- (i) The program coordinator was highly aware of the statutory and accrediting requirements related to baccalaureate and higher degree nursing programs

2. Project potential income based on all fund sources

Revenue for the nursing income were identified by the nursing program coordinator as coming from: student fees, state appropriation and federal capitation monies. She was aware only of the amount of money for nursing coming from the capitation funds. She stated that the nursing program had complete control of how the capitation funds were allocated. There appeared to be no indication that a deliberate attempt to identify the potential income from all the fund sources was undertaken.

3. Calculate resource requirements based on program goals and objectives and compare with available resources

About five months before the start of the fiscal year, the nursing program coordinator received budget worksheets from the division director, which consisted of line items, i.e., salaries, travel, supplies and equipment. Working with the faculty as a committee of the whole, the nursing program coordinator arrived at cost estimates for each item by projecting the expected student enrollment and numbers of faculty needed for 1976, and by referring to the previous and current year's budgets. There appeared to be no attempt to compare the anticipated expenditures with available resources.

There was no indication that the program goals and objectives were formally considered in the preparation of the budget request, as a distinct identifiable step in the preparation of the budget, although it was apparent that they were informally considered when allocations for the various line item categories were made. For instance, NLN-accreditation of the undergraduate program was a goal for the planned fiscal year and allocation for consultants and for the accreditation visit were included in the budget request.

4. Check requested amounts against established guidelines or formula

There appeared to be no guidelines internal to the institution. However, the nursing coordinator was cognizant of the statutory requirements and accrediting guidelines related to the faculty-student ratio and faculty mix in relation to the various clinical specialties, and these were considered in projecting cost estimates.

5. Establish priorities and alternatives based on institutional priorities

The nursing program's statement of goals and objectives reflected that priorities were established by the total faculty acting as a committee of the whole. Priorities were assigned to curriculum revision and seeking NLN accreditation for the undergraduate nursing program. These were in line with the university's priorities.

6. Prepare documentation to support the budget plan

No documentation was prepared to accompany the budget request.

7. Consult financial experts as appropriate

There were no consultations made by the nursing coordinator with any of the financial officers of the institution.

8. Utilize electronic data processing services to facilitate analysis

Internal to the school of nursing, there was no indication that

electronic data processes were utilized in preparing the budget request.

Actors

The participants in the budget preparation phase of the budget cycle in School B were: the science division director, the nursing program coordinator and the nursing faculty. The students had no role in budget preparation.

Structure

Formal lines of authority and communication flowing from the division chairman to the nursing program coordinator to the nursing faculty were reflected in the preparation of the budget.

Technology

There were no indications of use of technological devices in preparing the budget. Conventional scheduling models, timetables and manning tables were used as references.

Strategies

Maintaining open lines of communication between the nursing coordinator and the science director appeared to be the primary strategy. Faculty input in projecting cost estimates were provided for. Student enrollment, faculty workload, and goals related to accreditation were the basis for projecting costs.

Environment

There appeared to be a democratic atmosphere allowing for faculty participation in the budget preparation process. There appeared to be a supportive environment toward the nursing program.

Budget Presentation

Tasks

1. Provide review of the budget by appropriate groups

There was no formal budget review committee within the nursing faculty. However, the total nursing faculty served as a committee of the whole in reviewing the budget. The budget request was presented to the faculty by the nursing coordinator. No changes were made in the budget request as presented.

2. Submit budget request on time and meet with appropriate individuals to discuss the budget request; consider possible alternatives to any proposed deletion or reduction

A meeting was held between the nursing program coordinator, the science division director, and the college dean. The nursing program coordinator used this occasion to stress the priority given by the nursing faculty to obtaining NLN accreditation for the nursing program. There were no changes made in the budget request so there were no discussions related to deletions or reductions in the budget.

Actors

Participants in the presentation of the budget included the nursing coordinator, the division director and the college dean.

Structure

Bottom-up flow of communications was reflected in the presentation of the budget as evidenced in the process whereby the coordinator forwards the request upward the chain of command.

Technology

There was no evidence of use of technological devices or approaches in the presentation of the budget.

Environment

There appeared to be a democratic environment conducive to participatory governance in the presentation of the budget.

Strategies

A lack of understanding of the goals and objectives and role of the nursing program in the college was cited by the nursing program coordinator as a concern to the nursing faculty. She reported that she and the nursing faculty utilized every opportunity such as meetings with other administrators and faculty to interpret the goals and objectives of the nursing program.

Budget Authorization

Tasks

Obtain official approval of the budget with adequate lead time for implementation

The college dean submitted the academic budget which included the nursing budget to the new and expanded review committee, a university-wide faculty committee, for review. No changes were made in the nursing budget at this level. From there it went to the administrative council advisory to the president. The president in turn submitted the institutional budget to the university's board of trustees. The board of trustees in turn submitted the budget of the university systems they were responsible for to the Illinois Board of Higher Education as mandated by law. From the IBHE, the budget went to the legislature for

ratification and finally to the governor for approval.

Actors

The approval process of the budget involved the president, the board of trustees, members of the board of higher education, members of the general assembly of Illinois and the governor.

Structure

The structure for budget authorization reflected the ultimate power and authority vested in the governor.

Technology

As far as the nursing program was concerned, there were no technological approaches used in the authorization of the budget for 1976.

Strategies

There were no indications of any strategies used by the nursing coordinator in the authorization of the budget.

Environment

Since there were no changes made in the nursing budget, the environment appeared to be supportive toward nursing education.

Budget Implementation

Tasks

Administer the budget plan base on control measures and with provision for flexibility in implementation

At the beginning of the fiscal year a computerized budget print-out for the fiscal year was received by the nursing program coordinator. There were no written guidelines or control measures internal to the nursing program, although there was implied expectation to keep a

balanced budget. Variances in spending within the categories were allowed upon the approval of the nursing coordinator. This appeared to be the only control measure that was practiced. External control was exerted by the federal agency in terms of ensuring that monies earmarked for nursing were spent accordingly.

Actor

The primary actor in the implementation of the budget was the nursing program coordinator.

Structure

The authority vested in the nursing coordinator as the fiscal officer for nursing was reflected in the implementation of the budget.

Technology

A computerized budget printout was the only indication of the use of technology in the implementation of the budget.

Strategies

The levels of spending in each of the budget line-items were monitored monthly through the budget reports. Actual expenditures were compared with planned expenses.

Environment

There were no control measures internal to the institution regarding the implementation of the budget. External control came from funding agencies in the form of independent audits of funds allocated to nursing.

Budget Evaluation

Tasks

Compare program costs with units of outputs reflective of program goals and objectives, and utilize results of evaluation as feedback for the next budget cycle

There appeared to be no formal evaluation of the budget except for the monthly monitoring of the levels of spending. Unencumbered funds if any, reverted back to the general funds at the close of the fiscal year.

Although units of outputs are readily known and available, there were no attempts to link program costs with program outputs. The previous year's budget served as the primary working document in the preparation of the planned fiscal year's budget. External auditors were used to comply with statutory reporting requirements related to disbursement of capitation monies.

Actors

Since the evaluation process took place during the preparation phase, the actors in the preparation of the budget served as evaluators: the science division director, nursing coordinator and faculty.

Structure

The structure for evaluation reflected a decentralized form of decision-making in resource allocation.

Technology

Conventional scheduling models, manning tables and timetables, were used as references in evaluation of the budget.

Strategies

The strategies for budget evaluation consisted of maintaining open lines of communication and consideration for faculty workload, student enrollment and preparation for the accreditation.

Environment

Internally, the environment was characterized by lack of control measures such as cost-effectiveness measures and performance accounting. Externally, compliance with statutory requirements had to be met.

Summary

School B was a state university with a nursing program which offered degrees in the baccalaureate and masters levels. The nursing program coordinator reported directly to the science division director who in turn reported to the college dean.

Budget planning in School B involved a single fiscal year. Five months before the start of the new fiscal year the nursing coordinator received line item worksheets from the science director. Assisted by the total nursing faculty a budget request was prepared, reviewed and submitted to the science director who in turn submitted his division budget to the college dean. The college budget was reviewed by the university's new and expanded program committee, forwarded to the administrative council advisory to the president, then to the president, and from him, to the board of trustees. In turn the institution's budget was submitted to the IBHE for review, then presented to the legislature, and finally to the governor for approval.

There were no changes made in the nursing budget at any level and in any of the phases of the budget cycle. There was a marked ab-

sence of the use of technological approaches or planned strategies in the preparation, presentation, implementation and evaluation of the budget.

Since no changes or problems arose in relation to the 1976 nursing budget plan, the environment appeared to be supportive toward nursing education.

SCHOOL C

Institutional Background

School C was a private Catholic university located in the northern metropolitan Chicago area. It had a second campus and a medical center in a suburb west of Chicago. In 1975, the university has been in existence for 105 years. The nursing program was established 60 years after the university was founded, and at the time of this study was 45 years old.

Degrees offered by the university were at the baccalaureate, masters and doctoral levels. The nursing program offered only the baccalaureate and masters degrees. Both the graduate and undergraduate components of the nursing program were accredited by the NLN.

Organized as one of the several schools in the university, the nursing school was administered by the dean of the school of nursing who reported directly to the academic vice-president-and-dean-of-faculty, and to the vice-president of the medical center. In 1975, the school of nursing had a student enrollment of 850 and a faculty of 41.

Respondent's Background

The dean of the school of nursing, a registered nurse with an earned doctoral degree served as the respondent of this study. She has been on the job as dean for two years. She had no experience in budgeting prior to her appointment as dean. She did not have any orientation or in-service training or workshop on the budgetary process at School C. In 1977, she attended a national workshop on planning and budgeting in nursing schools, sponsored by a professional nursing

organization.

The Budgetary Cycle

Budget Preparation

Tasks

1. Establish budget planning assumptions

There were no indications that planning assumptions were established as a separate process or in relation to budgeting. However, from the responses given during the interview, and from the study of such documents as job descriptions, organizational chart, faculty handbook, accreditation reports, budget documents and the school catalog, the following observations were noted which according to the literature were areas related to the establishment of planning assumptions:

- (a) The university had a written statement of philosophy, goals and objectives reflective of its mission to gather and disseminate knowledge as specified by the Jesuit tradition, dedication to higher education, health care, excellence in teaching, and supportive of research and community service
- (b) Although the school of nursing did not have a written long-range plan, it had a written statement of goals and objectives reflective of the university's mission
- (c) The educational plans undergirding the various program offerings were well developed and program outcomes were expressed in behavioral terms.
- (d) An all-university planning council was charged with institutional planning and was directly responsible to the president; the school of nursing was represented to this council by the

dean

- (e) As outlined in the job description, the dean was the chief fiscal officer of the school of nursing
- (f) The fiscal year extended from July 1 to June 30
- (g) The budgeting horizon for fiscal planning was confined to a single year
- (h) The institution had electronic data and computer services
- (i) The dean was highly knowledgeable about the statutory and accrediting requirements for baccalaureate and higher degree nursing programs

2. Project potential income based on all fund sources

The dean identified the source of income for the nursing school as coming from: student fees, state capitation, federal capitation, special project grants from federal agencies, and private foundation funds earmarked for audiovisual instruction. Knowledge of the income generated by students and other fund sources was considered by the dean as an important dimension of the preparation of the budget.

3. Calculate resource requirements based on program goals and objectives and compare with available resources

Nine months before the start of the 1976 fiscal year, the dean received a budget memo and worksheets from the vice-presidents and dean of faculties. There were no instructions that came with the budget memo. The worksheet consisted of line-items as salaries, printing, postage, memberships in professional organizations, laundry, entertainment, contingency, serox, consultants, travel, lab supplies, and services.

Cost estimates on each of these line items were arrived at on the basis of projected student enrollment and numbers of faculty for

the planned fiscal year. Assistance was provided by three department chairmen and an administrative assistant whose primary function was to monitor the budget. Input from the faculty on their instructional needs and related budget requests were obtained informally by each department chairman throughout the academic year. The previous and current year's budgets were the major references in arriving at cost estimates. Additionally, the dean used the NLN Faculty Salary Survey as a reference in casting the faculty salaries.

Although the dean was aware of the fund sources for nursing she did not appear to have knowledge of all the resources that could be available to nursing within the institution. There appeared to be no indication that anticipated expenses were compared with available resources.

Amounts over \$7,000 were considered to be capital expenditures and were prioritized by the administrative council advisory to the president. There appeared to be no indication that resource requirements were directly compared with the statement of program goals and objectives, although these were taken into consideration in projecting cost estimates for the various line items in the budget request.

4. Check requested amounts against established guidelines or formula

There were no guidelines or formula for the budget. The dean expressed that the university did not operate on the principle of a "tub on its own bottom." She cited that the nursing school was conceived during the depression in the 30's and that the university felt it was part of its mission to have a school of nursing and, therefore, money was not an issue in the school of nursing. Statutory and accrediting guidelines were taken into consideration in making the budget projections.

5. Establish priorities and alternatives based on institutional priorities

The school of nursing's statement of goals and objectives which were developed collectively by the total faculty reflected the school's priorities. These included the development of a week-end program and exploring the feasibility of offering programs in underdeveloped countries in line with the university's theme of social justice. There were no formal statements of alternatives.

6. Prepare documentation to support the budget plan

A written rationale centered around supporting data for faculty salary increases, recommendations for additional faculty positions and need for more space accompanied the budget request. These were prepared by the dean with some assistance from the department chairman.

7. Consult financial experts as appropriate

The dean stated that she did consult with the budget officer by phone regarding the types of items that can be included in the various categories. The budget officer was also consulted in the preparation of budgets required in grant proposals.

8. Utilize electronic data processing service to facilitate analysis.

There was no evidence of the use of electronic data processing services in the preparation of the budget.

Actors

Participants in the preparation of the budget included the dean, the department chairmen, an administrative assistant and the faculty. The students played no role in the preparation of the budget.

Technology

No special approaches or devices were used. Conventional scheduling models, timetables and manning tables were used as references.

Environment

There appeared to be a democratic environment which provided for faculty participation in the preparation of the budget. The financial crunch did not appear to affect the school of nursing or the university as a whole.

Strategies

The dean considered it important to know where the money was coming from and how much it costs to educate the student. Cost estimates were made on the basis of student enrollment, faculty workload, curriculum expansion and the budget history of the school of nursing.

Budget Presentation

Tasks

1. Provide review of the budget by appropriate groups

There was no faculty review committee within the school of nursing. The three department chairmen served as the budget review committee.

2. Submit budget request on time and meet with appropriate individuals to discuss the budget; consider possible alternatives to any proposed deletion or reduction

A meeting was held between the dean and the academic vice-president and the dean of faculty to discuss the nursing budget request. No changes were made on the budget request as submitted.

It was submitted about a month after receipt of the budget worksheets.

Actors

Participants in the presentation of the budget included the dean, department chairmen and the vice-president and dean of faculty.

Structure

The vertical and lateral lines of communication depicted in the organizational chart were reflected in the presentation of the budget as evident in the participation of the central administration, as well as faculty in the presentation of the budget.

Strategies

Open lines of communication and maintaining good relationships with faculty and administration were cited by the dean as strategies she utilized in the presentation of the budget.

Environment

A democratic and supportive atmosphere appeared to characterize the presentation of the budget.

Budget Authorization

Tasks

Obtain official approval of the budget with adequate lead time for implementation

The academic vice-president submitted the completed academic budget to the administrative council advisory to the president, then to the president. The president in turn submitted the institutional budget to the board of trustees for final approval. The budget was approved one month before the start of the fiscal year.

Actors

Participants in the approval process were the vice-president and dean of faculty, the members of the administrative council, the president and members of the board of trustees.

Structure

The ultimate power and authority vested in the board of trustees was reflected in the authorization of the budget.

Technology

There appeared to be no technological approaches or devices used in the authorization of the budget.

Strategies

The dean cited that visibility of the nursing school administrators and faculty in social functions, as well as active involvement and liaison work in university committees as strategies related to enhancing the power base of nursing.

Environment

Since there were no changes made in the nursing budget, there appeared to be an environment favorable to nursing education.

Budget Implementation

Tasks

Administer the budget plan based on control measures and with provision for flexibility in implementation

Internally, there were no control measures evident in relation to the implementation of the budget, except the structure whereby the dean had to approve all budget requisitions within nursing. External controls were imposed by state and federal funding agencies as well as

private foundations to ensure that monies earmarked for nursing were spent accordingly.

At the beginning of the fiscal year the dean received a computerized printout of the budget statement which indicated the allocations for each of the line items. A monthly report was issued throughout the fiscal year. The dean's administrative assistant monitored the levels of spending through the monthly budget printouts. Variances of spending within the same budget objects were permissible. Transfer of funds from one item to another were allowed upon request of the dean. Budget amendments could be requested to cover unexpected expenses. Surplus funds at the end of the year may be carried over to the next fiscal year upon request. Controls imposed by state and federal funding agencies were adhered to by the business office in collaboration with the dean of the school of nursing.

Actors

Participants in the implementation of the budget were the dean, the department chairmen, and budget officers.

Structure

The authority vested in the dean as the chief fiscal officer for the school of nursing was reflected in the implementation of the budget.

Technology

The computerized budget printout appeared to be the only technological device used in the implementation of the budget. Accounting procedures were followed by the financial officers.

Strategies

The dean used approval and veto power as appropriate in the administration of the budget.

Environment

There appeared to be no precontrol and postcontrol measures on the implementation of the budget outside of the structure which allowed the dean to approve or veto budget requisitions. External controls were imposed by extramural funding agencies.

Budget Evaluation

Tasks

Compare program costs with units of outputs reflective of program goals and objectives and utilize results of evaluations as feedback for the next budget cycle

There were no formal evaluations of the budget at midyear or at the end of the year. However, the administrative assistant to the dean monitored the monthly levels of spending and advised the dean accordingly. In preparing the planned fiscal year's budget, the previous and current year's budgets served as the primary references. Although program outputs were readily known and available, they were not analyzed in terms of unit costs.

Actors

Participants in the evaluation process were the dean, the administrative assistant, and those involved in budget preparation.

Structure

Formal lines of authority reflective of the organizational

structure of the college were followed in the evaluation of the budget. A decentralized form of decision-making was evident in the participation of central administrators as well as faculty in the appraisal of the budget.

Technology

There were no analytical studies done which required technological devices.

Strategies

Monthly monitoring of the budget by the administrative assistant and by the dean, and use of the previous and current year's budgets in projecting the planned fiscal year's budget were cited as strategies for budget evaluation.

Environment

Internally, the environment for budget evaluation was marked by lack of control measures based on cost-effectiveness. Externally, audit statements from auditors independent of the institution were required by funding agencies.

Summary

School C was a private Catholic university with an NLN-accredited baccalaureate and masters programs in nursing, administered by the dean of the school of nursing who reported directly to the academic vice-president.

The budgetary process in School C was initiated by a memo received by the dean eight months before the start of the fiscal

year, with budget worksheets which consisted of line-item categories. With the assistance of the department chairmen and an administrative assistant, cost estimates were projected on the basis of the previous and current year's budgets adjusted by anticipated student enrollment and numbers of faculty for the planned fiscal year.

There was a noticeable lack of use of technological approaches and devices and absence of control measures internal to the institution. External controls were imposed by funding agencies outside of the institution.

There were no revisions and changes made in the budget plan suggesting an environment favorable to nursing education.

School D

Institutional Background

School D was a private Catholic university located in the northern metropolitan Chicago area. In 1975, the institution was 77 years old. The nursing program was established 51 years after the institution was founded, and has been in existence for 28 years.

Degrees offered in School D were at the baccalaureate, masters and doctoral levels. Program offerings in nursing were at the baccalaureate and masters levels only. Both the undergraduate and graduate components of the nursing program were accredited by the NLN.

Organized as one of the 18 departments in the college of liberal arts and sciences, it was administered by a department chairman who reported directly to the dean of the college of arts and sciences and to the dean of the graduate school. In 1975, the nursing department had a student enrollment of 400 and a faculty of 22.

Respondent's Background

The nursing department chairman, a registered nurse who was a doctoral candidate in higher education administration, served as the respondent for this study. In 1975, she has been on the job for four years. She had no experience in budgeting and she was not given any orientation or in-service workshop on the budgetary process at School D.

The Budgetary Cycle

Budget Preparation

Tasks

1. Establish planning assumptions

During the 1975-76 academic year, the latter half of which coincided with the preparation of the 1976 fiscal year budget of School D, there were no formal statements of planning premises for the institution.

However, from the responses given during the interview and from the study of such documents as organizational charts, job descriptions, budget documents and the school catalog, there were developments observed in the institution which according to the literature were areas related to the establishment of planning premises. Some of these observations included:

- (a) A written statement of philosophy, goals and objectives reflective of its mission to relate the world of higher education and the modern world with its Judeo-Christian heritage, and to work toward the perfection of the individual person through purposeful involvement with other persons, communities and institutions, was available
- (b) A university planning council directly reporting to the president was operational during the academic year 1976-77 with faculty representation from the department of nursing
- (c) Although the department of nursing had no formalized long range plans, it had a formal statement of goals and objectives

reflective of the university's mission

- (d) The educational plans underlying the various nursing programs were in writing and program outcomes were expressed in behavioral terms.
- (e) The fiscal year extended from July 1 to June 30
- (f) The budgeting horizon covered a single fiscal year only
- (g) The nursing department chairman's job description charged her with the responsibility of preparing the department's budget
- (h) A high level of awareness of statutory and accrediting requirements regulating nursing programs was displayed by the nursing chairman
- (i) The institution had electronic data processing services

2. Project potential income based on all fund sources

Revenue for the nursing department were described as coming from: student fees, state capitation, federal capitation, special project grants from federal agencies, and from private philanthropy. Although the chairman was able to identify the fund sources for nursing, it did not appear that potential income from these sources were customarily calculated as part of the budgetary process in the nursing department.

3. Calculate resource requirements based on program goals and objectives and compare with available resources

Six months before the beginning of the 1976 fiscal year, the nursing chairman received budget worksheets from the dean of the graduate school which consisted of line-items such as travel, salaries, supplies, equipment, consultants, and the like.

There were no instructions that came with the worksheet ex-

cept that the completed worksheet was due in three weeks. The nursing chairman calculated the project costs for each line item on the basis of: (a) the 1974 and 1975 budgets, (b) the anticipated student enrollment and numbers of faculty needed for 1976. Although the statement of goals and objectives were not used in a formal way, these were considered in arriving at cost estimates as well as accrediting and statutory requirements related to faculty-student ratio and faculty mix. The nursing chairman claimed that she did not get any assistance from anybody in preparing the 1976 fiscal year budget. There were no attempts to compare the anticipated expenditures with the anticipated income.

4. Check requested amounts against established guidelines or formula

There were no internal guidelines related to the budget. However, guidelines imposed by the state and funding agencies were observed.

5. Establish priorities and alternatives based on institutional priorities

The department's statement of goals and objectives which was developed by the total faculty reflected priorities given to curriculum revision, implementation and evaluation.

6. Prepare documentation to support the budget plan

No documentation was prepared from the expressed purpose of supporting the budget request.

7. Consult financial experts as appropriate

The nursing chairman did not meet or consult with any financial officer at any time during the budget cycle.

8. Utilize electronic data processing services to facilitate analysis.

There were no indications of need to use electronic data processing services. Conventional scheduling models, timetables and manning tables were used as references.

Actors

The participants in the preparation of the budget were the dean of the graduate school and the department chairman. There appeared to be no involvement from the nursing faculty and students.

Structure

Reflected the formal lines of authority and communication from the dean to the chairman, and the legitimate authority vested in the chairman's role.

Technology

There appeared to be no attempts to use any technological devices or approaches in the preparation of the budget.

Strategies

Cost estimates were arrived at on the basis of student enrollment, faculty workload, curriculum-related projects, and the budget history of the nursing department.

Environment

There appeared to be lack of communication and a medium for democratic participation for faculty in the preparation of the budget.

Budget Presentation

Tasks

1. Provide review of the budget by appropriate groups

There was no indication that the budget request was presented to the nursing students or faculty for review.

2. Submit budget requests to appropriate individuals on time

Three weeks after the budget request was issued, the nursing chairman submitted the completed budget request to the graduate dean.

3. Meet with appropriate individuals and discuss the budget request; consider possible alternatives to any proposed deletion or reduction

No meeting was held between the nursing chairman and the dean regarding the budget request. There were no changes made in the request as submitted.

Actors

Participants in the presentation of the budget were the department chairman and the graduate dean.

Structure

The structure for the presentation of the budget reflected the bottom-up lines of communication and authority, and vertical lines of authority, as evident in the upward flow of communication from the chairman to the dean.

Technology

There were no technological devices used in the presentation of the budget.

Strategies

The chairman cited that during the academic year 1976-77 a consultant was used by the department on a workshop on cost-analysis.

Environment

Since no changes were made in the budget there appeared to be an environment favorable to nursing.

Budget Authorization

Tasks

Obtain official approval of the budget with adequate lead time for implementation.

From the dean of the graduate school, the budget request was forwarded to the academic vice-president, then to the administrative council consisting of administrators at the vice-presidential level, and then to the president. The president then forwarded the budget to the board of trustees for official approval. The budget was approved a month before the start of the new fiscal year.

Actors

Participants in the approval process of the budget were the dean of the graduate school, the vice-presidents, the president and members of the board of trustees.

Structure

The approval process for the budget reflected the ultimate power and authority vested on the board of trustees.

Strategies

Internal to the nursing department, there appeared to be no

at the close of the fiscal year.

Actors

The major participant in the implementation of the budget was the department chairman.

Structure

The structure for implementation of the budget reflected the authority vested in the chairman's role regarding fiduciary matters.

Technology

The budget printout was a result of computerized data processing.

Strategies

The chairman exercised her approval and veto power in relation to budget requisition in nursing.

Environment

The environment for implementation was characterized by lack of internal measures. There were external measures imposed by regulatory and funding agencies.

Budget Evaluation

Tasks

Compare program costs with units of outputs reflective of program goals and objectives, and utilize results of evaluation as feedback for the next budget cycle.

Although outputs of the program such as number of degrees awarded, number of graduates passing state boards, job placement

of graduates were known, there appeared to be no attempts to link these outputs with costs. External auditors attested to the disbursement of grants.

However, in the preparation of the planned fiscal year's budget, the budget figures of the previous year were used as the primary reference in arriving at estimates.

Actors

Because there was no formal evaluation of the budget except at the time the budget for the upcoming year was planned, the participants in the evaluation phase were the same as those who participated in budget preparation, plus external auditors.

Structure

The structure for budget evaluation reflected the vertical lines of authority and communication from the college dean to the nursing department chairman.

Technology

Accounting approaches used by external auditors.

Strategies

The independent audit of nursing funds allocated by external agencies appeared to be the only process observed in the formal evaluation of the budget.

Environment

Characterized by lack of internal evaluation measures and compliance with controls imposed by extramural funding agencies.

Summary

School D was a private Catholic university with a nursing department which offered degrees in the baccalaureate and masters levels, administered by a chairman, who reported to the dean of the college of arts and sciences, and to the dean of the graduate school for fiscal matters.

Budgeting horizon in School D involved a single fiscal year. Six months before the start of the fiscal year, the nursing chairman received line item budget worksheets which she completed without assistance on the basis of the previous year's budget and anticipated student enrollment and numbers of faculty anticipated for the planned fiscal year. The completed budget request was not documented or presented for review before any faculty or student group, but was directly submitted to the dean of the graduate school. From that office it went to the administrative council advisory to the president, to the president, and finally to the board of trustees.

There was a noticeable lack of use of technological approaches and planned strategies in the implementation and evaluation of the budget. There were no internal control measures except for the authority inherent in the chairman's role to approve budget requisition. External control measures were imposed by federal state and other funding agencies. There was no formal evaluation of the budget. External auditors attested to the use of funds earmarked for nursing.

Since no changes or problems arose in relation to the preparation, presentation, authorization and implementation of the budget, the environment appeared to be supportive toward nursing.

School E

Institutional Background

School E was a private Catholic university located in a town southwest of Chicago. It had a second campus 19 miles north of the main campus. In 1975, the institution was 45 years old. The nursing program was established 41 years after the institution was founded, and has been in existence for four years.

Degrees offered by School E were at the baccalaureate and masters levels. The nursing program offered only the baccalaureate degree. Organized as one of the five colleges of the university, it was administered by a dean who reported directly to the academic vice-president. The nursing program was accredited in 1977 by the NLN. In 1975, the college of nursing had a student enrollment of 400 and a faculty of 25.

Respondent's Background

The dean of the college of nursing, a registered nurse and a doctoral candidate in educational administration, served as the respondent in this study. In 1975, she has been on the job for one year. She had two years of experience in budgeting as a department chairman in a nursing school in a private university, prior to her appointment as dean at School E. She did not receive any orientation to the budgetary process at School E.

Between 1976-77 she attended two national workshops related to planning and budgeting in nursing schools sponsored by a professional nursing organization.

The Budgetary Cycle

Budget Preparation

Tasks

1. Establish budget planning assumptions.

During the academic year 1975-76, there were no indications that the process of establishing planning assumptions for the university or the college of nursing was undertaken as a separate process, or in relation to the budgeting process. However, from the responses given during the interview, and from the study of such documents as the organizational chart, job descriptions, faculty minutes, faculty handbook, personnel manual, budget documents and the school catalog, the following observations were noted, which according to the literature related to the process of establishing planning assumptions:

- (a) The philosophy, goals and objectives of the university were available in writing, and were reflective of the university's mission to prepare men and women of varying ages for viable careers in the liberal arts tradition and in the light of the institution's Christian heritage
- (b) The philosophy, goals and objectives of the college of nursing were available in writing and were reflective of the university's mission
- (c) The educational plans undergirding the baccalaureate nursing curriculum were well developed and were expressed in behavioral outcomes
- (d) In 1976, a federally funded project for the development of a planning-management-evaluation system was initiated and

plans were underway for the development of an all-university planning council with faculty representation from nursing. The project included the development of MIS and budget information systems.

- (f) There were formal documents related to short and long range-space planning within the campus
- (g) A construction and renovation grant prepared by the dean of nursing for a 1.3 million award has been approved by the division of nursing of the department of health education and welfare and was in line for budgetary appropriations from congress
- (h) The fiscal year extended from June 1 to May 31
- (i) The budgeting horizon covered a single fiscal year
- (j) The dean's job description specified that she was the chief fiscal officer of the college of nursing
- (k) One of the five colleges in the university was organized for collective bargaining under AAUP. One of the other colleges was organized as a faculty bargaining unit represented by elected faculty representatives for negotiation purposes. The college of nursing faculty toward the end of the academic year 1975-76 were exploring strategies for collective bargaining
- (l) The college of nursing eventually organized for formal collective bargaining under the state professional nursing organization; the first and only school in the state to do so, at the end of academic year 1976
- (m) The institution had electronic data processing services and

a separate department of institutional research.

- (n) The dean of the college was highly aware of the statutory and accrediting requirements related to faculty and other resources essential for a baccalaureate nursing program

2. Project potential income based on all fund sources

The dean identified fund sources as coming from: student fees, capitation monies from the state and federal governments, and nominal cash contributions from community organizations for nursing scholarships. There were no other funds from private philanthropy. Funds from these sources were noted by the dean preparatory to projecting expenditures for the planned fiscal year.

3. Calculate resource requirements based on program goals and objectives and compare with available resources

Six months before the start of the fiscal year 1976, the president sent a memo to the deans through the academic vice-president with instructions to prepare the 1976 budget using a zero-base budgeting approach. Budget worksheets consisting of three columns descriptive of the goals and objectives, anticipated expenditures, and comparison with the previous year's expenditures, accompanied the budget memo.

Prior to receiving the budget memo, the dean of the college of nursing circulated a memo to each individual faculty member in the college requesting their requests for instructional expenses, continuing education, travel and other related expenses. Assisted by the assistant dean and the dean's secretary, the returns from the faculty were compiled and organized. The statement of goals and objectives formulated by the total faculty and with student input served as the primary instrument for projecting cost estimates. Line-item objects

of expenditures were organized under each statement of goal, and comparison with the previous year's allocations were used in arriving at cost estimates.

Additionally, the dean used such references as forecasting and retrospective studies on student enrollment and credit hour production by nursing faculty, as well as the NLN Faculty Salary Survey.

It was also pointed out by the dean that during the time the budget request was being prepared for the fiscal year 1976, activities were underway for the organization of the nursing faculty into a formal collective bargaining unit. Salary projections were made with the tacit understanding between the dean, the academic vice-president, and the vice-president for business affairs that the salary figures would be adjusted as called for by results of faculty negotiations. The bottom line figure of the budget request was compared with the total amount of anticipated revenue for the nursing college.

4. Check requested amounts against established guidelines or formula

Although there were no written guidelines, the dean explained that there was an implied expectation for each college to generate income equivalent to double the amount of its anticipated expenditure. With the funds awarded by the state and the federal government, the college of nursing had a break-even operation. Without the outside funding, the college of nursing would have had a deficit budget if indirect costs were figured in.

5. Establish priorities and alternatives based on institutional priorities

The statement of goals and objectives collectively developed by the faculty and student representatives reflected priorities given

to curriculum revision and preparation for accreditation.

6. Prepare documentation to support the budget plan

A narrative statement outlining the increased student enrollment, numbers of faculty needed, facilities and services required as stipulated by statutory and accrediting requirements accompanied the budget plan.

7. Consult financial experts as appropriate

The dean consulted with the financial officer on such matters as: areas credited to nursing for courses taken by nursing majors outside of the college of nursing, inflation factor to be built in the budget, if any, and line-item categories in the master chart of accounts of the university.

8. Utilize electronic data processing services to facilitate analysis

Forecasting and retrospective studies issued by the department of institutional research used as references by the dean in the preparation of the budget required computer services.

Actors

Participants in the preparation of the budget included the president, the vice-presidents, financial officers, the college of nursing dean, assistant dean, secretarial staff and faculty. There were no students directly involved in the preparation of the budget.

Structure

Vertical and lateral lines of authority and communication flowing from the president down to the faculty were reflected in the preparation of the budget.

Technology

Computer services were used in forecasting and retrospective studies used as reference in the preparation of the budget. Conventional scheduling models, timetables and manning tables were used as aids.

Strategies

The dean cited that the interpretation and clarification of the purpose and goal of the college of nursing was an important strategy in such occasions as meetings with faculty, other administrators, and in the documentation of the budget plan. Emphasis was given to the subsidies received by the nursing program, and the expanded student pool for other colleges, specially the college of arts and sciences. Participatory management and shared governance of the college of nursing with faculty and students was also cited as a strategy.

Environment

There appeared to be a democratic environment which provided for faculty participation in the preparation of the budget.

Budget Presentation

Tasks

1. Provide review of the budget by appropriate groups

There was an ad hoc budget review committee in the college of nursing. The initial budget request prepared by the dean was submitted to them for review. Concerns were expressed in the area of more allocations for library and audiovisual resources. There were no student members in the budget review committee.

2. Submit budget request on time and meet with appropriate individuals to discuss the budget request; consider possible alternatives to any proposed deletion or reduction

Within a month after receipt of the budget worksheets, the dean met with the academic vice-president and expressed the faculty's concern over the need for more money for audiovisual and library resources. Adjustments were made to increase the funds allocated in these two categories. An administrative meeting was held within two weeks, whereby each college dean presented the college budget to the other deans and to the vice-presidents and the president of the university. The nursing budget request was approved with the adjusted figures on audiovisual and library resources.

Actors

Participants in the presentation of the budget included the nursing faculty, the college of nursing dean, the academic vice-president, the members of the administrative council, and the president.

Structure

The two way, top-down, bottom-up and sideway communication flow was reflected in the presentation of the budget as evident in the participation of central administrators as well as faculty in the presentation of the budget.

Strategies

The dean employed techniques of persuasion, compromise and negotiation. She maintained open lines of communication between faculty and top administration.

Budget Authorization

Tasks

Obtain official approval of the budget with adequate lead time for implementation

The college budget was submitted by the nursing dean to the academic vice-president, then to the administrative council advisory to the president, to the president, and finally to the board of trustees. The budget was approved one month before the start of the new fiscal year.

Actors

Participants in the approval process included the president, the vice-presidents, the dean, and the board of trustees.

Structure

The ultimate authority and fiduciary role vested in the board of trustees were reflected in the structure for the authorization of the budget.

Technology

Internal to the nursing college, there appeared to be no technological devices or approaches used in the authorization of the budget.

Environment

Negotiations for collective bargaining was on-going while the budget for 1976 was reviewed and authorized. However, since this was an acceptable modus operandi in the university there were no visible strains related to the negotiating process. The environ-

ment was favorable toward the approval of the budget.

Strategies

The dean made a presentation before the administrative council. She emphasized the statutory and accrediting requirements that had to be met and pointed to the subsidies received by the college of nursing from outside agencies. She also cited that without the nursing majors the enrollment in the college of arts and sciences where support courses were offered would even be lower, precipitating a crisis for departments with heavily-tenured faculty.

Budget Implementation

Tasks

1. Administer the budget plan based on control measures and with provision for flexibility in implementation

At the beginning of the fiscal year, the dean received a computerized statement of the budget for fiscal year 1976. The budget document outlined the projected income and sources of revenue and the anticipated objects of expenditures. A monthly report was received throughout the fiscal year and was used by the dean to monitor the level of spending in each line item.

Approval for all budget requisitions was given by the dean. Midway through the fiscal year, the president sent a memo to all constituents of the university regarding a budget freeze necessitated by a downtrend in enrollment and the failure of some anticipated private donations to materialize. After the freeze was declared, all requisitions and purchase orders amounting to \$25.00 required the approval of the vice-president, and all requisitions amounting

to \$300.00 and above required the approval of the president. At about the same time the nursing faculty ratified a master contract that was negotiated between the professional nurses organization and the university administration. The dean was not directly involved in the negotiation process.

The ratification of the nursing master contract had implications to the implementation of the budget. Adjustments were made in the nursing budget to meet the increased amounts appropriated for salaries and a per capita amount allocated for each faculty earmarked for continuing education.

Whereas, prior to the onset of faculty collective bargaining, the dean had the power to veto requests for faculty attendance at workshops for reasons of budgetary constraints if the situation existed, this practice no longer was followed because of the legal provision in the master contract which obliged the university to provide funds up to a certain amount for such workshops, and a concomitant commitment on the dean to approve the faculty's attendance to a given workshop as long as the money was provided for it. However, the dean maintained her veto power regarding matters related to maintaining the soundness of academic instructions, e.g., the dean could still withhold permission for a faculty member to attend a workshop even if the money was available, if provisions could not be made to maintain continuity of instruction in the absence of the faculty member.

The master contract provided for a grievance procedure and due process which involved the dean, the academic vice-president, the president, representatives of the bargaining unit and the nurses association and arbitrators independent of the university and the

nurses association.

Transfer of funds within the budget categories were permissible as long as the bottom line figure remained the same. The budget freeze resulted in a close scrutiny of all budget requisitions and holding off on purchases of equipment and supplies for the nursing laboratory. External controls imposed by outside funding agencies were observed in the implementation of the budget.

Actors

Participants in the implementation of the budget included the president, the academic vice-president, the dean of the college of nursing and indirectly, the representatives of the faculty collective bargaining unit, in the sense that they monitored the level of spending in the appropriations for continuing education as provided for in the master contract.

Structure

The formal lines of authority and communication depicted in the organizational chart were reflected in the implementation of the budget. Additionally, provision for participation of negotiators and arbitrators independent of the university were included.

Technology

None of the participants used technological devices or approaches in the implementation of the budget outside of the computerized budget printout.

Environment

The financial crunch surrounding the budget implementation

phase was pervasive. The impact of collective bargaining was felt, although there appeared to be no signs of overt hostilities between faculty and administration. However, the dean recognized that the process of collective bargaining initially placed her in an adversarial role with the faculty because of the novelty of the experience for the college of nursing faculty and administrators.

Budget Evaluation

Tasks

Compare program costs with units of outputs reflective of program goals and objectives and utilize results of evaluation as feedback for the next budget cycle

The budget freeze declared by the president midway through the fiscal year resulted in strict monitoring of expenditures at all levels. However, at the end of the year there were no attempts to relate the expenses actually incurred with the outputs of the program, although the latter were readily known and available, such as number of degrees awarded, number of graduates passing state boards and number of graduates with jobs. External auditors attested to the manner in which nursing funds were used by the institution.

The budget review committee did not evaluate the budget until it was time to prepare the following year's budget. The 1976 budget was the primary document used by the dean and the faculty in projecting cost estimates for fiscal year 1977.

Actors

Since there was no formalized evaluation of the budget in relation to the goals and objectives and outputs of the program, the participants in the budget preparation phase of the budget

served as the only evaluators of the budget. Externally, auditors evaluated the disbursement of grant awards to nursing.

Structure

The structure for budget evaluation reflected the provision made for independent audits of funds allocated by external agencies.

Technology

Accounting procedures utilized by the auditors.

Strategies

Close monitoring of expenditures by the dean, vice-president and the president. Cutbacks in spending for such areas as travel, business entertainment, renovation, maintenance and purchase of major equipments.

Environment

The financial crunch resulted in an environment characterized by a lowered faculty morale and credibility gap between administrators and faculty.

Summary

School E was a private Catholic university with a college of nursing administered by a dean who reported directly to the academic vice-president and served as the chief fiscal officer of the college of nursing.

The budgeting horizon was for a single fiscal year and was initiated six months before the start of the 1976 fiscal year with a memo from the president directing the college deans to utilize a

zero-base budgeting approach. Assisted by the assistant dean and a secretary, a budget request was developed, documented and presented to the faculty ad hoc budget review committee in the college of nursing. Subsequently, the budget reflecting faculty input was presented to the academic vice-president, the administrative council, the president and the board of trustees for approval.

Changes were made in the implementation of the nursing budget plan resulting from the financial crunch which confronted the university and to comply with the terms of the master contract negotiated by nursing faculty through collective bargaining, between the nurses association representing the nursing faculty and the university administration.

Although no formalized evaluation of the budget was undertaken to relate program costs with outputs, budget spending were closely monitored as a result of a presidential directive to observe a budget freeze. This led to an environment characterized by a lowered morale and lack of faculty's trust in administration.

School F

Institutional Background

School F was a private Catholic college located in the southern metropolitan Chicago area. In 1975, the college was 128 years old. The nursing program was established 68 years after the school was founded, and has been in existence for 60 years.

Organized as a separate professional school within the college, the school of nursing was administered by a director who reported directly to the vice-president and academic dean. Both the college and the nursing school offered degrees in the baccalaureate and masters levels. The graduate and undergraduate components of the nursing program were accredited. In 1975, the school of nursing had a student enrollment of 550 and a faculty of 34 excluding off-campus clinical preceptors.

Respondent's Background

The director of the school of nursing, a registered nurse with an earned doctoral degree served as the respondent in this study. She had no previous budgeting experience. She did not have any orientation or in-service training on the budgeting process at School F. In 1976, she attended a national workshop on budgeting in nursing schools, sponsored by a professional nursing organization.

The Budgetary Cycle

Budget Preparation

Tasks

1. Establish budget planning assumptions

There was no indication that the process of establishing budget planning assumptions was undertaken as a separate process or in relation to budgeting. However, from the responses given during the interview and from the study of such documents as the organizational chart, job description, accreditation report, faculty minutes, budget documents and the school catalog, the following observations were noted, which according to the literature were related to the process of establishing planning assumptions:

- (a) The college had a written statement of philosophy, goals and objectives reflective of its mission as a catholic co-educational liberal arts college for commuter and resident students dedicated to teaching, learning and service
- (b) The school of nursing had a written statement of goals and objectives which reflected the mission of the college.
- (c) There was an advisory council to the president comprised of faculty and administrators on matters related to budgeting and planning
- (d) Educational plans for the curricular offerings of the college of nursing were well developed and expressed in behavioral terms
- (e) The budgeting horizon covered a single fiscal year extending from July 1 to June 30

- (f) The director's job description charged her with the preparation and administration of the nursing budget
- (g) The nursing director was highly cognizant of the statutory and accrediting requirements related to nursing programs
- (h) The institution did not have electronic data processing services

2. Project potential income based on all fund sources

Revenue for the school of nursing came from student fees, state and federal capitation, and special project grants. There were no monies from private philanthropy. The director explained that because of a previous experience whereby the institution had to phase out a program supported by "soft money", extra efforts were undertaken to monitor income sources and actual income generated.

3. Calculate resource requirements based on program goals and objectives and compare with available resources

Six months before the onset of the new fiscal year, the nursing director received budget worksheets from the vice-president and academic dean, which consisted of line-item categories such as salaries, supplies, equipment, travel, telephone, postage and printing.

Assisted by the assistant director, the director of nursing arrived at cost estimates for each of the line items based on several factors: (a) Faculty budget requests that were informally collected by the director and the assistant director throughout the academic year. (b) the budgets for 1974 and 1975 and, (c) anticipated student enrollment and numbers of faculty needed for 1976. Some of the documents she used in preparing the budget were the college faculty

salary schedule, the NLN Faculty Salary Survey and the goals and objectives of the program.

The total projected amount was compared with the anticipated income from all the fund sources.

4. Check requested amounts against established guidelines or formula

Internally, there were no written guidelines although there was an implied expectation to keep a balanced budget. Accrediting and statutory guidelines were observed in such areas as faculty-student ratio and faculty mix.

5. Establish priorities and alternatives based on institutional priorities

The nursing program's statement of goals and objectives reflected priorities given to curriculum revision and preparation for continued accreditation of the program. There was an implied understanding that budget changes could be made contingent on the level of actual student enrollment, so, the director had alternatives in mind but they were not documented in writing.

6. Prepare documentation to support the budget plan

There was no indication that written documentation were prepared to accompany the budget plan.

7. Consult financial experts as appropriate

The director of the school of nursing expressed that she felt no need to consult the financial officers of the college.

8. Utilize electronic data processing services to facilitate analysis

There were no analytical studies done in relation to the preparation of the budget which required electronic data processing.

Actors

Participants in the preparation of the budget included the vice-president and academic dean, the director and assistant director of the school of nursing, and the nursing faculty. The nursing students were not involved in the preparation of the budget.

Structure

Formal lines of authority and communication flowing from the vice-president to the director and faculty were reflected in the preparation of the budget.

Technology

Special technological devices and approaches were not used in the preparation of the budget. Conventional scheduling models, timetables and manning tables were used as aids.

Strategies

In anticipation of directives regarding budget cutbacks during their course of the fiscal year, the director stated that she padded the budget plan.

Environment

There appeared to be a democratic atmosphere which provided for faculty participation in the process of budget preparation.

Budget Presentation

Tasks

1. Provide review of the budget by appropriate groups

The budget request was presented to the total nursing faculty

for review. A "Committee on Future Directions"; a standing committee in the school of nursing also reviewed the nursing budget request.

There were no changes made in the budget plan as presented.

2. Submit budget request on time and meet with appropriate individuals to discuss the budget request; consider possible alternatives to any proposed deletion or reduction

A meeting between the director of the nursing school, the graduate dean, and the academic vice-president were held to discuss the budget request. The nursing director explained the rationale for request for additional faculty to meet increased student enrollment. No budget changes were made at this level.

Actors

Participants in the presentation of the budget include the nursing faculty, the director of the school of nursing, the graduate dean and the vice-president.

Structure

Two-way vertical and lateral lines of communication were reflected in the presentation of the budget as evidenced by the participation of central administrators as well as faculty in the presentation of the budget.

Technology

There were no technological devices or approaches used in the presentation of the budget.

Strategies

The director of the school of nursing maintained open lines

of communication and good working relationships with the faculty and central administration.

Environment

There appeared to be a democratic process which allowed for faculty participation in the review of the budget.

Budget Authorization

Tasks

Obtain official approval of the budget with adequate lead time for implementation

The dean submitted the academic budget to the faculty and administrative group advisory to the president, and then to the president who in turn submitted it to the board of trustees for approval. The institutional budget was approved a month before the start of the fiscal year.

Actors

Participants in the authorization of the budget were the nursing director, the dean, the vice-presidents, faculty representatives to the group advisory to the president, the president and the members of the board of trustees.

Structure

The ultimate authority and fiduciary role of the members of the board of trustees was reflected in the authorization of the budget.

Technology

There were no technological devices or approaches used in the

authorization of the budget.

Strategies

The review of the budget request by the faculty and administrative groups were provided for.

Environment

Since no changes were made in the nursing budget there appeared to be an environment supportive of nursing education.

Budget Implementation

1. Administer the budget plan based on control measures and with provision for flexibility in implementation

There were no guidelines internal to the college although there was an implied expectation to keep a balanced budget. External controls were imposed by outside funding agencies in relation to ensuring that funds earmarked for nursing were spent accordingly.

At the beginning of the fiscal year, the nursing director received a printed budget statement indicating the monies allocated to nursing. A monthly budget statement was issued throughout the fiscal year and was used by the director to monitor the levels of spending.

The director cited that during 1976, she instituted a process whereby the level coordinatoes of the nursing curriculum took charge over their budgets. She pro-rated the total nursing budget into the three levels based on student enrollment in each level. She related that, initially, the level coordinators had to be reassured that they had the latitude to spend their budgets according to their

perceived needs. The school of nursing director maintained control over the total budget in the sense that she still had to give final approval to requisitions made by the level coordinators.

During the course of the fiscal year there were periods when the president sent out memos directing the directors to reduce spending to the most essential items related to instruction because of problems related to cash flow.

Transfer of funds from areas of credits to debits were acceptable upon request of the director as long as the bottom line figure remained the same. Unencumbered funds reverted back to the general funds at the close of the fiscal year.

Actors

Participants in the implementation of the budget included the director and the level coordinators in the school of nursing.

Structure

The power and authority inherent in the office of the director was reflected in the implementation of the budget.

Technology

There were no special technological devices used in implementing the budget.

Environment

There appeared to be a democratic process which allowed for participatory governance by nursing faculty. The financial crunch confronting the private schools created a tight fiscal environment

for the implementation of the 1976 fiscal year budget in School F.

Strategies

The nursing director stated that although she made some cuts in the budget in response to the presidential memos, she never made cuts voluntarily.

Budget Evaluation

Tasks

Compare program costs with units of outputs reflective of program goals and objectives and utilize results of evaluation as feedback for the next budget cycle

At the middle of the fiscal year, an all-college faculty meeting was called by the president for the expressed purpose of reporting on the fiscal status of the college. Projected income and actual expenditures were compared at this time and adjustments were made accordingly to maintain a balanced budget.

The monthly budget statements were monitored for the levels of spending for each line item. Although the outputs of the program such as number of degrees awarded, number of graduates passing state boards and job placements were available and known, there were no attempts to relate program costs with these outputs. The actual budget expenditures for 1976 were used in projecting cost estimates for 1971.

Actors

Participants in the evaluation of the budget were the president, the vice-president, the deans, director, nursing faculty and auditors.

Structure

Formal lines of authority and communication as depicted in the organizational chart were reflected in the evaluation of the budget. Provision for independent audits were made.

Technology

Accounting procedures were used by independent auditors.

Strategies

Mid-year appraisal and monitoring of levels of spending on a monthly basis comprised the strategies for the evaluation of the budget.

Environment

There appeared to be lack of control measures except for the control exerted by the president and the director in their fiduciary roles. The budget cuts were reflective of the financial squeeze which confronted institutions of higher education especially private liberal arts colleges.

Summary

School F was a private catholic liberal arts college with a school of nursing administered by a director who reported directly to the vice-president and academic dean.

The budgeting horizon in School F covered a single fiscal year extending from July 1 to June 30. Six months before fiscal year 76 started, the director received line-item worksheets from the academic dean. Assisted by the assistant director, cost estimates

for the line items were projected on the basis of faculty requests, the previous years' budgets, anticipated student enrollment and number of faculty needed for the planned fiscal year. The budget request was presented to the total nursing faculty for review, then submitted to the academic dean, who in turn submitted it to the administrative and faculty group advisory to the president, then to the president and finally, to the board of trustees for final approval.

Flexibility in the implementation of the budget was necessitated by budget cuts during the course of the fiscal year. Although no formalized evaluation of the budget was undertaken to relate program costs to program outputs, budget spending was closely monitored by the director.

External controls were imposed by outside funding agencies on the use of funds earmarked for nursing. There was noticeable lack of use of technological devices and approaches throughout the budget cycle. There was a democratic environment which provided for faculty participation in the preparation, presentation and review of the budget.

School G

Institutional Background

School G was a private nonsectarian university located in downstate Illinois. At the time of this study the institution has been in existence for 71 years. The nursing program was established 64 years after the university was founded. In 1975, the nursing program was seven years old.

Degrees offered by the university were at the baccalaureate and masters levels only. The baccalaureate degree was offered in the nursing program. Organized as a department within the college of liberal arts and sciences, the nursing department was administered by a chairman who reported directly to the dean of the college. The nursing department was scheduled for NLN accreditation in Spring, 1978. In 1975, the nursing department had a student enrollment of 327 and a faculty of 23.

Respondent's Background

The nursing department chairman, a registered nurse with an earned doctoral degree served as the respondent in this study. In 1975 she has been on the job for one year. She had nine years of previous experience in budgeting as the finance committee chairman of the local school board. She did not have any orientation or in-service training on the budgetary process at school.

The Budgetary Cycle

Budget Preparation

Tasks

1. Establish budget planning assumptions

There was no indication that the process of establishing planning assumptions was undertaken in a formal manner as a task in itself or in relation to budgeting. However, from the responses given during the interview and from such documents as organizational charts, job description, budget documents and the school catalog, several observations were noted which according to the literature were related to the process of establishing assumptions. These observations included:

- (a) The university's statement of philosophy, goals and objectives reflective of its mission to furnish its students with means of living independent, industrious and useful lives by the aid of a knowledge of the arts and sciences, was available in writing
- (b) The nursing department's statement of goals and objectives reflective of the university's mission was also in writing
- (c) The educational plans underlying the program offerings in nursing were well developed and expressed in behavioral outcomes
- (d) There was an operational university planning council with faculty representation from the nursing department
- (e) The department of nursing was scheduled to change its status to a division the following semester

- (f) The department of nursing was expanding its facilities to a larger section of the university complex the following academic year
- (g) The budgeting horizon covered a single fiscal year, and the fiscal year extended from June 1 to May 31.
- (h) The chairman's job description stipulated that she had the responsibility to prepare the nursing budget
- (i) The chairman exhibited a high level of awareness of the statutory and accrediting requirements for baccalaureate nursing schools
- (j) The institution had electronic data processing services

2. Project potential income based on all fund sources

Revenue for the nursing department came from student fees, state and federal capitation, and funds from private philanthropy. Although the chairman was able to identify the sources of income there was no indication that it was customarily calculated as a step in the process of preparing the budget.

3. Calculate resource requirements based on program goals and objectives and compare with available resources

Six months before the start of the fiscal year, the nursing department chairman received a budget memo and worksheets from the dean of the college of arts and sciences. The worksheets consisted of line items in such categories as salaries, travel, supplies, equipment, telephone, services.

Cost estimates of each of these line items were arrived at by the chairman based on several factors: (a) the 1974 budget and the actual level of spending in these items in the 1975 budget,

(b) the numbers of student projected for the following year and the numbers of faculty needed, (c) the faculty salary schedule of the university, and the NIN Faculty Salary Survey. Salaries were estimated based on rank and merit and determined by such criteria as teaching competence, research, publication, and community service. The chairman cited that capital expenditures in terms of new facilities or expansion into existing facilities were planned on the basis of zero-base budgeting.

Although the goals and objectives of the department were informally considered by the chairman when she arrived at cost estimates there was no indication that a deliberate attempt to relate the projected expenditures with the program goals and objectives in a concrete manner was undertaken.

4. Check requested amounts against established guidelines or formula

Internally, there appeared to be no guidelines or formula, although externally-imposed accrediting and statutory requirements were adhered to.

5. Establish priorities and alternatives based on institutional priorities

The department's statement of goals and objectives developed by the total faculty reflected the priorities accorded to curriculum implementation and evaluation, and preparation for initial accreditation.

6. Prepare documentation to support budget plan

A written narrative supporting the budget plan with rationale built on increased student enrollment and continued subsidies to nursing were prepared by the chairman,

7. Consult financial experts as appropriate

The chairman did not consult any financial officers into the preparation of the budget.

8. Utilize electronic data processing services to facilitate analysis

There were no technological devices used during the preparation of the budget.

Actors

Participants in the preparation of the budget were: the college dean and the nursing department chairman. The nursing faculty and students appeared to play no role in the preparation of the budget.

Structure

The formal lines of authority and communication flowing from the dean to the chairman were reflected in the preparation of the budget.

Technology

There was no technology used in the preparation of the budget. Conventional scheduling models, timetables and manning tables were used as aids.

Strategies

The chairman cited that maintaining open lines of communication, good relations with the dean and following standard procedures were the strategies she used in the preparation of the budget.

Environment

There appeared to be no provision for the democratic participation of faculty and students in preparing the budget.

Budget Presentation

Tasks

1. Provide review of the budget by appropriate groups

The budget request was not presented to any faculty or student group for review in the department of nursing or within the university as a whole.

2. Submit budget request on time and meet with appropriate individuals to discuss the budget request; consider possible alternatives to any proposed deletion or reduction

The documented budget request was submitted to the dean of the college of arts and sciences on month after they were received. A meeting was held between the chairman and the dean to clarify the budget request. The chairman emphasized the priority attached to earning accreditation, during this meeting. No reductions or changes were made in the nursing budget.

Actors

Participants in the presentation of the budget were the department chairman and the dean of the college of arts and sciences.

Structure

Bottom-up lines of communication were reflected in the presentation of the budget.

Technology

There were no technological approaches used in the preparation of the budget.

Environment

There appeared to be an environment supportive toward

nursing education.

Strategies

The meeting between the chairman and the dean appeared to be the only strategy used in the presentation phase of the budget cycle.

Budget Authorization

Tasks

Obtain official approval of the budget with adequate lead time for implementation

The dean of the college of arts and sciences submitted the academic budget to the vice president for academic affairs and to the vice president for development who served as advisors to the president. It then went to the president who in turn submitted it to the board of trustees for final approval. The institutional budget was approved one month before the beginning of the fiscal year.

Actors

Participants in the approval process of the budget were the nursing chairman, dean, vice-presidents, the president and members of the board of trustees.

Structure

The ultimate authority and fiduciary role of the board of trustees were reflected in the authorization of the budget.

Technology

There were no technological devices used in the authorization of the budget.

Strategies

Maintaining open lines of communication between the chairman and the dean appeared to be the only strategies used in the authorization of the budget.

Environment

Since the nursing budget was approved without any changes, there appeared to be an environment supportive toward nursing education.

Budget Implementation

Tasks

1. Administer the budget plan based on control measures and with provision for flexibility in implementation

Internally, there were no control measures related to the budget although there was an implied expectation to keep a balanced budget. External controls were imposed by outside funding agencies.

At the beginning of the fiscal year a computerized budget printout was transmitted to the chairman. The budget statement described the monies allocated to each of the line items. Monthly budget statements were transmitted throughout the fiscal year and were used by the chairman in monitoring the levels of spending in the department. The chairman approved all budget requisitions within the department. Transfer of funds from one item to another was permissible upon her request, as long as the bottom line figure remained the same. Unencumbered funds reverted back to the general funds at the close of the fiscal year.

Actors

The department chairman was the major actor in the implementation of the budget.

Structure

The authority inherent in the chairman's role as the chief fiscal officer of the nursing department was reflected in the implementation of the budget.

Technology

The computerized budget printout appeared to be the only technological device used in the implementation of the budget.

Strategies

The chairman monitored the monthly levels of spending.

Environment

The environment was characterized by lack of controls internal to the department except the control exerted by the department chairman. External controls were imposed by outside funding agencies, statutory, and accrediting requirements.

Budget Evaluation

Tasks

Compare program costs with units of outputs reflective of program goals and objectives and utilize results of evaluation as feedback for the next budget cycle

Although program outputs such as number of degrees awarded, number of graduates passing state boards, and job placement of graduates were available and readily known, there were no attempts to

relate program costs with program outputs. There was no formal evaluation of the budget at midyear or at the end of the year. The only evaluation of the budget appeared to be its use as the primary document in preparing the planned fiscal year's budget. Independent audits were done on funds allocated to nursing from outside agencies.

Actors

Since there was no formalized evaluation of the budget except when the budget for the planned fiscal year was being prepared, the actors were the same as the actors in the preparation of the budget plus auditors.

Structure

The formal lines of communication flowing from the dean to the chairman and provision for participation of independent auditors was reflected in the evaluation of the budget.

Technology

Auditing approaches were used by the auditors.

Strategies

The comparison of actual expenditures and the budget plan on a monthly basis, and looking at the budget history at the time the budget for the new fiscal year is prepared were the strategies used in budget evaluation.

Environment

The environment was characterized by lack of internal control measures. External control measures were imposed by outside funding agencies.

Summary

School G was a private nonsectarian university with a nursing department administered by a chairman who reported directly to the dean of the college of arts and sciences. The budgeting horizon in School G covered a single fiscal year which extended from June 1 to May 31.

Six months before the onset of fiscal year 1976, the chairman received line-item worksheets from the dean of the college of arts and sciences. Cost estimates were projected by the chairman on the basis of the previous years' budgets, the projected student enrollment and faculty needed for 1976. Statutory and accrediting requirements were considered in the preparation of the budget as well as the goals, objectives and priorities of the program. From the dean the budget went to the vice-president for development and the academic vice-president who served as advisors to the president, then, to the president, and finally, to the board of trustees for approval. No changes were made in the nursing budget request.

The nursing chairman was responsible for the implementation of the budget. There were no technological approaches used in the preparation, implementation or evaluation of the budget. Strategies used by the nursing chairman consisted of maintaining open lines of communication and establishing good relationships with the dean. There appeared to be an environment supportive toward nursing education.

School H

Institutional Background

School H was a private Evangelical Covenant college in the northern metropolitan Chicago area. At the time of the study the college has been in existence for 84 years. The nursing program was established 65 years after the college was founded. In 1975, the nursing program was 19 years old.

Degrees offered at School H were at the baccalaureate and masters levels. Only the baccalaureate degree was offered by the nursing program. Organized as a department within the science division of the college of arts and sciences, it was administered by a chairman who reported directly to the science division chairman, who in turn reported to the college dean. The nursing department was accredited by the NLN. In 1975, it had a student enrollment of 240 and a faculty of 20.

Respondent's Background

The nursing chairman, a registered nurse with a masters degree in nursing served as the respondent in this study. In 1975, she has been on the job for 14 years. She did not have any orientation or in-service training on the budgetary process at School H.

The Budgetary Cycle

Budget Preparation

Tasks

1. Establish budget planning assumptions

There were formalized budget planning assumptions established by the institution related to expected income and student enrollment. Additionally, other observations were noted which relate to the process of establishing planning assumptions such as:

- (a) There was a written statement of philosophy, goals and objectives reflective of the institution's mission as an educational institution dedicated to the development of intellectual discipline framed in the perspective of Christian faith and fellowship
- (b) There was a written statement of philosophy, goals and objectives of the nursing program, reflective of the institution's mission
- (c) The educational plan undergirding the nursing program was well developed and expressed in behavioral terms
- (d) Formalized planning activity took place in both the college level and at the level of the nursing department. At the college level, planning was conducted by faculty from each of the departments. In the departmental level, an ad hoc committee on planning was operational in the nursing department, comprised of faculty volunteers. The locus of college planning was space planning. The nursing planning committee concerned itself with all facets of the department's operation: curriculum, space, faculty life, student life, and learning resources.
- (e) A shift from a departmental to a division status was scheduled for the nursing department the following year because of increased student enrollment.

- (f) The budgeting horizon covered a single fiscal year which extended from July 1 to June 30
- (g) As outlined in the job description, the nursing chairman was responsible for the preparation of the nursing budget
- (h) The nursing chairman was highly cognizant of the statutory and accrediting requirements related to the nursing program
- (i) The institution had electronic data processing services

2. Project potential income based on all fund sources

Income for the nursing program were identified by the chairman as coming from several sources: student fees, state and federal capitation, cash and endowment fund from the church, and private benefactors. Although the nursing chairman was aware of the sources of income there was no indication of any formal attempt to relate the total income to fund sources as a formal step in the preparation of the budget.

3. Calculate resource requirements based on program goals and objectives and compare with available resources

Six months before the onset of fiscal year 1976, the chairman received a budget memo and worksheets from the division chairman. Prior to receiving the budget memo, the chairman conducted an informal survey of faculty needs. Assisted by the assistant chairman, the dean made projections for student enrollment and number of faculty for the following academic year. Cost estimates for fiscal year 1976 were based on these projections and the previous years' budgets. The program's goals and objectives were informally considered although there were no deliberate attempts to compare the anticipated resource requirements with available resources.

4. Check requested amounts against established guidelines or formula

There appeared to be no guidelines internal to the department. External guidelines were imposed by statutory and accrediting requirements in such areas as student-faculty ration, faculty mix, space and facilities essential for a baccalaureate nursing program. These also served as the basis for projecting cost estimates.

5. Establish alternatives and priorities based on institutional priorities

The department's statement of goals and objectives which were developed by the total faculty reflected priorities given to curriculum revision and evaluation.

6. Prepare documentation to support the budget plan

No documentation was prepared to support the budget plan.

7. Consult financial experts as appropriate

The chairman cited that she met with budget officer before and after the budget request was submitted to get clarification regarding what could legitimately be included in the various line items and to explain the rationale behind the budget request.

8. Utilize electronic data processing services to facilitate analysis

There was no indication that electronic data processing services were used in the preparation of the budget.

Actors

Participants in the preparation of the budget were the science division chairman, the assistant chairman of the nursing department, the nursing chairman and faculty. There were no students involved in the preparation of the budget.

Structure

Formal lines of authority and communication depicted in the organizational chart were reflected in the preparation of the budget as flowing from the college dean, to the division chairman, to the nursing department chairman.

Technology

Manning tables were used in projecting faculty needs. Conventional scheduling tables and timetables were also used as aids to resource allocation.

Strategies

The strategies used by the dean in the preparation of the budget were cited by the nursing chairman as: obtaining faculty budget requests informally, meeting with the budget officer for clarification, and utilization of previous budgets in projecting cost estimates for the planned fiscal year.

Environment

There appeared to be a democratic environment allowing for faculty participation in the preparation of the budget.

Budget Presentation

Tasks

1. Provide review of the budget by appropriate groups

The budget plan was presented to the executive committee of the nursing department for review. No changes were made at this level.

2. Submit budget request on time and meet with appropriate individuals to discuss the budget request; consider possible alternatives to any proposed deletion or reduction

A meeting between the science division chairman, the nursing department chairman, and the college dean was conducted for the purpose of clarifying the budget request. There were no changes made in the budget plan as a result of this meeting.

Actors

Participants in the presentation of the budget were the faculty members of the nursing executive committee, the nursing chairman, the science division chairman, and the college dean.

Structure

The two-way, vertical and lateral lines of communication were reflected in the presentation of the budget as evidenced by the participation of central administration as well as faculty in the presentation of the budget.

Technology

There appeared to be no technological devices used in the presentation of the budget.

Environment

There appeared to be a democratic environment conducive to communication and faculty participation in the presentation of the budget.

Budget Authorization

Tasks

Obtain official approval of the budget with adequate lead time for implementation

The nursing department chairman submitted the budget to the science division chairman who in turn submitted it to the vice-president for business and controller, and then to the president who submitted the institutional budget to the board of trustees for approval.

Actors

Participants in the approval process of the budget were the science division chairman, the college dean, the vice-president for business, the president, and members of the board of trustees.

Structure

The ultimate authority and fiduciary role of the board of trustees was reflected in the authorization of the budget.

Technology

There appeared to be no technological approaches used in the authorization of the budget.

Environment

Since no changes were made in the budget request there appeared to be an environment favorable to nursing education.

Strategies

Maintaining open lines of communication among the various levels of administration appeared to be the only strategy used in the

authorization of the budget.

Budget Implementation

Tasks

Administer the budget based on control measures and with provision for flexibility in the implementation of the budget

There were no control measures internal to the department. External measures were imposed by the outside funding agencies.

At the beginning of the fiscal year, the chairman received a computerized budget printout which indicated the allocation for each of the budget line-items. A monthly budget was transmitted throughout the fiscal year indicative of the levels of spending in each line item. These were used by the chairman to monitor the budget. The chairman approved all budget requisitions for nursing. Transfer of funds were permissible as long as the bottom line figure remained the same upon approval of the nursing chairman. Unencumbered funds reverted to general funds at the close of the fiscal year.

Actor

The primary actor in the implementation of the budget was the nursing department chairman.

Structure

The power and authority inherent in the chairman's role was reflected in the implementation of the budget.

Technology

The computerized budget printout appeared to be the only technological device used in the implementation of the budget.

Environment

There were no cutbacks during the implementation of the budget. There appeared to be an environment supportive of nursing education.

Budget Evaluation

Tasks

Compare program costs with units of outputs reflective of program goals and objectives and utilize results of evaluation as feedback for the next budget cycle

Internally, there appeared to be no formal evaluation of the budget except for the monthly monitoring of the budget. Independent auditing was required by outside funding agencies.

Although units of outputs such as number of degrees awarded, number of graduates passing state boards and job placements of graduates were available and readily known, there were no formal attempts to related the costs of the program with these units of program outputs. The budget of fiscal year 1976 was used as the primary document in projecting cost estimates for the 1977 fiscal year.

Actors

Since no evaluation took place until the upcoming fiscal year budget was prepared, the actors who prepared the budget were also the evaluators. Independent auditors were required by outside funding agencies to attest to how nursing funds were expended.

Structure

The structure for budget evaluation allowed for participation of independent auditors as required by law.

Technology

Auditing procedures were used by independent auditors.

Environment

The environment for budget evaluation was characterized by lack of internal evaluation measures and external controls imposed by outside funding agencies.

Strategies

Monthly monitoring of the levels of spending in each line item category was the strategy used for evaluating the budget.

Summary

School H was a private Evangelical Covenant liberal arts college with a nursing department administered by a chairman who reported directly to the science division chairman who in turn reported to the dean of the college of arts and sciences.

The budgeting horizon in school H covered a single fiscal year which extended from June 1 to May 31. Preparation of the budget was initiated six months before the new fiscal year with a budget memo and line-item worksheets from the science chairman to the nursing department chairman. Assisted by the assistant chairman, cost estimates were made on the basis of faculty requests, the previous years' budgets, anticipated student enrollment and number of faculty needed. The prepared budget plan was presented for review before the executive committee of the department of nursing then submitted to the science division chairman, the dean of the college of arts and sciences, the vice-president for business affairs and controller,

and on to the president, and finally to the board of trustees for final approval.

Implementation of the budget was characterized by lack of internal control measures with the exception of the control exercised by the department chairman who had the authority to approve or veto budget requisitions.

There was no formal evaluation of the budget. Independent auditors attested to the manner in which nursing funds were expended. The environment appeared to be democratic and allowed for faculty participation in the budgetary process. There were no cutbacks in the nursing budget suggesting an environment fiscally favorable to nursing.

School I

Institutional Background

School I was a private college affiliated with the German Synod of the Evangelical Covenant church in a suburb west of Chicago. At the time of this study the college has been in existence for 104 years. The nursing program was established 99 years after the institution was founded, and in 1975 was five years old.

Degrees offered by the college included the baccalaureate and masters levels. Only the baccalaureate degree was offered by the nursing program. Organized as a department within the college, it was administered by a chairman who reported directly to the college dean. The nursing program was accredited by the NLN. In 1975, it had a student enrollment of 280 and a faculty of 12.

Respondent's Background

The nursing chairman, a registered nurse and a doctoral candidate in higher education administration, served as the respondent in this study. In 1975, she has been on the job for three years. She had previous experience in budgeting as director of a hospital diploma school of nursing. She did not have any orientation or in-service training on the budgetary process at School I.

Budget Preparation

Tasks

1. Establish budget planning assumptions

In 1975, both the college and the nursing department had no

formalized statements of planning assumptions. However in 1977, the college had a written formal document of planning assumptions based on developments external and internal to the institution in such areas as student enrollment, sources of fundings, demographic changes in the community and the like.

From the responses given during the interview and from the study of such documents as the organizational chart, job description, budget documents, and school catalog, the following observations were noted which related to the process of establishing budget planning assumptions for the 1976 fiscal year:

- (a) There was a written statement of philosophy, goals and objectives reflective of the college's mission to help each individual achieve excellence in comprehensive scholarship and reach an appreciation of moral and religious values in the Christian tradition
- (b) The department of nursing had a written statement of philosophy, goals and objectives reflective of the institution's mission
- (c) The educational plans undergirding the program offerings of the nursing department were well developed and expressed in behavioral terms
- (d) The budgeting horizon covered a single fiscal year which extended from July 1 to June 30
- (e) The chairman's job description stipulated that she was responsible for the preparation and administration of the nursing budget

- (f) The chairman displayed great awareness of the statutory and accrediting requirements for baccalaureate and nursing programs
 - (g) An enrollment ceiling was established for the nursing department
 - (h) The nursing department was represented at the all-college planning council by the department chairman
 - (i) The college had electronic data processing services
2. Project potential income based on all fund sources

Income from the nursing department came from the student fees, state and federal capitation, special project grants, and endowment funds. Although the chairman was able to identify these fund sources, there was no indication that there was a formal deliberate step to calculate all the income from these sources as an identifiable step in the budget preparation process.

3. Calculate resource requirements based on program goals and objectives and compare with available resources

The chairman stated that the goals, objectives and priorities of the program were considered in the process of preparing the budget request. Six months before the onset of the 1976 fiscal year, the chairman received a budget memo from the college dean. Faculty needs and input were surveyed by the chairman before the budget memo came regarding their projected instructional needs. Based on the faculty input, the 1974 and 1975 budgets and projected student enrollment, the number of faculty needed and special projects planned by the department, she developed her own budget categories and projected cost estimates for each category, i.e., student recruitment, travel,

supplies, equipment, salaries. The calculated costs were not formally compared with anticipated income.

4. Check requested amounts against established guidelines or formula

There appeared to be no guidelines internal to the institution. However, guidelines established by statutory and accrediting agencies were adhered to.

5. Establish priorities and alternatives based on institutional priorities

The department's statement of goals and objectives developed by the total faculty reflected priorities accorded to curriculum evaluation and development of continuing education program offerings. These were in line with the constitution's priorities.

6. Prepare documentation to support the budget request

A narrative explanation of the budget plan revolving around the numbers of student and faculty, learning-teaching strategies, and special concerns of the nursing department accompanied the budget request. Alternative plans were included to allow for fluctuations in student enrollment.

7. Consult financial experts as appropriate

Before and after the budget request was completed, the chairman met with the budget officer to clarify the goals and objectives of the nursing program, explain how the budget categories were arrived at, and the rationale for the amounts requested for each line-item category.

8. Utilize electronic data processing services

There were no analytical studies done that required the use of the electronic data processing.

Actors

Participants in the preparation of the budget were the college dean, the department chairman, assistant chairman and faculty.

Structure

Formal lines of authority and communication as depicted in the organizational chart were reflected in the preparation of the budget.

Technology

Manning tables, conventional scheduling models and timetables appeared to be the only technological devices used in the preparation of the budget.

Strategies

The chairman cited the following strategies utilized for budget preparation in School I:

meeting with budget officer before and after the plan was submitted,

obtaining input from faculty regarding their instructional needs,

utilizing the previous budgets and anticipated student enrollment,

use of the NLN Faculty Salary Survey as a reference.

Budget Presentation

Tasks

1. Provide review of the budget by appropriate groups

The budget plan was presented by the chairman to the entire faculty who serves as a committee of the whole in reviewing the budget plan. No changes were made by this group.

2. Submit budget request on time and meet with appropriate individuals to discuss the budget request; consider possible alternatives to proposed deletion or reduction

A month after the budget memo was received, the nursing chairman submitted the completed budget plan with documentation to the college dean. A meeting was held between the chairman and the dean to clarify any questions regarding the budget. There were no issues raised and the budget plan was not changed at this level.

Actors

Participants in the presentation of the budget were the nursing faculty, the department chairman, and the college dean. There were no students involved in the presentation of the budget.

Structure

The vertical, lateral two-way lines of communication flowing from the college dean to the faculty as depicted in the organizational chart was reflected in the presentation of the budget.

Technology

There appeared to be no technological approaches used in the presentation of the budget.

Strategies

The dean cited the following strategies in the presentation of the budget:

documentation was prepared to support the budget request,

the budget plan was presented to the faculty for review,

a meeting was held between the chairman and the dean, and between the chairman and the budget officer to discuss the budget plan.

Environment

There appeared to be a democratic environment which allowed for faculty participation in the presentation of the budget.

Budget Authorization

Tasks

Obtain official approval of the budget with adequate lead time for implementation

The nursing chairman submitted the budget plan to the college dean, who submitted the completed academic budget to the budget officer, who in turn submitted it to the president. The president submitted the total college budget to the board of trustees for final approval.

Actors

Participants in the authorization of the budget were the nursing chairman, college dean, budget officer, the president, and the board of trustees.

Structure

The ultimate authority and fiduciary role of the board of trustees was reflected in the authorization of the budget.

Technology

There appeared to be no special technological devices used in the authorization of the budget.

Strategies

Maintaining open lines of communication appeared to be the primary strategy in the authorization of the budget.

Environment

No changes were made in the nursing budget. There appeared to be an environment supportive toward nursing education.

Budget Implementation

Tasks

Administer the budget plan based on control measures and with provision for flexibility in implementation

At the beginning of the fiscal year, a computerized budget printout indicating the funds allocated to each line-item was transmitted to the chairman. A monthly report reflecting the levels of spending for each line item was transmitted throughout the fiscal year. These reports were used by the chairman to monitor the level of spending of the department.

The authority of the chairman to approve or veto the budget requisitions appeared to be the only internal control measure in the implementation of the budget. External measures stipulated that funds earmarked for nursing were spent accordingly. Transfer of funds from one item to another to cover areas of deficit was permissible upon request of the chairman. Unencumbered funds reverted to general funds at the close of the fiscal year.

Actor

The primary actor in the implementation of the budget was the chairman.

Structure

The authority inherent in the chairman's role was reflected

in the structure for implementation of the budget.

Technology

The computerized budget printout appeared to be the only technological device in the implementation of the budget.

Environment

There were no drastic changes in the budget plan, so there appeared to be an environment supportive of nursing education.

Strategies

The chairman cited the following strategies in implementing the budget:

use of the chairman's veto power,

monthly monitoring of levels of spending in each of the line items.

Budget Evaluation

Tasks

Compare program costs with units of outputs reflective of program goals and objectives and utilize results of evaluation as feedback for the next budget cycle

There appeared to be no formal evaluation of the budget. Internally, the monitoring of monthly levels of spending through the budget printout appeared to be the only evaluation procedure undertaken. Independent audits of funds from outside agencies were required by law.

Although program outputs such as number of degrees awarded, graduates passing state boards, and job placement of graduates were readily known, there were no attempts to relate the program costs with these program outputs. The actual expenditures in each of the line-items

incurred in 1976 were used as a basis for projecting cost estimates for 1977.

Actors

Participants in the evaluation of the budget were primarily the independent auditors external to the institution. Internally, the budget was not evaluated until the upcoming budget request for the new fiscal year was prepared. Therefore the actors cited in the preparation of the budget could be considered as actors for budget evaluation.

Structure

The structure for the evaluation of the budget reflected provision for participation of independent auditors external to the institution.

Technology

Auditing approaches were used by independent auditors.

Strategies

Internally, there were no strategies specific to the evaluation of the budget in a formalized manner except the monthly monitoring of the levels of spending in each line item.

Environment

The environment for budget evaluation was characterized by the lack of internal evaluation measures. External to the institution, evaluation by independent auditors were mandated by law.

Summary

School I was a private Evangelical Covenant College of the German Synod with a department of nursing administered by a chairman who reported directly to the college dean.

The budgeting horizon at School I covered a single fiscal year which extended from July 1 to June 30. Six months before the start of fiscal year 1976, the chairman received a budget memo from the college dean. Assisted by the assistant chairman, cost estimates for categories developed by the chairman were arrived at on the basis of faculty input, budgets for 1974 and 1975, priorities of the department and statutory and accrediting requirements. The completed budget plan was documented, presented to the entire faculty which functioned as a review committee of the whole, then submitted to the college dean, the vice president for business and controller, the president and finally, to the board of trustees for final approval. No changes were made in the nursing budget.

Implementation of the budget was characterized by lack of written guidelines internal to the department. External guidelines were imposed by funding and accrediting agencies and were adhered to. Evaluation of the budget was not formalized. Independent auditing as required by law was done on funds from extramural agencies.

There appeared to be an environment supportive of nursing education and provision for democratic participation of the faculty in the preparation of the budget.

School J

Institutional Background

School J was a private narazene college located in a twon south of Chicago. At the time of this study the institution has been in existence for 68 years. The nursing program was established 58 years later and in 1975 was ten years old.

Degrees offered by the college and by the nursing program were at the baccalaureate level. Organized as a division within the college, the nursing division was administered by a chairman who reported directly to the college dean. The nursing program was not accredited by the NLN at the time of this study, but was scheduled for an accreditation visit in Spring, 1978. In 1975, the nursing division had a student enrollment of 140 and a faculty of 12.

Respondent's Background

The division chairman, a registered nurse with a masters degree in nursing, served as the respondent in this study. In 1975, she has been on the job for four years. She had no previous experience in budgeting. She did not have any orienation or in-service training on the budgetary process at School J.

The Budgetary Cycle

Budget Preparation

Tasks

1. Establish budget planning assumptions

There were no formal statements of planning premises for the

college or the division of nursing. However, responses given during the interview and study of such documents as the organizational chart, job description, accreditation report, and the school catalog, indicated certain developments which were related to the process of establishing planning assumptions. These observations included:

- (a) The statement of philosophy, goals and objectives of the college were in writing and were reflective of the institution's mission to: seek to communicate effectively the historical and cultural heritage, to provide liberal arts education in a Christian academic community, and to lead those who are not established in the Christian faith into the experience of full salvation
- (b) The division of nursing's statement of philosophy, goals and objectives were available in writing and were reflective of the institution's mission
- (c) The plans undergirding the educational program in nursing were well developed and were expressed in behavioral outcomes
- (d) A college planning council with representation from the nursing faculty was operational during the 1976-1977 academic year
- (e) As stipulated in the job description, the nursing chairman was responsible for the preparation of the nursing budget
- (f) The budgeting horizon covered a single fiscal year and extended from July 1 to June 30
- (g) The nursing division chairman was highly cognizant of the statutory and accrediting requirements for baccalaureate nursing programs

(h) The college had electronic data processing services

2. Project potential income based on all fund sources

The chairman identified income sources for nursing as: student fees, federal capitation and cash contribution from the church. She stated that her college could not meet the conditions stipulated by the state and was not eligible for capitation monies. Although the chairman was able to identify the fund sources for nursing, the calculation of the total income from these sources did not appear to be an identifiable step in the budget preparation process.

3. Calculate resource requirements based on program goals and objectives and compare with available resources

Seven months before the start of the 1976 fiscal year, the nursing chairman received a budget memo and worksheets from the college dean. These worksheets consisted of line-item categories such as salaries, supplies, equipment, travel, and services. Salaries were projected based on the college faculty salary schedule. The chairman stated that although she received the NLN Faculty Salary Survey, she did not share it with anybody because of the apparent gap between the salary ranges in her college's schedule and the ranges reported by the NLN. Faculty budget requests were obtained informally. Cost estimates for each line item was arrived at on the basis of the previous year's budget and projected faculty-student ratio and faculty mix were also considered, as well as the priorities established by the nursing division in relation to accreditation of the nursing program. There was no formal attempt to compare the projected costs with anticipated income.

4. Check requested amounts against established guidelines or formula

There appeared to be no guidelines internal to the institution. Guidelines stipulated by state, accrediting, and outside funding agencies were considered in the preparation of the budget.

5. Establish priorities and alternatives based on institutional priorities

The division's statement of goals and objectives developed collectively by the total faculty reflected the priority accorded to seeking accreditation for the nursing program. There were no alternatives suggested in the budget plan.

6. Prepare documentation to support the budget

A written narrative built around the need to earn accreditation for the nursing program was prepared by the chairman and accompanied the budget request.

7. Consult financial experts as appropriate

The nursing chairman did not meet with any of the financial officers either before or after the budget plan was submitted.

8. Utilize electronic data processing services to facilitate analysis

There were no analytical studies done in relation to the preparation of the budget. No data processing services were used.

Actors

Participants in the preparation of the budget were nursing faculty, the nursing division chairman, and the college dean. The students had no active role in the preparation of the budget.

Structure

Formal lines of authority and communication as depicted in

the organizational chart flowing from the dean to the chairman, to the faculty were reflected in the preparation of the budget.

Technology

Timetables, conventional scheduling models and manning charts appeared to be the only devices used in the preparation of the table.

Environment

There appeared to be a democratic environment which allowed for participation by faculty in the preparation of the budget.

Strategies

The strategies cited in the preparation of the budget were: informal survey of faculty needs, use of previous budgets in projecting the planned budget, and, open lines of communication with faculty and top administration

Budget Presentation

Tasks

1. Provide review of the budget by appropriate groups

The budget plan was presented to the entire faculty serving as a budget review committee of the whole. There were no changes made in the budget plan in this group.

After the budget plan was submitted to the college dean, the college dean had to present it before a college budget review committee. There were no changes made in this level in the nursing budget request.

2. Submit budget request on time and meet with appropriate individuals to discuss the budget request; consider possible alternatives to any proposed deletion or reduction

A meeting was held between the nursing division chairman and the college dean to clarify the budget plan. There were no revisions made in the budget plan as a result of this meeting.

Budget Authorization

Tasks

1. Obtain official approval of the budget with adequate lead time for implementation

The nursing division chairman submitted the budget request to the college dean who in turn presented it to a college budget review committee. From the budget review committee it was forwarded to the executive advisory committee of the president, to the president, and finally to the board of trustees for approval.

Actors

The participants in the approval of the budget were the nursing division chairman, the college dean, the college budget review committee, the executive committee members, the president and the board of trustees.

Structure

The ultimate authority and fiduciary role of the board of trustees were reflected in the authorization of the budget.

Technology

There appeared to be no special technological devices used in the authorization of the budget.

Strategies

Maintaining open lines of communication between middle and top administration appeared to be the only strategy used in the authorization of the budget.

Environment

There were no changes in the budget plan as presented. There appeared to be an environment supportive of the nursing program.

Budget Implementation

Tasks

Administer the budget plan based on control measures and with provision for flexibility in implementation. There appeared to be no control measures internal to the division except the authority inherent in the chairman's role to approve or veto budget requisitions within the division. Guidelines imposed by statutory and accrediting requirements involving the disbursement of nursing funds were adhered to.

At the beginning of the fiscal year a computerized budget statement indicating the funds allocated for each line-item was transmitted to the nursing chairman. She received a monthly budget print-out through out the fiscal year which she used to monitor the level of spending in each line item. Transfer of funds to cover deficit items was permissible upon the approval and request of the nursing chairman. Unencumbered funds reverted to the general funds at the close of the year.

Actors

The primary actor in the implementation of the budget was the nursing division chairman.

Structure

The power and authority vested in the chairman's role was reflected in the implementation of the budget.

Technology

The computerized budget printout appeared to be the only technological device used in the implementation of the budget.

Strategies

The strategies for budget implementation included the:
monthly monitoring of the levels of spending in each line item,
compliance with external controls imposed by outside funding agencies.

Budget Evaluation

Tasks

Compare program costs with units of outputs reflective of program goals and objectives and utilize results of evaluation as feedback for the next budget cycle

There appeared to be no formal evaluation of the budget at mid-year, or, at the end of the year. The monthly monitoring of levels of spending in each line item appeared to be the only assessment process used during the fiscal year. At the start of the new budget cycle, the previous budgets were used as the primary references for projecting cost estimates.

Although program outputs such number of degrees awarded, number of graduates passing state boards and job placement of graduates were readily known and available there appeared to be no deliberate attempt to relate program costs with program outputs. Independent auditing

of funds from state and federal agencies were done in compliance with the law.

Actors

Participants in the evaluation of the budget were the chairman, the faculty involved in preparing and reviewing the budget and independent auditors.

Structure

The structure for the evaluation of the budget reflected a provision made for the participation of auditors external to the institution.

Technology

Auditing approaches were used by independent auditors.

Strategies

Strategies for budget evaluation included:

monthly monitoring of levels of spending, and,

use of budget history as primary reference in projecting costs for planned fiscal year.

Environment

The environment was characterized by lack of internal evaluation measures. External control imposed by outside funding agencies were complied with.

Summary

School J was a private Nazarene college with a division of nursing administered by a chairman who reported directly to the dean of the college. The budgeting horizon covered a single fiscal year which extended from July 1 to June 30. Six months before the start of the fiscal year, the nursing chairman received a budget memo from the college dean. A budget plan was prepared based on faculty input, previous budgets, anticipated student enrollment, and number of faculty needed for the planned fiscal year. The budget was presented to the nursing faculty acting as a budget review committee of the whole, the, submitted with documentation to the college dean. In turn, the college dean presented the college budget to the college budget review committee. From there it went to the executive committee advisory to the president, and finally, to the board of trustees.

Implementation of the budget was the responsibility of the chairman. There were no internal control measures related to budget implementation. Controls were imposed by outside funding agencies in ensuring that funds earmarked for nursing were spent accordingly.

There was noticeable lack of technological approaches in the budgetary process. Strategies consisted of maintaining open lines of communication among the faculty and administration.

There appeared to be a democratic environment which allowed faculty participation in the budgetary process and which provided financial support to the nursing program.

Summary of Case Study Presentation

Data related to tasks, actors, structure, strategies, technology and environment associated with the preparation, presentation, authorization, implementation and evaluation of the 1976 fiscal year budgets of ten Illinois baccalaureate nursing schools selected on the basis of pre-established criteria was presented.

These data were obtained through site visits of the sample schools conducted for the purpose of interviewing the sample nursing school administrators, and studying documents relevant to budgeting, e.g., organizational charts, job descriptions, minutes of meetings, accreditation reports, budget document and the school catalog.

The field study findings are summarized and presented in Tables 2-10, pp. 234-252, immediately following this section.

TABLE 2.--Background Data Related to the Parent Institution
of the Ten Baccalaureate Nursing Schools Parti-
cipating in the Study

Descriptive Characteristic	Number of Institutions Exhibiting Characteristic
1. Control	
State	2
Private	8
2. Religious Affiliation	
Non-sectarian	3
Catholic	4
Evangelical	2
Nazarene	1
3. Degrees Granted by the Institution	
Doctoral Degrees	3
Masters Degrees	8
Baccalaureate Degrees	2
4. Charter of the Institution	
Senior Universities	6
Liberal Arts Colleges	4
5. Age of Institution	
Over 5 Years	1
Over 40 Years	1
Over 60 Years	1
Over 70 Years	2
Over 80 Years	1
Over 100 Years	3
6. Location of the Institution	
North Metropolitan Chicago	4
South Metropolitan Chicago	1
Suburb South of Chicago	1
Suburb West of Chicago	2
Southern Illinois	1
Downstate Illinois	1

TABLE 3.--Background Data Related to the Ten Baccalaureate
Nursing Schools Participating in the Study, as
of 1975

Descriptive Characteristic	Number of Schools Exhibiting Characteristic
1. Age of the Parent Institution at the Time Nursing Program was Established	
0-1 Year	1
40-45 Years	1
45-50 Years	1
60-65 Years	1
65-70 Years	2
70-75 Years	1
75-80 Years	1
80-85 Years	1
95-100 Years	1
2. Age of the Nursing Program	
1-5 Years	2
5-10 Years	3
15-20 Years	1
20-25 Years	1
25-30 Years	1
40-45 Years	1
55-60 Years	1
3. State-Approved	10
4. Has Graduate Nursing Programs	5
5. Has NLN Fully Accredited Graduate Nursing Programs	4
6. Has NLN Provisionally Accredited Graduate Nursing Program	1
7. Has Undergraduate Nursing Programs	10
8. Has NLN Accredited Undergraduate Nursing Programs	6
9. Has Continuing Education Programs in Nursing	5

TABLE 3.-- Continued

Descriptive Characteristic	Number of Schools Exhibiting Characteristic
10. Student Enrollment	
100-150	2
200-300	2
300-400	2
400-500	2
550-850	2
11. Sources of Income	
Student Fees	10
Federal Capitation	10
Special Project Grants	4
Private Philanthropy	5

TABLE 4.--Background Data Related to the Ten Nursing Administrators who Served as Respondents in this Study, as of 1975

Descriptive Characteristic	Number of Respondents Exhibiting Characteristic
1. Sex	
Female	10
2. Educational Background	
Registered Nurses	10
With Earned Doctoral Degrees	5
Doctoral Candidates	3
With Earned Masters Degrees	2
3. Length of Service on the Job as Nursing Administrator in the School	
1 Year	4
2 Years	5
14 Years	1
4. Previous Experience in Budgeting	
Some Experience	4
No Experience	6
5. Had Orientation and/or In-Service Training on the Budgetary Process of the Institution	0
6. Had Attended Workshops on Budgeting in Nursing Schools	4

TABLE 5.--Data Related to Tasks Involved in the Preparation, Presentation, Authorization, Implementation and Evaluation of the 1976 Fiscal Year Budget

Descriptive Data Element About the School	Number of Schools Exhibiting Descriptive Data Element
1. Data Related to the Task of Establishing Budget Planning	
Assumptions	2
a. With formalized institutional planning	3
b. With formalized planning within nursing	2
c. With written institutional statement of philosophy, goals and objectives	10
d. With written philosophy, goals and objectives for the nursing program reflective of the institution's mission	10
e. With nursing educational outcomes expressed in behavioral terms	10
f. With budget manuals	2
g. With one year budgeting horizon	10
h. With multi-year budgeting horizon	0
i. With traditional-incremental line item budgeting model.	9
j. With zero-base program budgeting model	1
k. With electronic data processing services	9
l. With a department of institutional research	1
m. With nursing faculty organized for collective bargaining	1
2. Data Related to the Task of Projecting Potential Income	
Based on All Fund Sources	2
a. Sources of Income	
Student Fees	10
Federal Capitation	10
State Capitation	9
Endowment Funds	2
Private Philanthropy	5

TABLE 5.--Continued

Descriptive Data Element About the School	Number of Schools Exhibiting Descriptive Data Element
b. Practice of Relating Nursing Income to Fund Sources	2
3. Data Related to Task of Calculating Resource Requirements Based on Program Goals and Objectives and Comparing Resource Requirements with Available Resources	1
a. Calculates resource requirements with program goals and objectives	1
b. Administrators receive budget memos from their immediate superior at least six months before start of the new fiscal year	10
c. Administrators received line-item budget worksheets	9
d. Administrator received a program budget worksheet	1
e. Administrators received assistance from nursing faculty in preparing the budget	8
f. Administrators received assistance from adminis- trative staff whose major responsibility was related to the budget	1
4. Data Related to Establishing Priorities and Alternatives	10
a. Priority areas of concern Curriculum revision and implementation	10
Earning or preparing for accreditation	5
Expanding into continuing education offerings	2

TABLE 5.--Continued

Descriptive Data Element About the School	Number of Schools Exhibiting Descriptive Data Element
b. Suggested alternatives in the budget plan . . .	1
5. Data Related to Checking Requested Amounts Against Established Guidelines or Formula	2
a. Established budgeting formula	2
b. Externally imposed statutory guidelines . .	10
c. Accrediting guidelines .	10
6. Data Related to Task of Preparing Documentation to Support the Budget Plan	10
a. Administrators submitted documentation with budget request	6
7. Data Related to Task of Consulting Financial Experts as Appropriate.	4
a. Administrators met with financial officers during the budget cycle . . .	4
8. Data Related to Utilizing Electronic Data Processing Services to Facilitate Analysis	2
a. Utilized electronic data processing for problem designing and problem solving	2
b. Utilized computer for budget processing . . .	9
9. Data Related to the Provision of Review of the Budget by Appropriate Groups	8
a. Budget review groups within nursing	8

TABLE 5.--Continued

Descriptive Data Element About the School	Number of Schools Exhibiting Descriptive Data Element
b. Institutional budget review committees with faculty representation	7
c. Budget review groups with student representation	0
d. Budget review groups in boards external to the institution	2
10. Data Related to the Submission of the Budget on Time and Meeting with Appropriate Individuals to Discuss the Budget Request with Consideration of Possible Alternatives to Proposed Deletions or Reductions	9
a. Administrators submitted completed budget request within one month after receipt of budget memo	10
b. Administrators who met with academic or financial officers related to the budget	9
c. Deletions or reductions in the nursing budget plan	0
11. Data Related to the Task of Obtaining Official Approval of the Budget with Adequate Lead Time for Implementation	10
a. Authority for official approval of the budget were vested in the board of trustees	8
b. Authority for official approval of the budget were vested in the office of the governor	2

TABLE 5.--Continued

Descriptive Data Element About the School	Number of Schools Exhibiting Descriptive Data Element
12. Data Related to the Task of Administering the Budget Plan Based on Control Measures and with Flexibility in Implementation	10
a. Control measure built-in the organizational structure	10
b. Written cost-benefit measures	0
c. Written cost-effective measures	0
d. Written performance measures	0
e. Formal procedure for transfer of funds	10
f. Provision to carry over surplus funds to the following fiscal year	1
g. Budget cuts during the implementation of the 1976 budget	2
13. Data Related to the Task of Formally Comparing Program Costs with Units of Outputs Reflective of Program Goals and Objectives and Utilizing Results of Evaluation as Feedback for the Next Budget Cycle	10
a. Program outputs are known and monitored	10
b. Program costs were compared with program outputs	0
c. Institutional appraisal of the levels of spending at some point during the fiscal year	3
d. Nursing funds from outside agencies were audited by independent auditors	10

TABLE 5.--Continued

Descriptive Data Element About the School	Number of Schools Exhibiting Descriptive Data Element
e. Previous budgets were primary documents for projecting costs for upcoming fiscal year	10
f. Formal budget evaluation procedure internal to the institution	0

TABLE 6.--Data Related to Actors in the Preparation, Presentation, Authorization, Implementation and Evaluation of the 1976 Fiscal Year Budget of the Ten Baccalaureate Nursing Schools

Budget Process	Actors Involved	Number of Schools Where Actor Cited Was Involved
I. Preparation	1. President	10
	2. Chief Academic Officer/ Equivalent	10
	3. Chief Financial Officer/ Equivalent	10
	4. Chief Nursing Administrator	10
	5. Nursing Faculty	9
	6. Students	0
	7. Citizens	0
II. Presentation	1. President	10
	2. Chief Institutional Academic Officer	10
	3. Chief Institutional Financial Officer	10
	4. Chief Nursing Administrator	10
	5. Faculty Review Groups	6
	6. Administrative Review Groups	10
	7. Student Review Groups	0
	8. Citizen Review Group	2
	9. State Board of Education	2
	10. General Assembly	2
	11. Governor	2
	12. Board of Trustees	10
III. Authorization	1. Board of Trustees	10
	2. Board of Higher Education	2
	3. General Assembly	2
	4. Governor	2
IV. Evaluation	1. Independent Auditors	10
	2. Chief Nursing Administrator	10
	3. Chief Financial Officer	10

TABLE 7.-- Data Related to Structure in the Preparation, Presentation, Authorization, Implementation, Evaluation of the 1976 Fiscal Budget of Ten Baccalaureate Nursing Schools

Descriptive Data Element About Nursing Program	Number of Schools Exhibiting Data Element
1. Organizational Placement of Nursing Programs in the Structure of the Institution	
a. Organized as separate professional school or college	4
b. Organized as departments within divisions in a college	2
c. Organized as departments within a college	3
d. Organized as a division within a college	1
2. Placement of the Nursing Administrator in the Institution's Scalar Chain of Command	
a. Reported directly to a superior second in institutional command	5
b. Reported directly to a superior third in institutional command	2
c. Reported directly to superior in the fourth level of institutional command . . .	3
3. Relationship of Schools with State Agencies	
a. State approval through the Department of Registration and Education required for program establishment and continued operation	10
b. Approval by IBHE required for state funding	10

TABLE 8.--Data Related to Strategies Used in the Preparation, Presentation, Authorization and Evaluation of the 1976 Budgets of Ten Selected Baccalaureate Nursing Schools

Descriptive Element	Number of Schools Exhibiting Element
1. Strategies Used in Budget Preparation	
a. Conventional scheduling tables	10
b. Timetables	10
c. Manning tables	10
d. Asking the right questions	10
e. Past experience and knowledge	10
f. General knowledge of the field	10
g. Hunches, judgment, intuition	10
h. Legitimate power base	10
i. Compliance with statutory requirements	10
j. Use of NLN faculty salary survey	7
k. Use of institution's faculty salary schedule.	10
l. Use of budget history of institution and department	10
m. Use of faculty workload based on student enrollment	10
n. Consulting with financial officers of the institution	4
o. Use of enrollment forecasting	10
p. Use of analytical study on student flow	2
q. Padding the budget request	1
r. Traditional-incremental line-item budgeting	9
s. Zero-base program budgeting	1

TABLE 8.--Continued

Descriptive Element	Number of Schools Exhibiting Element
2. Strategies Used in the Presentation of the Budget	
a. Submission of documentation with budget request	8
b. Meeting with academic administrators after submission of the request	9
c. Meeting with financial officers after submission of budget request	3
d. Open lines of communication with the faculty	10
e. Recognition of the needs of the total institution	3
f. Awareness of the state priority attached to nursing education	2
g. Appearance in a state public hearing on funding for nursing education	2
3. Strategies Used in the Authorization and Implementation of the Budget	
a. Use of legitimate power inherent in administrative role	10
b. Compliance with statutory and accrediting guidelines	10
c. Use of balance of funds statement	10
d. Maintaining open lines of communication with top administration	10
e. Maintaining open lines of communication with faculty	10

TABLE 8.--Continued

Descriptive Element	Number of Schools Exhibiting Element
4. Strategies Used in the Evaluation of the Budget	
a. Monthly monitoring of balance of funds statement	10
b. Auditing by independent auditors in compliance with legal requirement	10
c. Use of the budget as feedback for the next budget cycle	10
d. Evaluation based on instructional outputs	0
e. Evaluation based on academic environment attributes	0
f. Evaluation based on social environment attributes	0
g. Evaluation based on research outputs	0
h. Evaluation based on public service outputs	0

TABLE 9.--Data Related to Technology in the Preparation, Presentation, Authorization, Implementation and Evaluation of the 1976 Budgets of Ten Selected Baccalaureate Nursing Schools

Descriptive Element	Number of Schools Exhibiting Element
1. Use of Computer in Budget Preparation, Presentation, Authorization, Implementation, Evaluation	
a. Use of computer for teaching	0
b. Use of computer for problem solving	0
c. Use of computer for production processing of budget statements	9
2. Use of Electronic Data Processing for Analysis of Student Enrollment	3

TABLE 10.--Data Related to the Environment
in the Preparation, Presentation,
Authorization and Implementation
of the Budgets of Ten Selected
Baccalaureate Nursing Schools

Descriptive Element	Number of Schools Affected by Element
1. Environmental Factors	
External to the Institution	
a. Inflation	10
b. Unemployment	10
c. Dip in the stock market	10
d. Energy crisis	10
e. Increased involvement of federal and state government in master planning and coordination of education . .	10
f. Statutory requirements imposed by the State.	10
g. Requirements imposed by accrediting agencies	10
h. Requirements imposed by funding agencies	10
i. Decrease in traditional 18-21 year old college student	10
j. Societal emphasis on lifelong learning for all ages	10
k. Egalitarian social philosophy	10
l. Increasing needs of citizens to cope with change	10
m. Consumerism movement	10
n. Women's rights movement	10
o. Public disenchantment with higher education	10
p. Increased demands for higher education to render community service	10

TABLE 10.--Continued

Descriptive Element	Number of Schools Affected by Element
q. Increased recognition of role of private education	10
r. Financial aid to private education from state and federal government	10
s. Increased public demand for health services as a right	10
t. Priority accorded to education of health care professionals .	10
u. Shortage of nursing manpower in Illinois.	10
v. Increased involvement of the nursing profession in political action	10
w. Push to move nursing education to mainstream of higher education .	10
x. Increased acceptance of the expanded role of the nurse by other health workers . . .	10
2. Environmental Factors Internal to the Institution	
a. Faculty activism evidenced by collective bargaining	1
b. Non-traditional approaches to teaching-learning.	10
c. Shared governance of the campus with faculty	10
d. Acceptance of public service as integral in the institution's mission	10

TABLE 10.--Continued

Descriptive Element	Number of Schools Affected by Element
e. Institutionalization of planning systems as of 1976	9
f. Institutionalization of analysis of goals and objectives	10
g. Presence of written formalized budgetary procedures	2
h. Presence of internal budget control measures aside from control inherent in the organizational structure	0
i. Action plans to relate the budgeting process with the planning process as of 1975	3
j. Lack of administrative and faculty development on the budgetary process	10

CHAPTER IV

ANALYSIS OF DATA

The purpose of this study was to identify, analyze, and compare the tasks, actors, structure, technology, environment, and strategies associated with the preparation, presentation, authorization, implementation, and evaluation of budgets as described in contemporary literature and as practiced in ten Illinois baccalaureate nursing schools in relation to their 1976 fiscal year nursing program budgets.

To generate data from the literature, a comprehensive review of publications on budgeting from the fields of business, management, public administration, economics, organization theory, and higher education within the years 1964-1976 was undertaken. The 1964-1976 time frame was selected because the golden decade in higher education which ended in the midsixties sparked increased attention to budgeting processes and strategies in the literature. Since the locus of comparison was the 1976 fiscal year budget, limiting the review of the literature to 1976 provided a uniform baseline in comparing the literature with actual practice.

To generate data on actual budgeting processes and strategies, a field study of ten selected baccalaureate nursing schools in Illinois was conducted. The field study involved site visits to the sample schools for the purpose of interviewing the nursing school administrator and studying documents related to the budgetary process.

The organizational elements of environment, tasks, actors, structure, technology, and strategies are the focal points for the

comparison of the commonalities, similarities, and differences between the literature and actual budgeting practice in the schools participating in the study. A summary of the review of literature findings are shown in Table 1, pp. 95-112. A summary of the field study findings are shown in Tables 2-10, pp. 234-252. The comparative analysis based on findings from the review of the literature and the field study follows.

Environment and the Budgetary Processes

Because of the ubiquitous nature of the environment, its impact on the processes of budget preparation, presentation, authorization, implementation, and evaluation, is predictably pervasive and all-encompassing. For this reason, attention will first be focused on the environment before looking at the organizational elements of actors, tasks, structure and strategies associated with budgeting.

As cited in the review of the literature, there were numerous technological, social, political, and economic forces internal and external to institutions of higher education which influence budgeting. Field study findings suggested that the most dominant environmental force impacting on budgeting was economics followed by social, political, and technological forces.

The end of the golden decade in higher education in the mid-sixties appears to have ushered in a golden decade for nursing education. In contrast to the "dollar squeeze" experienced by higher education in general, starting in the mid-sixties and continuing to the predictable future, was a "dollar release" for nursing education from federal, state, and private sources. The availability of funds

for nursing education appears to have served as a lever for the entry of nursing educational programs into the mainstream of higher education, thus facilitating the operationalization of recommendations made by professional nursing organizations and national and state-wide planning commissions toward this end. This observation was validated by the fact that half of the nursing schools participating in this study were established within the last ten years, despite the fact that nine of the parent institutions investigated had been in existence from 40 to 100 years at the time this study was conducted. In turn, the forces which contributed to the favorable funding for nursing education can be traced from social, political, and technological factors.

Foremost among the societal developments which directly fostered the favorable climate for funding nursing education were:

1. The emergent philosophy that health care should be viewed not as a privilege but as a right fosters the expectation that every member of society is entitled to accessible, continuous, safe, and comprehensive health care. This translated into a greater demand for nursing services, since nurses comprise over half of the nation's health force.

2. The push for equal rights, as exemplified by the civil rights movement, women's rights movements, consumer's rights and affirmative action plans sparked activism among nursing faculty, who are predominantly women. This activism was exemplified in political activities within and outside the educational institutions. For example, two of the ten nursing schools were organized for collective

bargaining by the 1976-77 academic year. Outside institutions of higher education, nurses are flexing their political muscle through their national and local lobbying efforts for continued funding for nursing education, participation in elections as pressure and interest groups, or, as active candidates for elective office.

3. The push for equal rights in all fronts served as impetus for legislation creating health facilities, establishing varying modes of health care delivery systems, and equal opportunity programs, all of which create an environment favorable toward the financing of nursing education.

4. Another socio-political development which contributed to the favorable environment for financing nursing education was the recognition and acceptance of private schools as a major and significant force in our society and a corresponding public support for the private education sector in terms of financial aid. This encouraged some private schools to establish nursing programs. Next to student fees, state and national subsidies rank as a major source of revenue for nursing programs in private institutions.

5. The emphasis on life-long learning and legislative movements toward mandated continuing education for health professionals also exerted some significant implications on the revenue base of institutions of higher learning in general, and in nursing schools in particular. With the decline in the traditional 18-21 year old college student, the push for continuing education opens a heretofore untapped market — the older student. This expanded student pool is especially noticeable in nursing, because registered nurses who obtained their

training from non-baccalaureate programs seek admission into colleges and universities to complete a bachelor of science degree in nursing. Additionally, nurses in clinical practice pursue continuing education courses to update their knowledge and skill base. The increased enrollment from this additional market translates to an expanded revenue base for colleges and universities.

Other forces external to schools which exert profound impact on the budgetary processes are the regulating, coordinating, and accrediting agencies:

1. As cited in the literature, the Illinois Department of Registration and Education, which enforce the rules and regulations of the Illinois Nurse Practice Act. Statutory requirements for the initial and continuing approval of nursing schools cover areas directly related to budget planning such as: the number and quality of faculty, mix of faculty based on clinical specialization, role of the faculty in the preparation of budgets, quantity and quality of educational facilities and adequacy of financial support from the parent institution.

2. The Illinois Board of Higher Education (IBHE) which, as cited in the literature, is legally authorized to review educational programs and make recommendations related to programs in general and budget allocation in particular.

3. The Illinois Implementation Commission on Nursing (IICON) which served as the state-wide planning agency for nursing education in Illinois. Among IICON's recommendations were: the phasing out of hospital diploma nursing programs, the movement of all professional

nursing programs to institutions of higher education, funding priority for baccalaureate and higher degree programs in nursing, a doubling of the number of graduates in the baccalaureate nursing schools by 1980 to meet the nursing manpower needs in Illinois, and interinstitutional cooperation between hospitals and nursing schools in effective use of clinical agencies for instruction of nursing students.

4. The regional accrediting agency, North Central Association for Post-Secondary Schools, and the national professional accrediting agency for nursing, the National League for Nursing (NLN), have explicit guidelines regarding the resources essential for a quality educational program in nursing.

5. Professional organizations (e.g., ANA, NLN, AACN) also exert influence in the budgetary process in the sense that they set the professional standards for practice, they serve as a network for communication among nurses, and they can legally serve as agents for collective bargaining. This was exemplified in one of the schools participating in the study, where the nursing faculty were represented by the professional state nurses association for collective bargaining.

5. Consortia (e.e., HERCNI, SHARE) among nursing schools on a local and regional basis have potential impact on the budgetary process through interinstitutional arrangements that could lead to cost savings.

From a technological standpoint; the technological explosion in the computer assisted instruction and management, phenomenal scientific advances, emphasis on research, demand for specialization, and competent care have implications for the nature and quality of

health care professionals such as nurses. Coupled with the increasing consumer and patient's rights, these advances translate to a societal expectation of a knowledgeable, accountable, safe, and humanistic health care provider. This in part explains the transition in the educational preparation of nurses from that of an apprentice, technically-oriented training in hospitals, to a liberal-arts, and general-education-based professional education in colleges and universities.

The computer has also influenced management and teaching modes and strategies. Its use has spurred changes in governance patterns and encouraged innovative teaching-learning approaches, both of which have implications to the budgetary process, since the budget is based on the educational plan, and since the implementation and evaluation of the budget reflects the governance structure of the institution.

Individually and collectively, the foregoing economic, social, political and technological factors influence the budgetary process in various ways. In the process of budget preparation, these environmental forces serve as parameters for budget planning. They are indicative of the sources of revenue for nursing and the climate for the financing of nursing education.

In the process of budget presentation, an awareness of these environmental factors are of great assistance to the administrator in identifying and implementing effective strategies for documenting and defending budget requests. As confirmed in the field study, the administrators cited such factors as increasing student enrollment, continuing substantial external funding for nursing and the necessity

to meet statutory and accrediting requirements as rationale for their budget requests.

The positive impact of these environmental forces was also evident in the process of budget authorization. In all of the schools, no changes were made in the requests made by the nursing administrators at the level of the Board of Trustees.

In the implementation of the budget for 1976-77, it was evident from the field study findings that statutory and accrediting requirements served as control measures in implementing the budget.

In the evaluation of the budget, the schools shared in common the fact that the only formal, deliberate evaluation of the budget was the externally imposed independent audits of funds allocated by funding agencies.

Thus far, the foregoing analysis of environmental forces impinging on the budgetary process focused on the environment external to the educational institution. The internal environmental forces were equally important and pervasive and are presented.

The internal environment of the institution derives from many sources: the nature, philosophy, goals and objectives of the institution; size, structure for management and academic governance, leadership and management styles; geographical location, number and quality of educational program offerings; financial base of the institution; degree of diversity of its constituents, communication networks, morale, and the over-all organizational climate, among others. Data pertinent to some of these variables gathered during the field study are presented in Tables 2-10, pp. 234-252.

Eight of the ten schools investigated were private schools. The public or private nature of the institution imply differing value orientations, as was evident in the diversity of the nature of the statement of philosophy, goals and objectives of the ten parent institutions. In turn, the statement of philosophy, goals and objectives serve to attract or discourage sources of revenue for the educational programs — students, philanthropists, and other funding agencies. They also serve as the nucleus for the educational plan.

Diversity in the private schools derive from their church affiliation which in turn influences the pattern of control and governance of the institution, e.g., the ration of lay to religious members in the Board of Trustees, which affects budgeting in the sense that boards of trustees are vested with the ultimate authority to make resource allocation decisions.

The number, quality, scope and thrust of program offerings also indirectly influence the budgetary process. Three of the schools investigated were doctoral-degree granting, seven were masters-and-baccalaureate degree granting and two were strictly baccalaureate-degree granting institutions. It was evident that the doctoral degree granting institutions with their research capabilities were able to attract special projects more easily than the non-doctoral degree granting institutions. For example, all of the three sample doctoral-degree granting institutions were awarded special project grants. Only one of the seven sample schools were not doctoral-degree granting institutions had a special project grant award although five of the administrators from these schools indicated that they have applied for special request project grants.

Politically, the human-service thrust of nursing programs weigh heavily in the nursing schools' favor, because it responds to societal demands for universities to expand their mission from the traditional stance of instruction and research, to community service.

It is noteworthy that the preponderance of women in nursing indicate that a market — men, remains to be tapped as a client pool for nursing schools. Recruitment drives are currently designed to attract minority and men into nursing. Men are increasing in numbers in nursing schools and serve as a new source of revenue in terms of student tuition fees.

The age, size, geographical location, and typology of the institutions have implications on the structure, technology, reputation, and complexity of the institution with corresponding implications for the institution's ability to attract funds in terms of student enrollment and grants from outside funding agencies.

In summary, environmental forces internal and external to the institution are economic, social, political, and technological in nature and influence the budgetary processes primarily in the areas related to the financial and educational plan of the institution upon which the budget plan is based.

Tasks in the Budgetary Process

Table 2, p. 234 outlines the tasks involved in the preparation, presentation, authorization, implementation and evaluation of budgets as described in the literature and as practiced in ten Illinois baccalaureate nursing schools in relation to their nursing program budgets for fiscal year 1976.

An examination of the column on the number of schools that carried out each main task in the four phases of the budgetary process reveals that in almost all of the school, emphasis was given to budget presentation, authorization, and implementation, cursory attention to budget preparation, and no attention at all to the process of budget evaluation.

However, the reader is cautioned not to take the figures at face value and conclude that certain tasks related to budgeting were not carried out at all. A close review of the case study presentations on the schools participating in this study indicates that all of the tasks essential to each budgetary process were carried out in varying degrees and modes by each of the schools, but, not necessarily in the manner suggested by the literature. Thus, the zero marks in some of the tasks described in Table 2, p. 234. Following is an analysis of each task under each budgetary process as described in the literature and as practiced in the schools. The analysis helps clarify the meaning of the preceding statements.

Tasks in the Budget Presentation

1. Establish budget planning assumptions

Only two of the schools had formalized budget planning assumptions. In one of the schools, the dean received a written memo from the academic vice-president with the directive that "the 1976 budget shall be prepared on the basis of a four percent reduction of the 1975 budget." In one of the private schools, there were written premises regarding the projected cash inflow and outflow for fiscal year 1976.

However, as cited in the literature, planning premises have varying sources, and that they may be implied or procedural. In this context, all of the schools had implied planning premises in the form of documents such as the formal statement of philosophy, goals, and objectives. Procedural premises could be derived from faculty handbooks, personnel policy manuals, organizational charts, job descriptions, contracts, and budget documents from previous years.

The literature advocated that these planning premises be directly linked to the budgeting process by integrating budgeting in the planning process of the institution. Since only three of the institutions had formalized planning at the institutional level, and only two had formalized planning at the departmental level, one can understand how only two of the schools had formalized budget planning assumptions.

The financial crunch which confronts higher education makes it imperative that budgeting be integrated in the planning process, since the survival of the educational institution is at stake.¹ Without planning, budgeting could be an expensive exercise in non-change. Neff advocates that institutional planning must gradually become part of the social and political make-up of the university.²

The potential problems from lack of systematic planning, and the pay-offs of integrating budgeting in the planning process are

¹George W. Bonham, "Preface" in Colleges and Money: A Faculty Guide to Academic Economics, (New Rochelle, New York: Change Magazine Press), 1976.

²Charles B. Neff, "Planning and Governance," Journal of Higher Education, 2 (February, 1971) p. 119.

reflected in the views presented by Parekh. Parekh posits that long-range planning:

1. Provides a commonality of understanding about the mission and goals of the institution and the strategies to implement them
2. Summarizes the profile for the institution in quantitative terms
3. Encourages better allocation of resources
4. Helps direct energies away from nonessential to the essential activities
5. Makes evaluation possible in objective terms simultaneously with implementation
6. Assists in generating funds by strengthening the institutional case with granting agencies, governmental and corporate
7. Helps survival and growth of the institution³

From a political viewpoint, Hummel and Spalding espouse that forecasting and financing that extends beyond the current fiscal year helps to get politics out of budget decisions.⁴

The trend toward computer assisted planning models are predicated on their value in forecasting. Two of the many models cited in the literature are SEARCH and RAMP. SEARCH is the acronym for "System for Exploring Alternative Resource Commitments in Higher Education," a computerized simulation model for colleges and universities. LoCascio states that this model serves various purposes including: demonstrating cause and effect, identifying time and magnitude of future resource needs, changes in policy effects on resource needs, testing alternatives for meeting resource needs and designing

³Erret Hummel and Willard Spalding, "How to get Politics Out of Budget Decisions," College and University Business, 53 (September, 1972) pp. 30-32.

⁴Satish B. Parekh, Long Range Planning: An Institution Wide Approach to Increasing Academic Vitality, (New Rochelle, New York: Change Magazine Press), 1977, p. 9.

contingency plans.⁵

RAMP stands for "Resource Allocation and Management Program," one of a series of proposals for a statewide fiscal management under consideration in higher education. The declared purposes of RAMP mirror the advantages of systematic planning. RAMP's avowed purposes are those which:

1. Provides a framework for statewide higher education long range budgeting in the the 1970's
2. Provides a framework for estimating resource requirements of institutional scope and mission goals
3. Provides a framework in which an institution's scope and mission can be reviewed periodically on a statewide basis
4. Ties the review of annual program and budget plans and requests into a single, coordinated process
5. Provides a framework for receiving comparable statewide historical data on information on higher education
6. Provides a data base for conducting statewide recurring studies of a nonrecurring nature

The trend toward adoption of formal institutional planning processes was evident in the field study finding that by the 1976-77 academic year, nine of the ten institutions had formal planning councils reporting directly to the president, which could be the precursor for program budgeting in these schools.

2. Project potential income based on all fund sources

Only one of the schools, a private school where a zero-based budgeting model was used, carried out the task of projecting potential income based on all fund sources, as a discrete, identifiable step in the budget preparation process.

There are several plausible explanations for this finding.

⁵Vincent R. LoCascio, "A Computerized Simulation Model for Colleges and Universities," Management Controls, New York: Peat, Marwick Mitchell and Co., August, 1973, pp. 195-200.

The first reason is related to the budgeting model used by the other nine schools, which was the traditional-incremental approach. Implicit in the traditional-incremental approach is the assumption that a program will continue. Thus, the prime concern of the individual charged with the preparation of the budget is the amount of increase or decrease in the budget allocation based on the prior budgets. Therefore, although all of the administrators were keenly aware of the sources of their income, none of those who prepared a traditional-incremental budget plan felt compelled to justify their programs on the basis of the income generated by the program.

The administrator operating in an incremental mode is likely to gather information in a random, experimental manner and not worry too much about its sophistication. He or she will rely heavily on values, interpretation of past experiences, and intuition.⁶

Sources of income need to be better understood by faculty. Colleges and universities rely on four major income sources: student and service charges, government appropriations, philanthropy and donor contribution, and borrowing. Minter and Bowen recommended that institutions engage in analysis of the financial base of the institution by focusing on:

1. Endowment fund balance per FTE
2. Total assets per FTE
3. Total current revenue per student
4. Ratio of current assets to total liabilities
5. Ratio of total assets to total liabilities

⁶G. Ben Lawrence and Allan L. Service, eds., Quantitative Approaches to Higher Education and Management: Potential, Limits and Challenge, ERIC/Higher Education Research Report No. 4, (Washington, D.C.: AAHE, 1977), p. 16.

They suggested that the percentage in change in the above figures be gleaned for two or six years to determine whether the institution is holding ground, losing ground, or gaining ground.⁷

A concept borrowed from business that is currently considered in academic circles is that of profit planning. The establishment of profit requirements is perceived as part of institutional survival.

Crandall advocated the following strategies for profit planning:

1. Eliminate unprofitable programs
2. Identify new population
3. Establish time frame for corrective action
4. Evaluate size of programs
5. Use expert assistance through consultation
6. Identify marketable product⁸

In light of the predictable competition for dwindling resources, nursing school administrators must pay closer attention to current and potential fund sources. Awareness of where the revenue is coming from will assist them in mapping out strategies to ensure that sufficient levels of funding necessary to support quality educational programs are maintained.

4. Establish priorities and alternatives based on program goals and objectives

All of the nursing schools did this in a process which involved administrators, faculty, and students. This was consistent with the fact that all of the schools had formal statements of philosophy, goals and objectives, and educational plans that were expressed

⁷John V. Minter and Howard R. Bowen, Private Higher Education: Third Annual Report, (Washington, D.C.: AAHE, 1977), p. 64.

⁸Richard Crandall, "Key Steps in Profit Planning," Management Controls, (January, 1972), pp. 7-12.

in behavioral terms. The impetus for undertaking this task could be attributed to the guidelines imposed by regional and professional accrediting agencies in this regard.

5. Check requested amounts against established guidelines or formula

Only two of the nursing administrators undertook this task. These were the administrators who were given definitive parameters as to what their bottom line budget figure would be. The other administrators were simply given worksheets without any formulas or guidelines, and had to rely on their professional judgement as to what would meet the guideline imposed by statutory and accrediting agencies.

This is probably attributable to the fact that a standard cost system is not available for higher education in general and for nursing education in particular. The use of standard cost systems for resource acquisition, resource allocation, resource management and control was highly recommended by Lawrence and Service. The use of a standard cost system (what management thinks average costs should be) allows the administrator to compare actual costs with standard costs. When standard costs are compared to actual costs, a cost variance emerges. The cost variance is positive or favorable if the budgeted costs exceed the actual costs. If the budgeted costs are less than the actual costs, a negative or unfavorable cost variance results. Awareness of cost histories and variances will help the administrator to determine whether costs are reasonable or if corrective action is to be taken. A cost standard would help isolate reasons for cost increases and thus enhance management control. It would also facilitate account-

ability — the principle under which funding sources are appraised as to whether resources are spent for the purchase of goods and services for which they are intended, and secondarily, whether proper value was received for these expenditures.⁹

6. Prepare documentation to support the budget plan

Six of the administrators prepared written documentation to support their budget requests. In these institutions, this task appeared to be the standard operating practice. In the four institutions where this task was not carried out, it appeared that this was not done because it was not customary to do so in those institutions. The fact that almost half of the sample nursing administrators did not prepare documentation to support their budget request reinforces the observation that the income produced by the nursing program and the costs involved in operating the nursing programs do not appear to be a major issue in the majority of the schools at the time this study was conducted. In turn, this nonchalant attitude toward the relationship between the program revenue and costs could be attributed to the presence of external funding for nursing, and to the stable and increasing student enrollment in nursing schools. However, shifts in funding and enrollment patterns would require justification for the maintenance of the nursing programs in higher education institutions.

7. Consult financial experts as appropriate

Only four of the nursing administrators consulted financial experts in the course of preparing their budgets. This could possibly

⁹Lawrence and Service, Quantitative Approaches, p. 40.

be explained by the fact that the traditional-incremental approach to budgeting does not demand much beyond filling in the budget figures for each line item. Another possible explanation stems from the fact that the nursing program budgets in the schools participating in the study did not involve substantial amounts of money in comparison with the total budget outlay of the institution.

Additionally, funds for nursing programs are usually predetermined. Both internal and external funds are based on student enrollment. The constraints imposed by strict regulations regarding faculty-student ratios and number of students that could be accommodated in a particular clinical agency for clinical institution, have forced nursing schools to define their enrollment boundaries, thus facilitating the projection of costs.

8. Utilize electronic data processing services to facilitate analysis

Although nine of the schools had ready access to electronic data processing services, none of the nursing administrators participating in this study took advantage of this service. Responses given during the interview indicated that a majority of them were not aware of the potential use of electronic data processors. Another factor cited was the lack of time to devote to analytical studies. The traditional-incremental budgeting model with its emphasis on fiduciary accounting rather than the relationship between program inputs and outputs was also a crucial factor in the lack of use of analytical, quantitative studies. The budgeting horizon in a traditional budget is a single fiscal year which does not demand analytical studies characteristic of multi-year planning. Additionally, there was skepticism as to the value of quantitative analysis for decision-making.

This is explained in greater detail under strategies for budgeting. The size of the institution and the availability of specialists for data processing are also related to the use or lack of use of electronic data processing services.

To summarize, the process of budget preparation was given the emphasis that it should have, largely because of the traditional-incremental budgeting approach used in nine of the schools. The planning emphasis in budget development with the traditional budget was assuring that estimated expenditures do not exceed estimated receipts for the fiscal period.

Tasks in Budget Presentation

Almost all of the schools provided for the review of the budget by appropriate groups and submitted their budget requests on time. Nine of the nursing administrators met with their immediate superior to discuss the budget request. This appears to be in line with Knezevich's observations that in a traditional budget: (1) the primary concern of the budget officers is the safeguarding funds for assigned used and stewardship and protection of fiscal resources, (2) that the criterion for appraisal of budget decisions is how resources planned for various activities are actually used.

The review process that took place in presenting the budget to faculty and administrative groups serve the function of fiscal control rather than strategic planning and the generation of desirable alternatives based on cost-effective analysis.

As cited in the literature, the presentation of the budget was modified in the school with collective bargaining. The flow and actors

involved in the presentation of the budget in a collective bargaining situation required the participation of agents external to the institution — bargaining unit representatives, and in the event of an impasse — arbitrators. In the school where collective bargaining took place, salary recommendations were presented by the bargaining unit, rather than by the dean or department chairman, as was customary in the non-unionized schools.

Tasks in Budget Authorization

In all of the schools, the official approval of the budget was obtained with adequate lead time for implementation. The differences among the schools in carrying out this task stemmed from the actors and structure involved in this process and are explained in greater detail under the sections on actors and strategies.

Tasks in Budget Implementation

According to the literature, an organization will typically implement a management or control policy closely aligned with its planning and budgeting system. Nine of the ten sample schools operated with fiduciary accounting systems characteristic of the traditional-incremental approach to budgeting. Therefore, the control measures utilized by the majority of the schools studied consisted of line-item comparisons of actual expenditures to budgeted amounts at various times during the year. Flexibility in implementation was provided through the mechanism of transfer of funds from one line item to another as long as the bottom line figure remained the same.

Contemporary approaches to budgeting, e.g., program, formula, zero-based budgeting, represent attempts to move budgeting and educa-

tional activities or programs into an interrelated, reinforcing relationship based a clear statement of goals, and a process of planning for a span of years to reach these goals. This planning effort is directed or aided by cost-analysis, cost-effectiveness and cost-benefit studies, all of which are in turn related to the principle of accountability: e.g., determination of cost per student hour or cost per degree, appraisal of funding sources as to whether resources are spent for the purchase of goods and services for which they were intended, and, whether proper value was received for those expenditures.

In light of the demand for accountability in higher education from the taxpaying public, public and private funding agencies, nursing schools must consider the adoption of budgeting systems such as formula or program budgeting, which require the use of accountability measures.

Only one of the schools provided for carry-over of surplus funds which suggest that there is very little attention given to incentives for cost-savings. This implies that there is no motivation for administrators to be cost-conscious. Kostner advocated that both the public and members of the academic community should be educated on the value of carrying over of surplus funds. He pointed to the necessity of at least a two percent budget-cash reserve for contingency which could be met by surplus funds that are carried over.¹⁰

None of the schools made provisions for what was cited in the literature as "opportunity" budgets in amounts equivalent to three

¹⁰Harold H. Kostner, Jr. "Budgeting and Accounting: The Carry Over Looks Like a Surplus Unless Administrators Help the Public Understand its Budgetary Purpose," College and University Business, 51 (June, 1975) pp. 31-34.

percent of the total budget. This suggests that not much attention or concern is given to planning for innovative approaches, or, for taking "risks" which could in the long run prove to be cost-effective. However, in the light of the "hand-to-mouth" existence of most institutions of higher education this finding was almost predictable.

Tasks in Budget Evaluation

None of the schools appraised their budget in a manner suggested by the literature which was to "compare program costs with units of outputs reflective of program goals and objectives." In light of the fact that in all of the schools the budget documents were expressed in line items of expenditures rather than performance or measurable objectives, this observation was predictable.

There were no indications of formal, systematic, internally initiated efforts to evaluate the budget in a meaningful way beyond monitoring the monthly levels of spending. Independent audits required by funding agencies appeared to be the only formal evaluation of how resources were actually expended. Even the simple appraisal of how resources planned for various objects of expenditures were actually used did not take place at the end of the fiscal year. The typical pattern consisted of the retrieval of the budget document from the files only when the time for the preparation of the budget for the following fiscal year was around the corner. All the schools used the budget history of their programs as a basis for projecting planned expenditures, in the form of making incremental adjustments for changes in salary level, workload, estimated enrollments and student-faculty ratios. In this incremental approach, the status quo is accepted and

only minor modifications to the budget are made each year.

The literature cited examples of criterion measures or indicators of program effectiveness. In cases where information about outcomes of programs have been obtained, the literature pointed to major difficulty encountered in interpreting and using the information. Such difficulty was attributed to a range of factors: (1) the complexity of the educational process, (2) the multiplicity and joint outcomes of programs, (3) the lack of adequate data analysis techniques, and (4) the scarcity of data bases for interprogram or interinstitutional comparisons.

The Carnegie Commission on Higher Education recommended that institutions sustain efforts to conduct cost-benefit analyses even though there are difficulties in measuring costs. The Commission indicated that comparative cost studies for groups of institutions can be of great value in identifying cost differences not entirely explained by differences in quality. Large institutions of higher education are urged to maintain an office of institutional research or its equivalent, and relatively small institutions are encouraged to enter into its agreements with nearby similar institutions to conduct jointly sponsored programs of institutional research. All appropriate agencies are directed to give high priority to the development of more adequate data on behavior of costs, income, and output in higher education.¹¹

In short, meaningful budget evaluations are imperative for institutional survival, diversity, and growth. Nursing schools are

¹¹Carnegie Commission on Higher Education, The More Effective Use of Resources: An Imperative for Higher Education, New York: McGraw Hill Book Co., 1972, pp. 90-100.

in a position of advantage through their interinstitutional council, e.g. Illinois Council of Nursing Deans, to cooperatively conduct cost-analysis studies and develop cost standard systems for nursing education.

Actors in the Budgetary Process

The actors cited in the literature and the actual participants in the preparation, presentation, authorization, implementation, and evaluation of the 1976 fiscal year nursing program budgets were highly congruent.

With the exception of the student sector, the responsibility of budgeting was shared by constituents internal to the colleges and universities and by individuals and groups external to the academic institutions. As cited in the literature and as inferred from the field study findings, the actors in the budgetary process in the nursing schools investigated included the:

1. Federal government, which extends support to programs, student aid related cost education allowances, institutional aid, collects cost data through the Office of Education, and finances experimentation with new technology.
2. The States and their Coordinating Councils, who appropriate budgets based on broad formulas that consider quality and quantity of output and costs among comparable institutions, set standards for optimum size of each type of campus, provide bonus for accelerated program and support private institutions to reasonable extent.
3. Trustees, who review policies that affect cost in major ways, review policies on budgetary flexibility, seek funds, recapture

and reassign old funds, examines student-faculty ratios, requests data at least annually on operating budget and costs compared with similar institutions on a global basis and among departments internally on a more specific basis, and assign adequate authority and staff to the office of the president.

4. The president, who provides the data the Board needs and the review of policies and procedures, cooperates in starting and using consortia, accepts basic responsibility for effective use of resources, generally serves as the leader of the faculty and trustees in assuring effective use of resources.

5. The faculty, who protect essential responsibility for the quality of the academic enterprise, give careful consideration to work-loads, number of courses, size of classes, tenure percentage, alternative teaching strategies, and who recognize that a new situation has arisen that requires more effective use of total resources and more flexible assignment of them, and who scrutinize educational impact of financial actions.

6. Financial officers, who establish and maintain auditing, accounting, and reporting systems that meet standard and legal requirements for colleges and universities; they also serve as consultants to administrators, faculty, and staff on budgeting matters.

7. Taxpayers, who demand accountability for funds appropriated.

8. Legislators, who ratify and authorize appropriation of funds.

The role of the consumer — students, was not covered in a definitive manner by the literature. The field study revealed that students played no active role in any of the budgetary processes. The insights offered by Baldrige and others regarding student participation

in student governance offer some plausible explanation underlying the lack of student participation in budgeting. They explain that:

...Same pressures that reduced faculty influence has also reduced student influence — economic crunch, centralization of power, growth of state regulations, faculty unions, and student apathy.

.....
Routinized participation in decision making has constraining rather than liberating effect — others control agenda decisions; principles of democracy and majority rule to their disadvantage, committee work is essentially a bureaucratic process requiring more time and perseverance, professionalism and academic expertise usually outweigh student appeal for academic reforms no matter how well they are presented. In short, students found that such formal participation for which they worked so hard did not bring them any significant influence. For all practical purposes, student power is a dead horse — at least, for the moment.¹²

It is interesting to point out the contrast between the literature portrayal of women in higher education and the field study observations in this area. Tolbert's study on women in higher education revealed that "women are far behind in different aspects of academic regards, basically powerless, not heavily involved in institutional governance."¹³ From the field study observations, there were indications that nursing faculty were somewhat ahead of their peers in the college of arts and sciences faculty in their salaries, and that they were actively involved in university-wide committees. This could partly be explained by the greater demand than supply for qualified nurse educators, the recent entry of nursing into higher education, the need

¹²J. Victor Baldrige and others, Policy Making and Effective Leadership: National Study of Academic Management, (San Francisco: Jossey Bass), 1978, p. 216.

¹³Sharon Renee Tolbert, "Women Faculty in American Higher Education: A Study by Institutional Type," (Ph. d. dissertation, Stanford University) 1975.

to prove that nursing programs "fit" in institutions of higher learning, and, as a side-effect of the women's rights movements.

Some discernible trends in relation to actors in the budgetary process include: (1) the shift in power relations within institutions, with the probable decline in faculty power due to increasing centralization in resource allocation decisions; increased centralization in resource allocation decision, in turn, stems from the continuing economic crunch, centralization of power fostered by centralized information systems, growth of state regulations and faculty unions; (2) the increased use of specialists and "technocrats" and a concomitant increase in their influence, i.e., personnel managers, labor negotiators, grants specialists, MIS specialists, lawyers; (3) legislation regarding student participation in budgeting decisions.

The last trend is evident in a report presented by Donovan on a resolution adopted by the House of Representatives of the state of Washington. He reported that the resolution contained directives to: (1) adopt procedures for adequate student input in budgeting and expending services and activities; fees, and (2) define those programs and activities for which revenue generated from these fees may be expended.¹⁴

Donovan pointed out that in some schools such procedures are spelled out in an official directive from the president. Keeton also reported that the American Association for Higher Education advocates

¹⁴Carl Donovan, "Report on Student Services and Activity Fee Policies at Four Year Public Institutions of Washington: A Response to House of Representatives Resolution 1976," Report No. 77-12, ED 135 313.

that "most campuses make substantial changes toward more effective enfranchisement of faculty, students, nonfaculty staff and under-represented elements of the public."

To summarize, actors in the budget process include individuals and groups involved in the development and implementation of educational plans, revenue plans and expenditure plans, who may be internal or external to institutions of higher learning.

Structure and the Budgetary Process

The literature cited that roles and positions, communication networks and work flow utilized by actors in the organization should be reflected in the budget process. The observations in the field study confirmed that the formal lines of authority and communication utilized by the colleges and universities in arriving at organizational decisions were mirrored in the process of formulating resource acquisition, allocation, and control and management decisions.

As cited in the literature, there appeared to be no uniform model that adequately describes, explains and predicts the structure and operation of nursing departments as a type. This was also evident in the diversity of the placement of nursing department within the sample school's organizational structure, i.e., four were organized as separate professional schools, two were departments within a division in a college, three were departments within a college, and one was a division within a college. This confirms Peterson's view that "the almost unending array of variables and theoretical constructs used to describe departments reflect the ambiguity and uncertainty about

their underlying nature or the basis of their structure."¹⁵

Nursing departments in the schools investigated were internally structured on the basis of: "the content of the educational program, e.g., clinical specialty areas, or, method of teaching, and organization of the curriculum into levels. This was specially true in schools where the discipline of nursing was organized as a separate school. In institutions where nursing was a sub-unit of a given college, the discipline of nursing became the basis for its organizational placement.

From a social influence or exchange viewpoint, the patterns of role behavior, leadership style, productive activity, decisionmaking activities, values, and role expectations of nursing administrators and faculty have to be considered in the light of their homogeneity, being predominantly female, and all belonging to one professional discipline. Some indicators of the basic social influence or exchange patterns within nursing departments are their service-oriented mission, the identification of nursing administrators with their profession as evidenced by their high rate of turnover and mobility suggesting that they are "cosmopolitans" rather than "locals", their lack of sophistication in research, and their status as neophytes in the arena of higher education.

As a formal organization, nursing departments tend to fit the conceptualization of departments as formal bureaucratic structures governed by formal rational processes, as evidenced by their organizational charts, formalized job descriptions, rational analysis of goals

¹⁵Marvin W. Peterson, "The Academic Department: Perspectives from Theory and Research," in Examining Departmental Management: New Directions for Institutional Research, John C. Smart and James R. Montgomery, eds., (San Francisco: Jossey Bass Inc.) 1976, pp. 20-24.

and objectives to be accomplished, and definition of the nursing administrator's role in a formalized manner. The formality and standardization characteristic of nursing departments could be attributed to the variety of rules and regulations they must adhere to from within and outside the institution, e.g. rules of academic governance, statutory and accrediting requirements.

As a technological organization, nursing appears to be a forerunner in using technological devices as evidenced by the fact that all of the nursing schools participating in this study had auto-tutorial nursing media centers. However, as pointed out in the section on technology and the budgetary process, they have not adopted available technologies for resource allocation decisions.

As a political organization, nursing departments may be described as motivated by their concerns to prove nursing's place within institutions of higher education, as evidenced by their involvement in institution-wide committees, and by their lobbying efforts for continued national and state funding of university-based baccalaureate nursing programs.

From a systems viewpoint, nursing may be described as a complex open social organization characterized by its interaction with other academic units within the university, and with the outside environment as evidenced by the number of off-campus cooperating agencies required for clinical instruction of nursing students.

All of the foregoing observations about the organizational structure of nursing programs within the institution, and their characteristics as academic departments within colleges and universities have implications in the strategies they adopt in the preparation,

presentation, authorization, implementation, and evaluation of the budget. This is dealt with in greater detail in the section on strategies and the budgetary process.

In summary, the structural characteristics of the nursing departments participating in this study may be described as reflective of:

(1) the configuration of the formal lines of authority and communication characteristic of the parent institution, (2) the degree of standardization, formalization, centralization, and flexibility characteristic of the parent institution, (3) the formal and informal communication networks operant within the parent institution, and (4) the roles and positions as defined by the parent institution. Therefore, it is incumbent upon each nursing school to evaluate its placement within the organizational structure of its parent institution with a view toward determining which configuration would provide them the most effective span of control, unity of command, appropriate authority, and power as a sub-unit of the institution. Additionally, nursing schools must be sensitive to, aware of, and ready with action plans to respond to changes resulting from increased costs, development of new structures created by technology, and the probable diffusion of authority and decision making power resulting from the increasing role of agencies outside the institution, i.e. regulating, accrediting, coordinating and funding agencies.

Technology and the Budgetary Process

There is a wide gap between the availability and utilization of the technology of budgeting, planning, and management as described in the literature and as extant in the schools investigated in the

field study.

This observation confirms the views held by educators, specialists, and technicians, as well as the lay public that there is a time lag between knowledge, communication, interpretation, rationalization, adoption and use of technological inventions. The literature cited that this time lag has been declining within the last decade.

The failure of nursing administrators to utilize sophisticated technology in budgeting could be attributed to: (1) the use of traditional approach to budgeting which does not require much analytical studies based on technological approaches, (2) their lack of awareness of the availability and potential use of technological resource allocation aids, (3) their compliance with standard operating practices within their parent institutions which at the time of this study were not reflective of technologically-induced data analysis.

The lack of awareness by nursing administrators of the availability and use of technological aids to budgeting appears plausible in light of the fact that none of the nursing administrators who participated in this study received any orientation or in-service training on budgeting in their parent institution. Additionally, all of the administrators were professional nurses and those who had educational preparation beyond a masters degree in nursing indicated that they had limited exposure to formal course work on budgeting. However, the fact that three of the nursing administrators reported that they had attended national workshops on budgeting in nursing schools conducted by professional nursing associations, suggests that greater attention and concern is being accorded to budgeting. Additionally, one of the schools par-

ticipating in this study was reported to have used an outside consultant on cost-analysis for the nursing program. Thus, there is a definite movement toward the acquisition of broader knowledge and skills related to budgeting among nursing school administrators.

The apparent failure of the parent institutions to employ sophisticated technology may be related to the size of the institution, the private or public nature of the institution, and the skeptical attitude toward use of quantitative techniques in education.

The larger the institution, the greater the data that need to be communicated and therefore, technological devices could facilitate data analysis and data dissemination. This was demonstrated by the fact that both of the state schools that belong to a state-wide university network had access to technology-produced data base such as forecasting and retrospective student enrollment studies, while only one of the administrators in the private schools indicated that she had access to such studies in her institution.

Another factor which influences the use or lack of use of devices is the cost involved in terms of the technological device itself, the staff that is needed to operate or work the device, and experts to interpret the data produced. The one private school administrator who cited use of forecasting studies indicated that her institution had a federally funded project for the expressed purpose of the development planning, budgeting, management, and evaluation systems in the institution.

The attitude toward employing quantitative techniques to measure the essentially qualitative process of higher education has been described as one of resistance and skepticism. Lawrence and

Service explained that this attitude arises from the impression that such approaches are oriented only toward things and pay no attention to people. They cited several factors which contributed to the suspicion of quantitative approaches and reluctance by educational administrators to believe they can contribute positively, including:

1. overenthusiasm of early proponents, apparent lack of concern for human values and issues or frequent oversimplification of the difficulties and complexities involved
2. capabilities often oversold and results many times fell short of expectations
3. financial aid and human resources required to implement quantitative approaches were often seriously underestimated
4. applications often pursued in isolation from the "big picture" and crucial factors such as wide-scale understanding and acceptance, the political environment, and the potential negative effects on other organizational units and programs frequently overlooked¹⁶

Baldrige and others predicted that there will be a proliferation of centralized information systems and there will be huge volumes of information on faculty, curriculum, student enrollment, and capital expenditures. They pointed out that since administrators can devote considerably more time studying this information, that faculty influence would be undermined since there would be less dependence on the opinion and expertise of the faculty. However, they cautioned that unions would counterbalance this effect because the law provides for unions to have access to information which prior to the formation of unions, was considered privy to administrators.¹⁷

¹⁶Lawrence and Service, Quantitative Approaches, p. 17.

¹⁷Baldrige, et. al., Policy Making and Leadership, p. 231.

Several recommendations are applicable to the institutions who participated in this study. Baldrige and others strongly advocated that:

1. Specific management information system be developed and tested in the working environments of small colleges which limited financial and human resources
2. Existing management information systems be carefully adapted to meet needs and resource capabilities of small colleges by means of subprograms, information storage, retrieval systems, and cooperative consortia
3. That a small college considering the adoption of management information system including provision for management training programs¹⁸

To summarize, there appears to be an unquestionable chasm between what was cited in the literature in terms of technological aids to decision-making, and the noticeable lack of use of these aids by both the parent institutions and the nursing departments within them, in the preparation, presentation, authorization, implementation, and evaluation of the 1976 fiscal year nursing program budgets.

In the light of the fact that colleges and universities have become the object of increased scrutiny by external agencies and face continuing pressures for improved accountability, greater consideration must be given to evolving analytic methodologies. Nursing programs and their parent institutions must respond by utilizing the technology cited in the literature in developing better measures and means of analyzing the use of resources, i.e., work load analysis, unit costs, and student loads induced on academic departments, among others.

Strategies in Budgeting

Since the budget document is a synthesis of the educational plan, the expenditures plan and the revenue plan, it follows that

¹⁸Ibid.

budgeting strategies must be directed toward each of these components. As cited in the literature, strategy is a multidimensional construct. However, Ansoff's description of strategies as "means by which goals may be attained" may be considered as a generic definition.

Within the context of budgeting, the continuum of strategies cited by the literature — control, power, change, and social influence — may be viewed as they relate to tasks, actors, structure, technology and environment associated with the budgetary processes.

Strategies in Budget Preparation

From the responses given by the nursing administrators during the interviews, and from the study of documents related to budget planning, e.g. organizational charts, job descriptions, curriculum plans, school catalogs, accreditation reports, budget statements, there were indications that each of the nursing programs participating in this study had fully developed educational plans, reflective of institutional goals, objectives and priorities.

Explicit statutory requirements, well-defined accreditation guidelines and a high degree of awareness of these requirements on the part of the nursing administrators, explain the high degree of sophistication demonstrated in the development of these educational plans. These educational plans were indicative of the consideration given to what Dressel and Simon referred to as the four types of variables representing the principal features of a department: (1) process, (2) role, (3) staffing, and (4) cost variables.

It was readily apparent that answers to the following questions were jointly arrived at by nursing administrators, faculty and students

in each of the schools:

1. What is unique about the discipline?
2. What modes of instruction are required by the discipline?
3. What is the required number or core of specialization that must be represented to have a "legitimate" department?
4. What are the competencies, knowledge, and values to be acquired by the students? Are the outcomes defined clearly enough that the success of the department can be appraised? Does the acquisition of these skills reflect or determine the internal processes of the department?

The above questions address Dressel and Simon's "process" variables which describe the intrinsic structure of a discipline and its instructional modes. The Illinois Nurse Practice Act stipulates the nature of the discipline of nursing, and the Rules and Regulations to promulgate the Nurse Practice Act are explicit about the modes of instruction required, the number and quality of clinical specialization comprising a baccalaureate nursing program, and the essential body of knowledge and competencies required of a professional nurse. Professional accreditation guidelines parallel these process variables. Public accountability measures in the form of licensure exams and codes of professional conduct serve as added impetus to the strict compliance with guidelines related to these variables.

At the institutional level, and at the level of the nursing department, there were indications that "role" variables were considered in the preparation of the budget. As cited in the literature these variables include: (1) mix between graduate and undergraduate programs, (2) size, (3) quality, (4) public service, (5) research,

(6) service (major vs. nonmajor), and (7) priority. The differences among the schools in these variables appear to be related to the public or private nature of the institution, its church-affiliation, funding base, philosophy, goals and objectives, and stage of historical development as an institution.

Staffing variables were major considerations in the preparation of the operating budget. The major concern assigned to staffing stems from the shortage of adequately prepared nurse faculty and the competition for a limited faculty pool posed by non-baccalaureate nursing programs. Additionally, statutory and accrediting requirements are explicit regarding the quantity, quality, and mix of nursing faculty. Affirmative action plans, rank, promotion, and tenure requirements were also given close attention.

In all of the schools participating in this study, staffing requirements were based on the instructional load of the department based on:

1. Student course enrollments or clinical specialty
2. Student credit hour production
3. Mandated faculty-student ratios
4. Non-instructional activities (research, advertisement, service)

The variables that were not given as close a scrutiny as suggested by the literature were the "costs" variables. As cited in the literature, cost variables include both direct and indirect costs that stem from process or role variables, input costs for courses and department requirements.

The literature cited ad wide array of techniques for cost

analysis, and cost-benefit studies ranging from scenarios, simulation, decision trees, to use of games and models. In practice, the nursing administrators limited their cost analysis to the amount of increase or decrease assigned to each of the line-item object of expenditure based on the previous budgets of the nursing program. Thus, both direct costs — incurred in direct instruction, and indirect costs — incurred in support personnel and services, were arrived at based on budget histories, rather than upon meaningful cost measures and standards.

It is interesting to note that in the school where the nursing faculty were organized for collective bargaining, the faculty negotiating team tended to emphasize process, role, and staffing variables, while the administrative negotiating team tended to emphasize cost variables.

Apropos to the lack of analytical concern accorded to the expenditure plan, was the lack of detailed attention given by the nursing administrators to the comparison of required resources with available resources. As cited earlier, the majority of the nursing administrators did not pay close attention to the revenue plan. There were no indications that a concerted effort on the part of the nursing faculty, administrators, or students was directed to addressing the following questions as suggested in the literature:

1. Is the income projection reasonable?
2. What can be done to enhance the possibility of generating additional funds for this particular program?
3. Are the resource requirements (personnel, operating support,

equipment and space) reasonable projections?

4. What can be done to reduce the need for resources while still maintaining the effectiveness of the program?

Some plausible reasons for the lack of attention given to the revenue plan are related to: (1) The political and funding environment favorable to nursing, by virtue of societal demands for health care services. Although all of the administrators expressed concern over the potential loss of capitation monie (per capita subsidies to institutions with nursing programs based on nursing enrollment figures) none of them exhibited a sense of urgency about this matter, since this threat does not appear to be immediate, (2) The lack of attention given to formalized and institutionalized long-range planning, at the time this study was conducted. The financial crunch faced by the parent institutions appear to stultify efforts directed to long-range planning, since most of the institutions were concerned about making both ends meet per academic year. However, as indicated in the case study presentations, nine of the schools adopted formalized planning councils at the beginning of the 1976-77 academic year. This indicates that institutions of higher learning are gradually accepting strategic planning practices common in business settings.

Strategies for Budget Presentation

Internal to the institution, the strategies utilized by the nursing administrators in the presentation of their budgets were based on their legitimate power and compliance with standard procedures. Since no problems were reported by the nursing administrators in relation to the presentation of their budgets, it appears that these strategies

were adequate. However, in the event that shifts in funding and enrollment occur which would weaken the power base of nursing, it is probable that strategies related to coercive and utilitarian control will be employed by both the institution and the constituents of the nursing program in presenting their case for survival.

In the presentation of the budget of external agencies, i.e., coordinating and funding agencies, there were indications that nursing is subject to public accountability as evidenced by the independent audits of funds allocated to nursing required by the funding agencies. With the introduction of program performance accounting in higher education, which could serve as the basis for funding allocations, it would be beneficial for nursing as a professional group to establish and systematize a program performance data bank through interinstitutional cooperation among all baccalaureate nursing schools in the state. This data bank could be used by individual schools in developing policy decisions regarding the alternatives that nursing schools could take in confronting political, technological, social, and economic changes internal and external to the colleges or universities where they are based.

Strategies for Budget Authorization

At the time this study was conducted, there appeared to be no indications that nursing as a professional group needed extraordinary measures to obtain authorization of their budget requests. This is explained by the fact that the political and economic environment are favorable toward nursing, reflective of the value and priority attached by contemporary society to human services such as those

offered by nursing.

Strategies that are related to power, control, change, and social influence remain to be employed by the profession of nursing to ensure that the environment internal and external to institutions of higher learning remain favorable toward nursing education. As the majority of the health care force in this nation, nurses have power related to their number. They could harness this power in political ways to influence legislators and members of coordinating and funding agencies.

Strategies for Budget Implementation

Control strategies employed in the implementation of the nursing budget were those related to the legitimate and official power of the chief nursing administrator and the academic officer superordinate to the nursing program. The literature cited a wide array of control measures such as: accountability measures, cost-effectiveness measures and cost-benefit measures. A plausible reason for the lack of cost-effectiveness measures is the traditional-incremental approach to budgeting used by the majority of the schools. In the traditional budgeting approach, the emphasis is on a balanced budget, and the relationships of prime concern are between planned and actual expenditures and receipts, rather than the relationship between activities related to objectives, and their fiscal implications.

Cost standard systems are arrived at through analytical studies based on quantitative, systems-oriented approaches characteristic of program budgeting. However, the traditional budgeting approach relies on accounting and auditing activities in budget implementation with

emphasis on increments or decreases in line-item objects of expenditures rather than the relationship between inputs (resources allocated) and outputs (measurable objectives).

Since nursing schools have highly developed educational plans based on objectives expressed in measurable behavioral outcomes, it seems logical for nursing schools to adopt program budgeting strategies, e.g. zero-based budgeting. Proponents of this approach cited that zero-based budgeting accrues such advantages as: cost savings through identification of low cost alternatives, methods and programs, better staff morale, cost conscious staff, increased communication, increased work satisfaction from observable reports, better budget justification, and less empire building.

If nursing schools decide to adopt program budgeting, the following recommendations will facilitate the transition from a traditional to a program approach:

1. Develop and implement a plan and strategy
2. Establish decision points and time frames
3. Design proper forms (decision packages must fit budget and accounting system)
4. Educate the staff
5. Use expert help and trial run through
6. Provide resources for costing out program
7. Allow proper time for successful implementation once groundwork is completed¹⁹

Strategies for Budget Evaluation

None of the schools participating in this study undertook budget evaluation in the mode suggested by the literature, which was

¹⁹James L. Harvey, Zero-Based Budgeting in Colleges and Universities, (Littleton, Colorado: Ireland Educational Corporation, 1977), pp. 12-15.

to compare program costs with program outputs. The obvious reason for this failure is tied with the traditional-incremental approach to budgeting. The primary mission of the traditional-incremental budgeting is a balanced budget rather than the establishment of the relationship between objectives and expenditures. Additionally, the single year fiscal planning period characteristic of the traditional budget does not encourage systems-oriented analytical studies on input-output relationships.

Since nine of the ten schools investigated had electronic data processing services, it is evident that these schools have the technological capabilities to undertake quantitative analysis. The literature also cited several ways of measuring outputs such as the proposed "accounting structure for the outputs of higher education" consisting of instructional outputs, institutional environment outputs, research outputs and public service outputs.

CHAPTER V

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

SUMMARY

The purpose of this study was to identify, analyze, and compare the tasks, actors, structure, technology, environment, and strategies associated with the preparation, presentation, authorization, implementation, and evaluation of budgets, as described in contemporary literature and as practiced in ten Illinois baccalaureate nursing schools in relation to their 1976 fiscal year nursing program budgets.

To generate from the literature, a comprehensive review of publications on budgeting from the fields of business, management, public administration, economics, organization theory, and higher education was undertaken. The review of the literature was limited within the years 1964 to 1976, because of the midsixties which marked the end of the golden decade in higher education sparked heightened interest in budgetary processes and strategies. Since the locus of the study was the nursing program budget for the fiscal year 1976, limiting the review of the literature to 1976 provided a uniform baseline for comparison between findings gathered from the review of the literature and data generated from the field study of budgeting processes and strategies utilized in the 1976 fiscal year budgets of the nursing schools.

The data generated from the review of the literature was synthesized and presented in Table I, pages 95-112. To generate data on the budgeting processes and strategies utilized in nursing schools, a

field study of selected Illinois baccalaureate nursing schools which involved site visits to the sample schools for the purpose of interviewing the nursing administrators responsible for the 1976 fiscal year budget, and studying documents related to the budgetary process such as organizational charts, job descriptions, minutes of meetings, planning documents, accreditation reports, and the school catalog. Ten schools were selected for the study based on the criteria that:

(1) The nursing school administrator must have been involved in the preparation, presentation, authorization, implementation, and evaluation of the 1976-77 nursing school budget, (2) the nursing school administrator must at the time of the study still be employed in the same nursing school in an administrative or teaching capacity, and (3) the administrator must be willing to participate in the study.

The interviews were taped and were conducted with the aid of an interview guide which was validated in pilot interviews prior to the actual interviews. Transcripts of the taped interviews were shared with the nursing administrator who served as respondents for their validation and amplification. After the feedback on the interview transcript was obtained from each administrator, the findings from the field study were synthesized and presented in summarized formats in Tables 2-10, pages 234-252.

The synthesized data from the review of the literature within the years 1964-1976, and the data from the field study focused on the preparation, presentation, authorization, implementation and evaluation of the 1976 fiscal year budgets of the ten participating baccalaureate nursing schools and served as the framework for the comparative analysis of the tasks, actors, structure, technology, environment, and strategies associated with budgeting.

Conclusions

1. There are several years lag between the literature on budgetary processes and strategies and actual practice in selected Illinois baccalaureate nursing schools. The literature chronicled the transition of budgeting approaches from the traditional-incremental, line-item budgeting stage which emerged during the 1920's, to a shift in performance budgeting in the 1950's, to the growing popularity of program budgeting since the 1960's with the introduction of the PPBS as a decision-making, budgeting tool by the Department of Defense.

In direct contrast to the literature, nine of the ten schools still utilized the traditional-incremental approach to budgeting with emphasis on line-item objects of expenditures, fiscal control of funds, emphasis on a balanced budget, accounting and auditing practices and a major concern for the relationship between planned and actual expenditures.

The budgeting model used by nine of the ten schools was the most significant factor in accounting for the similarities, and differences in budgetary processes and strategies as described in the literature and as practiced in the nursing schools. For example, the literature cited that in program budgeting, emphasis is given to the processes of budget preparation and evaluation. In actual practice, these processes were dealt with in a casual, "business as usual" way, which is attributable to the fact that traditional-incremental budget does not demand much pre-planning and generating of cost-effective alternatives.

The literature also cited that the budget serves as a highly significant tool for planning. In actual practice, the budget was viewed more as an instrument for control rather than planning. This was evident in the fact that in all of the ten schools, the budgeting horizon was

limited to a single fiscal year rather than a multi-year frame. In contrast to the program format suggested by the literature, whereby the budget expresses the goals and objectives of a particular academic unit, in actual practice, the budget document consisted of line-item objects of expenditures.

The literature offered a wide array of technological aids to resource allocations such as the use of combine non-quantitative approaches, i.e., use of models -- RRPM, CAMPUS, PERT, scenarios, Delphi technique, forecasting, gaming, decision trees, cost analysis and computer simulation, among others. Only three of the parent institutions of the nursing schools investigated utilized forecasting techniques, despite the fact that nine of the ten schools had electronic data processing services.

None of the nursing school administrators undertook any analytical studies such as cost-analysis in relation to the preparation or evaluation of the 1976 fiscal year nursing budgets. This might be explained by the lack of awareness by the administrators of these techniques, the lack of urgent concern for these financial issues, and the lack of cost standards in nursing education.

Abundant and diversified strategies for budgeting were offered by the literature such as the use of several budgeting models, e.g., zero-base, program budgeting, formula budgeting and, PPBS among others, but as noted earlier all of the schools except one, used traditional-incremental budgeting. Strategies related to control, power, change, and social influence were cited in the literature, but there were no indications that these strategies were used in a planned, systematic, and deliberate manner by nursing administrators and by the nursing

profession as a whole to generate innovative and long range plans that would ensure continued funding for baccalaureate nursing education. This was documented by the fact that only two of the administrators cited involvement with political lobbying as a strategy for influencing legislators to continue state and federal funding for nursing schools. The fact that nurses constitute more than half of the nation's health manpower was not used as a leverage in any planned, formal manner by any of the nursing administrators, or by the professional nursing organizations. Highlighting this fact in presenting documentation related to resource allocation for nursing, e.g., documentation for budget request to legislators, is a strategy which involves social influence. Additionally, in the documentation accompanying the budget requests presented to university officers, there were no indications that the role of nursing in carrying out the service mission of the university was highlighted in a deliberate, forceful manner.

2. There are distinctive differences between private and public schools in the processes of budgetary presentation and authorization.

The public schools had to present their budgets to agencies outside of the institution which was not the case with private schools. Public schools presented their budgets to the Illinois Board of Higher Education for review and recommendation and to the Illinois General Assembly for ratification.

In terms of budget authorization, in private schools, the ultimate authority for budget approval is vested in the institution's Board of Trustees, while in public schools, the ultimate authority for the approval of the budget is vested in the Office of the Governor.

3. All of the schools complied with statutory guidelines pertinent to allocation of resources essential for the operation of baccalaureate nursing programs. In all of the schools, the rules and regulations stipulated by the Illinois Nurse Practice Act regarding such areas as faculty-student ratio, educational preparation and qualifications of faculty, faculty mix based on clinical specialization, facilities for instruction, adequacy of financial support from the parent institution were observed. This was documented by the fact that at the time this study was conducted, all of the nursing schools were state-approved.

4. In all of the schools participating in this study there was a lack of active, direct and formalized participation by students in the budgetary process. This was true in all of the schools despite the fact that in all of the schools formalized student participation was provided in such areas as curriculum, student affairs and community relations. The responses given by the administrators during the interviews indicated that a few of them thought that participation in budgetary matters was not an appropriate role for students; others indicated that the exclusion of students from the budget review committees was an oversight, or that the role of the student in budgeting was not an issue in their schools.

5. In all of the sample nursing schools, the nursing administrator was the most significant actor in the budgeting processes related to the nursing program budget. The faculty's participation in budgeting in the majority of the sample schools focused on the preparation and review phases of the budget cycle. The nursing administrator's responsibilities cut across all the phases of the budget cycle including the presentation of the budget and obtaining approval of the nursing budget from her super-

ordinate. The nursing school administrator also served as the primary control in the implementation of the budget by virtue of her authority and legitimate power as the chief fiscal officer for the nursing academic sub-unit of the institution. Although nine of the sample schools shared a commonality in using the traditional-incremental budgeting model, there were differences in the strategies used in the preparation, presentation, authorization, implementation, and evaluation of the budget among these nine schools. These differences in strategic approaches stem from the differences in the experiential base, expertise, degree of creativity, and leadership style of the nursing school administrator. For example, a nursing administrator who was highly knowledgeable about grant sources and had an expertise in grant writing is more likely to explore the feasibility of expanding the nursing program's revenue base through grants, compared to a nursing administrator without this expertise.

6. At the time the fiscal year 1976 nursing program budget was prepared and implemented, there was a favorable social, political, and economic environment for nursing education external and internal to the institution. This was supported by the fact that nursing budget requests were approved without any changes in all of the schools. This favorable funding climate could be attributed to the spin-off effect if legislative response to societal demands for expanded health care services, the stable and increasing enrollment in nursing programs as a result of the demand for nurses and a push toward continuing education for health professionals.

However, the reader is cautioned from concluding that the environment would always be supportive of nursing. Radical shifts in

social priorities and student enrollment could weaken the financial base for nursing which could result in an environment inhospitable to nursing education.

7. The process of budget evaluation received the least attention among the budgetary processes. This was true in all of the schools. There were no attempts to evaluate the budget in a formal, systematic manner, and in the mode suggested by the literature, which was to compare program costs with program outputs. It is interesting to point out that in light of statutory requirements and accrediting guidelines, data related to such inputs as faculty, facilities, equipment and supplies, and data related to such outputs as credit hour production, number of graduates who passed state boards, job placement of graduates, graduates going on for advanced degrees, graduates staying or moving out of state, are readily available to administrators. Thus it was somewhat surprising to note that budget evaluation was not linked with program evaluation in the sample schools.

8. The structure for the budgetary processes reflected the placement of the nursing unit in the organizational structure of the parent institution. Formal lines of authority and communication in budget matters followed the formal lines of communication and authority characteristic of the parent institution. For example, in institutions where nursing was organized as a separate nursing school, the nursing administrator reported directly to the chief academic officer, usually in the second level of command in the institution and communicated with him directly regarding budgetary matters. In institutions where nursing was a department within a college division, the nursing administrator reported to a superordinate two levels below the chief

academic officer of the institution. In the latter situation, the nursing administrator communicated indirectly with the chief academic officer regarding budgetary matters through the division chairman, who in turn reported to a college dean.

9. There is a ripple toward collective bargaining in nursing schools. By the academic year 1976-77, two of the ten nursing schools were organized for faculty collective bargaining. This could be a side-effect of the push for women's rights, a reaction to an increasingly centralized mode of governance and decision-making, which in turn was brought about by the financial crunch confronting higher education, and by managerial techniques based on systems-oriented quantitative analysis of data.

10. There is a trend toward the formalization of planning activities within the institutions investigated. Nine of the nursing administrators reported during the interviews that institutional planning was operational in their institutions by the academic year 1976-77, in the form of institution-wide planning councils directly accountable to the president. Nursing was represented in these planning councils either by the nursing administrator or a nursing faculty member. This could have implications to the generation of data base required for multi-year fiscal planning and could augur the adoption of program budgeting in these schools.

11. In contrast to the literature which portrayed women in higher education as receiving less academic rewards, as powerless, and, as disinterested in insitutional governance, there were indications that nursing faculty who are predominantly women, were adequately rewarded, were aware of their potential power and were involved in

institutional governance. This could be attributed to the fact that demand for nursing faculty is greater than the supply, or, to the side-effects of stable and increasing student enrollment patterns in nursing, the upsurge in women's rights movement, or, to a genuine desire by nursing faculty to prove that nursing programs have a rightful place in institutions of higher learning.

12. There is a lack of attention given to the education of administrators in budgetary matters. This was evident in the observation that none of the nursing administrators received any orientation or in-service training on budgeting in their parent institution. However, it is interesting to note that at the time this study was conducted, three of the nursing administrators reported that they have attended national workshops on budgeting in nursing schools conducted by professional nursing organizations.

Recommendations

As a result of this study, the following recommendations are offered:

1. Since this study appears to be the first research investigation on budgeting in nursing schools, it is recommended that this study be replicated using a national sample. The use of structured mailed questionnaire rather than the one-on-one interview technique is suggested.

2. To bridge the gap between the literature and actual practice, continuing education workshops on budgetary processes with emphasis on strategies and technological approaches should be conducted by professional nursing organizations, utilizing financial and other experts as appropriate.

3. Colleges and universities should conduct orientation and in-service budgeting workshops for their administrators, faculty, and staff with a view toward linking the planning process with budgeting.
4. Nursing administrators capitalize on the favorable climate currently supportive of nursing education by generating strategies and action plans designed to maintain this climate.
5. Professional nursing organizations should conduct continuing education workshops on the role of key legislators, national and state coordinating boards in formulating policy decisions pertinent to financing nursing education.
6. Nursing schools through interinstitutional cooperative efforts should generate alternatives to respond to technological, political, economic, and social changes which could erode the financial base of nursing education.
7. Nursing schools through interinstitutional cooperative efforts should generate strategies and action plans to create a climate conducive to attracting funds for baccalaureate and higher degree programs in nursing.
8. The nursing profession should evaluate the consistency of statutory and accrediting guidelines directly related to costs such as faculty-student ratios with changing economic and technological forces in nursing education.
9. Nursing schools through interinstitutional cooperative efforts should conduct cost-analysis and cost-effective studies and develop cost standards for nursing education.

The following areas for further research study are recommended:

1. The role of nursing administrators, faculty and students in budgeting be further explored.

2. The relationship between organizational structure and budgeting be further explored with a view toward showing the relationship between structural constructs of formalization, configuration, centralization, and flexibility and the various budgetary processes of preparation, presentation, authorization, implementation and evaluation.

3. Studies focused on collective bargaining in nursing schools be conducted and the resultant effects on fiscal planning especially budget preparation, presentation, authorization, implementation and evaluation.

4. Studies on best approaches to developing statements of institutional mission, role, and scope and how they may be quantified.

5. Studies on how long range goals and objectives can be incorporated into a budgeting process that links long-range planning and resource allocation.

6. Pilot studies designed to demonstrate the benefits of cost-analysis and cost-benefit studies in financing nursing education.

7. Investigations directed toward showing the relationship between a particular budgeting model, e.g., traditional-incremental, PPBS, with faculty morale and organizational climate.

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APPENDIX A
INTERVIEW GUIDE

INTERVIEW GUIDE

Pre-Interview Procedure

Prior to the interview the following steps will be taken:

1. The interviewee (nursing school administrator) will be contacted by telephone to confirm the interview appointment. The interviewee will be informed that the interview will be taped and permission to tape the interview will be obtained.
2. The researcher will study the school catalog and related background information regarding the institution and the nursing program.
3. Before the interview questions are asked, an overview and purpose of the study will be explained.
4. The interviewee will be assured that privileged information will be kept confidential. The interviewee will be informed that a written transcript of the interview will be shared to enable her to verify and amplify data gathered during the interview.

Interview Procedure

Questions to Generate Background Data on the Institution and the Nursing Program

1. Briefly describe the history of your institution and the nursing program.
2. Was the nursing program created as a result of an established plan?
3. What is the philosophy of your institution?
of the nursing program?
4. What are the goals, objectives and mission of your institution?

- of the nursing program? How have these changed within the last three years?
5. Describe the organizational structure of the institution; of the nursing program. How does the nursing program fit into the structure of the total institution?
 6. How was the organizational structure of the institution and the nursing program changed within the last three years?
 7. Within the last three years, what formal and informal planning activities exist in the institution and the nursing program? What groups of individuals are responsible for planning? What written documents have resulted from these planning activities? How can I avail myself of these documents?
 8. What impact did these planning activities have on the nursing program?
 9. Ideally, what planning activities would you like to take place at the institutional level and at the level of the nursing program?

Questions to Generate Data on the Preparation,
Presentation, Authorization, Implementation
and Evaluation of the Nursing Program's
1976 Fiscal Year Budget

1. What were the tasks related to the various phases of budget planning: preparation, presentation, authorization, implementation, and evaluation of your 1976 fiscal year budget in nursing?

With each task you mention please cite and describe fully:

- a. Who was responsible for each task; role and position in the organizational chart.
- b. How the institution and the nursing program was structured to carry out each task.
- c. The formal and informal communications related to each task.
- d. Expert assistance, problem-solving techniques, devices and other technology utilized to carry out each task.
- e. The time frame related to each task.
- f. The conditions, internal and external, to the nursing program and the institution affecting each task.
- g. The policies and procedures related to each task.

11. How did your 1976-77 resource requirements compare with what was available? How was the availability of resources determined? by whom?
12. How were the resources that were available located? By whom? What policies and procedures existed in relation to allocation of resources? How did you bridge the gap between the available resources and the resource requirements needed to support your 1976-77 nursing program?
13. How were your resource requirements translated into costs? by whom? what guidelines were used in translating resource requirements to costs?
14. What were your predictable income sources? unpredictable income sources?
15. Who was responsible for maintaining, updating and monitoring your income sources? How? Why? When?
16. What were your predictable expenditures? unanticipated expenditures? unanticipated expenditures? How did you deal with unanticipated expenditures?
17. What relationship existed between your anticipated income and anticipated expenditures?
18. How are operating expenditures arrived at? capital expenditures?
19. Who had the responsibility for generating income to support your 1976-77 nursing program?
20. What expectations existed regarding the amount of income that nursing program should generate?
21. Who had control over the income produced by the nursing program?
22. How do you know how much income is generated by the nursing program?
23. What was your role, the role of the nursing faculty, and, students in fund-raising and development activities?
24. Ideally, what do you consider as the rightful role of the nursing school administrator, nursing faculty and students in fund-raising and development activities?
25. What information were included in your 1976-77 nursing program, budget document?
26. To whom was the 1976-77 nursing budget document presented? How? Why? When?

27. When was the 1976-77 nursing program budget considered official? Who had the ultimate responsibility for authorizing the nursing program budget?
28. What was your role, the role of the nursing faculty and students in approving the 1976-77 nursing program budget?
29. What reports did you receive regarding the 1976-77 nursing program budget? How often did you receive these reports? What information were included in these reports? Where do these reports go? Who did you share these reports with?
30. What standards were used to measure the effectiveness of the 1976-77 nursing program budget?
31. How well received was the 1976-77 nursing program budget?
32. What information concerning the 1976-77 nursing program budget was considered confidential? Why? What strategies did you use to maintain confidentiality? What problems did you encounter? How did you work with these problems?
33. What alternative budget plans did you prepare for the 1976-77 academic year?
34. What alterations or adjustments in your 1976-77 budget plan did you have to make during the course of the year? How? Why? When?
35. What human relations problems did you encounter in the preparation, presentation, authorization, implementation and evaluation of the 1976-77 nursing program budget? What strategies did you find effective in dealing with these problems? Which strategies were ineffective?
36. What documents did you use in preparing the 1976-77 budget? How did you use such references as the "National League for Nursing (NLN) Faculty Salary Survey", the "Illinois Implementation Commission on Nursing (IICON) Report" and the "Department of Registration and Education Annual Report on Nursing?"
37. What formal and informal group activities of nursing school administrators would you recommend to help in acquiring more knowledge and skills with budgeting?
38. How did you use your 1976-77 nursing program budget plan as a tool for management? for planning? for organizing, for coordinating and directing? for control? for evaluating?
39. How was the 1976-77 nursing program budget plan evaluated? by whom? how? when? why?

40. How can I avail myself with written information, materials, documents, reports related to the preparation, presentation, authorization, implementation and evaluation of your 1976-77 nursing program budget?

Questions to Generate Background
Data on the Respondent

1. Please describe your educational and work background.
2. Please describe your work history in this institution.
3. What formal or informal experiences have you had with budgeting?
4. What orientation and in-service programs on budgeting have you participated in? How? When?
5. Describe an ideal orientation and in-service program on budgeting for nursing school administrators.
6. Describe your concept of planning as a tool of management.
7. What are your views concerning budget planning?
8. What pitfalls and pay-offs should be expected from budget planning?
9. Describe your concept of the ideal budgeting process.
10. What suggestions do you have for enhancing my study on budget planning processes and strategies in nursing schools?

Post-Interview Procedure

After the initial interview the following steps will be taken:

1. Content analysis of relevant documents to validate the data gathered during the interview and to obtain additional data.
2. A written transcription of the taped interviews will be made.
These transcripts will be shared with the interviewee for feedback, validation and amplification of data gathered during the interview.
3. A telephone survey will be conducted to obtain feedback and additional data as needed from participating administrators.

APPROVAL SHEET

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The dissertation submitted by Linda Cruz Agustin-Simunek has been read and approved by the following committee:

Dr. Max A. Bailey, Director
Associate Professor of Educational Administration

Dr. Richard M. Carlin
Associate Professor of Educational Administration

Dr. Robert L. Monks
Assistant Professor of Educational Administration

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

April 24, 1978
Date

MAC Bailey
Director's Signature